

SURVEY OF CURRENT BUSINESS



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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, D.C. 20230.

Annual subscription: *second-class mail*—\$30.00 domestic; \$37.50 foreign. Single copy: \$4.75 domestic; \$5.95 foreign.

First-class mail rates and *foreign air mail* rates available upon request.

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

Second-class postage paid at Washington, D.C. and at additional mailing offices.

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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. Use of funds for printing this periodical has been approved by the Director of the Office of Management and Budget through April 1, 1985.

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the BUSINESS SITUATION

REVISED (45-day) estimates show that real GNP declined 2 percent at an annual rate in the fourth quarter of 1982, compared with the 2½-percent decline shown by the preliminary (15-day) estimates (table 1). Revisions in the major components were small. Upward revisions were in nonresidential investment (largely in aircraft shipments), residential investment (due to lower estimates for housing prices), net exports (merchandise imports were revised down more than were merchandise exports), and government purchases (Federal nondefense purchases). Downward revisions were in personal consumption expenditures (mainly food and motor vehicles) and change in business inventories (down for manufacturing and up for retail trade). The increase in prices as measured by the GNP fixed-weighted price index was revised down from 5 to 4½ percent.

The revisions in the fourth-quarter real GNP estimates do not alter the picture of economic activity described in the January "Business Situation." The decline in GNP was more than accounted for by a large swing in business inventories, from modest accumulation in the third quarter to substantial decumulation in the fourth. Final sales were up sharply; personal consumption expenditures and government purchases increased more than in the third quarter, and residential investment turned around. Nonresidential fixed investment and net exports continued to slide. The increase in GNP prices remained in the range of 4 to 6 percent.

The discussion of inventories in the January "Business Situation" referred to the constant-dollar ratios of inventories to final sales and to final sales of goods and structures. Subse-

quently, a revision of an alternative series, constant-dollar ratios of inventories to sales for manufacturing and trade, has been completed. (Revised series for 1977-82 appear on pages 44-49 of this issue.) These ratios show that, in contrast to the declines shown in the final-sales ratios, inventories remained high relative to sales in the fourth quarter. Because the in-

ventory movements in the two series were quite similar, the contrast is traceable to differences in the movement of sales. As just noted, final sales were up sharply in the fourth quarter, but sales for manufacturing and trade (specifically, sales for manufacturing and merchant wholesale trade, which are largely intermediate) declined.

Table 1.—Revisions in Selected Component Series of the NIPA's Fourth Quarter of 1982

	Seasonally adjusted at annual rates			Percent change from preceding quarter at annual rates	
	15-day estimate	45-day estimate	Revision	15-day estimate	45-day estimate
Billions of current dollars					
GNP.....	3,101.3	3,101.4	0.1	1.7	1.7
Personal consumption expenditures.....	2,084.6	2,081.5	-3.1	10.1	9.4
Nonresidential fixed investment.....	336.6	336.9	.3	-8.6	-8.3
Residential investment.....	99.8	99.8	0	25.1	25.0
Change in business inventories.....	-38.5	-44.2	-5.7		
Net exports.....	-6.9	.8	7.7		
Government purchases.....	675.7	676.7	1.0	15.6	16.3
National income.....					
Compensation of employees.....	1,873.7	1,875.9	2.2	1.2	1.6
Corporate profits with inventory valuation and capital consumption adjustments.....					
Other.....	429.0	429.6	.6	7.7	8.4
Personal income.....	2,623.2	2,626.9	3.7	4.8	5.4
Billions of constant (1972) dollars					
GNP.....	1,471.7	1,473.9	2.2	-2.5	-1.9
Personal consumption expenditures.....	968.0	967.5	-.5	5.0	4.8
Nonresidential fixed investment.....	159.6	160.0	.4	-9.0	-8.0
Residential investment.....	41.7	42.5	.8	23.7	34.3
Change in business inventories.....	-17.7	-18.7	-1.0		
Net exports.....	21.1	23.3	2.2		
Government purchases.....	299.0	299.2	.2	11.3	11.6
Index numbers, 1972=100 ¹					
GNP implicit price deflator.....	210.73	210.42	-.31	4.3	3.7
GNP fixed-weighted price index.....	218.8	218.5	-.3	5.2	4.6
GNP chain price index.....				5.2	4.9

1. Not at annual rates.

NOTE.—For the fourth quarter of 1982, the following revised or additional major source data became available: For *personal consumption expenditures*, revised retail sales for November and December, and sales and inventories of used cars of franchised automobile dealers for November; for *nonresidential fixed investment*, manufacturers' shipments of equipment for November (revised) and December, construction put in place for November (revised) and December, and a partial tabulation of business expenditures for plant and equipment for the quarter; for *residential investment*, construction put in place for November (revised) and December; for *change in business inventories*, book values for manufacturing and trade for November (revised) and December; for *net exports of goods and services*, merchandise trade for November (revised) and December; for *government purchases of goods and services*, Federal unified budget outlays for December, and State and local construction put in place for November (revised) and December; for *wages and salaries*, revised employment, average hourly earnings, and average weekly hours for October and November; for *GNP prices*, the Consumer and Producer Price Indexes for December, unit value indexes for exports and imports for December, and residential housing prices for the quarter.

Selected National Income and Product Accounts Tables

New estimates in this issue: Fourth quarter and annual 1982, revised.

The abbreviations used in the tables are: CCAdj Capital consumption adjustment
IVA Inventory valuation adjustment
NIPA's National income and product accounts
P Preliminary
r Revised

The NIPA estimates for 1929-76 are in *The National Income and Product Accounts of the United States, 1929-76: Statistical Tables* (Stock No. 003-010-00101-1, price \$10.00). Estimates for 1977-81 and corrections for earlier years are in the July 1982 SURVEY. These publications are available from the Superintendent of Documents and Commerce Department District Offices; see addresses inside front cover.

Table 1.1-1.2.—Gross National Product in Current and Constant Dollars

	Billions of dollars								Billions of 1972 dollars							
	1981	1982 ^r	Seasonally adjusted at annual rates						1981	1982 ^r	Seasonally adjusted at annual rates					
			1981		1982						1981		1982			
			III	IV	I	II	III	IV ^r			III	IV	I	II	III	IV ^r
Gross national product	2,937.7	3,057.6	2,980.9	3,003.2	2,995.5	3,045.2	3,088.2	3,101.4	1,502.6	1,476.0	1,510.4	1,490.1	1,470.7	1,478.4	1,481.1	1,473.9
Personal consumption expenditures	1,843.2	1,971.3	1,868.8	1,884.5	1,919.4	1,947.8	1,986.3	2,031.5	917.6	957.0	951.4	943.4	949.1	955.0	956.3	967.5
Durable goods.....	234.6	242.5	241.2	229.6	237.9	240.7	240.3	251.2	149.0	138.7	142.2	134.1	137.5	138.3	136.4	142.6
Nondurable goods.....	734.5	762.0	741.3	746.5	749.1	755.0	768.4	775.3	362.4	365.0	363.0	363.1	362.2	364.5	365.9	367.5
Services.....	874.1	966.8	886.3	908.3	932.4	952.1	977.6	1,005.0	445.2	453.3	446.2	446.2	449.5	452.2	454.0	457.4
Gross private domestic investment	471.5	420.5	486.0	468.9	414.8	431.5	443.3	392.4	225.8	197.0	233.4	218.9	195.4	202.3	206.3	183.8
Fixed investment.....	451.1	443.3	454.2	455.7	450.4	447.7	438.6	436.6	216.9	205.7	216.9	214.1	210.8	206.7	202.9	202.6
Nonresidential.....	346.1	347.6	353.0	360.2	357.0	352.2	344.2	336.9	172.0	165.5	173.9	174.2	172.0	166.7	163.4	160.0
Structures.....	129.7	141.4	132.7	139.6	141.4	143.6	141.3	139.2	51.6	53.1	52.5	53.3	53.5	53.7	53.0	52.2
Producers' durable equipment.....	216.4	206.2	220.2	220.6	215.6	208.6	203.0	197.7	120.4	112.4	121.4	120.9	118.5	118.0	110.4	107.9
Residential.....	104.9	95.8	101.2	95.5	93.4	95.5	94.3	95.8	44.9	40.2	42.9	39.9	38.9	40.1	39.5	42.5
Nonfarm structures.....	99.7	90.1	95.6	89.4	87.9	89.6	88.7	94.1	9	37.3	39.9	36.7	36.0	37.0	36.6	39.6
Farm structures.....	2.1	2.5	2.4	2.9	2.4	2.8	2.4	2.4	2.0	1.9	2.0	1.2	1.0	1.1	1.0	1.0
Producers' durable equipment.....	3.2	3.2	3.2	3.2	3.1	3.2	3.2	3.2	2.0	1.9	2.0	2.0	1.9	1.9	1.9	1.9
Change in business inventories.....	20.5	-22.8	31.8	13.2	-35.6	-16.2	4.7	-44.2	6.8	-3.8	16.5	4.8	-15.4	-4.4	3.4	-18.7
Nonfarm.....	15.0	-23.1	24.6	6.0	-36.0	-15.0	3.7	-45.3	6.8	-3.9	13.6	1.6	-15.6	-3.8	2.9	-19.2
Farm.....	5.5	3	7.2	7.2	4	-1.2	1.0	1.1	2.1	2	3.0	3.2	2	5	5	
Net exports of goods and services.....	26.1	18.5	25.9	23.5	31.3	34.9	6.9	8	42.0	30.9	39.2	36.5	36.9	35.7	27.5	23.3
Exports.....	367.3	349.2	367.2	367.9	359.9	365.8	349.5	321.5	158.5	147.3	157.8	156.9	151.7	154.4	147.5	135.5
Imports.....	341.3	330.7	341.3	344.4	328.6	330.9	342.5	320.7	116.4	116.4	118.7	120.4	114.7	118.7	120.0	112.2
Government purchases of goods and services	596.9	647.3	600.2	626.3	630.1	630.9	651.7	676.7	287.1	291.2	286.4	291.3	289.2	285.3	291.1	299.2
Federal.....	228.9	257.7	230.0	250.5	249.7	244.3	259.0	277.9	110.4	116.2	110.7	116.0	114.4	110.3	116.2	124.1
National defense.....	153.7	173.6	154.4	166.9	166.2	176.2	182.7	189.4	73.5	73.6	74.3	74.3	74.5	78.2	80.6	81.2
Nondefense.....	75.2	79.1	75.7	83.6	83.5	68.2	76.3	88.5	36.8	37.6	36.5	39.9	39.8	32.1	35.5	42.9
State and local.....	368.0	389.6	370.1	375.7	380.4	386.6	392.7	398.9	176.7	175.0	175.7	175.3	174.9	175.0	174.9	175.1

Table 1.3-1.4.—Gross National Product by Major Type of Product in Current and Constant Dollars

Gross national product	2,937.7	3,057.6	2,980.9	3,003.2	2,995.5	3,045.2	3,088.2	3,101.4	1,502.6	1,476.0	1,510.4	1,490.1	1,470.7	1,478.4	1,481.1	1,473.9
Final sales.....	2,917.3	3,080.4	2,949.1	2,989.9	3,031.1	3,061.4	3,083.5	3,145.6	1,493.7	1,484.8	1,498.9	1,485.3	1,486.1	1,482.7	1,477.8	1,492.6
Change in business inventories.....	20.5	-22.8	31.8	13.2	-35.6	-16.2	4.7	-44.2	9.0	-8.8	16.5	4.8	-15.4	-4.4	3.4	-18.7
Goods	1,289.2	1,280.9	1,317.0	1,298.4	1,269.4	1,283.1	1,295.5	1,275.7	689.5	661.5	697.2	678.0	661.8	663.2	665.1	655.8
Final sales.....	1,268.7	1,303.7	1,285.1	1,285.2	1,305.0	1,299.3	1,290.7	1,319.9	680.5	670.3	680.7	673.2	677.2	667.5	661.7	674.5
Change in business inventories.....	20.5	-22.8	31.8	13.2	-35.6	-16.2	4.7	-44.2	9.0	-8.8	16.5	4.8	-15.4	-4.4	3.4	-18.7
Durable goods.....	528.1	493.7	547.3	504.9	482.4	505.9	516.9	469.5	293.1	266.2	298.8	275.1	265.0	272.3	274.0	253.4
Final sales.....	519.4	512.0	527.5	510.5	513.2	512.6	506.8	515.3	289.3	273.8	290.2	277.6	278.7	274.9	269.2	272.6
Change in business inventories.....	8.7	-18.3	19.8	-5.6	-30.9	-6.6	10.1	-45.8	3.8	-7.7	8.6	-2.5	-13.7	-2.6	4.8	-19.2
Nondurable goods.....	761.1	787.2	769.7	793.6	787.0	777.2	778.6	806.2	391.2	395.3	398.4	402.9	396.8	390.9	391.1	402.4
Final sales.....	749.4	791.8	757.6	774.7	791.8	786.7	783.9	804.6	391.2	396.4	390.5	395.6	398.5	392.6	392.5	402.0
Change in business inventories.....	11.7	-4.5	12.0	18.9	-4.8	-9.6	-5.4	1.6	5.1	-1.1	7.9	7.3	-1.7	-1.7	-1.5	5
Services.....	1,364.3	1,492.4	1,382.1	1,421.5	1,444.4	1,476.7	1,509.5	1,538.7	695.6	701.5	697.5	698.6	697.0	702.2	703.6	703.1
Structures.....	284.2	284.3	281.9	283.3	281.7	285.3	283.2	287.0	117.6	113.1	115.7	113.4	111.9	113.0	112.5	114.9
Addenda:																
Gross domestic purchases ¹	2,911.7	3,039.1	2,955.0	2,979.7	2,964.2	3,010.3	3,081.3	3,100.6	1,460.6	1,445.2	1,471.2	1,453.6	1,433.8	1,442.6	1,453.7	1,450.6
Final sales to domestic purchasers ¹	2,891.2	3,061.9	2,923.2	2,966.5	2,999.8	3,026.5	3,076.6	3,144.8	1,451.6	1,454.0	1,454.7	1,448.8	1,449.2	1,447.0	1,450.3	1,469.3

1. Gross domestic purchases equals GNP less exports plus imports; final sales to domestic purchasers equals final sales less exports plus imports.

Table 1.5-1.6.—Gross National Product by Sector in Current and Constant Dollars

Gross national product	2,937.7	3,057.6	2,980.9	3,003.2	2,995.5	3,045.2	3,088.2	3,101.4	1,502.6	1,476.0	1,510.4	1,490.1	1,470.7	1,478.4	1,481.1	1,473.9
Gross domestic product	2,888.5	3,012.0	2,931.2	2,949.8	2,949.6	2,995.7	3,041.6	3,061.0	1,447.2	1,453.8	1,485.0	1,463.3	1,448.0	1,454.1	1,458.6	1,454.6
Business.....	2,492.4	2,582.6	2,533.9	2,538.6	2,530.6	2,570.1	2,610.0	2,619.6	1,274.3	1,250.3	1,282.4	1,260.2	1,244.4	1,250.5	1,250.8	
Nonfarm.....	2,418.5	2,506.8	2,454.7	2,467.4	2,465.1	2,494.4	2,530.2	2,537.4	1,236.8	1,210.3	1,241.9	1,221.5	1,210.0	1,214.4	1,204.5	
Nonfarm less housing.....	2,188.9	2,257.1	2,223.0	2,229.9	2,222.8	2,247.9	2,278.0	2,279.7	1,105.5	1,077.4	1,110.6	1,089.9	1,077.9	1,079.5	1,081.3	
Housing.....	229.6	249.7	231.7	237.4	246.5	246.5	252.3	257.7	131.4	132.8	131.3	131.6	132.0	133.2		
Farm.....	75.8	75.6	80.1	78.4	72.9	74.8	76.1	78.7	38.4	40.0	40.9	42.3	38.1	38.0		
Statistical discrepancy.....	-1.9	2	-8	-7.2	-7.5	8	3.6	3.6	-9	0	-4	-3.6	-3.7	4		
Households and institutions.....	96.4	106.8	97.1	100.3	103.3	105.3	107.9	110.6	46.9	48.1	46.7	47.4	47.8	47.9		
Private households.....	7.0	7.1	7.1	7.1	7.1	7.1	7.1	7.2	3.3	3.3	3.2	3.1	3.1			
Nonprofit institutions.....	89.4	99.6	90.1	93.3	96.2	98.2	100.8	103.4	43.6	45.0	43.5	44.1	44.7			
Government.....	299.7	322.7	300.1	310.9	315.8	320.3	323.8	330.9	156.0	155.4	155.9	155.8	155.7			
Federal.....	92.3	99.8	91.0	97.9	98.6	98.9	99.1	102.4	49.7	49.8	49.8	49.8	49.8			
State and local.....	207.4	222.9	209.2	213.0	217.1	221.4	224.7	228.4	106.3	105.6	106.1	106.0	105.9			
Rest of the world.....	49.2	45.6	49.7	53.3	45.8	49.5	46.6	46.4	25.4	22.2	25.4	26.7	22.7			
Addendum:																
Gross domestic business product less housing.....	2,253.5								1,141.4							

Table 1.13.—Gross Domestic Product of Corporate Business in Current Dollars and Gross Domestic Product of Nonfinancial Corporate Business in Current and Constant Dollars

	Billions of dollars									Billions of dollars								
	1981	1982 ^r	Seasonally adjusted at annual rates							1981	1982 ^r	Seasonally adjusted at annual rates						
			1981		1982							1981		1982				
			III	IV	I	II	III	IV ^r				III	IV	I	II	III	IV ^r	
Gross domestic product of corporate business	1,837.1	1,892.8	1,867.8	1,873.1	1,863.1	1,882.7	1,911.2											
Capital consumption allowances with CCAAdj.....	206.2	225.1	209.7	216.0	218.9	223.4	227.5	230.4										
Net domestic product	1,630.9	1,667.7	1,658.1	1,657.1	1,644.2	1,659.3	1,683.7											
Indirect business tax and nontax liability plus business transfer payments less subsidies.....	186.1	190.0	187.8	189.1	184.0	189.1	192.2	194.6										
Domestic income	1,444.8	1,477.8	1,470.3	1,468.0	1,460.2	1,470.3	1,491.4											
Compensation of employees.....	1,224.5	1,271.2	1,242.5	1,251.5	1,259.5	1,270.7	1,273.7	1,276.0										
Wages and salaries.....	1,024.8	1,057.6	1,040.5	1,046.6	1,049.7	1,057.8	1,063.4	1,059.4										
Supplements to wages and salaries.....	199.7	213.6	202.1	204.9	209.8	212.9	215.3	216.5										
Corporate profits with IVA and CCAAdj	167.8	144.3	172.2	158.3	140.2	137.2	149.9											
Profits before tax.....	209.3	158.4	212.3	190.9	154.7	153.5	164.0											
Profits tax liability.....	81.2	58.5	82.4	71.6	56.7	55.3	60.9											
Profits after tax.....	128.1	99.9	129.8	119.3	98.1	98.2	103.1											
Dividends.....	50.8	59.3	52.7	54.6	56.0	58.0	60.6	62.5										
Undistributed profits.....	77.3	40.6	77.1	64.7	42.0	40.2	42.4											
IVA.....	-24.6	-9.3	-23.0	-17.1	-4.4	-9.4	-10.3	-12.9										
CCAAdj.....	-16.8	-4.8	-17.1	-15.5	-10.1	-6.9	-3.8	1.5										
Net interest.....	52.5	62.2	55.6	58.3	60.5	62.4	62.8	63.8										
Gross domestic product of nonfinancial corporate business	104.8	113.6	104.2	106.0	106.6	111.7	116.8											
Capital consumption allowances with CCAAdj.....	195.8	213.6	199.1	205.1	207.8	212.1	216.0	218.7										
Net domestic product	881.3	856.7	887.5	870.4	858.8	857.9	859.3											
Indirect business tax and nontax liability plus business transfer payments less subsidies.....	94.7	94.8	95.2	94.7	94.6	95.0	94.6	95.0										
Domestic income	692.2	663.3	697.4	679.8	667.2	664.8	665.5											

Table 1.11.—National Income by Type of Income

	2,352.5	2,436.6	2,387.3	2,404.5	2,396.9	2,425.2	2,455.6
National income	2,352.5	2,436.6	2,387.3	2,404.5	2,396.9	2,425.2	2,455.6
Compensation of employees.....	1,767.6	1,856.4	1,789.1	1,813.4	1,830.8	1,850.7	1,868.3
Wages and salaries.....	1,494.0	1,560.6	1,512.6	1,531.1	1,541.5	1,556.6	1,570.0
Government and government enterprises.....	283.1	302.3	284.0	292.3	296.3	300.0	303.5
Other.....	1,210.9	1,258.3	1,228.6	1,288.8	1,245.2	1,256.6	1,266.4
Supplements to wages and salaries.....	273.6	295.8	276.5	282.3	289.3	294.1	298.3
Employer contributions for social insurance.....	133.2	142.1	134.3	136.5	140.2	141.7	142.8
Other labor income.....	140.4	153.8	142.2	145.8	149.1	152.5	155.5
Proprietors' income with IVA and CCAAdj	124.7	120.4	127.5	124.1	116.4	117.3	118.4
Farm.....	24.0	19.1	27.1	24.6	17.8	17.4	16.6
Proprietors' income with IVA.....	81.8	27.2	35.1	32.8	26.0	25.5	24.7
CCAAdj.....	-7.9	-8.1	-8.0	-8.2	-8.2	-8.1	-8.1
Nonfarm.....	100.7	101.3	100.4	99.5	98.6	99.9	101.7
Proprietors' income.....	100.3	94.5	99.3	97.7	93.8	94.5	94.4
IVA.....	-1.6	-6	-1.2	0	-1.0	-5	-8
CCAAdj.....	2.1	7.3	2.3	3.0	4.7	6.4	7.9
Rental income of persons with CCAAdj	33.9	34.1	33.6	33.6	33.9	34.2	34.6
Rental income of persons.....	69.4	70.4	69.5	70.5	71.0	70.7	70.9
CCAAdj.....	-35.5	-36.3	-35.9	-36.9	-37.1	-36.4	-36.3
Corporate profits with IVA and CCAAdj	190.6	160.5	193.1	183.9	157.1	155.4	166.2
Corporate profits with IVA.....	207.5	165.3	210.3	199.4	167.2	162.2	170.0
Profits before tax.....	232.1	174.6	233.3	216.5	171.6	171.7	180.3
Profits tax liability.....	81.2	58.5	82.4	71.6	56.7	55.3	60.9
Profits after tax.....	150.9	116.1	150.8	144.9	115.0	116.3	119.4
Dividends.....	65.1	70.3	66.8	68.1	68.8	69.3	70.5
Undistributed profits.....	85.8	45.9	84.0	76.9	46.1	47.0	48.8
IVA.....	-24.6	-9.3	-23.0	-17.1	-4.4	-9.4	-10.3
CCAAdj.....	-16.8	-4.8	-17.1	-15.5	-10.1	-6.9	-3.8
Net interest	235.7	265.2	244.0	249.5	258.7	267.5	268.1
Addenda:							
Corporate profits after tax with IVA and CCAAdj.....	109.5	102.0	110.7	112.3	100.4	100.0	105.3
Dividends.....	65.1	70.3	66.8	68.1	68.8	69.3	70.5
Undistributed profits with IVA and CCAAdj.....	44.4	31.8	43.9	44.3	31.6	30.7	34.8

Table 1.7.—Relation of Gross National Product, Net National Product, National Income, and Personal Income

	Billions of dollars							
	1981	1982 ^r	Seasonally adjusted at annual rates					
			1981		1982			
			III	IV	I	II	III	IV ^r
Gross national product	2,937.7	3,057.6	2,980.9	3,003.2	2,995.5	3,045.2	3,088.2	3,101.4
Less:								
Capital consumption allowances with CCAAdj.....	330.1	356.3	335.2	344.8	348.7	353.9	359.4	363.2
Capital consumption allowances.....	267.5	309.8	271.9	282.6	293.4	304.4	314.6	326.7
Less: CCAAdj.....	-62.6	-46.5	-63.2	-62.2	-55.3	-49.6	-44.8	-36.5
Equals: Net national product	2,607.9	2,701.3	2,645.8	2,658.4	2,646.7	2,691.2	2,728.9	2,738.2
Less:								
Indirect business tax and nontax liability.....	251.3	258.7	253.3	255.3	250.2	256.7	261.7	266.1
Business transfer payments.....	12.4	13.7	12.5	12.8	13.1	13.5	13.8	14.3
Statistical discrepancy.....	-1.9	.2	-.8	-7.2	-7.5	.8	3.6	
Plus: Subsidies less current surplus of government enterprises.....	6.6	7.8	6.5	7.0	6.0	4.9	5.8	14.6
Equals: National income	2,352.5	2,436.6	2,387.3	2,404.5	2,396.9	2,425.2	2,455.6	
Less:								
Corporate profits with IVA and CCAAdj.....	190.6	160.5	193.1	183.9	157.1	155.4	166.2	
Net interest.....	235.7	265.2	244.0	249.5	258.7	267.5	268.1	266.4
Contributions for social insurance.....	238.1	253.8	240.3	243.5	250.8	253.0	255.2	256.1
Wage accruals less disbursements.....	0	0	.2	-.1	-.2	0	0	0
Plus:								
Government transfer payments to persons.....	323.9	361.0	332.3	337.9	341.4	351.7	367.2	388.6
Personal interest income.....	329.0	371.8	339.6	351.0	359.7	372.0	378.2	377.2
Personal dividend income.....	62.5	67.0	64.1	65.2	65.8	66.1	67.2	68.8
Business transfer payments.....	12.4	13.7	12.5	12.8	13.1	13.5	13.8	14.3
Equals: Personal income	2,415.8	2,570.6	2,458.2	2,494.6	2,510.5	2,552.7	2,592.5	2,626.9

Table 2.1.—Personal Income and Its Disposition

	Billions of dollars							
	1981	1982 ^r	Seasonally adjusted at annual rates					
			1981		1982			
			III	IV	I	II	III	IV ^r
Personal income.....	2,415.8	2,570.6	2,458.2	2,494.6	2,510.5	2,552.7	2,592.5	2,626.9
Wage and salary disbursements.....	1,493.9	1,560.6	1,512.3	1,531.2	1,541.6	1,556.6	1,570.0	1,574.3
Commodity-producing industries.....	510.8	509.9	519.3	517.7	514.3	513.6	510.2	501.5
Manufacturing.....	386.4	382.6	392.9	388.7	385.1	385.6	388.8	375.8
Distributive industries.....	361.4	376.0	366.5	368.3	371.4	375.4	378.4	378.6
Service industries.....	388.6	372.5	342.8	352.8	359.5	367.6	377.8	385.0
Government and government enterprises.....	283.1	302.3	283.8	292.4	296.5	300.0	303.5	309.2
Other labor income.....	140.4	153.8	142.2	145.8	149.1	152.5	155.5	157.9
Proprietors' income with IVA and CCAdj.....	124.7	120.4	127.5	124.1	116.4	117.3	118.4	129.1
Farm.....	24.0	19.1	27.1	24.6	17.8	17.4	16.6	24.4
Nonfarm.....	100.7	101.3	100.4	99.5	98.6	99.9	101.7	104.9
Rental income of persons with CCAdj.....	33.9	34.1	33.6	33.6	33.9	34.2	34.6	33.9
Personal dividend income.....	62.5	67.0	64.1	65.2	65.8	66.1	67.2	68.8
Personal interest income.....	329.0	371.8	339.6	351.0	359.7	372.0	378.2	377.2
Transfer payments.....	336.3	374.7	344.8	350.7	354.6	365.2	381.0	397.8
Old-age, survivors, disability, and health insurance benefits.....	182.0	204.5	190.6	192.8	194.7	197.5	209.2	216.6
Government unemployment insurance benefits.....	15.4	24.9	14.1	16.7	18.7	23.5	25.5	32.0
Veterans benefits.....	16.1	16.4	16.0	16.4	16.3	16.1	16.3	16.7
Government employees retirement benefits.....	49.2	54.0	49.6	50.8	51.5	54.4	54.9	55.4
Other transfer payments.....	73.6	74.9	74.4	74.0	73.3	73.8	75.2	77.2
Aid to families with dependent children.....	13.4	13.2	13.5	13.4	13.2	13.2	13.0	13.2
Other.....	60.8	61.7	61.0	60.6	60.1	60.6	62.1	64.0
Less: Personal contributions for social insurance.....	104.9	111.7	106.1	107.0	110.6	111.4	112.4	112.5
Less: Personal tax and nontax payments.....	386.7	397.2	398.1	393.2	393.4	401.2	394.4	399.7
Equals: Disposable personal income.....	2,029.1	2,173.4	2,060.0	2,101.4	2,117.1	2,151.5	2,198.1	2,227.1
Less: Personal outlays.....	1,898.9	2,030.7	1,925.7	1,942.7	1,977.9	2,007.2	2,046.1	2,091.6
Personal consumption expenditures.....	1,843.2	1,971.3	1,868.8	1,884.5	1,919.4	1,947.8	1,986.3	2,031.5
Interest paid by consumers to business.....	55.1	58.6	56.2	57.5	57.8	58.4	59.0	59.2
Personal transfer payments to foreigners (net).....	.6	.9	.7	.7	.8	.9	.8	.9
Equals: Personal saving.....	130.2	142.7	134.4	158.6	139.1	144.3	152.0	135.5
Addenda:								
Disposable personal income:								
Total, billions of 1972 dollars.....	1,043.1	1,055.2	1,048.8	1,051.9	1,046.9	1,054.8	1,058.3	1,060.7
Per capita:								
Current dollars.....	8,827	9,366	8,951	9,107	9,155	9,285	9,461	9,562
1972 dollars.....	4,538	4,547	4,557	4,559	4,527	4,552	4,555	4,554
Population (millions).....	229.9	232.1	230.1	230.8	231.2	231.7	232.3	232.9
Personal saving as percentage of disposable personal income.....	6.4	6.6	6.5	7.5	6.6	6.7	6.9	6.1

Table 7.7.—Current-Dollar Cost and Profit Per Unit of Constant-Dollar Gross Domestic Product of Nonfinancial Corporate Business

	Dollars							
	1981	1982 ^r	Seasonally adjusted					
			1981		1982			
			III	IV	I	II	III	IV ^r
Current-dollar cost and profit per unit of constant-dollar gross domestic product ¹	1.966	2.077	1.987	2.030	2.045	2.064	2.088	.....
Capital consumption allowances with CCAdj.....	.222	.249	.224	.236	.242	.247	.251	.....
Net domestic product.....	1.743	1.827	1.763	1.795	1.803	1.817	1.837	.....
Indirect business tax and nontax liability plus business transfer payments less subsidies.....	.202	.213	.203	.208	.205	.211	.214	.....
Domestic income.....	1.541	1.615	1.560	1.586	1.598	1.606	1.623	.....
Compensation of employees.....	1.305	1.389	1.315	1.349	1.376	1.388	1.392	.....
Corporate profits with IVA and CCAdj.....	.165	.142	.171	.159	.140	.134	.146	.....
Profits tax liability.....	.072	.047	.074	.063	.045	.043	.049	.....
Profits after tax with IVA and CCAdj.....	.093	.095	.097	.096	.095	.091	.097	.....
Net interest.....	.071	.085	.074	.078	.082	.085	.085	.....

Table 2.2-2.3.—Personal Consumption Expenditures by Major Type of Product in Current and Constant Dollars

	Billions of dollars							
	1981	1982 ^r	Seasonally adjusted at annual rates					
			1981		1982			
			III	IV	I	II	III	IV ^r
Personal consumption expenditures.....	1,843.2	1,971.3	1,868.8	1,884.5	1,919.4	1,947.8	1,986.3	2,031.5
Durable goods.....	234.6	242.5	241.2	229.6	237.9	240.7	240.3	251.2
Motor vehicles and parts.....	98.6	106.0	104.0	93.9	103.2	103.3	104.3	113.1
Furniture and household equipment.....	98.4	92.8	93.8	93.3	91.0	93.2	92.7	94.4
Other.....	42.6	43.7	43.4	42.4	43.7	44.2	43.3	43.7
Nondurable goods.....	734.5	762.0	741.3	746.5	749.1	755.0	768.4	775.3
Food.....	375.3	397.2	378.0	382.3	387.9	395.0	401.3	404.8
Clothing and shoes.....	114.6	118.7	115.9	116.0	117.5	118.4	119.1	119.7
Gasoline and oil.....	96.8	98.7	97.7	97.5	95.3	91.3	94.2	93.9
Other nondurable goods.....	147.9	152.4	149.7	150.7	148.4	150.4	153.8	157.0
Fuel oil and coal.....	19.7	17.6	19.9	19.2	17.3	17.3	18.4	17.5
Other.....	128.2	134.8	129.8	131.5	131.1	133.1	135.4	139.6
Services.....	874.1	966.8	896.3	908.3	932.4	952.1	977.6	1,005.0
Housing.....	295.3	324.6	298.7	307.0	314.5	320.4	328.2	335.4
Household operation.....	128.9	144.4	132.8	136.9	141.4	140.7	145.0	150.3
Electricity and gas.....	66.9	75.4	69.4	71.2	75.1	72.6	75.2	78.7
Other.....	62.1	69.0	65.5	65.7	66.3	68.1	69.9	71.6
Transportation.....	65.4	70.2	65.5	65.7	66.9	69.5	71.5	73.0
Other.....	384.4	427.6	389.3	398.7	409.6	421.5	432.9	446.3
Personal consumption expenditures.....	947.6	957.0	951.4	943.4	949.1	955.0	956.3	967.5
Durable goods.....	140.0	138.7	142.2	134.1	137.5	138.3	136.4	142.6
Motor vehicles and parts.....	54.2	55.6	56.1	50.0	54.9	54.4	53.8	59.1
Furniture and household equipment.....	61.6	59.1	61.4	60.4	58.5	59.4	58.9	59.7
Other.....	24.3	24.0	24.7	23.7	24.1	24.4	23.7	23.8
Nondurable goods.....	362.4	365.0	363.0	363.1	362.2	364.5	365.9	367.5
Food.....	181.4	184.0	180.9	182.0	181.7	183.0	184.9	186.2
Clothing and shoes.....	82.7	84.1	83.1	83.0	83.8	84.0	84.0	84.7
Gasoline and oil.....	25.7	26.5	26.2	25.8	26.2	27.2	26.5	26.2
Other nondurable goods.....	72.6	70.4	72.9	72.3	70.4	70.2	70.5	70.5
Fuel oil and coal.....	3.5	3.1	3.5	3.3	3.0	3.2	3.3	3.0
Other.....	69.1	67.3	69.4	69.0	67.4	67.1	67.2	67.5
Services.....	445.2	453.3	446.2	446.2	449.5	452.2	454.0	457.4
Housing.....	162.6	165.4	162.9	163.5	164.5	165.2	165.7	166.3
Household operation.....	63.5	64.1	64.1	64.4	64.5	63.4	63.7	64.7
Electricity and gas.....	24.6	24.7	25.0	25.2	25.6	24.1	24.3	24.8
Other.....	38.8	39.4	39.1	39.2	38.9	39.3	39.4	39.9
Transportation.....	32.4	32.5	32.1	31.7	31.9	32.5	32.7	32.7
Other.....	186.8	191.3	187.2	186.6	188.5	191.0	191.8	193.8

Table 5.1.—Gross Saving and Investment

	Billions of dollars							
	1981	1982 ^r	Seasonally adjusted at annual rates					
			1981		1982			
			III	IV	I	II	III	IV ^r
Gross saving.....	477.5	414.5	490.0	476.3	428.8	441.5	422.4	.....
Gross private saving.....	504.7	530.8	513.4	547.7	519.4	529.0	546.1	.....
Personal saving.....	130.2	142.7	134.4	158.6	139.1	144.3	152.0	135.5
Undistributed corporate profits with IVA and CCAdj.....	44.4	31.8	43.9	44.3	31.6	30.7	34.8	.....
Undistributed profits.....	85.8	45.9	84.0	76.9	46.1	47.0	48.8	.....
IVA.....	-24.6	-9.3	-23.0	-17.1	-4.4	-9.4	-10.3	-12.9
CCAdj.....	-16.8	-4.8	-17.1	-15.5	-10.1	-6.9	-3.8	1.5
Capital consumption allowances with CCAdj:								
Corporate.....	206.2	225.1	209.7	216.0	218.9	223.4	227.5	230.4
Noncorporate.....	123.9	131.3	125.5	123.7	129.8	130.5	131.9	132.8
Wage accruals less disbursements.....	0	0	0	0	0	0	0	0
Government surplus or deficit (-), NIPA's.....	-28.2	-114.4	-24.5	-72.5	-90.7	-87.5	-123.7	.....
Federal.....	-60.0	-148.2	-58.0	-101.7	-118.4	-119.6	-156.0	.....
State and local.....	31.7	31.9	33.5	29.1	27.7	32.1	32.3	.....
Capital grants received by the United States (net).....	1.1	0	1.1	1.1	0	0	0	0
Gross investment.....	475.6	414.6	489.1	469.0	421.3	422.3	426.0	368.7
Gross private domestic investment.....	471.5	420.5	486.0	468.9	414.8	431.5	443.3	392.4
Net foreign investment.....	4.1	-5.9	3.1	.1	6.5	10.8	-17.3	-23.7
Statistical discrepancy.....	-1.9	.2	-.8	-7.2	-7.5	.8	3.6	.....

Table 3.2.—Federal Government Receipts and Expenditures

	Billions of dollars							
	1981	1982 ^r	Seasonally adjusted at annual rates					
			1981		1982			
			III	IV	I	II	III	IV ^r
Receipts.....	628.2	614.5	640.2	625.7	609.9	617.0	613.7	
Personal tax and nontax receipts.....	298.1	300.1	307.9	300.9	299.9	305.8	295.6	299.2
Income taxes.....	290.8	292.4	300.6	293.2	291.1	297.5	288.1	292.8
Estate and gift taxes.....	7.0	7.5	7.1	7.5	8.5	8.0	7.2	6.1
Nontaxes.....	.3	.3	.3	.3	.3	.3	.3	.3
Corporate profits tax accruals.....	67.3	47.8	68.4	59.1	46.5	45.2	49.8	
Indirect business tax and nontax accruals.....	58.5	50.0	57.8	57.2	48.7	49.8	50.8	50.7
Excise taxes.....	44.1	34.7	43.1	41.9	33.6	34.6	35.5	35.1
Customs duties.....	8.6	8.5	9.0	9.3	8.7	8.6	8.5	8.3
Nontaxes.....	5.8	6.8	5.8	6.1	6.3	6.6	6.8	7.3
Contributions for social insurance.....	204.3	216.6	206.1	208.4	214.9	216.2	217.5	217.7
Expenditures.....	688.2	762.7	698.2	727.4	728.3	736.6	769.7	816.2
Purchases of goods and services.....	228.9	257.7	230.0	250.5	249.7	244.3	259.0	277.9
National defense.....	153.7	173.6	154.4	166.9	166.2	176.2	182.7	189.4
Nondefense.....	75.2	79.1	75.7	83.6	83.5	68.2	76.3	88.5
Transfer payments.....	286.6	321.9	295.1	300.7	303.2	312.8	327.4	344.3
To persons.....	280.9	315.9	289.0	294.0	297.2	307.0	321.8	337.5
To foreigners.....	5.7	6.1	6.1	6.6	6.0	5.8	5.6	6.8
Grants-in-aid to State and local governments.....	87.7	83.5	86.3	83.6	83.0	85.0	82.0	84.0
Net interest paid.....	71.9	84.9	74.0	79.0	79.6	82.8	87.0	88.6
Interest paid.....	91.4	107.7	94.3	99.5	101.8	105.1	111.9	112.1
To persons and business.....	74.6	90.3	77.2	82.4	83.9	87.6	94.2	95.3
To foreigners.....	16.7	17.5	17.1	17.1	17.9	17.4	17.8	16.8
Less: Interest received.....	19.5	22.8	20.3	20.6	22.1	22.3	23.2	23.5
Subsidies less current surplus of government enterprises.....	13.1	14.6	13.0	13.6	12.7	11.6	12.6	21.5
Subsidies.....	12.2	14.1	12.0	13.8	13.7	12.6	11.8	18.1
Less: Current surplus of government enterprises.....	-9	-5	-1.0	.3	1.1	1.0	-8	-3.4
Less: Wage accruals less disbursements.....	0	0	.2	-1	-2	0	0	0
Surplus or deficit (-), NIPA's.....	-60.0	-148.2	-58.0	-101.7	-118.4	-119.6	-156.0	
Social insurance funds.....	-11.0	-30.7	-16.6	-19.3	-16.4	-24.1	-36.5	-45.7
Other.....	-49.0	-117.6	-41.4	-82.4	-102.0	-95.5	-119.6	

Table 3.3.—State and Local Government Receipts and Expenditures

	1981	1982 ^r	1981	1982	1981	1982	1981	1982
Receipts.....	416.8	437.1	420.3	421.5	424.2	434.3	440.5	
Personal tax and nontax receipts.....	88.6	97.1	90.3	92.3	93.6	95.4	98.8	100.5
Income taxes.....	43.3	51.9	49.3	50.1	50.2	50.8	53.0	53.4
Nontaxes.....	32.0	36.4	32.6	33.7	34.8	35.9	37.0	38.1
Other.....	8.3	8.8	8.4	8.5	8.6	8.7	8.9	9.0
Corporate profits tax accruals.....	13.9	10.7	14.0	12.5	10.1	10.2	11.2	
Indirect business tax and nontax accruals.....	192.8	208.7	195.5	198.0	201.5	206.9	210.9	215.4
Sales taxes.....	90.4	95.3	91.8	91.8	92.6	95.0	96.1	97.5
Property taxes.....	75.1	85.5	76.0	77.8	79.3	81.8	84.7	87.7
Other.....	27.2	29.9	27.8	28.4	29.2	30.0	30.2	30.2
Contributions for social insurance.....	33.8	37.2	34.2	35.1	36.0	36.9	37.7	38.4
Federal grants-in-aid.....	87.7	83.5	86.3	83.6	83.0	85.0	82.0	84.0
Expenditures.....	385.0	405.3	386.9	392.4	396.5	402.2	408.2	414.3
Purchases of goods and services.....	368.0	389.6	370.1	375.7	380.4	386.6	392.7	398.9
Compensation of employees.....	207.4	222.9	209.2	213.0	217.1	221.4	224.7	228.4
Other.....	160.6	166.7	161.0	162.7	163.2	165.2	168.0	170.4
Transfer payments to persons.....	43.0	45.1	43.3	43.9	44.3	44.7	45.4	46.1
Net interest paid.....	-16.9	-19.5	-17.4	-17.8	-18.5	-19.2	-19.8	-20.2
Interest paid.....	23.7	28.0	24.2	25.3	26.4	27.4	28.5	29.7
Less: Interest received.....	40.6	47.5	41.5	43.1	44.9	46.7	48.3	49.9
Less: Dividends received.....	2.6	3.3	2.7	2.8	3.0	3.2	3.3	3.5
Subsidies less current surplus of government enterprises.....	-6.5	-6.8	-6.5	-6.6	-6.6	-6.7	-6.8	-6.9
Subsidies.....	.4	.5	.4	.4	.4	.4	.5	.5
Less: Current surplus of government enterprises.....	6.9	7.2	6.9	7.0	7.1	7.2	7.3	7.4
Less: Wage accruals less disbursements.....	0	0	0	0	0	0	0	0
Surplus or deficit (-), NIPA's.....	31.7	31.9	33.5	29.1	27.7	32.1	32.3	
Social insurance funds.....	31.8	36.3	32.3	33.3	34.5	35.7	36.9	38.0
Other.....	-1	-4.4	1.2	-4.2	-6.8	-3.6	-4.5	

Table 7.1.—Implicit Price Deflators for Gross National Product

	Index numbers, 1972=100							
	1981	1982 ^r	Seasonally adjusted					
			1981		1982			
			III	IV	I	II	III	IV ^r
Gross national product.....	195.51	207.15	197.36	201.55	203.68	205.98	208.51	210.42
Personal consumption expenditures.....	194.5	206.0	196.4	199.8	202.2	204.0	207.7	210.0
Durable goods.....	167.5	174.8	169.7	171.3	173.0	174.0	176.1	176.1
Nondurable goods.....	202.7	208.7	204.2	205.6	206.8	207.1	210.0	211.0
Services.....	196.3	213.3	198.6	203.6	207.4	210.6	215.3	219.7
Gross private domestic investment.....	208.0	215.5	209.4	212.9	213.6	216.6	216.2	215.6
Fixed investment.....	201.3	210.0	203.0	206.8	207.6	211.3	210.7	210.5
Nonresidential.....	251.5	266.4	252.7	261.9	264.5	267.6	266.7	266.9
Structures.....	179.8	183.4	181.4	182.5	181.9	184.6	183.8	183.3
Producers' durable equipment.....	233.6	238.0	235.8	239.2	240.5	238.6	238.8	234.5
Residential.....	237.1	241.4	239.4	243.3	244.3	242.1	242.3	237.5
Nonfarm structures.....	236.9	241.2	237.9	242.7	243.8	242.0	241.9	237.3
Farm structures.....	159.4	168.4	161.3	162.8	165.7	168.1	169.4	170.4
Producers' durable equipment.....								
Change in business inventories.....								
Net exports of goods and services.....	231.8	237.1	232.6	234.5	237.3	236.8	236.9	237.2
Exports.....	299.1	284.1	287.7	286.1	286.4	278.8	285.4	285.8
Imports.....								
Government purchases of goods and services.....	207.9	222.3	209.5	215.0	217.8	221.1	223.9	226.2
Federal.....	207.4	221.7	207.8	216.0	218.3	221.6	223.0	223.9
National defense.....	209.0	227.1	207.9	219.5	223.0	225.2	226.5	233.3
Nondefense.....	204.2	210.5	207.4	209.4	209.6	212.6	214.9	206.0
State and local.....	208.2	222.7	210.7	214.3	217.5	220.9	224.5	227.8

Table 7.2.—Fixed-Weighted Price Indexes, 1972 Weights, for Gross National Product

	Fixed-weighted price indexes, 1972=100							
	1981	1982 ^r	Seasonally adjusted					
			1981		1982			
			III	IV	I	II	III	IV ^r
Gross national product.....	202.0	214.5	204.2	208.4	210.8	213.0	216.0	218.5
Personal consumption expenditures.....	202.1	213.8	203.9	207.5	209.9	211.6	215.4	218.3
Durable goods.....	172.9	181.4	175.1	177.4	179.0	181.0	182.6	183.0
Nondurable goods.....	212.8	218.7	214.0	215.9	217.2	218.4	219.7	221.6
Services.....	202.1	220.3	204.5	209.9	213.8	217.6	222.6	227.3
Gross private domestic investment.....	220.9	230.6	223.2	226.8	229.2	230.4	232.0	231.3
Fixed investment.....	213.5	225.7	215.6	219.3	225.0	227.4	228.9	228.9
Nonresidential.....	237.3	248.9	239.4	243.0	245.7	248.6	250.0	251.4
Structures.....	199.8	212.4	201.9	205.6	208.4	211.5	214.5	215.9
Producers' durable equipment.....	235.0	239.9	237.5	241.2	242.7	240.7	240.7	235.9
Residential.....								
Change in business inventories.....								
Net exports of goods and services.....	239.3	245.7	241.1	242.5	245.6	246.3	245.2	245.5
Exports.....	319.0	315.3	316.3	314.0	319.1	313.6	313.6	314.3
Imports.....								
Government purchases of goods and services.....	212.2	226.2	213.6	219.3	222.4	224.5	227.2	230.8
Federal.....	214.7	230.1	214.5	223.9	227.1	228.4	230.1	234.9
National defense.....	219.7	236.5	219.6	230.1	233.4	234.6	236.3	241.5
Nondefense.....	201.7	213.9	201.6	207.9	211.0	212.6	214.2	218.0
State and local.....	210.6	223.5	212.9	216.1	219.2	221.9	225.2	228.1
Addenda:								
Gross domestic purchases ¹	207.2	219.0	209.0	213.0	215.6	217.3	220.4	222.9
Final sales.....	202.0	214.6	204.2	208.4	210.9	213.0	216.1	218.6
Final sales to domestic purchasers ¹	207.2	219.1	209.0	213.0	215.6	217.4	220.5	223.0
Personal consumption expenditures, food.....	208.8	217.4	210.6	211.7	215.3	217.3	218.4	218.5
Personal consumption expenditures, energy.....	359.6	362.2	360.4	366.1	361.9	348.9	364.1	373.8
Other personal consumption expenditures.....	185.5	199.1	187.6	191.6	194.3	197.3	200.8	208.9
Gross domestic product.....	202.1							

Reconciliation and Other Special Tables

Table 1.—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

	I	II	III ^r	IV ^p
1. Compensation per hour of all persons in the business economy other than farm and housing (percent change at annual rate) ¹	7.8	6.7	6.9	5.1
2. Less: Contribution of supplements.....	1.3	.1	.2	.5
3. Plus: Contribution of housing and nonprofit institutions.....	0	-1	.1	.2
4. Less: Contribution of employees of government enterprises and self-employed and unpaid family workers.....	0	.2	.5	.3
5. Equals: Wages and salaries per hour of employees in the private nonfarm economy (percent change at annual rate).....	6.5	6.4	6.3	4.5
6. Less: Contribution of nonproduction workers in manufacturing.....	.6	.1	-.2	-.1
7. Less: Contribution of non-BLS data, detailed weighting, and seasonal adjustment.....	.8	.6	1.9	.6
8. Equals: Average hourly earnings, production and nonsupervisory workers in the private nonfarm economy (percent change at annual rate).....	5.1	5.8	4.6	3.9

^r Revised.

^p Preliminary.

1. BLS estimates of changes in hourly compensation in the nonfarm business sector for the four quarters are 7.7, 6.1, 6.6, and 5.6 percent.

Table 2.—Reconciliation of Changes in the Implicit Price Deflator for Personal Consumption Expenditures and the Consumer Price Index for all Urban Consumers, Seasonally Adjusted

	1982	
	III ^r	IV ^p
1. Implicit price deflator for personal consumption expenditures (percent change at annual rate).....	7.5	4.4
2. Less: Contribution of shifting weights in PCE.....	.4	-.8
New autos.....	-.4	1.8
Gasoline and oil.....	-.4	-.5
Electricity, gas, fuel oil, and coal.....	.4	-.6
Furniture and household equipment.....	-.2	0
Food purchased for off-premise consumption.....	.4	-.4
Purchased meals and beverages.....	.3	-.1
Clothing and shoes.....	0	-.1
Housing.....	-.2	-.2
Other.....	.4	-.9
3. Equals: PCE chain price index (percent change at annual rate).....	7.1	5.4
4. Less: Contribution of differences in weights of comparable CPI and PCE expenditure components.....	-.3	-.1
Gasoline and oil.....	-.5	-.1
Electricity, gas, fuel oil, and coal.....	-.4	-.2
Furniture, appliances, floor coverings, other household furnishings.....	0	0
Food at home.....	-.1	0
Food away from home.....	0	0
Apparel commodities.....	0	0
Rent.....	-.3	-.4
Other.....	1.0	.9
5. Less: Contributions of PCE expenditure components not comparable with CPI components.....	.8	-.2
New autos.....	-.1	-.2
Net purchases of used autos.....	-.1	0
Owner-occupied nonfarm and farm dwellings—space rent.....	.4	0
Services furnished without payment by financial intermediaries except life insurance carriers.....	-.1	-.1
Current expenditures by nonprofit institutions.....	.5	0
Other.....	.2	.1
6. Plus: Contribution of CPI expenditure components not comparable with PCE components.....	.8	-.24
New autos.....	-.1	-.1
Used autos.....	.1	.5
Homeownership.....	.5	-.33
Other.....	.3	.6
7. Less: Contribution of differences in seasonal adjustment ¹	-.1	.2
8. Equals: Consumer Price Index For All Urban Consumers (CPI-U), all items (percent change at annual rate).....	7.6	2.6
Addendum: Consumer Price Index For All Urban Consumers (CPI-U-XI), all items (percent change at annual rate) ²	8.2	5.5

^r Revised. ^p Preliminary.

1. These differences arise because component price indexes that are used in the BEA measures and in the CPI are seasonally adjusted at different levels of detail.

2. The CPI-U-XI is the BLS experimental index in which a rental equivalence method is substituted for the present method in measuring the cost of owner-occupied housing. The PCE measures of price change also use a rental equivalence method.

Table 3.—National Defense Purchases of Goods and Services

	Seasonally adjusted at annual rates										Percent change from preceding period at annual rates									
	Billions of dollars					Billions of 1972 dollars					Implicit price deflator					Fixed-weighted price index				
	1981		1982			1981		1982			1981		1982			1981		1982		
	IV	I	II	III	IV ^p	IV	I	II	III	IV ^p	IV	I	II	III	IV ^p	IV	I	II	III	IV ^p
National defense purchases.....	166.9	166.2	176.2	182.7	189.4	76.1	74.5	78.2	80.6	81.2	24.2	6.5	4.1	2.3	12.5	20.4	5.7	4.6	4.3	9.7
Durables.....	42.7	43.1	48.9	51.7	53.0	20.1	19.9	21.7	22.8	22.6	14.3	7.5	17.6	2.8	13.2	5.9	12.5	15.0	9.3	8.6
Aircraft.....	14.8	14.2	15.4	17.7	18.3	6.7	6.1	6.3	6.9	6.8	17.8	26.5	21.5	23.9	14.3	14.1	17.4	36.4	23.4	16.8
Missiles.....	4.7	5.2	6.5	6.3	6.4	2.1	2.5	2.7	3.0	2.6	36.8	-17.8	64.6	-37.1	77.5	-12.5	27.6	10.6	11.2	2.5
Ships.....	5.2	5.2	5.9	5.9	5.4	2.3	2.2	2.5	2.5	2.3	10.1	2.0	7.0	4.8	-2	9.6	3.8	6.8	5.0	7.7
Vehicles.....	1.7	2.1	2.6	2.8	3.2	.7	.9	1.0	1.0	1.2	26.9	-5.0	23.8	12.7	-1.2	-10.6	4.1	.3	-16.4	7.5
Other durables.....	16.3	16.4	18.4	18.9	19.7	8.3	8.3	9.2	9.4	9.7	5.6	4.3	5.7	-.7	3.3	5.5	7.2	4.1	1.5	2.9
Nondurables.....	13.2	13.6	13.4	13.2	15.2	2.6	2.8	2.8	2.7	3.0	12.2	-17.4	-6.0	10.7	14.0	-9.2	-7.9	-3.5	0	6.3
Bulk petroleum.....	9.5	9.3	9.1	9.1	10.7	1.0	1.0	1.0	1.0	1.2	-11.1	-9.3	-11.7	-10.9	3.4	-14.0	-12.3	-6.7	-5.2	7.6
Other nondurables.....	3.7	4.3	4.3	4.1	4.5	1.7	1.9	1.9	1.7	1.9	7.6	12.9	-3.2	14.9	6.4	5.9	6.6	5.3	14.1	3.0
Services.....	107.6	106.0	110.7	113.8	117.0	51.8	50.3	52.3	53.4	53.7	28.6	6.6	1.3	2.8	9.6	31.5	5.0	2.0	2.8	11.1
Compensation.....	65.6	66.3	66.5	66.8	69.2	33.1	33.2	33.3	33.4	33.4	43.0	2.2	.8	.8	14.0	43.7	2.2	.8	.8	14.1
Services less compensation.....	42.0	39.8	44.1	47.0	47.7	18.8	17.1	19.1	20.1	20.2	5.8	17.7	-1.8	3.9	3.6	9.9	11.2	4.7	6.9	5.4
Travel.....	2.3	2.4	2.5	2.9	2.8	1.0	1.0	1.0	1.2	1.2	-.6	-2.4	4.3	-4.9	.2	-1.8	-2.5	2.8	-.4	0
Transportation.....	3.0	3.2	3.1	3.3	3.5	1.3	1.3	1.3	1.3	1.4	14.8	2.3	-4.6	12.2	9.7	8.1	4.5	-1.5	15.8	5.1
Communications.....	1.0	1.0	1.2	1.2	1.2	.6	.6	.7	.7	.7	22.2	2.3	5.7	-10.2	4.2	13.5	.5	2.4	1.9	6.8
Other services.....	35.6	33.1	37.4	39.6	40.2	16.0	14.2	16.1	16.8	17.0	5.1	21.5	-2.0	4.5	3.1	11.1	13.7	5.7	7.1	5.8
Structures.....	3.4	3.5	3.3	4.0	4.2	1.5	1.5	1.4	1.7	1.8	6.1	7.0	7.2	-2.8	-7.2	6.0	7.4	1.2	8.4	-5.1
Addenda:																				
Total purchases less compensation.....	101.3	99.9	109.6	115.9	120.1	43.0	41.3	44.9	47.3	47.7	12.1	10.9	3.6	1.6	11.6	5.0	8.7	7.7	7.1	6.4
Total purchases less compensation and bulk petroleum.....	91.8	90.6	100.5	106.8	109.4	42.0	40.4	44.0	46.3	46.5	10.5	11.8	7.4	3.6	7.9	7.6	11.4	9.4	8.5	6.3

^p Preliminary.

Federal Fiscal Programs

THE fiscal year 1984 budget, presented to Congress in late January, carries forward the basic fiscal policy introduced by the administration in 1981. The main features of the new budget are:

- A continued rapid increase in national defense spending;
- A decline in nondefense spending other than net interest;
- Adherence to the last stage of the income tax cut provided for by the Economic Recovery Tax Act of 1981, although some increases in social security taxes and other taxes are proposed.

National defense spending increases over 14 percent in 1984 (about 10.0 percent in real terms, according to the administration). Increases are provided for virtually all weapons-systems projects already under way; no new projects are proposed. Major emphasis continues to be on improving the combat readiness and training of forces, modernizing the various existing weapons systems, and increasing naval strength.

Nondefense spending, other than for net interest, declines slightly; in real terms, the decline is 5 percent. The administration's proposed pro-

gram reductions more than account for the decline. Major reductions are in social security (excluding medicare), farm price support programs, and in housing assistance.

The budget incorporates the recommendations of the National Commission on Social Security Reform. The major recommendations include: (1) reschedule current tax rate increases; (2) tax one-half of social security bene-

NOTE.—Hermione A. Anglin, David T. Dobbs, Gary W. Davis, Kathleen M. Downs, Karl D. Galbraith, Donald L. Peters, Henry Newman-Santos, Deloris T. Tolson, and Richard C. Ziemer assisted in the preparation of this article.

Table 1.—Economic Assumptions Underlying the Fiscal Year 1984 Budget

	Calendar year			
	Actual		Estimates	
	1981	1982	1983	1984
	Billions of dollars			
GNP:				
Current dollars.....	2,938	3,058	3,262	3,566
1972 dollars.....	1,503	1,476	1,496	1,555
Incomes:				
Personal income.....	2,416	2,570	2,727	2,935
Wages and salaries.....	1,494	1,560	1,640	1,780
Corporate profits before taxes.....	232	175	177	206
	Percent change from preceding year			
GNP in current dollars:				
Annual average.....	11.6	4.1	6.7	9.3
Fourth quarter.....	9.6	3.3	8.8	9.2
GNP in 1972 dollars:				
Annual average.....	1.9	-1.8	1.4	3.9
Fourth quarter.....	.7	-1.2	3.1	4.0
GNP deflator:				
Annual average.....	9.4	6.0	5.2	5.2
Fourth quarter.....	8.9	4.6	5.6	5.0
Consumer price index:				
Annual average.....	10.3	6.0	4.9	4.6
Fourth quarter.....	9.4	4.4	5.0	4.4
	Percent			
Unemployment rate:				
Annual average.....	7.5	9.5	10.7	9.9
Fourth quarter.....	8.1	10.5	10.4	9.5
Insured unemployment rate:¹				
Annual average.....	3.5	4.7	5.3	4.7
Fourth quarter.....	3.7	5.2	5.2	4.5
Interest rate, 91-day Treasury bills².....	14.1	10.7	8.0	7.9

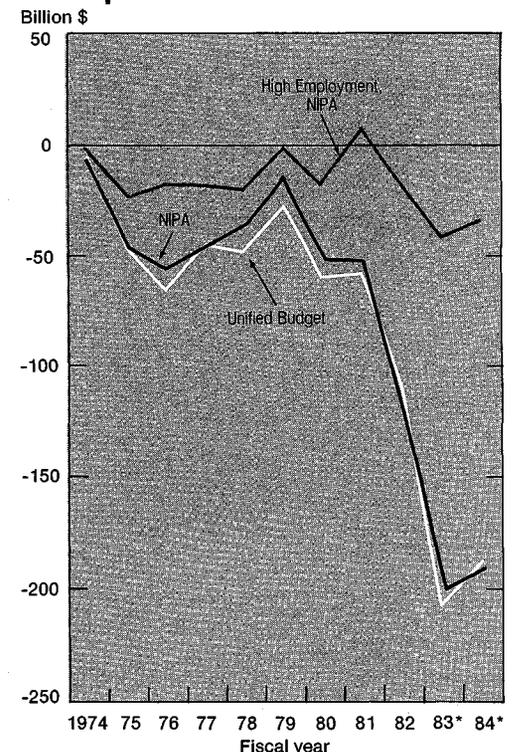
1. Insured unemployment under the State regular unemployment insurance program, excluding recipients of extended benefits, as percentage of covered employment under that program.

2. Average rate on new issues within the year. The estimates assume, by convention, that interest rates vary with the rate of inflation. They do not represent a forecast of interest rates.

Source: "The Budget of the United States Government, Fiscal Year 1984."

CHART 1

Federal Fiscal Position: Surplus or Deficit



*Estimates from Office of Management and Budget, and BEA.

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

83-2-1

Social Security Recommendations

The National Commission on Social Security Reform was established in December 1981 and given a mandate to review the financial condition of the social security trust funds, analyze potential solutions to ensure the solvency of the funds and the provision of appropriate benefits, and provide recommendations. The Commission met throughout 1982 and made their recommendations in early 1983; the budget incorporates these recommendations.

The major recommendations of the Commission increase budget receipts \$8.2 billion in fiscal year 1984.

- Reschedule increases in the social security tax rate (\$5.5 billion). Under current law, the tax rate is scheduled to increase to 11.4 percent from 10.8 percent on January 1, 1985 and to 12.4 percent on January 1, 1990. Under the recommendations, the tax rate will increase to 11.4 percent on January 1, 1984, 12.12 percent on January 1, 1988, and 12.4 percent on January 1, 1990. For 1984 only, employees would be allowed a refundable tax credit in the amount of the increase in employee taxes over what would have been payable under current law; under the recommendation, the employee tax rate will increase 0.3 percentage points to 5.7 percent.

- Tax social security benefits (\$1.1 billion). Under current law, social security benefits are exempt from Federal income tax provisions. Under the recommendations, single taxpayers with more than \$20,000 of

adjusted gross income (\$25,000 for married couples filing a joint return) from non-social security sources will be required to include 50 percent of their benefits in adjusted gross income.

- Broaden coverage (\$1.1 billion). Under current law, Federal civilian employees are exempt from social security coverage, and State and local governments and nonprofit organizations are not required to participate in the program. Under the recommendations, mandatory coverage will be extended to all new Federal employees and to all employees of nonprofit organizations, effective January 1, 1984. State and local governments currently participating will no longer be allowed to withdraw.

- Increase the self-employed tax rate (\$0.6 billion). Under current law, self-employed individuals pay 75 percent of the combined employer-employee tax rate. Under the recommendations, self-employed individuals will be required to pay the combined rate, effective January 1, 1984. One-half of the combined rate will be deductible as a business expense in calculating taxable income.

The major recommendation of the Commission affecting expenditures in fiscal year 1984 is delaying the cost-of-living adjustment to benefits for 6 months from July 1983 to January 1984. Thereafter, cost-of-living increases would occur in January. This recommendation reduces social security benefits \$2.1 billion in 1983 and \$4.2 billion in 1984.

fits above specified income levels; (3) broaden coverage to include new Federal employees and all uncovered nonprofit employees; (4) increase the self-employed tax rate; and (5) delay

the cost-of-living adjustment to benefits for 6 months. (See "Social Security Recommendations" above.)

brought inventories more in line with sales; consequently, the forecast is based on the expectation that future increases in consumer spending will result in increased production, income, and employment. The pace of the 1983 recovery is likely to be moderate by historical standards; capital spending will be restrained by low capacity utilization and the need to build corporate liquidity; exports will be limited by the worldwide recession and the lagged effect of the appreciation of the dollar. Prices, as measured by the GNP deflator, increase 5.6 percent to the fourth quarter of 1983 and 5.0 percent to the fourth quarter of 1984. The unemployment rate is forecast to be 10.4 percent in the fourth quarter of 1983 and 9.5 percent in the fourth quarter of 1984. The rate is expected to reach about 11 percent in the first half of 1983 and decline thereafter by about one-quarter of a percentage point per quarter.

Economic assumptions

The economic assumptions underlying the fiscal year 1984 budget are shown in table 1. GNP in constant dollars is forecast to increase 3.1 percent from the fourth quarter of 1982 to the fourth quarter of 1983 and 4.0 percent to the fourth quarter of 1984. According to the Council of Economic Advisers, "prospects for a moderate, sustainable economic recovery beginning early in 1983 are good." This view is based on a turnaround in the inventory cycle brought about by continuing strength in personal consumption expenditures and defense purchases. Cuts in production and increases in sales by the end of 1982

Table 2.—Federal Government Receipts and Expenditures
(Billions of dollars)

	Fiscal year		
	Actual	Estimates	
	1982	1983	1984
Unified budget			
Receipts	617.8	597.5	659.7
Outlays	728.4	805.2	848.5
Surplus or deficit (-)	-110.6	-207.7	-188.8
National income and product accounts			
Receipts	619.0	628.5	686.2
Expenditures	739.7	829.0	877.3
Surplus or deficit (-)	-120.7	-200.5	-191.1
High-employment surplus or deficit (-)	-18.7	-42.4	-34.7

Sources: "The Budget of the United States Government, Fiscal Year 1984," and the Bureau of Economic Analysis.

Unified budget

The unified budget deficit decreases from \$207.7 billion in fiscal year 1983 to \$188.8 billion in fiscal year 1984 (table 2 and chart 1).

Receipts increase \$62.2 billion—or 10.5 percent—in 1984, to \$659.7 billion. Receipts in 1983 are \$597.5 billion, down 3.3 percent from 1982. Tax reductions provided under the Economic Recovery Tax Act of 1981 (ERTA) reduce receipts \$130.3 billion in 1984 and \$82.6 billion in 1983. Tax increases provided under the Tax Equity and Fiscal Responsibility Act of 1982 (TERFA) and the Highway Revenue Act of 1982 raise receipts \$42.1 billion in 1984 and \$19.0 billion in 1983. Proposed legislation, including the recommendations of the National Commission on Social Security Reform, raise receipts, on balance, \$11.2 billion in 1984.

Outlays increase \$43.3 billion—or 5.4 percent—in 1984, to \$848.5 billion. Outlays in 1983 are \$805.2 billion, up 10.5 percent from 1982. Two functions—national defense and net interest—more than account for the 1984 increase; nearly three-quarters of the increase is for national defense and about one-third is for net interest. All other functions decline on balance. The administration is again proposing various outlay reductions; these total \$31.8 billion in 1984 and most require legislation.

Current services estimates

Current services estimates show what receipts and outlays would be without policy changes. They are neither recommended amounts nor forecasts, but rather are a base with which administration or congressional proposals can be compared. The level of outlays are those needed to maintain ongoing Federal programs and activities at 1983 levels in real terms. The major exception is for the military functions of the Department of Defense. For those functions, the 1983 estimate is based on enacted levels resulting from congressional actions last year; the 1984 estimate is that presented by the administration and used by the Congress in budget deliberations last year.

Unified budget receipts in 1984 are \$10.9 billion higher than current services receipts, largely due to the re-

scheduling of the January 1985 social security tax rate increase to January 1984 (table 3). Other proposals that raise unified budget receipts include taxing employer-paid health insur-

Table 3.—Relation of Current Services Budget to Unified Budget

[Billions of dollars]

	Fiscal year	
	1983	1984
Receipts		
Current services estimate	597.5	648.8
Plus: Proposed legislation:		
Social security		8.2
Taxation of health insurance premiums		2.3
Civil service retirement		1.2
Other		-8
Equals: Unified budget	597.5	659.7
Outlays		
Current services estimate	806.1	880.3
Plus: Proposed program increases:		
Unemployment compensation	1.9	
General purpose fiscal assistance		1.0
Payments for employee retirement .....		.9
Social services .....		.8
Guaranteed student loans .....		.4
Health care services .....		.4
Other		4.5
Proposed program reductions:		
National defense:		
Military and civilian pay raise		-5.9
Military retired pay		-9
Other		-1.5
Nondefense:		
Social security	-2.2	-6.0
Farm price support	-6	-3.1
Housing assistance	-2.2	-2.2
Net interest paid	-1	-2.1
Land management		-1.1
Pay raise		-1.9
Food stamps		-8
Student financial assistance		-7
Postal Service payment		-6
Railroad retirement		-5
Other	-6	-12.5
Equals: Unified budget	805.2	848.5

Table 4.—Relation of Federal Government Receipts in the National Income and Product Accounts to the Unified Budget

[Billions of dollars]

	Fiscal year		
	1982	1983	1984
Unified budget receipts	617.8	597.5	659.7
Less: Coverage differences	1.3	1.4	1.6
Financial transactions			
Plus: Netting differences:			
Contributions to government employees retirement funds	10.7	12.2	14.0
Other	9.3	11.7	13.9
Timing differences:			
Corporate income tax, Federal and State unemployment insurance taxes	-13.1	3.0	-4.2
Withheld personal income tax and social security contributions	-4.3	3.4	2.4
Excise taxes	-5	1.3	.8
Other			
Miscellaneous .....	.2		.3
Equals: Federal Government receipts, NIPA	619.0	628.5	686.2

ance premiums and increasing civil service retirement contributions.

Unified budget outlays are \$31.8 billion lower than current services outlays because proposed program reductions (\$39.8 billion) exceed proposed increases (\$8.0 billion). Nondefense programs account for about 80 per-

Table 5.—Relation of Federal Government Expenditures in the National Income and Product Accounts to the Unified Budget

[Billions of dollars]

	Fiscal year		
	1982	1983	1984
Unified budget outlays	728.4	805.2	848.5
Less: Coverage differences:			
Geographic	4.6	4.8	4.9
Off-budget Federal entities	-17.3	-17.0	-14.0
Other .....	.5	.6	.6
Financial transactions:			
Net lending	19.0	18.1	13.2
Other .....	.5	.3	-.5
Net purchases of land:			
Outer Continental Shelf	-2.7	-8.3	-7.9
Other .....	.2	-.1	-.4
Plus: Netting differences:			
Contributions to government employees retirement funds	10.7	12.2	14.0
Other	9.3	11.7	13.9
Timing differences:			
National defense purchases	-1.2	-1.7	-2.5
Other	-3.0	-.2	-.9
Miscellaneous .....	.3	.2	.2
Equals: Federal Government expenditures, NIPA	739.7	829.0	877.3

Table 6.—Breakdown of Changes in Federal Receipts, NIPA Basis

[Billions of dollars]

	Change from preceding fiscal year		
	1982	1983	1984
Total receipts	4.3	9.5	57.7
Due to tax bases	24.6	30.0	67.7
Due to tax changes ¹	-20.2	-20.5	-10.0
Enacted	-20.2	-20.5	-23.2
Proposed			13.2
Personal tax and nontax receipts	11.4	-10.1	11.2
Due to tax bases	35.3	24.4	39.1
Due to tax changes	-26.9	-34.5	-27.9
Enacted	-26.9	-34.5	-29.7
Proposed			1.8
Corporate profits tax accruals	-20.8	.4	8.9
Due to tax bases	-16.8	.8	11.5
Due to tax changes	-4.0	-.4	-2.6
Enacted	-4.0	-.4	-2.4
Proposed			-.2
Indirect business tax and nontax accruals	-5.0	4.5	4.1
Due to tax bases	-5.1	-2.2	.2
Due to tax changes .....	.1	6.7	3.9
Enacted .....	.1	6.7	3.9
Proposed			
Contributions for social insurance	18.8	14.7	33.5
Due to tax bases	8.2	7.0	16.9
Due to tax changes	10.6	7.7	16.6
Enacted	10.6	7.7	5.0
Proposed			11.6

1. Consists of all tax changes since fiscal year 1981.

Table 7.—Selected Tax Changes, NIPA Basis

(Billions of dollars)

	Fiscal year				Calendar year							
	1983	1984	1983	1984	Seasonally adjusted at annual rates							
					1983				1984			
					I	II	III	IV	I	II	III	IV
Direct impact on Federal sector deficit, NIPA basis¹	-53.1	-66.4	-52.6	-63.3	-41.5	-41.2	-61.7	-66.3	-60.2	-62.4	-64.1	-67.1
Personal tax and nontax receipts	-61.4	-93.1	-66.6	-94.5	-52.7	-57.4	-75.1	-81.3	-89.6	-93.2	-95.9	-99.6
Economic Recovery Tax Act	-69.4	-109.2	-80.0	-111.4	-57.5	-62.1	-98.2	-102.1	-106.3	-110.0	-112.7	-116.7
Withheld income tax: rate reductions and other	-46.4	-80.0	-56.6	-81.9	-36.7	-37.5	-75.3	-77.0	-79.2	-80.9	-82.9	-84.6
October 1981	-15.3	-16.6	-15.5	-17.0	-15.1	-15.4	-15.7	-16.0	-16.4	-16.8	-17.2	-17.5
July 1982	-20.8	-22.7	-21.2	-23.2	-20.5	-20.9	-21.4	-21.9	-22.5	-23.0	-23.5	-24.0
July 1983	-9.2	-39.0	-18.6	-39.9			-36.8	-37.6	-38.7	-39.4	-40.3	-41.1
Other	-1.2	-1.7	-1.3	-1.8	-1.1	-1.2	-1.4	-1.5	-1.6	-1.7	-1.9	-2.0
Declarations and net settlements	-20.6	-25.5	-20.6	-25.5	-18.5	-22.0	-20.1	-21.6	-23.5	-25.3	-25.9	-27.4
Rate reductions	-10.9	-12.0	-10.9	-12.0	-10.2	-10.7	-11.2	-11.5	-11.7	-11.9	-12.1	-12.3
Married couples deduction	-3.0	-5.2	-3.0	-5.2	-2.0	-2.6	-3.4	-4.0	-4.5	-5.0	-5.4	-5.9
Accelerated cost recovery system	-2.9	-4.3	-2.9	-4.3	-2.4	-2.7	-3.1	-3.4	-3.7	-4.1	-4.5	-4.9
Tax-exempt certificates	-1.7	-3	-1.7	-3	-2.4	-4.1	-1		-5	-8		
Other	-2.1	-3.7	-2.1	-3.7	-1.5	-1.9	-2.3	-2.7	-3.1	-3.5	-3.9	-4.3
Estate and gift	-2.4	-3.7	-2.8	-4.0	-2.3	-2.6	-2.8	-3.5	-3.6	-3.8	-3.9	-4.7
Tax Equity and Fiscal Responsibility Act	8.5	15.3	13.9	15.5	4.8	5.3	23.8	21.6	15.4	15.4	15.4	15.6
Withheld	6.4	21.1	11.7	21.3	2.0	2.1	21.5	21.1	20.8	21.0	21.4	21.9
Interest and dividends	4.8	18.7	9.5	18.8			19.3	18.7	18.4	18.6	18.9	19.3
Other	1.6	2.4	2.2	2.5	2.0	2.1	2.2	2.4	2.4	2.4	2.5	2.6
Declarations and net settlements	1.9	-6.1	1.9	-6.1	2.5	2.9	2.0	2	-5.7	-5.9	-6.3	-6.6
Interest and dividends	-9	-11.9	-9	-11.9			-9	-2.7	-11.2	-11.6	-12.1	-12.7
Increased enforcement	1.6	1.3	1.6	1.3	1.6	1.8	1.7	1.3	1.3	1.3	1.3	1.3
Medical deduction	1	1.6	1	1.6			1	3	1.6	1.6	1.6	1.6
Other	1.1	2.9	1.1	2.9	.9	1.1	1.1	1.3	2.6	2.8	2.9	3.2
Estate and gift	2	3	3	3	3	3	3	3	3	3	3	3
Highway Revenue Act	-5	-1.0	-5	-1.0		-6	-7	-8	-1.0	-1.0	-1.0	-1.0
Legislation proposed		1.8		2.4					2.3	2.4	2.4	2.5
Withheld: health insurance		1.8		2.4					2.3	2.4	2.4	2.5
Declarations and net settlements		1.8										
One-half social security		1.1		1.1					1.1	1.1	1.1	1.1
Tuition tax credit		-2		-2					-2	-2	-2	-2
Other		-9		-9					-9	-9	-9	-9
Corporate profits tax accruals	-8.5	-11.0	-9.3	-10.7	-6.1	-8.4	-10.7	-12.0	-11.4	-10.6	-10.2	-10.6
Economic Recovery Tax Act	-17.1	-25.5	-19.3	-26.6	-15.4	-18.6	-21.5	-23.7	-25.2	-26.1	-27.1	-28.0
Accelerated cost recovery system	-15.9	-23.7	-18.6	-24.5	-14.2	-17.4	-20.3	-22.5	-23.1	-24.0	-25.0	-25.9
Other	-1.2	-1.9	-1.2	-2.1	-1.2	-1.2	-1.2	-1.2	-2.1	-2.1	-2.1	-2.1
Tax Equity and Fiscal Responsibility Act	8.7	14.7	10.6	16.2	9.4	10.3	10.9	11.8	14.1	15.8	17.2	17.7
Insurance provisions	1.4	2.3	1.5	2.6	1.4	1.5	1.5	1.6	2.1	2.5	2.9	2.9
Safe-harbor leasing	1.9	3.2	2.1	3.7	1.8	2.0	2.2	2.4	2.8	3.4	4.0	4.6
Long-term contracts	1.3	2.7	1.8	2.8	1.3	1.7	2.0	2.2	2.6	2.9	3.1	2.6
Investment tax credit	.6	1.7	.9	2.0	.7	.8	.9	1.2	1.6	1.9	2.1	2.4
Other	3.5	4.9	4.3	5.1	4.2	4.3	4.3	4.4	5.0	5.1	5.1	5.2
Highway Revenue Act	-1		-1		-1	-1	-1	-1				
Legislation proposed		-2		-3					-3	-3	-3	-3
Indirect business tax and nontax accruals	7.0	11.3	9.6	11.4	4.7	11.7	10.9	11.1	11.4	11.5	11.4	11.4
Economic Recovery Tax Act	-7	-6	-7	-6	-7	-7	-7	-7	-6	-6	-6	-6
Windfall profit tax	-1.2	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3
Telephone excise	.5	.7	.6	.7	.6	.6	.6	.6	.7	.7	.7	.7
Tax Equity and Fiscal Responsibility Act	4.0	5.2	4.9	5.3	4.8	4.9	4.9	5.0	5.3	5.3	5.3	5.3
Airport and airway	1.1	1.2	1.1	1.2	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2
Cigarette excise	1.9	2.5	2.4	2.5	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5
Windfall profit tax	.1	.3	.2	.3	.1	.2	.2	.3	.3	.3	.3	.3
Telephone excise	.9	1.3	1.2	1.3	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3
Highway Revenue Act	2.8	5.4	4.2	5.5		6.1	5.8	5.4	5.4	5.5	5.5	5.6
Administrative action: dairy	.9	1.3	1.2	1.2	.6	1.4	1.4	1.4	1.3	1.3	1.2	1.1
Contributions for social insurance	9.8	26.4	13.7	30.5	12.6	12.9	13.2	15.9	29.4	29.9	30.6	31.7
Economic Recovery Tax Act:												
Railroad retirement	.5	.6	.5	.6	.5	.5	.5	.5	.6	.6	.6	.6
Tax Equity and Fiscal Responsibility Act	2.9	4.4	3.9	4.5	3.7	3.7	4.0	4.2	4.5	4.4	4.6	4.5
State unemployment insurance	1.5	2.4	2.1	2.4	2.0	2.0	2.1	2.3	2.5	2.4	2.4	2.3
Federal employees hospital insurance	1.3	1.8	1.7	1.8	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.8
Supplementary medical insurance	.1	.3	.1	.3			.2	.2	.2	.2	.4	.4
Legislation proposed		11.6	.6	14.4				2.3	13.6	13.9	14.4	15.3
OASDHI:												
Jan. 1, 1984 rate increase: 13.4%-14.1%		6.8		8.9					8.7	8.8	9.0	9.1
Nonprofit institutions, State and local governments, Federal employees		1.3		1.6					1.4	1.6	1.6	1.7
Self-employed		1.0		1.0					1.0	1.0	1.0	1.0
Federal civilian retirement		2.5	.6	2.9				2.3	2.5	2.6	2.8	3.5
Enacted social security rate and base increases	6.4	9.8	8.7	11.0	8.4	8.7	8.7	8.9	10.7	11.0	11.0	11.3
Jan. 1, 1982 base increase: \$29,700-\$32,400	2.8	3.3	3.1	3.3	3.0	3.1	3.1	3.2	3.2	3.3	3.3	3.4
Jan. 1, 1982 rate increase: 13.3%-13.4%	1.3	1.4	1.3	1.4	1.3	1.3	1.3	1.3	1.4	1.4	1.4	1.4
Jan. 1, 1983 base increase: \$32,400-\$35,700	1.0	3.0	2.9	3.1	2.8	2.9	2.9	3.0	3.0	3.1	3.1	3.2
Jan. 1, 1984 base increase: \$35,700-\$37,800		.7		1.8					1.7	1.8	1.8	1.8
Self-employed increases	1.3	1.4	1.4	1.4	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.5

OASDHI—old-age, survivors, disability, and hospital insurance.

1. The estimates are based on the direct effect only of tax changes at a given level of economic activity. Induced effects are not included here, but are included in total NIPA receipts and the total for each category of receipts shown in table 10.

cent of the 1984 reductions, with the largest in social security. The unified budget deficit is \$42.7 billion lower than the current services deficit.

Federal sector of the NIPA's

BEA has prepared estimates of the Federal sector on the national income and product accounting (NIPA) basis consistent with the unified budget estimates (table 2). The estimates in this article differ slightly from the preliminary estimates published in late January in the budget; details of the latter are shown in Special Analysis B, "Federal Transactions in the National Income Accounts." The estimates in this article incorporate revised NIPA estimates for the fourth quarter of 1982 and more detailed information about tax changes than in the budget.

Estimates of the Federal sector are integrated conceptually and statistically with the rest of the NIPA's and differ in several respects from the unified budget. Unlike the unified

budget, they exclude financial transactions, such as loans, and record several categories of receipts and expenditures on a timing basis that is different from the budget. (For a more detailed discussion of the differences, see the February 1980 SURVEY OF CURRENT BUSINESS.) Table 4 shows the relation between unified budget and NIPA receipts and table 5 shows the relation between unified budget outlays and NIPA expenditures.

Some transactions are treated differently in the NIPA's and in the unified budget but because they do not result in differences between total receipts or expenditures, they do not show up in the reconciliation tables. An example is the new payment-in-kind (PIK) agriculture program initiated in January 1983 by administrative action. Under this voluntary program, farmers of wheat, feed grains, cotton, and rice will receive these crops, instead of cash diversion payments, in return for setting aside acreage from production. In the unified budget, the PIK will not be treat-

ed as an outlay. In the NIPA's, nondefense purchases—Commodity Credit Corporation inventories—will decline and subsidy payments to farmers (by imputation) will increase by an equal amount, resulting in no change in total Federal sector expenditures. (Elsewhere in the NIPA's, farm inventories increase by the amount of the PIK, and farm income increases by an equal amount. GNP is unchanged because the increase in farm inventories is offset by the decline in nondefense purchases. Farm product is unchanged, but national income and personal income are increased by the amount of the PIK.) PIK amounts to \$1.2 billion in fiscal year 1983 and \$3.8 billion in fiscal year 1984.

Federal receipts on the NIPA basis in 1984 are \$686.2 billion, up \$57.7 billion from 1983 (chart 2). The increase is the net result of a \$67.7 billion increase due to higher tax bases and a \$10.0 billion decrease due to tax changes (table 6). Enacted tax changes reduce receipts \$23.2 billion in 1984; this reduction is the net of

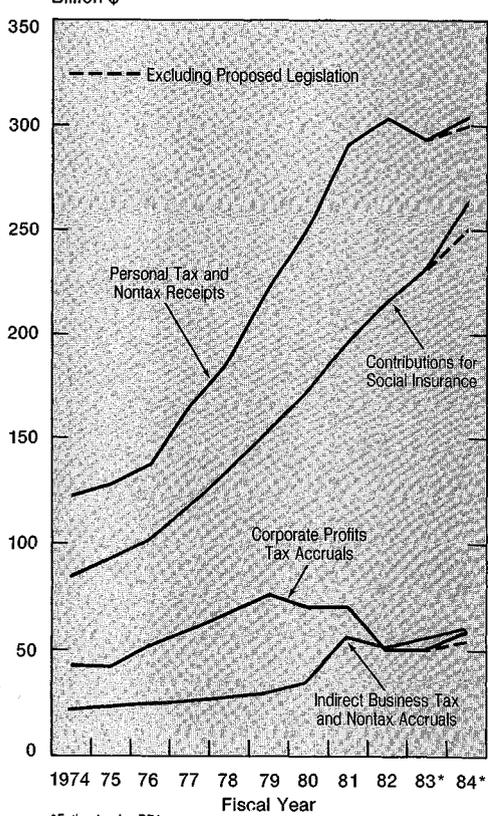
Table 8.—Breakdown of Changes in Federal Expenditures, NIPA Basis

[Billions of dollars]

	Change from preceding fiscal year		
	1982	1983	1984
Total expenditures	73.2	89.3	48.3
Purchases of goods and services:			
Pay raises ¹	6.7	3.0	.....
Commodity Credit Corporation.....	6.7	-3.0	-5.8
Strategic petroleum reserve.....	-1.0	-1.0	.1
Transfer payments to persons:			
Social Security.....	23.4	19.0	16.6
Unemployment benefits.....	6.2	12.8	-7.7
Military and civilian pensions.....	3.0	2.9	1.9
Food stamps.....	-2	1.6	-1.1
Grants-in-aid to State and local governments:			
Low income energy assistance.....	.....	.3	-.6
Waste treatment.....	-.1	-.6	-.3
Public assistance.....	-.3	1.7	.8
Highways.....	-1.0	.6	3.1
Employment and training.....	-1.1	-.3	.....
Public service employment.....	-2.1	.....	.....
Net interest paid	16.3	9.9	14.2
Subsidies less current surplus of government enterprises:			
Housing.....	1.7	1.3	.8
Commodity Credit Corporation.....	.3	2.2	-1.5
Agricultural subsidies.....	.1	5.3	-.5
Postal Service.....	-1.7	1.4	.6
All other expenditures²	16.3	32.2	27.7
National defense.....	20.9	24.2	29.6
Nondefense.....	-4.6	8.0	-1.9

1. Consists of pay raises since October 1981.
2. Includes purchases of goods and services, transfer payments, grants-in-aid, and subsidies less current surplus of government enterprises.

**CHART 2
Federal Government Receipts, NIPA Basis**



*Estimates by BEA.
U.S. Department of Commerce, Bureau of Economic Analysis

Table 9.—Relation of National Defense Purchases in the National Income and Product Accounts to National Defense Outlays in the Unified Budget

[Billions of dollars]

	Fiscal year		
	Actual	Estimates	
	1982	1983	1984
National defense outlays in the unified budget	187.4	214.8	245.3
Department of Defense, military	182.9	208.9	238.6
Military personnel.....	42.3	45.3	47.7
Retired military personnel.....	14.9	16.1	16.8
Operation and maintenance.....	59.7	64.6	71.6
Procurement.....	43.3	55.2	68.2
Aircraft.....	16.8	21.5	27.1
Missiles.....	4.3	5.8	7.3
Ships.....	6.7	7.2	8.5
Weapons.....	2.4	2.8	3.2
Ammunitions.....	1.6	1.9	2.1
Other.....	11.5	16.0	20.0
Research, development, test, and evaluation.....	17.7	21.4	26.3
Other.....	5.0	4.1	5.8
Civilian and military pay raises.....	.....	2.2	2.2
Atomic energy and other defense-related activities.....	4.5	5.9	6.7
Plus: Military assistance outlays.....	.8	1.5	1.8
Less: Transfer payments to retired military personnel	14.9	16.1	16.8
Grants-in-aid and net interest paid.....	1.2	1.3	1.5
Timing differences.....	1.2	1.7	2.5
Other adjustments.....	-2.1	-2.2	-2.7
Equals: National defense purchases, NIPA	173.0	199.4	229.0

1. Consists of the pay raise effective October 1982.

tax cuts, largely from ERTA, partly offset by tax increases from TEFRA and from the Highway Revenue Act and by social security rate and base increases. (See the August 1981 SURVEY for details on ERTA and the September 1982 SURVEY for details on

TEFRA.) Proposed legislation raises receipts \$13.2 billion in 1984. Table 7 shows the direct impact of selected tax changes on NIPA receipts.

Federal expenditures on the NIPA basis in 1984 are \$877.3 billion, up \$48.3 billion from 1983. Table 8 high-

lights the major factors that contribute to recent changes in Federal Expenditures. The largest in 1984 is a \$29.6 billion increase in national defense "all other expenditures," which consists of national defense expenditures other than the pay raise; this

Table 10.—Federal Government Receipts and Expenditures, NIPA Basis

(Billions of dollars)

	Fiscal year					Calendar year										
	Actual 1982	Estimates		Actual 1982	Estimate 1983	Actual				Estimates				1984		
		1983	1984			1982				1983				I	II	III
						I	II	III	IV	I	II	III	IV			
Receipts	619.0	628.5	686.2	614.5	640.1	609.9	617.0	613.7	617.3	629.3	640.3	639.2	651.5	680.0	697.3	718.9
Economic Recovery Tax Act.....	-35.0	-86.7	-134.7	-44.2	-100.0	-28.2	-34.3	-55.2	-59.2	-73.1	-80.9	-119.9	-126.0	-131.5	-136.1	-139.8
Tax Equity and Fiscal Responsibility Act.....	1.4	24.1	39.6	2.7	33.3	1.4	1.5	2.6	5.3	22.7	24.2	43.6	42.6	39.3	40.9	42.5
Highway Revenue Act.....		2.2	4.4		3.6						5.4	4.5	4.5	4.4	4.5	4.5
Legislation proposed.....			13.2		.6								2.3	15.6	16.0	16.5
Other.....	652.6	688.6	763.7	656.0	702.6	636.7	649.8	666.0	671.0	679.7	691.6	711.0	728.1	752.1	772.1	795.2
Personal tax and nontax receipts	303.1	293.0	304.2	300.1	296.3	299.9	305.8	295.6	299.2	296.0	297.7	293.9	297.9	299.8	307.8	317.7
Economic Recovery Tax Act.....	-25.7	-69.4	-109.2	-33.3	-30.0	-19.5	-24.0	-43.7	-46.1	-57.5	-62.1	-98.2	-102.1	-106.3	-110.0	-112.7
Tax Equity and Fiscal Responsibility Act.....		8.5	15.3		13.9					4.8	5.3	23.8	21.6	15.4	15.4	15.4
Highway Revenue Act.....		-5	-1.0		-5						-6	-7	-8	-1.0	-1.0	-1.0
Legislation proposed.....			1.8										2.3	2.4	2.4	2.4
Other.....	328.8	354.4	397.3	333.4	362.9	319.4	329.8	339.3	345.3	348.7	355.1	369.0	379.2	389.4	400.1	413.6
Corporate profits tax accruals	50.1	50.5	59.4	47.8	50.7	46.5	45.2	49.8	49.7	51.2	50.4	49.7	51.5	55.9	61.8	68.4
Economic Recovery Tax Act.....	-9.1	-17.1	-25.5	-10.6	-19.8	-3.4	-10.0	-11.2	-12.8	-15.4	-18.6	-21.5	-23.7	-25.2	-26.1	-27.1
Tax Equity and Fiscal Responsibility Act.....	1.3	8.7	14.7	2.3	10.6	1.4	1.5	2.3	4.0	9.4	10.3	10.9	11.8	14.1	15.8	17.2
Highway Revenue Act.....		-1			-1					-1	-1	-1	-1	-1	-1	-1
Legislation proposed.....			-2											-3	-3	-3
Other.....	57.9	59.0	70.4	56.1	60.0	53.5	53.7	53.7	58.5	57.3	58.8	60.4	63.5	67.3	72.4	78.6
Indirect business tax and nontax accruals	50.7	55.2	59.3	50.0	57.6	48.7	49.8	50.8	50.7	53.0	59.7	58.8	58.7	59.2	59.5	59.8
Economic Recovery Tax Act.....	-6	-7	-6	-8	-7	-8	-8	-8	-8	-7	-7	-7	-7	-6	-6	-6
Tax Equity and Fiscal Responsibility Act.....	1	4.0	5.2	4	4.9			3	1.3	4.8	4.9	4.9	5.0	5.3	5.3	5.3
Highway Revenue Act.....		2.3	5.4		4.2						6.1	5.3	5.4	5.4	5.5	5.5
Other.....	51.2	49.1	49.3	50.4	49.2	49.5	50.6	51.3	50.2	48.9	49.4	49.3	49.0	49.1	49.3	49.6
Social insurance contributions	215.1	229.8	263.3	216.6	235.5	214.9	216.2	217.5	217.7	229.1	232.5	236.8	243.4	265.1	268.2	273.0
Economic Recovery Tax Act.....	4	5	6	5	5	5	5	5	5	5	5	5	5	6	6	6
Tax Equity and Fiscal Responsibility Act.....		2.9	4.4		3.9					3.7	3.7	4.0	4.2	4.5	4.4	4.6
Legislation proposed.....			11.6		6								2.3	13.6	13.9	14.4
Other.....	214.7	226.4	246.7	216.1	230.5	214.4	215.7	217.0	217.2	224.9	228.3	232.3	236.4	246.4	249.3	253.4
Expenditures	739.7	829.0	877.3	762.7	840.0	728.3	736.6	769.7	816.2	822.8	825.4	850.9	861.0	877.3	877.2	894.2
Purchases of goods and services	250.1	279.0	302.5	257.7	285.2	249.7	244.3	259.0	277.9	278.9	272.8	288.0	300.9	302.4	297.8	308.9
National defense.....	173.0	199.4	229.0	178.6	207.1	166.2	176.2	182.7	189.4	196.2	202.1	210.3	219.7	226.2	232.3	237.8
Pay raise: October 1982.....		2.2	2.2	.5	2.2				2.5	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Other.....	173.0	197.2	226.8	178.1	204.9	166.2	176.2	182.7	187.4	194.0	199.9	208.1	217.5	224.0	230.1	235.6
Nondefense.....	77.1	79.6	73.5	79.1	78.1	83.5	68.2	76.3	88.5	82.7	70.7	77.7	81.2	76.2	65.5	71.1
Pay raise: October 1982.....		4.4	-1.4	9.0	1.3	12.1	-8	7.4	17.1	9.0	-6.6	-1.9	4.5	1.3	-8.4	-3.0
Commodity Credit Corporation.....	7.4	4.4	-3.8	9.0	-2.1					-1.6	-3.2	-3.5	-3.7	-3.9	-4.1	-4.1
Payments in kind.....		7.4	5.6	2.4	3.3	12.1	-8	7.4	17.1	9.0	-5.0	1.3	8.0	5.0	-4.5	1.1
Other.....	2.8	1.8	1.9	2.2	1.7	2.7	2.2	1.8	2.2	1.8	1.4	1.8	1.3	1.9	1.9	2.0
Strategic petroleum reserve.....	66.9	72.6	72.2	67.7	74.3	68.7	66.8	67.1	68.5	71.1	75.1	77.0	74.1	72.2	71.2	71.3
Other.....																
Transfer payments	310.8	348.6	357.4	321.9	349.4	303.2	312.8	327.4	344.3	346.5	350.6	352.2	348.3	359.8	360.9	361.5
To persons.....	304.8	342.2	350.9	315.9	343.1	297.2	307.0	321.8	337.5	340.5	344.4	345.8	341.8	353.3	354.4	355.0
Social security.....	198.6	217.6	234.2	204.5	219.2	194.7	197.5	209.2	216.6	215.4	217.9	220.5	223.1	234.8	237.9	241.4
Benefit increases:																
July 1982.....		10.9	10.9	5.5	10.9			10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9
January 1984.....			6.2											8.4	8.4	8.4
Other.....	198.6	206.7	217.1	199.0	208.3	194.7	197.5	198.3	205.7	204.5	207.0	209.6	212.2	215.5	218.6	221.8
Unemployment benefits.....	21.6	34.4	26.7	24.9	33.6	13.6	23.5	25.5	32.0	35.4	35.8	34.6	33.7	28.1	28.7	23.7
Extended.....	1.8	4.4	2.4	2.1	4.4	1.0	2.9	2.5	2.7	4.9	5.2	4.8	2.9	3.3	2.5	.9
Federal supplemental compensation.....		4.3	1.2	3.2				2	4.5	5.1	4.5	3.1				
Other.....	19.8	25.7	24.3	21.5	26.0	17.6	20.6	22.7	24.9	26.1	26.7	25.8	24.8	23.8	22.8	22.8
To foreigners.....	84.6	90.2	90.0	86.3	90.3	83.9	86.0	87.1	88.9	89.7	90.7	90.7	90.0	90.4	90.2	89.9
Other.....	6.0	6.4	6.5	6.1	6.3	6.0	5.8	5.6	6.8	6.0	6.2	6.4	6.5	6.5	6.5	6.5
Grants-in-aid to State and local governments	83.4	86.9	90.1	83.5	88.3	83.0	85.0	82.0	84.0	86.5	88.1	89.2	89.5	90.0	90.1	90.4
Public assistance.....	27.8	29.5	30.3	28.4	29.9	27.7	29.4	27.8	28.7	29.5	29.8	30.0	30.2	30.2	30.4	30.4
Highways.....	7.6	8.2	11.3	7.7	8.8	6.9	8.1	7.9	7.9	7.5	8.2	9.2	10.2	11.4	11.7	11.9
Highway Revenue Act.....		4	3.1	1.0							4	1.2	2.4	3.2	3.4	3.4
Other.....	7.6	7.8	8.2	7.7	7.8	6.9	8.1	7.9	7.9	7.5	7.8	8.0	7.8	8.2	8.3	8.5
Other.....	48.0	49.2	48.5	47.4	49.6	48.4	47.5	46.3	47.4	49.5	50.1	50.0	49.1	48.4	48.0	48.1
Net interest paid	82.5	92.4	106.6	84.9	95.5	79.6	82.8	88.7	88.6	90.8	93.6	97.0	100.7	104.6	108.5	112.6
Subsidies less current surplus of government enterprises	12.8	22.1	20.7	14.6	21.6	12.7	11.6	12.6	21.5	20.1	20.3	24.5	21.6	20.5	19.9	20.8
Agriculture:																
Commodity Credit Corporation.....	2.2	4.4	2.9	2.8	4.0	1.7	1.5	2.4	5.7	4.0	2.8	5.1	4.0	2.9	1.9	2.8
Payments to farmers.....	1.8	7.1	6.6	2.9	6.6	2.7	1.6	.5	6.9	6.0	6.6	7.2	6.5	6.5	6.7	6.7
Payments in kind.....		1.2	3.8		2.1						1.6	3.2	3.5	3.7	3.9	4.1
Other.....	1.8	5.9	2.8	2.9	4.5	2.7	1.6	.5	6.9	6.0	5.0	4.0	3.0	2.8	2.8	2.6
Postal Service.....	-6	.8	1.4	.1	1.0	-7	-2	.8	.2	.5	.7	1.7	1.1	1.3	1.5	1.7
Housing.....	9.1	10.4														

increase accounts for over 60 percent of the total increase. Social security benefits together with military and civilian pensions contribute \$18.5 billion; net interest paid, \$14.2 billion; and highway grants, \$3.1 billion. Partly offsetting these increases are declines in unemployment benefits, in all other nondefense expenditures, and in agricultural purchases by the Commodity Credit Corporation (chart 3).

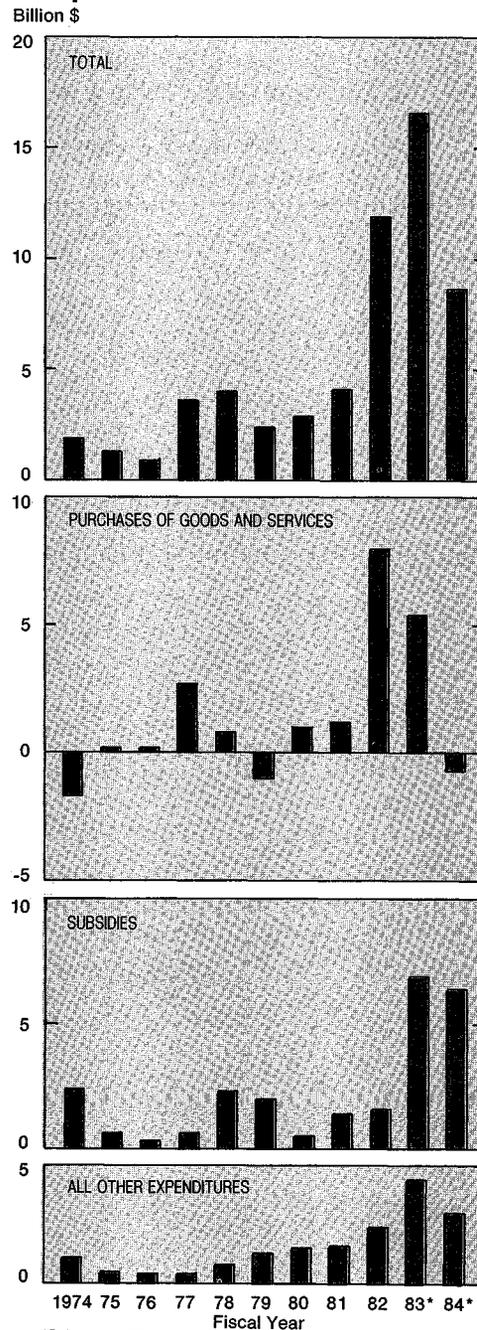
Table 9 shows the relation between national defense outlays in the unified budget and national defense purchases on the NIPA basis. In 1984, outlays, which are recorded on a checks issued basis, increase slightly more than purchases, which are recorded largely on a delivery basis. The larger increase in outlays reflects the steep increase in procurement of military hardware, for which checks are issued prior to delivery.

Quarterly pattern.—On a quarterly basis, the Federal deficit increases in the third quarter of 1983 when income tax withholding rates are cut for the final stage under ERTA. The introduction of withholding for interest and dividend income on July 1, 1983 partly offsets the rate cut. The deficit declines steadily thereafter, partly reflecting enacted and proposed tax increases (table 10).

The quarterly pattern is estimated by BEA with the cooperation of the Office of Management and Budget, the Social Security Administration, and the Departments of Agriculture, Labor, and Treasury. Receipts reflect the pattern of enacted and proposed tax changes and the administration's projected quarterly pattern of wages and profits. Expenditures reflect the pattern of proposed legislation and selected other items, such as cost-of-living increases in retirement benefits. All estimates are seasonally adjusted at annual rates.

High-employment surplus or deficit.—The high-employment surplus is an estimate of the amount by which Federal revenues would exceed Federal expenditures if the economy were operating at a high-employment level of activity at current price levels. Consequently, cyclical fluctuations in the economy do not affect high-employment budget receipts or expendi-

CHART 3
Commodity Credit Corporation
Expenditures, NIPA Basis



*Estimates by BEA.

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

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tures. (See the November 1980 SURVEY for a discussion of the limitations of the high-employment budget and BEA's methodology for calculating the estimates, the April 1982 SURVEY for refinements of the methodology, and the November 1982 SURVEY for discussions of the uses and usefulness of the high-employment budget.)

Table 11.—High-Employment Surplus or Deficit (—), NIPA Basis

[Billions of dollars]

Calendar year:	Level ¹	Change	Addendum: High-employment surplus or deficit (—) with a 6-percent unemployment rate	
			Level	Change
1981.....	4.5	21.6	-16.8	17.8
1982.....	-27.2	-31.7	-52.8	-36.0
1983.....	-42.3	-15.1	-71.1	-18.3
Quarters:				
1981: I.....	10.4	21.0	-9.3	20.2
II.....	22.0	11.6	.9	10.2
III.....	5.9	-16.1	-16.0	-16.9
IV.....	-20.3	-26.2	-42.7	-26.7
1982: I.....	-15.6	4.7	-39.6	3.1
II.....	-6.2	9.4	-31.0	8.6
III.....	-32.8	-26.6	-58.3	-27.3
IV.....	-54.2	-21.4	-82.4	-24.1
1983: I.....	-37.6	16.6	-65.3	17.1
II.....	-24.6	13.0	-53.3	12.0
III.....	-53.1	-28.5	-82.3	-29.0
IV.....	-53.8	-.7	-83.7	-1.4
1984: I.....	-39.7	14.1	-71.1	12.6
II.....	-23.9	15.8	-56.6	14.5
III.....	-21.5	2.4	-55.6	1.0

1. Based on a high-employment unemployment rate of 5.1 percent for 1981:1-1981:4, 5.0 percent for 1982:1-1983:1, and 4.9 percent for 1983:2-1984:3.

As measured on a high-employment basis, the Federal sector of the NIPA's was in slight surplus in calendar year 1981 and swung to deficit in 1982; the deficit will widen in 1983 by \$15 billion (table 11 and chart 1). On a quarterly basis, the high-employment budget swung to deficit in the fourth quarter of 1981, when income tax withholding rates were first cut under ERTA. The deficit declined thereafter, but increased in the third quarter of 1982 when the second stage of rate cuts became effective. The deficit declines in the first half of 1983 but increases in the second, when the final withholding rate cut under ERTA becomes effective; thereafter it declines.

The high-employment deficit discussed above is based on a high-employment unemployment rate that is 5.1 percent in 1981, declines to 4.9 percent by mid-1983, and remains flat thereafter. Table 11 also shows what the high-employment surplus or deficit would be assuming a high-employment unemployment rate of 6 percent throughout the 1981-84 period. On this basis, the high-employment deficit is \$20 billion to \$30 billion higher, but follows the same quarterly pattern.

Pollution Abatement and Control Expenditures, 1972-81

REAL expenditures for pollution abatement and control (PAC) declined 1 percent in 1981 (chart 4).¹ The revised estimate for 1980 also showed a decline. In 1972-79, expenditures had increased each year, at an average annual rate of 5½ percent. Pollution abatement (PA) expenditures, the largest category of PAC expenditures, declined (in 1972 dollars) 1 percent in 1981; regulation and monitoring increased less than 1 percent; and research and development declined 3 percent.

This article first presents and discusses PAC estimates for recent years: real expenditures and prices of PAC goods and services in 1981, the limited data on expenditures available for 1982, and revisions in PAC estimates for 1978-80. Next, it summarizes trends for 1972-81 in air and water PA expenditures. Finally, it introduces estimates of business PAC costs, which are designed to facilitate analysis that is more comprehensive than could be undertaken previously.

NOTE.—Estimates of business PAC costs, presented in this article for the first time, are a result of research by Frederick J. Dreiling on the GNP-account treatment of PAC.

1. PAC expenditures are for the reduction of pollutant emissions and the collection and disposal of solid wastes by means acceptable to Federal, State, and local authorities. PAC expenditures consist of those for pollution abatement, which reduce pollutant emissions directly, plus expenditures for regulation and monitoring and for research and development, which lead indirectly to the reduction of emissions. Expenditures for other aspects of environmental control, such as expenditures for natural resource conservation or protection of endangered species, are excluded. Pollutants are defined as substances and other emissions (e.g., noise) that degrade the quality of air or water shared by all.

Estimates for recent years

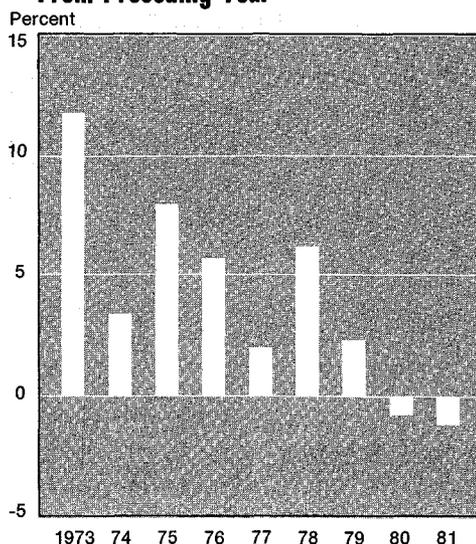
PAC expenditures are classified in table 1 by type (e.g., water PAC), function (e.g., research and development), sector (e.g., business), and accounting category (e.g., on capital account). Table 2 shows additional detail for business and government expenditures for air and water pollution abatement (most of PAC). Table 3 shows expenditures for aspects of solid waste management, including, but not limited to, collection and disposal. Table 4 shows price changes for total PAC expenditures and selected components.

Real PAC spending in 1981.—In absolute terms, the 1981 decrease in total PAC spending was \$0.3 billion (in 1972 dollars) and was due to a large decrease in water PAC. Water

PAC spending decreased \$1.4 billion, or 12½ percent. Air PAC spending increased \$0.9 billion, or 7½ percent; solid waste disposal spending increased \$0.2 billion, or 4 percent; and "other and unallocated" spending increased slightly.

The largest absolute changes in air and water PAC spending were for PA capital (see accompanying tabulation). For water, each major category of capital spending again decreased. Public sewer systems construction spending (government enterprise fixed capital) decreased \$1.0 billion, or 23 percent, the third consecutive decrease. Plant and equipment spending by business decreased \$0.3 billion, or 16½ percent, the fifth decrease. Spending for septic systems and connectors to public sewers (residential systems) decreased \$0.1 billion, the third decrease.

CHART 4
Real PAC Expenditures: Percent Change From Preceding Year



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

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[Change in 1981, billions of 1972 dollars]

Total expenditures for PAC.....	- .3
Water PA.....	-1.4
Capital.....	-1.4
Public sewer systems.....	-1.0
Plant and equipment.....	-.3
Residential systems.....	-.1
Current account.....	.1
Air PA.....	.9
Capital.....	.8
Motor vehicle emission abatement.....	1.1
Plant and equipment.....	-.3
Current account.....	.1
Solid waste disposal.....	.1
Capital.....	0
Current account.....	.1
Other.....	0

The large decrease in spending for construction of public sewer systems was due to decreases in related Federal grants-in-aid and in State and local funding for sewer systems. The decrease in Federal grants-in-aid for sewer systems was the first signifi-

cant one since 1978 and was part of a slowdown in these grants since 1977 (table 5). (See the accompanying box for a background discussion of these grants.) The decrease in State and local funding in 1981, the largest since these decreases began in 1979, was due to record high interest rates on municipal bonds, taxpayer's increased sensitivity to growth in gov-

ernment, and reduced housing construction requiring connection to sewer systems. The decrease in recent years in construction of public sewer systems is part of a general trend for State and local total construction.

For air, spending for motor vehicle emission abatement devices (consumer and business spending) increased \$1.1 billion, or 31 percent, after in-

creasing each year since 1972. A decrease in plant and equipment spending of \$0.3 billion, or 11½ percent, was a partial offset.

Motor vehicle emission abatement spending increased, despite a decrease in unit sales of cars, due to the addition of expensive computer-like electronic equipment to regulate engine operation and emissions. This equip-

Table 1.—Expenditures for Pollution Abatement and Control in Current

Line	1972	1973	1974	1975	1976	1977	1978*					
	Total	Total	Total	Total	Total	Total	Total	Air	Water	Solid waste	Other and unallocated ²	
Millions of												
Pollution abatement and control.....	1	18,434	21,930	26,261	30,923	34,681	37,962	43,416	17,324	19,876	6,609	-394
Pollution abatement ³	2	17,245	20,537	24,678	29,167	32,677	35,652	40,833	16,117	19,253	6,518	-1,055
Personal consumption.....	3	1,536	2,065	2,667	3,463	3,994	4,311	4,762	4,762			
Durable goods.....	4	476	670	690	1,861	1,821	2,166	2,525	2,525			
Nondurable goods and services.....	5	1,060	1,395	1,977	2,102	2,173	2,145	2,237	2,237			
Business.....	6	10,960	13,097	15,527	18,134	20,335	22,761	25,692	11,072	11,215	4,479	-1,075
On capital account.....	7	5,399	6,766	7,436	8,832	9,469	10,101	10,882	5,317	4,984	582	
On current account.....	8	5,561	6,331	8,091	9,302	10,866	12,660	14,809	5,755	6,231	3,897	-1,075
Private.....	9	4,838	5,459	6,994	8,100	9,533	11,022	12,833	5,683	3,253	3,897	
Government enterprise.....	10	1,151	1,342	1,635	1,896	2,221	2,603	3,051	72	2,978	(*)	(*)
Costs recovered.....	11	-428	-470	-538	-693	-887	-966	-1,075				-1,075
Government.....	12	4,749	5,375	6,434	7,570	8,348	8,580	10,380	283	8,038	2,039	20
Federal.....	13	139	203	294	432	472	490	472	90	316	47	19
State and local.....	14	1,311	1,433	1,591	1,752	1,834	1,963	2,212	(*)	218	1,992	1
Government enterprise fixed capital.....	15	3,299	3,738	4,598	5,387	6,042	6,128	7,697	193	7,504		
Regulation and monitoring.....	16	367	490	595	653	725	833	949	276	405	55	213
Federal.....	17	200	278	346	381	402	429	507	93	186	28	201
State and local.....	18	167	212	248	272	323	404	442	183	219	28	12
Research and development.....	19	823	903	958	1,103	1,279	1,478	1,633	981	219	35	449
Private.....	20	519	569	608	608	706	849	985	777	99	16	93
Federal.....	21	205	269	342	448	528	578	592	146	104	16	326
State and local.....	22	99	65	39	47	45	51	57	8	17	4	29
Millions of constant												
Pollution abatement and control.....	23	18,434	20,603	21,307	23,008	24,325	24,800	26,330	10,185	11,954	4,342	-150
Pollution abatement ³	24	17,245	19,298	19,951	21,644	22,868	23,230	24,696	9,433	11,554	4,284	-574
Personal consumption.....	25	1,536	1,965	2,116	2,589	2,857	2,945	3,066	3,066			
Durable goods.....	26	476	670	651	1,184	1,489	1,633	1,816	1,816			
Nondurable goods and services.....	27	1,060	1,295	1,465	1,405	1,368	1,262	1,250	1,250			
Business.....	28	10,960	12,330	12,372	13,057	13,789	14,315	15,011	6,204	6,455	2,938	-586
On capital account.....	29	5,399	6,435	6,200	6,662	6,762	6,760	6,758	3,384	3,028	846	
On current account.....	30	5,561	5,895	6,172	6,395	7,027	7,555	8,253	2,820	3,428	2,593	-586
Private.....	31	4,838	5,039	5,259	5,520	6,138	6,550	7,135	2,792	1,751	2,593	
Government enterprise.....	32	1,151	1,263	1,296	1,330	1,444	1,574	1,705	28	1,676	(*)	(*)
Costs recovered.....	33	-428	-407	-383	-455	-555	-569	-587				-587
Government.....	34	4,749	5,002	5,463	5,998	6,221	5,970	6,619	163	5,099	1,345	12
Federal.....	35	139	190	245	332	339	323	288	48	198	30	11
State and local.....	36	1,311	1,330	1,305	1,344	1,349	1,359	1,418	(*)	102	1,315	1
Government enterprise fixed capital.....	37	3,299	3,482	3,913	4,322	4,534	4,288	4,913	115	4,799		
Regulation and monitoring.....	38	367	456	515	517	538	577	620	179	263	36	142
Federal.....	39	200	259	303	305	303	304	340	62	125	19	134
State and local.....	40	167	197	212	213	234	274	280	116	139	17	8
Research and development.....	41	823	849	840	847	920	993	1,014	574	137	22	282
Private.....	42	519	535	512	461	501	562	604	476	61	10	57
Federal.....	43	205	253	294	348	385	394	373	92	65	10	206
State and local.....	44	99	61	34	38	35	37	38	5	11	3	19
Selected implicit												
Pollution abatement and control.....	45	100.0	106.4	123.3	134.4	142.6	153.1	164.9	170.1	166.3	152.2	171.7
Pollution abatement.....	46	100.0	106.4	123.7	134.8	142.9	153.5	165.3	170.9	166.6	152.2	182.8
Personal consumption.....	47	100.0	105.1	126.0	133.8	139.3	146.4	155.3	155.3			
Business.....	48	100.0	106.2	125.5	138.9	147.5	159.0	171.2	178.5	173.7	152.4	183.2
On capital account.....	49	100.0	105.1	119.9	132.6	140.0	147.4	161.0	157.1	164.6	168.2	
On current account.....	50	100.0	107.4	131.1	145.5	154.6	167.6	179.4	204.1	181.8	150.3	
Government.....	51	100.0	107.4	118.7	126.2	134.2	143.7	158.3	173.4	157.6	151.6	163.6
Regulation and monitoring.....	42	100.0	107.4	115.4	126.2	134.8	144.2	153.2	154.3	154.0	153.5	149.7
Research and development.....	53	100.0	106.4	117.6	130.3	139.0	143.9	161.0	162.3	159.9	159.3	159.0
Addendum: Business capital consumption												
Valued at replacement cost in current dollars.....	54	1,831	2,195	2,839	3,578	4,282	5,061	5,911				
Valued at replacement cost in constant (1972) dollars.....	55	1,831	2,094	2,391	2,713	3,066	3,413	3,721				

*Revised.

*Preliminary.

*Less than \$500,000.

1. Includes expenditures for air and water pollution abatement and control. Includes expenditures for solid waste collection and disposal by means acceptable to Federal, State, and local authorities. Excludes agricultural production except feedlot operations.

2. "Other" includes expenditures for abatement and control of noise, radiation, and pesticide pollution; "unallocated" includes business expenditures not assigned to media.

3. Expenditures are attributed to the sector that performs the air or water pollution abatement or solid waste collection and disposal.

4. Current-dollar estimates divided by constant-dollar estimates.

5. To facilitate conversion of expenditures to a cost basis.

ment, the largest added expense per car due to PA since 1968, was designed to help meet tightened emission abatement requirements for 1981 model year passenger cars.

The 1981 decrease in air and water PA plant and equipment spending occurred despite upcoming deadlines for improved PA (1982 for air and 1983-84 for water). Deadlines in the 1980's

may be having less effect on the pattern of changes in spending than did similar deadlines in 1970's, when laws setting deadlines were relatively new and postponement of deadlines not yet a regular occurrence.

Within the solid waste category, capital spending remained at the 1980 level. Current-account spending, which has increased each year since

1973, increased \$0.1 billion, or 3½ percent.

Prices in 1981.—Price increases slowed in 1981, the first time since 1976, according to the fixed-weighted and chain price indexes for PAC goods and services (table 4). Both indexes increased 9½ percent in 1981,

(Text continued on p. 20)

and Constant Dollars and Selected Implicit Price Deflators ¹

1979 ^r					1980 ^r					1981 ^r					Line	
Total	Air	Water	Solid waste	Other and unallocated ²	Total	Air	Water	Solid waste	Other and unallocated ²	Total	Air	Water	Solid waste	Other and unallocated ²		
current dollars																
49,904	21,031	21,799	7,664	-590	56,061	25,606	22,424	8,782	-752	60,326	29,494	21,724	9,971	-863	1	
47,062	19,704	21,126	7,586	-1,304	53,003	24,255	21,673	8,605	-1,581	57,154	28,142	20,972	9,668	-1,628	2	
5,646	5,646				7,092	7,092				9,011	9,011				3	
2,912	2,912				3,715	3,715				5,198	5,198				4	
2,734	2,734				3,378	3,378				3,813	3,813				5	
30,066	18,691	12,446	5,289	-1,359	34,324	16,690	13,163	6,080	-1,609	37,532	18,680	13,844	6,845	-1,787	6	
12,909	6,817	5,268	724		13,099	7,198	5,066	855		13,509	7,892	4,707	910		7	
17,757	7,873	7,178	4,566	-1,359	21,225	8,097	5,245	5,245	-1,609	24,023	10,738	9,187	5,955	-1,787	8	
15,596	7,267	3,763	4,566		18,747	9,344	4,159	5,245		21,146	10,582	4,629	5,955		9	
3,522	106	3,415		1	4,087	148	3,939		1	4,665	156	4,508		1	10	
-1,360				-1,360	-1,610				-1,610	-1,788					-1,788	11
11,350	368	8,681	2,246	55	11,587	473	8,511	2,525	79	10,611	500	7,128	2,824	159	12	
548	108	347	48	50	495	95	275	55	70	533	94	244	66	129	13	
2,461	(*)	257	2,198	6	2,772	(*)	293	2,470	9	3,066	(*)	278	2,758	30	14	
8,341	265	8,076			8,321	378	7,943			7,012	406	6,606			15	
1,067	300	425	86	257	1,296	329	525	129	313	1,398	334	513	240	311	16	
593	100	232	37	225	793	122	526	66	280	840	108	293	153	286	17	
474	200	193	49	32	502	207	199	68	34	559	226	220	88	25	18	
1,775	1,027	248	43	457	1,762	1,022	226	49	465	1,774	1,018	259	62	454	19	
1,143	915	111	15	102	1,107	887	108	14	98	1,102	883	108	14	97	20	
564	105	118	24	317	591	130	95	32	335	644	135	121	44	344	21	
69	8	19	4	38	64	5	23	3	33	28	(*)	11	4	13	22	
(1972) dollars																
26,936	10,749	11,832	4,540	-184	26,730	11,256	11,029	4,643	-199	26,407	12,125	9,650	4,838	-206	23	
25,236	9,975	11,422	4,462	-623	25,018	10,504	10,608	4,543	-638	24,721	11,402	9,255	4,678	-615	24	
3,100	3,100				3,344	3,344				4,094	4,094				25	
1,943	1,943				2,295	2,295				3,025	3,025				26	
1,158	1,158				1,049	1,049				1,068	1,068				27	
15,651	6,683	6,497	3,124	-653	15,582	6,933	6,129	3,199	-678	15,480	7,083	5,789	3,300	-691	28	
6,992	3,705	2,902	386		6,816	3,548	2,571	397		6,510	3,946	2,168	396		29	
8,658	2,978	3,596	2,738	-653	8,767	3,085	3,558	2,303	-678	8,970	3,137	3,620	2,904	-691	30	
7,581	2,946	1,848	2,738		7,614	3,045	1,766	2,303		7,786	3,098	1,785	2,904		31	
1,780	32	1,748	(*)	(*)	1,831	39	1,791	(*)	(*)	1,875	39	1,836	(*)	(*)	32	
-653				-653	-678				-678	-691					-691	33
6,486	192	4,925	1,338	30	6,092	228	4,480	1,344	40	5,147	226	3,467	1,378	76	34	
297	48	194	28	27	252	43	142	30	36	255	41	116	34	64	35	
1,428	(*)	115	1,310	3	1,434	(*)	1,116	1,314	4	1,470	(*)	1,114	1,344	12	36	
4,761	144	4,617			4,407	185	4,222			3,422	185	3,237			37	
653	181	261	52	160	728	180	295	72	181	781	168	267	127	169	38	
372	63	145	23	141	459	71	189	38	162	459	59	160	84	156	39	
281	118	115	29	19	269	109	107	34	19	272	109	107	44	13	40	
1,046	593	149	26	278	984	572	126	27	258	955	555	128	33	240	41	
654	523	63	9	58	621	498	61	8	55	604	484	59	8	53	42	
349	65	73	15	196	327	72	53	18	185	337	71	63	23	180	43	
43	5	12	2	24	35	3	13	2	18	15	(*)	6	2	7	44	
price deflators ⁴																
185.3	195.7	184.2	168.8	189.8	209.7	227.5	203.3	189.2	213.1	228.4	243.3	225.1	206.1	230.6	45	
186.5	197.5	185.0	168.9	207.2	211.9	230.9	204.3	189.4	234.9	231.2	246.8	226.6	206.7	253.7	46	
182.1	182.1				212.1	212.1				220.1	220.1				47	
192.1	204.9	191.6	169.3	208.2	220.3	240.7	214.8	190.0	237.3	242.4	263.0	239.2	207.4	258.7	48	
176.0	170.6	181.6	137.3		192.2	187.1	197.0	210.5		207.5	200.0	217.1	229.7		49	
205.1	247.6	199.6	166.8	208.2	242.1	307.7	227.6	187.1	237.3	267.8	342.4	252.4	201.0	258.7	50	
175.0	191.4	176.2	167.9	185.3	190.2	207.6	190.0	187.9	194.6	206.2	221.8	205.6	204.9	208.8	51	
168.3	166.0	163.0	164.4	160.3	173.0	182.9	177.8	178.0	173.5	191.2	199.0	192.0	188.8	184.1	52	
169.7	173.2	167.0	165.5	164.1	179.1	205.3	179.6	179.6	180.1	185.7	183.6	187.2	189.7	189.2	53	
allowance (millions of dollars) ⁵																
7,050					8,314					9,648					54	
4,070					4,401					4,719					55	

Table 2.—Business and Government Expenditures for Air and Water Pollution Abatement in Current and Constant Dollars and Selected Implicit Price Deflators

	1972	1973	1974	1975	1976	1977	1978 ^r			1979 ^r			1980 ^r			1981 ^p		
	Total ¹	Total^{1}	Total^{1}	Total^{1}	Total^{1}	Total^{1}	Total^{1}	Air	Water	Total^{1}	Air	Water	Total^{1}	Air	Water	Total^{1}	Air	Water
Millions of current dollars																		
Business (line 6)²	9,111	11,148	13,193	15,751	17,682	19,792	22,287	11,072	11,215	26,136	13,691	12,446	29,853	16,690	13,163	32,474	18,630	13,844
On capital account (line 7).....	5,089	6,422	7,015	8,416	9,004	9,581	10,301	5,317	4,984	11,585	6,317	5,268	12,264	7,198	5,066	12,599	7,892	4,707
Motor vehicle emission abatement.....	225	339	444	770	963	1,158	1,407	1,407	1,819	1,819	1,819	2,127	2,127	2,127	2,923	2,923	2,923	2,923
Plant and equipment expenditures ³	3,601	4,612	5,297	6,576	6,783	6,840	7,016	3,910	3,106	7,705	4,499	3,207	8,354	5,071	3,283	8,009	4,969	3,040
Residential systems ⁴	1,260	1,468	1,268	1,063	1,250	1,575	1,873	.....	1,873	2,057	.....	2,057	1,780	.....	1,780	1,664	.....	1,664
Agricultural business ⁵	3	3	7	8	8	8	5	.....	5	4	.....	4	3	.....	3	3	.....	3
On current account (line 8).....	4,022	4,726	6,178	7,335	8,679	10,212	11,987	5,755	6,231	14,551	7,373	7,178	17,589	9,492	8,097	19,875	10,738	9,137
Private (line 9).....	2,871	3,384	4,545	5,440	6,459	7,609	8,986	5,683	3,253	11,030	7,267	3,763	13,503	9,344	4,159	15,211	10,582	4,629
Motor vehicle emission abatement.....	435	610	1,060	1,294	1,492	1,659	1,912	.....	1,912	2,640	2,640	3,804	3,804	.....	3,804	4,523	.....	4,523
Manufacturing establishments.....	1,363	1,509	1,806	2,221	2,754	3,312	3,747	2,038	1,710	4,315	2,337	1,977	4,893	2,709	2,184	5,485	3,045	2,440
Privately owned electric utility establishments.....	311	396	647	698	719	871	1,044	944	100	1,496	1,382	114	1,910	1,780	130	1,985	1,839	147
Other nonmanufacturing establishments.....	567	658	801	979	1,224	1,473	1,914	790	1,124	2,238	908	1,330	2,530	1,051	1,479	2,329	1,176	1,653
Residential systems ⁴	195	211	229	247	268	292	315	.....	315	337	.....	337	360	.....	360	383	.....	383
Agricultural business ⁵	(*)	1	1	2	2	3	.....	.....	4	5	.....	5	5	.....	5	6	.....	6
Government enterprise (line 10).....	1,151	1,342	1,634	1,895	2,220	2,602	3,051	72	2,978	3,521	106	3,415	4,087	148	3,939	4,664	156	4,508
Publicly owned electric utilities.....	26	33	62	53	66	69	83	72	10	118	106	12	161	148	13	171	156	15
Public sewer systems ⁶	1,124	1,308	1,571	1,842	2,153	2,533	2,967	2,967	3,402	3,402	3,402	3,402	3,926	.....	3,926	4,492	.....	4,492
Other.....	(*)	1	.....	(*)	.....	(*)	1	.....	1	.....	.....	1	(*)	.....	(*)	(*)	.....	(*)
Government (line 12)	3,602	4,090	5,039	5,956	6,608	6,701	8,320	283	8,038	8,998	368	8,681	8,983	473	8,511	7,628	500	7,128
Federal (line 13).....	131	181	252	358	362	385	406	90	316	450	103	347	369	95	275	338	94	244
Federal excl. highway erosion abatement.....	126	176	248	353	357	379	400	90	310	442	103	339	362	95	267	330	94	236
Highway erosion abatement.....	5	5	4	5	5	6	7	.....	7	9	.....	9	8	.....	8	8	.....	8
State and local (line 14).....	171	171	189	211	205	189	218	(*)	218	257	(*)	257	293	(*)	293	278	(*)	278
State and local excl. highway erosion abatement.....	(*)	(*)	(*)	1	1	1	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Highway erosion abatement.....	171	171	189	210	204	188	218	.....	218	257	.....	257	293	.....	293	278	.....	278
Government enterprise fixed capital (line 15).....	3,299	3,738	4,598	5,387	6,041	6,128	7,697	193	7,504	8,341	265	8,076	8,321	378	7,943	7,012	406	6,606
Publicly owned electric utilities.....	91	136	177	164	223	269	329	193	136	367	265	102	468	378	91	474	406	68
Public sewer systems ⁶	3,208	3,603	4,421	5,223	5,818	5,859	7,368	.....	7,368	7,975	.....	7,975	7,853	.....	7,853	6,539	.....	6,539
Millions of constant (1972) dollars																		
Business (line 28)²	9,111	10,483	10,368	11,133	11,734	12,143	12,659	6,204	6,455	13,180	6,683	6,497	13,061	6,933	6,129	12,871	7,083	5,789
On capital account (line 29).....	5,089	6,105	5,847	6,354	6,433	6,419	6,412	3,384	3,028	9,606	3,705	2,902	6,419	3,848	2,571	6,114	3,946	2,168
Motor vehicle emission abatement.....	225	339	419	670	787	900	1,008	1,008	1,208	1,208	1,208	1,307	1,307	.....	1,307	1,693	.....	1,693
Plant and equipment expenditures ³	3,601	4,370	4,341	4,871	4,775	4,507	4,304	2,376	1,928	4,305	2,496	1,809	4,252	2,541	1,711	3,678	2,253	1,425
Residential systems ⁴	1,260	1,394	1,083	808	866	1,008	1,097	.....	1,097	1,090	.....	1,090	859	.....	859	742	.....	742
Agricultural business ⁵	3	3	5	5	5	5	3	.....	3	2	.....	2	1	.....	1	1	.....	1
On current account (line 30).....	4,022	4,376	4,520	4,779	5,301	5,723	6,247	2,820	3,428	6,573	2,978	3,596	6,642	3,085	3,558	6,757	3,137	3,620
Private (line 31).....	2,871	3,114	3,226	3,449	3,857	4,150	4,543	2,792	1,751	4,794	2,946	1,848	4,812	3,045	1,766	4,883	3,098	1,785
Motor vehicle emission abatement.....	435	566	780	860	935	975	1,068	.....	1,068	1,116	1,116	1,179	1,179	.....	1,179	1,259	.....	1,259
Manufacturing establishments.....	1,363	1,400	1,333	1,427	1,643	1,785	1,871	980	892	1,956	1,018	938	1,888	1,005	884	1,392	1,001	891
Privately owned electric utility establishments.....	311	337	314	324	336	379	417	367	50	470	419	52	525	474	51	500	450	50
Other nonmanufacturing establishments.....	567	611	592	628	729	794	961	378	523	1,020	393	627	984	389	596	992	389	603
Residential systems ⁴	195	200	206	209	213	216	224	.....	224	229	.....	229	234	.....	234	238	.....	238
Agricultural business ⁵	(*)	(*)	1	1	2	2	.....	.....	2	2	.....	2	2	.....	2	3	.....	3
Government enterprise (line 32).....	1,151	1,263	1,295	1,330	1,444	1,573	1,704	28	1,676	1,780	32	1,748	1,831	39	1,791	1,375	39	1,836
Publicly owned electric utilities.....	26	28	30	25	31	30	34	28	5	37	32	5	45	39	5	44	39	5
Public sewer systems ⁶	1,124	1,234	1,264	1,304	1,413	1,542	1,671	.....	1,671	1,742	.....	1,742	1,786	.....	1,786	1,831	.....	1,831
Other.....	(*)	1	.....	(*)	(*)	(*)	(*)	.....	(*)	(*)	.....	(*)	(*)	.....	(*)	(*)	.....	(*)
Government (line 34)	3,602	3,806	4,259	4,745	4,934	4,657	5,262	163	5,099	5,118	192	4,925	4,707	228	4,480	3,692	226	3,467
Federal (line 35).....	131	169	209	275	257	252	246	48	198	242	48	194	185	43	142	157	41	116
Federal excl. highway erosion abatement.....	126	165	206	272	253	248	243	48	195	238	48	190	182	43	139	154	41	113
Highway erosion abatement.....	5	4	3	3	4	4	3	.....	3	4	.....	4	3	.....	3	3	.....	3
State and local (line 36).....	171	155	137	148	143	117	103	(*)	102	115	(*)	115	116	(*)	116	114	(*)	114
State and local excl. highway erosion abatement.....	(*)	(*)	(*)	(*)	1	1	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Highway erosion abatement.....	171	155	137	148	142	117	102	.....	102	115	.....	115	116	.....	116	114	.....	114
Government enterprise fixed capital (line 37).....	3,299	3,482	3,913	4,322	4,534	4,288	4,913	115	4,799	4,761	144	4,617	4,407	185	4,222	3,422	185	3,287
Publicly owned electric utilities.....	91	129	141	116	152	171	196	115	82	200	144	56	230	185	45	216	185	31
Public sewer systems ⁶	3,208	3,353	3,772	4,206	4,382	4,117	4,717	.....	4,717	4,561	.....	4,561	4,176	.....	4,176	3,206	.....	3,206
Selected implicit price deflators ⁷																		
Plant and equipment expenditures (see above, business capital account) ³	100.0	105.6	122.0	135.0	142.0	151.8	163.0	164.5	161.1	179.0	180.2	177.2	196.5	199.6	191.9	217.7	220.5	213.4
Manufacturing, privately owned electric utilities, and other nonmanufacturing establishments (see above, business current account).....	100.0	109.1	145.2	163.9	173.5	191.2	206.4	218.8	192.4	233.5	252.9	211.6	274.7	296.7	247.9	304.4	329.4	274.6
Public sewer systems (see above, business current account) ⁶	100.0	106.0	124.3	141.2	152.4	164.2	177.6	.....	177.6	195.3	.....	195.3	219.8	.....	219.8	245.4	.....	245.4
Public sewer systems (see above, government, fixed capital) ⁶	100.0	107.4	117.2	124.2	132.8	142.3	156.2	.....	156.2	174.9	.....	174.9	188.0	.....	188.0	204.0	.....	204.0

The Federal Grants Program for Publicly Owned Wastewater Treatment Works

The description that follows of the Federal program of grants-in-aid for the construction of publicly owned treatment works is to provide background information about a major part of total PAC spending: construction of public sewer systems. These systems accounted for 16½ percent of real PAC spending during 1972-81, and decreases in their construction were major factors in the decreases in total PAC spending in 1980 and 1981.

The Federal Water Pollution Control Act Amendments of 1972 established the existing grants program. Among the provisions, two are of special note: (1) For approved wastewater treatment works projects, the Federal share of the covered construction costs (State and local governments pay all costs not covered, e.g., for sewage collection systems of less than the trunk-line level) was 75 percent and the State and local share, 25 percent; (2) municipalities were required to meet secondary treatment requirements by July 1977. Approval of a project was contingent mainly on conformance of technology to that for medium-to-large scale collection and central processing of wastes, but rationing of available funds was also involved. Secondary treatment of wastewater was generally considered to be biological treatment (e.g., using bacterial action) in contrast to primary treatment, a lower level of treatment that is largely mechanical (e.g., using screening devices). Secondary treatment requirements were set at a stringent level and were described both in terms of percent removal of wastes and quality of effluent. When designing the program, Congress expected that the Federal share of construction costs would remain high until the backlog of needs for construction was eliminated and that substantial progress toward eliminating the backlog could be made in 5 years.

The wastewater treatment works grants program was beset during 1972-81 by difficulties stemming from its design and by external difficulties. These sources of difficulties combined after 1977 to bring an end to steady increases in real grants; grants decreased each year thereafter, except in 1979. Decreases were significant in 1978 and 1981. The difficulties stemming from the program's design gradually became apparent: (1) The preferred—i.e., grant-eligible—pollution abatement technology was high cost relative to alternatives, and operation costs, borne by municipalities alone, were large; (2) secondary treatment requirements were set at a level difficult to attain even with the preferred technology; and (3) although the preferred technology was affordable only in densely populated areas, the treatment requirements were uniform for all areas. The external difficulties were inflation and, later, high interest rates. Inflation accelerated after 1972, escalating construction costs and depleting Federal as well as State and local funds. As a result of difficulties (1) and (2) in combination with inflation, only one-half of major municipal systems met secondary treatment requirements by 1977. As a result of difficulty (3), most other treatment systems did not meet the requirements. The taxpayer resistance to growth in State and local government programs that became increasingly apparent around 1978 augmented concern over the extent to which construction and operation of high-cost treatment

systems should continue to be encouraged. Inflation contributed to taxpayer resistance, on the one hand, by raising tax bases and taxes and, on the other, by requiring enlarged bond issues to cover the escalating construction costs. High interest rates made it difficult for State and local governments to finance their costs, which accounted for an average of 56 percent of total sewer systems construction costs in 1978 and 39 percent in 1981. Despite these difficulties, 75 percent of public sewer systems met secondary treatment requirements by 1980.

These difficulties led, in time, to changes in program legislation. Amendments in 1977 mandated investigation of alternatives to the preferred technology. The emphasis was to be on medium-to-large scale collection technology and central processing of wastes rather than septic systems or networks thereof, notwithstanding their advantages. The Federal share of construction costs for alternatives that were innovative was increased as an incentive for their exploration. Amendments in 1977 also extended the deadline for meeting secondary treatment requirements to 1983 and allowed, under specified conditions, increased discharge of wastes into the ocean. The latter change increased the options of municipalities without liberalizing secondary treatment requirements. Amendments in 1981 extended the deadline for meeting secondary treatment requirements to 1988 and liberalized requirements for some locations, allowing oxidation ponds, lagoons, and trickling filters to be used if their use would not adversely affect water quality. These amendments also decreased the Federal share of construction costs to 55 percent beginning in fiscal year 1985. The decrease was meant to cause some shift away from the technology preferred until 1985 and indicated that, although this technology was not being put in place at the rate or to the extent originally envisioned by Congress, it was being put in place where most needed. The decrease was viewed as allowing markets to have an increased influence on technology selection and as reducing Federal involvement in State and local government decisionmaking. The long-term effect of these program changes will probably be annual decreases in grants; a decrease in grant is indicated by available data for 1982. A surge in the mid-1980's is possible if State and local governments rush to take advantage of the remaining years of higher Federal funding.

Although the substantial increases in grants during 1972-77 were the primary stimulus to the increases in spending for construction of public sewer systems, after 1977 factors other than changes in grants—external factors impacting directly on State and local governments—began strongly to influence sewer systems construction. Unless their depressing effect on sewer systems construction is reversed (e.g., by lower interest rates, a strong recovery in housing construction requiring connection to sewer systems, or a resurgence of concern about the impact of residential growth on water quality), these external factors, in combination with the expected decreases in grants, will lead to further decreases in sewer systems construction.

compared with a 13½-percent increase in 1980. Energy prices accounted for much of the deceleration. A fixed-weighted index of energy-purchase components (about 10 percent of total PAC) decelerated from an increase of 28 percent in 1980 to 11 percent in 1981. A PAC fixed-weighted index that excludes these components decelerated much less—from a 10-percent increase in 1980 to a 9½-percent increase in 1981.

The increase in the implicit price deflator slowed to 9 percent from 13 percent in 1980. The implicit price deflator measures the average price of PAC purchases in each year; changes in the deflator reflect changes in prices and shifts in the composition of PAC purchases from year to year. The chain and fixed-weighted price indexes, because the composition of PAC purchases in them is held constant, measure only changes in prices. (The chain index is based on the composition of purchases in each preceding year and the fixed-weighted price index is based on the composition of purchases in a base year, 1972.)

Real PAC spending in 1982.—A continued decrease in spending in 1982, larger in absolute terms than in 1981, is indicated by the limited information available as of early 1983. Public sewer systems construction spending decreased, as indicated by data for the first three quarters. Business PA plant and equipment spending decreased, assuming business spending plans reported in a BEA survey in

Table 3.—Constant-Dollar Spending by Business and Government for Solid Waste Collection and Disposal and Related Series

Line	1972	1973	1974	1975	1976	1977	1978 ^r	1979 ^r	1980 ^r	1981 ^p	
Millions of constant (1972) dollars											
Solid waste collection and disposal by means acceptable to Federal, State, and local authorities.....	1	3,416	3,429	3,554	3,575	3,816	3,982	4,253	4,484	4,513	4,644
Solid waste management.....	2	4,680	4,687	4,854	4,897	5,206	5,413	5,769	5,980	6,104	6,281
Pollution abatement.....	3	887	994	1,162	1,260	1,438	1,619	1,897	2,171	2,356	2,554
Other ¹	4	3,792	3,693	3,693	3,637	3,769	3,795	3,872	3,809	3,748	3,727
Percent change from preceding year											
Solid waste collection and disposal by means acceptable to Federal, State, and local authorities.....	5		.4	3.6	.6	6.7	4.4	6.8	4.2	1.8	2.9
Solid waste management.....	6		.1	3.6	.9	6.3	4.0	6.6	3.6	2.1	2.9
Pollution abatement.....	7		12.1	16.9	8.4	14.1	12.6	17.2	14.5	8.5	8.4
Other ¹	8		-2.6	0	-1.5	3.6	.7	2.0	-1.6	-1.6	-6

^rRevised.
^pPreliminary.
 1. Consists of spending for the avoidance of the slowing of production or consumption activity due to the accumulation of solid waste and for other purposes except pollution abatement.

late 1981 were realized.² Motor vehicle emission abatement devices spending decreased, as indicated by only minor additions of devices for model year 1982 and decreased unit sales of vehicles. The sum of these decreases is large. Information for all other categories is sketchy, but there is no indication of a substantial increase.

Revisions in real spending, 1978-80.—The last 3 years of the PAC spending series have been revised. Revisions were upward each year: \$0.2 billion in 1978, \$0.5 billion in 1979, and \$0.3 billion in 1980. The two

major components revised were motor vehicle emission abatement devices spending and nonmanufacturing (excluding electric utilities) air and water PA current-account spending. The incorporation of new data on imported light-duty trucks and the reclassification by the Environmental Protection Agency of trucks into light- and heavy-duty weight classes led to upward revisions of abatement device spending (i.e., "personal consumption, durables" plus "business capital, motor vehicle emission abatement" spending) from \$0.1 to \$0.3 billion in each of the 3 years. The incorporation of information for an additional year led to a higher ratio of nonmanufacturing to manufacturing net capital stocks of PA plant and

2. For details, see Gary L. Rutledge and Betsy D. O'Connor, "Plant and Equipment Expenditures by Business for Pollution Abatement, 1981 and Planned 1982," SURVEY 62 (June 1982): 17-21 and 72.

Table 5.—Federal Grants-in-Aid to State and Local Governments for

Line	1972	1973	1974	1975	1976	1977	1978 ^r					
	Total	Air	Water	Solid waste	Other and unallocated							
Millions of												
Pollution abatement and control.....	1	923	1,057	2,242	2,870	3,386	4,061	4,150	71	4,012	25	42
Pollution abatement.....	2	758	916	2,112	2,721	3,189	3,815	3,879	(*)	3,871	7	1
Regulation and monitoring.....	3	66	76	91	102	151	194	214	63	124	15	12
Research and development.....	4	99	65	39	47	45	51	57	8	17	4	29
Millions of constant												
Pollution abatement and control.....	5	923	983	1,906	2,304	2,546	2,847	2,644	45	2,556	16	28
Pollution abatement.....	6	758	851	1,794	2,186	2,401	2,679	2,471	(*)	2,466	4	1
Regulation and monitoring.....	7	66	71	78	79	110	132	136	40	78	9	8
Research and development.....	8	99	61	34	38	35	37	38	5	11	3	19

^rRevised.

^pPreliminary.

*Less than \$500,000.

1. Constant-dollar estimates are derived using measures of price change of goods and services purchased by State and local governments for pollution abatement and control.

Table 4.—Percent Change From Preceding Year in Pollution Abatement and Control Expenditures (Total and Selected Components) in Current and Constant Dollars, Implicit Price Deflators, and Price Indexes

	1972-80 average annual rate ¹	1973	1974	1975	1976	1977	1978 ^r	1979 ^r	1980 ^r	1981 ^p
Pollution abatement and control—total:										
Current dollars.....	14.9	19.0	19.8	17.8	12.2	9.5	14.4	14.9	12.3	7.6
1972 dollars.....	4.7	11.8	3.4	8.0	5.7	2.0	6.2	2.3	-8	-1.2
Implicit price deflator.....	9.6	6.4	15.9	9.0	6.1	7.4	7.7	12.4	13.2	8.9
Chain price index.....		6.5	15.9	9.8	6.2	7.2	7.7	12.4	13.5	9.4
Fixed-weighted price index.....	9.9	6.5	15.9	9.8	6.2	7.4	7.9	12.4	13.4	9.5
Pollution abatement and control—air:										
Current dollars.....	18.7	28.4	25.5	22.9	10.3	10.0	11.2	21.4	21.8	15.2
1972 dollars.....	7.1	20.8	3.3	12.7	4.7	2.7	3.9	5.5	4.7	7.7
Implicit price deflator.....	10.8	6.2	21.6	9.1	5.4	7.1	7.0	15.0	16.2	6.9
Chain price index.....		6.5	21.7	10.8	5.7	7.3	7.1	15.6	17.5	9.4
Fixed-weighted price index.....	11.7	6.5	22.5	10.9	5.7	7.7	7.0	15.8	18.1	10.1
Business capital—air:										
Current dollars.....	14.9	37.9	16.7	25.7	-3	3.8	7.3	18.8	13.9	9.6
1972 dollars.....	6.2	32.0	1.3	13.6	-4.7	-2.0	.8	9.5	3.9	2.6
Implicit price deflator.....	8.1	4.5	15.2	10.6	4.7	5.9	6.4	8.5	9.7	6.9
Chain price index.....		4.5	15.7	11.7	5.3	6.5	7.0	9.1	10.0	9.2
Fixed-weighted price index.....	8.8	4.5	15.9	11.9	5.2	6.7	6.6	9.4	10.6	10.3
Business current account, private—air:										
Current dollars.....	23.1	18.2	42.6	20.0	17.6	17.1	15.6	27.9	28.6	13.3
1972 dollars.....	7.0	7.3	5.4	9.1	11.3	6.7	7.6	5.5	3.4	1.7
Implicit price deflator.....	15.0	10.1	35.3	10.0	5.2	9.8	7.5	21.2	24.4	11.3
Chain price index.....		10.2	37.2	10.4	5.6	9.4	7.5	20.7	23.6	11.3
Fixed-weighted price index.....	14.7	10.2	37.2	10.5	5.5	9.9	8.0	18.4	21.2	11.5
Pollution abatement and control—water:										
Current dollars.....	12.5	15.6	15.3	16.6	14.4	8.5	18.0	9.7	2.9	-3.1
1972 dollars.....	2.9	8.4	2.1	6.6	6.6	.4	8.4	-1.0	-6.8	-12.5
Implicit price deflator.....	9.2	6.7	12.8	9.4	7.2	8.1	9.0	10.8	10.4	10.7
Chain price index.....		6.7	13.0	9.6	7.0	7.5	8.8	10.5	10.2	9.5
Fixed-weighted price index.....	9.2	6.7	12.9	9.7	7.2	7.6	9.2	10.4	9.9	9.3
Business capital—water:										
Current dollars.....	8.0	16.0	1.5	13.2	16.6	9.4	7.7	5.7	-3.8	-7.1
1972 dollars.....	-8	9.5	-10.0	2.3	9.1	1.8	-1.1	-4.2	-11.4	-15.7
Implicit price deflator.....	8.8	5.9	12.7	10.1	6.9	7.4	9.0	10.3	8.5	10.2
Chain price index.....		6.0	12.7	10.5	6.8	7.1	8.5	10.2	9.0	10.3
Fixed-weighted price index.....	8.9	6.0	12.3	10.6	7.5	7.4	8.7	10.3	9.0	10.0
Business current account, private—water:										
Current dollars.....	17.9	17.4	21.0	19.1	20.8	19.1	20.7	15.7	10.5	11.3
1972 dollars.....	6.0	10.3	.7	3.5	11.9	9.2	12.6	5.5	-4.4	1.0
Implicit price deflator.....	11.2	6.4	20.1	15.1	8.0	9.1	7.2	9.6	15.6	10.2
Chain price index.....		6.3	20.2	15.1	7.6	8.8	6.9	9.5	16.0	10.3
Fixed-weighted price index.....	11.0	6.3	20.0	15.0	7.6	8.8	6.8	9.3	15.5	10.1
Pollution abatement and control—solid waste:										
Current dollars.....	12.3	8.2	16.8	8.4	11.5	10.3	13.4	16.0	14.6	13.5
1972 dollars.....	3.7	.8	4.3	.9	6.3	4.2	6.8	4.6	2.3	4.2
Implicit price deflator.....	8.2	7.3	11.9	7.5	5.0	5.8	6.1	10.9	12.1	8.9
Chain price index.....		7.3	12.0	7.5	4.9	5.8	6.2	10.8	12.1	9.1
Fixed-weighted price index.....	8.3	7.3	12.0	7.4	4.9	5.9	6.3	10.8	12.1	9.1

^rRevised.

^pPreliminary.

1. Compounded annually; not calculated for chain price index because it is defined for adjacent years only.

Pollution Abatement and Control in Current and Constant Dollars ¹

1979 ^r					1980 ^r					1981 ^p					Line
Total	Air	Water	Solid waste	Other and unallocated	Total	Air	Water	Solid waste	Other and unallocated	Total	Air	Water	Solid waste	Other and unallocated	
current dollars															
5,099	81	4,898	43	77	5,241	85	5,027	53	76	4,836	88	4,591	88	68	1
4,797	(*)	4,784	7	6	4,928	(*)	4,910	9	9	4,532	(*)	4,476	26	30	2
231	73	93	38	32	249	80	94	42	34	276	88	103	59	25	3
71	7	21	3	39	64	5	23	3	33	28	(*)	11	4	13	4
(1972) dollars															
2,914	48	2,794	26	46	2,778	45	2,662	29	41	2,369	43	2,249	45	32	5
2,734	(*)	2,727	4	3	2,608	(*)	2,599	5	4	2,219	(*)	2,193	13	12	6
137	43	55	19	19	134	42	50	23	19	135	42	51	30	13	7
43	5	12	2	24	35	3	13	2	18	15	(*)	6	2	7	8

equipment, which, in turn, led to upward revisions in nonmanufacturing air plus water PA current-account spending of \$0.1 billion in each year.

Real spending for air and water PA, 1972-81

Air and water PA, which accounts for most of PAC spending, is discussed in this section using classifications in Federal legislation (tables 6 and 7). For air PA, the Clean Air Act classifies sources of pollutants as mobile (e.g., cars) or stationary (e.g., factories). For water PA, the Federal Water Pollution Control Act classifies sources as point (e.g., factories) or nonpoint (e.g., highway construction projects).

Spending to reduce emissions of air pollutants from mobile and stationary sources combined increased at an average annual rate of 7 percent during 1972-81. Spending for mobile sources increased at an average rate of 14 percent; spending for stationary sources increased at a rate of 1 percent. Spending for emission abatement devices for mobile sources increased much faster than spending to operate the devices, 23½ percent compared with 5 percent (average annual increases).

Spending for air PA facilities for stationary sources was less in 1981 than in 1972. For the subperiod 1972-75, the average annual increase was 4½ percent, but for 1975-81 spending decreased. Annually, spending for facilities was volatile, with increases in 4 years and decreases in 5. Spending to operate these facilities increased steadily from 1975 to 1980 at an annual rate of 7 percent and decreased 1½ percent in 1981.

Water PA spending for point sources increased at an average annual rate of 1½ percent during 1972-81. Spending for water PA facilities for point sources was less in 1981 than in 1972. For 1972-75, the average annual increase was 7½ percent, but for 1975-81 spending decreased. Spending increased every year in the early period, but decreased in 4 out of 6 years in the later period. Spending to operate water PA facilities increased every year except 1980; the average increase for the period was 6 percent. Spending estimates for non-

point sources are of limited coverage, but indicate that spending decreased at an average annual rate of 6 percent during 1972-81.

Business PAC costs, 1972-81

One possible measure of the costs associated with PAC is the costs of conforming to PAC rules and regula-

tions.³ For business, such a measure would include, in addition to business current-account PA spending, a capi-

3. Alternatively, business PAC costs are the amount by which business costs exceed what they would have been in the absence of PAC rules and regulations. In both formulations, regulations refer to legal requirements, and rules—written and unwritten—refer to additional expressions of community and business concern for PAC.

Table 6.—Constant-Dollar Spending for Abatement of Air Pollutant Emissions from Mobile and Stationary Sources¹

[Millions of constant (1972) dollars]

	1972	1973	1974	1975	1976	1977	1978 ^r	1979 ^r	1980 ^r	1981 ^p
Total	6,230	7,130	7,428	8,514	8,912	9,105	9,435	9,974	10,504	11,402
Mobile sources²	2,196	2,869	3,315	4,119	4,579	4,820	5,142	5,425	5,829	7,045
Devices	701	1,008	1,070	1,853	2,276	2,583	2,824	3,151	3,602	4,718
Cars	588	843	865	1,578	1,942	2,236	2,852	2,489	3,105	4,257
Catalytic	0	0	200	917	1,086	1,187	1,204	1,266	1,436	1,590
Noncatalytic	588	843	665	660	856	1,049	1,148	1,223	1,669	2,667
Trucks	113	165	205	276	335	347	472	662	497	461
Operation of devices	1,495	1,861	2,245	2,266	2,303	2,237	2,318	2,274	2,227	2,327
Cars	1,348	1,658	1,886	1,784	1,668	1,475	1,404	1,228	1,049	999
Trucks	147	203	359	481	635	762	913	1,046	1,178	1,328
Stationary sources	4,034	4,261	4,113	4,395	4,333	4,285	4,293	4,549	4,675	4,357
Facilities	2,626	2,864	2,827	2,997	2,741	2,577	2,492	2,640	2,726	2,438
Industrial	2,563	2,786	2,745	2,926	2,638	2,457	2,377	2,496	2,541	2,253
Manufacturing	1,142	1,453	1,595	1,640	1,254	1,095	1,155	1,177	1,061	1,000
Nonmanufacturing	1,421	1,332	1,150	1,286	1,384	1,362	1,222	1,319	1,455	1,253
Other⁴	63	78	82	71	103	120	115	144	185	185
Operation of facilities	1,408	1,397	1,286	1,398	1,592	1,708	1,801	1,909	1,949	1,919
Industrial	1,329	1,323	1,216	1,317	1,498	1,621	1,724	1,829	1,867	1,840
Manufacturing	772	745	686	756	833	942	980	1,018	1,005	1,001
Nonmanufacturing	557	582	529	560	615	679	744	811	862	839
Other⁵	79	69	70	82	95	87	77	80	82	79

^rRevised.

^pPreliminary.

1. The Clean Air Act classifies sources of pollutants as either mobile, such as passenger cars, or stationary, such as factories.

2. Excludes spending to reduce emissions from mobile sources other than cars and trucks; such spending was insignificant during 1972-81.

3. These estimates are from sources requiring updating; evidence suggesting less spending is accumulating.

4. Consists of spending for fixed capital of government enterprises such as the Tennessee Valley Authority.

5. Consists of spending to operate government enterprises and all spending by government; separate data on spending to acquire and operate government pollution abatement facilities are not available.

Table 7.—Constant-Dollar Spending for Abatement of Water Pollutant Emissions from Point Sources¹

[Millions of constant (1972) dollars]

	1972	1973	1974	1975	1976	1977	1978 ^r	1979 ^r	1980 ^r	1981 ^p
Total	7,551	8,214	8,535	9,298	9,916	9,923	10,823	10,641	9,875	8,644
Facilities	5,436	5,831	6,073	6,711	7,098	6,845	7,421	7,132	6,480	5,144
Industrial	1,411	1,585	1,596	1,945	2,188	2,050	1,928	1,809	1,698	1,425
Manufacturing	626	838	852	999	1,173	1,164	801	725	615	495
Nonmanufacturing	785	746	744	947	964	886	1,127	1,084	1,083	930
Public sewer systems, private connectors to them, and other	4,025	4,246	4,482	4,765	4,960	4,795	5,493	5,323	4,782	3,719
Public sewer systems and private connectors	3,993	4,193	4,418	4,717	4,906	4,739	5,409	5,265	4,786	3,687
Other²	32	54	64	49	54	56	84	58	46	32
Operation of facilities	2,115	2,384	2,457	2,586	2,818	3,077	3,402	3,509	3,441	3,500
Industrial	912	1,021	1,023	1,062	1,210	1,337	1,525	1,617	1,531	1,544
Manufacturing	591	655	646	671	760	843	892	938	884	891
Nonmanufacturing	321	366	376	392	450	494	633	679	647	653
Public sewer systems, private connectors to them, and other	1,203	1,363	1,435	1,524	1,609	1,740	1,877	1,892	1,910	1,956
Public sewer systems and private connectors	1,124	1,234	1,264	1,304	1,413	1,542	1,671	1,742	1,786	1,831
Other³	79	129	171	220	196	198	206	150	124	125

^rRevised.

^pPreliminary.

1. The Federal Water Pollution Control Act defines point sources as facilities that discharge to a body of water through a pipe or ditch.

2. Consists of spending by owners of feedlots and spending for fixed capital of government enterprise such as the Tennessee Valley Authority.

3. Consists of spending to operate government enterprises and all spending by government; separate data on spending to acquire and operate government pollution abatement facilities are not available.

tal consumption allowance, a net imputed return for PA capital, and research and development spending.⁴ Estimates of business PAC costs have been prepared for 1972-81 (table 8).⁵ Business PAC costs in current dollars increased at an average annual rate of 17½ percent during 1972-81. The two major components, "costs of PAC-induced modifications in final products" and "costs of business PAC of its own wastes," increased at average rates of 20½ percent and 16½ percent,

4. Net imputed return is what businesses would have earned if capital used for PA had been used for purposes other than PA (i.e., what businesses forego when they use capital for PA); it is estimated as the PA net capital stock multiplied by the ratio of nonlabor earnings to assets for nonfarm corporate business.

5. Information on sources and methods used in these estimates will be provided upon request. Send requests to U.S. Department of Commerce, Bureau of Economic Analysis, BE-62, Washington, D.C. 20230.

respectively. The addition of emission abatement devices to motor vehicles is an example of the former kind of costs, and the use of electricity to operate the wastewater treatment works of a manufacturing operation is an example of the latter.

What is generated by business PAC costs, although not a final demand in the framework of the national income and product accounts (NIPA's), has characteristics of a final demand: the clean air and water they generate are products, albeit unconventional ones, for consumption, and are not inputs to further production. Further, business PAC costs, although not a tax, have characteristics of a tax: (1) they are not used to benefit the businesses directly affected, but rather to purchase resources used for collective consumption, and (2) the costs may be

shifted forward or backward as markets allow. For some types of analysis, users of the NIPA's may want to consider the provision of clean air and water as collective consumption and the tax characteristics of business PAC costs. Doing so may improve the internal logic of the study and suggest useful interpretations of results. To date, resource absorption has been considered systematically only for those cost components classified as final demand in the NIPA's; specifically, economic growth models have excluded PA capital but not labor and materials. The tax characteristics of business PAC costs as a whole have not been considered, although two aspects have been: business PA as affecting relative prices, and business PA capital as reducing the rate of return.

Table 8.—Business Pollution Abatement and Control (PAC) Costs in Current Dollars¹

	(Millions of dollars)										
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	
Business PAC costs	12,807	15,019	16,875	20,885	25,619	30,803	35,907	40,845	46,005	53,880	
Costs of PAC-induced modifications in final products.....	2,023	2,551	2,492	3,386	4,385	5,346	6,403	7,542	8,562	10,945	
Residential systems ²	1,260	1,468	1,268	1,063	1,250	1,576	1,873	2,057	1,780	1,664	
Motor vehicles ³	701	1,009	1,150	2,225	3,012	3,634	4,375	5,306	6,561	8,983	
Adjustment to market price valuation ⁴	62	74	73	98	123	137	155	179	221	298	
Costs of business PAC of its own wastes ⁵	10,784	12,468	14,384	17,499	21,234	25,457	29,505	33,303	37,443	42,935	
Residential business.....	4,519	4,700	4,488	5,261	6,153	7,180	7,913	8,058	8,006	8,966	
Current costs.....	195	211	229	247	268	292	315	337	360	383	
Capital costs ⁶	4,091	4,259	4,040	4,747	5,578	6,542	7,227	7,346	7,242	8,104	
Capital consumption allowance.....	540	582	673	766	852	936	1,046	1,179	1,308	1,441	
Net imputed return ⁷	2,841	2,959	2,606	3,117	3,782	4,610	5,214	5,199	4,946	5,614	
Adjustment to a market price valuation ⁴	253	290	219	267	306	345	371	374	405	479	
Nonfarm nonresidential business.....	6,265	7,768	9,896	12,238	15,081	18,277	21,592	25,245	29,437	33,969	
Current costs.....	2,789	3,341	4,817	5,679	6,799	7,960	9,507	11,870	14,735	16,717	
Motor vehicles.....	495	610	1,060	1,294	1,492	1,659	1,912	2,640	3,804	4,523	
Air and water pollution abatement, except motor vehicles.....	2,620	3,013	3,799	4,512	5,395	6,441	7,665	9,190	10,656	11,757	
Solid waste pollution abatement.....	162	188	495	566	799	846	1,005	1,400	1,885	2,224	
Costs recovered.....	-423	-470	-538	-693	-887	-966	-1,075	-1,360	-1,610	-1,788	
Capital costs ⁶	3,042	3,942	4,503	5,845	7,459	9,319	10,999	12,144	13,321	15,640	
Capital consumption allowance.....	969	1,264	1,738	2,278	2,804	3,388	4,039	4,885	5,862	7,015	
Motor vehicles.....	46	70	107	168	250	350	480	646	852	1,101	
Air and water pollution abatement, except motor vehicles.....	984	1,180	1,607	2,074	2,505	2,972	3,470	4,118	4,847	5,708	
Solid waste pollution abatement.....	5	14	24	37	49	66	89	120	163	209	
Net imputed return ⁷	1,611	2,080	2,081	2,739	3,583	4,670	5,563	5,767	5,789	6,310	
Motor vehicles.....	35	50	56	91	146	219	293	333	361	462	
Air and water pollution abatement, except motor vehicles.....	1,566	2,013	2,002	2,613	3,388	4,380	5,175	5,323	5,304	6,188	
Solid waste pollution abatement.....	10	17	22	35	49	71	95	110	124	160	
Research and development for pollution abatement.....	184	192	226	261	281	354	376	438	406	414	
Adjustment to a market price valuation ⁴	250	293	350	452	541	624	710	793	975	1,198	
Addendum:											
Net imputed return adjustment ⁸											
Residential business.....	381	487	1,391	1,384	1,146	722	655	1,404	2,357	2,342	
Nonfarm nonresidential business.....	216	342	1,111	1,216	1,085	731	699	1,558	2,759	2,841	

1. Derived from tables 1 and 2, detail underlying those tables, related national income and product account data, and capital stocks for pollution abatement. Information on sources and methods used in these estimates will be provided upon request.

2. Consists of the construction of private septic systems and sewer connections linking household plumbing to street sewers.

3. Consists of motor vehicle emission abatement systems and the added consumer expense of purchasing unleaded rather than leaded fuel.

4. Consists of sales-associated charges: part of indirect business taxes (those contingent upon sale), business transfer payments (made out of sales revenue), and the statistical discrepancy. These charges are measured as what they would have been if resources used for pollution abate-

ment had been used to produce final product. Business PAC costs are adjusted to market prices to make them comparable to other values at market prices.

5. Consists of the costs of a business' abatement of its own waste (self service), one business' abatement of another business' waste, and related research and development.

6. Includes items not shown separately, insurance and taxes on pollution abatement capital.

7. Consists of the pollution abatement net capital stock multiplied by the ratio of nonlabor earnings to assets for nonfarm corporate business and measures what businesses would have earned if capital used for pollution abatement had been used to produce final product.

8. The amount shown may be added to the net imputed return when a trended rather than an untrended earnings-to-assets ratio is required.

Gross Product of U.S. Multinational Companies, 1977

ESTIMATES of gross product of U.S. multinational companies (MNC's) by industry, country, and component in 1977 are presented in tables 1-5. The estimates are based on data collected in BEA's most recent benchmark survey of U.S. direct investment abroad.¹ Gross product is an economic accounting measure of production. MNC gross product measures U.S. parent companies' contribution to U.S. gross domestic product (GDP) and their foreign affiliates' contribution to foreign GDP. For a business, gross product can be defined as sales plus inventory change less purchases of intermediate goods and services; as such, gross product measures value added by the business. Alternatively, it can be defined as the sum of the charges against production. The MNC estimates presented here were prepared by summing such charges.

The MNC gross product estimates cover nonbank U.S. parents that had

NOTE.—Arnold Gilbert was responsible for the computer programming for the tables in this article. Ethel J. Wheeler provided statistical assistance.

1. U.S. MNC's are U.S. companies that have direct investment abroad. U.S. direct investment abroad exists when one U.S. person (U.S. parent) has a direct or indirect ownership interest of 10 percent or more in a foreign business enterprise (foreign affiliate). Detailed data and the methodology of the benchmark survey were published in U.S. Department of Commerce, Bureau of Economic Analysis, *U.S. Direct Investment Abroad, 1977* (Washington, D.C.: U.S. GPO, April 1981). Other articles on the benchmark survey data have appeared in the April and October 1981, and February and April 1982, issues of the *SURVEY OF CURRENT BUSINESS*.

at least one nonbank majority-owned foreign affiliate (MOFA), and their nonbank MOFA's. Coverage is limited to these parents and affiliates because, in the benchmark survey, the data needed to estimate gross product were collected only for them.²

Estimates of MNC gross product are valuable in measuring the overall size, economic impact, and distribution of MNC operations among industries and countries. They also can be used to analyze issues such as how MNC productivity compares with that of other businesses and how the income resulting from MNC production is distributed between labor and other factors of production.

Some key findings based on the gross product estimates are:

- U.S. MNC gross product was \$651.7 billion in 1977. U.S. parents accounted for 75 percent, and their MOFA's for 25 percent, of the total. The U.S. parent share was larger than that for MOFA's in every major industry except petroleum, where U.S. parents accounted for 46 percent and MOFA's for 54 percent.
- In manufacturing, U.S. parents accounted for 79 percent, and

2. MOFA's were defined in the benchmark survey as affiliates that were owned more than 50 percent by all U.S. parents combined and that had assets, sales, or net income of more than \$3 million in 1977. Coverage of the gross product estimates is the same as for data of "Group III" affiliates and their parents in *U.S. Direct Investment Abroad, 1977*. However, some of the data in this article do not agree with those previously published, because errors found in the latter have been corrected.

MOFA's for 21 percent, of total MNC gross product. The U.S. parent share was largest in primary and fabricated metals (88 percent) and smallest in nonelectrical machinery (70 percent).

- U.S. parent gross product totaled \$490.5 billion and accounted for one-third of all-U.S.-business GDP in 1977. Over three-fifths of U.S. parent gross product was in manufacturing.
- MOFA gross product totaled \$161.1 billion. Affiliates in manufacturing and petroleum accounted for the largest shares of the total—44 and 38 percent, respectively.
- Two-thirds of MOFA gross product was in developed countries and one-third in developing countries. Among individual countries, the gross product of MOFA's in Canada was by far the largest, accounting for over 17 percent of the total.
- MOFA's accounted for particularly large shares of total business GDP in Canada and Libya—17 percent in each. MOFA shares were also large in Ireland, Luxembourg, Indonesia, and Panama.
- From 1966 to 1977, MOFA gross product grew about 15 percent per year. Growth was somewhat faster in developing countries than in developed countries—16

(Text continued on p. 28)

Table 1.—Gross Product of U.S. MNC's, by Industry of U.S. Parent, 1977

	Amount			Distribution		
	Millions of dollars			Percent		
	MNC's world-wide	U.S. parents	MOFA's	MNC's world-wide	U.S. parents	MOFA's
All industries.....	651,665	490,529	161,136	100	75	25
Mining.....	2,415	1,974	441	100	82	18
Metal mining.....	853	680	173	100	80	20
Iron.....	(D)	(D)	(D)	100	(D)	(D)
Copper, lead, zinc, gold, and silver.....	(D)	(D)	(D)	100	(D)	(D)
Bauxite, other ores, and services.....	(D)	(D)	(D)	100	(D)	(D)
Coal and other nonmetallic minerals.....	1,562	1,294	268	100	88	17
Petroleum.....	114,051	52,052	61,999	100	46	54
Oil and gas extraction.....	4,384	3,546	838	100	81	19
Crude petroleum (no refining) and gas.....	3,052	2,368	685	100	78	22
Oil and gas field services.....	1,332	1,178	154	100	88	12
Petroleum and coal products.....	101,137	43,238	57,899	100	43	57
Integrated refining and extraction.....	100,837	42,941	57,896	100	43	57
Refining without extraction.....	(D)	(D)	—	100	(D)	(D)
Petroleum and coal products, nec.....	(D)	(D)	8	100	(D)	(D)
Petroleum wholesale trade.....	5,109	2,193	2,917	100	43	57
Other.....	3,420	3,075	345	100	90	10
Manufacturing.....	382,280	301,286	80,994	100	79	21
Food and kindred products.....	27,871	21,782	6,088	100	78	22
Grain mill and bakery products.....	4,976	4,088	887	100	82	18
Beverages.....	5,016	3,905	1,111	100	78	22
Other.....	17,879	13,789	4,090	100	77	23
Chemicals and allied products.....	51,547	39,133	12,413	100	76	24
Industrial chemicals and synthetics.....	28,970	23,320	5,650	100	81	20
Drugs.....	11,259	7,697	3,562	100	68	32
Soap, cleaners, and toilet goods.....	7,486	4,911	2,575	100	66	34
Agricultural chemicals.....	(D)	(D)	(D)	100	(D)	(D)
Other.....	(D)	(D)	(D)	100	83	17
Primary and fabricated metals.....	40,209	35,380	4,829	100	88	12
Primary metal industries.....	27,318	24,800	2,518	100	91	9
Ferrous.....	19,065	18,227	838	100	96	4
Nonferrous.....	8,253	6,573	1,680	100	80	20
Fabricated metal products.....	12,890	10,579	2,311	100	82	18
Machinery, except electrical.....	60,402	42,356	18,046	100	70	30
Farm and garden machinery and equipment.....	3,388	2,793	595	100	82	18
Construction and related machinery.....	10,534	8,425	2,109	100	80	20
Office and computing machines.....	30,268	17,621	12,642	100	58	42
Other.....	16,218	13,518	2,700	100	83	17
Electric and electronic equipment.....	32,105	26,683	5,422	100	83	17
Household appliances.....	3,689	2,634	1,055	100	72	28
Radio, television, and communication equipment.....	7,859	7,084	775	100	90	10
Electronic components and accessories.....	3,456	2,784	672	100	81	19
Other.....	17,151	14,181	2,970	100	83	17
Transportation equipment.....	88,513	71,302	17,211	100	81	19
Motor vehicles and equipment.....	82,507	47,979	14,528	100	77	23
Other.....	26,006	23,323	2,683	100	90	10
Other manufacturing.....	81,633	64,649	16,983	100	79	21
Tobacco manufactures.....	9,841	6,023	3,818	100	61	39
Textile products and apparel.....	9,198	8,079	1,119	100	88	12
Lumber, wood, furniture, and fixtures.....	7,322	6,597	725	100	90	10
Paper and allied products.....	12,034	9,708	2,325	100	81	19
Printing and publishing.....	5,916	5,260	656	100	89	11
Rubber products.....	9,902	7,328	2,574	100	74	26
Miscellaneous plastics products.....	1,576	1,285	292	100	81	19
Glass products.....	2,792	2,191	601	100	78	22
Stone, clay, cement, and concrete.....	4,872	3,806	1,066	100	78	22
Instruments and related products.....	13,940	10,656	3,284	100	76	24
Other.....	4,240	3,717	523	100	88	12
Trade.....	35,276	31,308	3,968	100	89	11
Wholesale trade.....	6,536	5,058	1,478	100	77	23
Durable goods.....	2,583	1,939	644	100	75	25
Nondurable goods.....	3,953	3,119	834	100	79	21
Retail trade.....	28,740	26,251	2,490	100	91	9
Finance (except banking), insurance, and real estate.....	29,230	22,825	6,404	100	78	22
Finance, except banking.....	3,012	2,488	524	100	83	17
Insurance.....	24,385	19,866	4,968	100	80	20
Real estate.....	85	72	13	100	85	15
Holding companies.....	1,108	399	709	100	36	64
Individuals, estates, and trusts ¹	190	—	190	100	—	100
Other industries.....	88,414	81,084	7,329	100	92	8
Agriculture, forestry, and fishing.....	(D)	(D)	(D)	100	(D)	(D)
Construction.....	(D)	(D)	(D)	100	71	29
Transportation, communication, and public utilities.....	66,569	63,823	2,746	100	96	4
Transportation.....	18,771	17,287	1,483	100	92	8
Communication and public utilities.....	47,798	46,536	1,262	100	97	3
Services.....	11,674	9,950	1,724	100	85	15

MNC = multinational company.

MOFA = majority-owned foreign affiliate.

² Suppressed to avoid disclosure of data of individual companies.

¹ Consists of U.S. parents that were individuals, estates, or trusts directly holding investments. None of these were required to report financial and operating data in the 1977 benchmark survey. No foreign affiliates are classified in this category; however, when affiliate data are classified by industry of U.S. parent, the data for affiliates of individuals, estates, and trusts are

shown in this category.

NOTE.—Data for both U.S. parents and MOFA's are classified in a single industry—that of the U.S. parent. (In tables 2, 3, and 5, data for affiliates are classified by industry of affiliate.) Although this table focuses on the MNC as a whole, industry of parent rather than industry of MNC was used for classification because an MNC-wide industry code based on the worldwide consolidated activities of the MNC was not available from the 1977 benchmark survey.

Table 2.—Gross Product of MOFA's, Country by Industry of Affiliate, 1977

[Millions of dollars]

	All industries	Mining	Petroleum	Manufacturing								Trade	Finance (except banking, insurance, and real estate)	Other industries
				Total	Food and kindred products	Chemicals and allied products	Primary and fabricated metals	Machinery, except electrical	Electric and electronic equipment	Transportation equipment	Other manufacturing			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
All countries	161,136	2,912	62,010	71,609	5,598	10,075	4,231	13,555	8,062	13,921	16,165	14,316	1,948	8,341
Developed countries	107,487	2,199	25,803	60,223	4,267	7,744	3,551	12,539	6,502	12,362	13,259	12,185	1,473	5,605
Canada.....	27,783	1,198	6,110	15,151	1,364	1,623	1,346	1,682	1,276	3,815	4,044	1,944	910	2,468
Europe.....	69,360	32	16,944	40,441	2,455	5,412	2,091	9,540	4,935	7,705	8,303	8,897	276	2,770
European Communities (9).....	60,576	(P)	14,394	37,306	2,237	4,981	1,971	9,056	4,123	7,259	7,679	6,290	216	(P)
Belgium.....	4,244	1	543	2,605	88	524	110	341	622	(P)	909	21	165	
Denmark.....	672	0	(P)	123	26	(P)	(P)	1	46	0	227	(P)	(P)	
France.....	9,688	0	(P)	6,203	341	812	165	2,122	655	1,045	1,064	1,177	(P)	
Germany.....	18,115	(P)	4,424	12,058	519	1,242	760	3,080	1,262	3,290	1,904	1,240	78	
Ireland.....	762	3	188	485	62	152	10	76	32	8	146	83	-2	
Italy.....	5,825	0	2,480	2,744	199	447	114	909	449	178	447	490	23	
Luxembourg.....	198	0	23	175	0	(P)	(P)	32	5	0	(P)	3	-4	
Netherlands.....	4,209	0	887	2,235	278	592	267	589	123	(P)	678	19	390	
United Kingdom.....	16,861	(*)	3,793	10,679	724	1,145	529	1,905	930	2,292	3,155	1,483	18	
Other Europe.....	8,784	(P)	2,550	3,135	218	431	120	484	812	446	624	2,607	60	
Austria.....	844	0	(P)	226	25	17	12	(P)	(P)	(P)	70	313	0	
Greece.....	389	2	235	100	9	37	(P)	0	9	0	(P)	38	5	
Norway.....	1,655	(P)	1,207	173	0	(P)	(P)	4	(P)	0	27	233	-5	
Portugal.....	178	0	(P)	84	11	(P)	5	(P)	(P)	(P)	17	53	(P)	
Spain.....	2,019	0	8	1,479	115	250	38	117	438	390	130	433	7	
Sweden.....	1,103	0	294	518	(P)	49	19	282	(P)	14	87	239	(P)	
Switzerland.....	2,015	0	321	449	(P)	49	(P)	42	107	0	195	1,064	42	
Turkey.....	266	1	(P)	69	2	4	0	0	(P)	(P)	(P)	12	0	
Other.....	317	0	34	32	0	1	(*)	0	(P)	0	(P)	222	1	
Japan.....	3,065	0	(P)	1,468	(P)	228	11	(P)	62	1	97	434	94	
Australia, New Zealand, and South Africa.....	7,279	968	(P)	3,163	(P)	481	102	(P)	228	840	815	910	192	
Australia.....	5,578	945	1,158	2,458	256	381	63	225	167	703	664	633	178	
New Zealand.....	384	4	(P)	153	(P)	21	0	8	8	(P)	38	64	6	
South Africa.....	1,317	19	(P)	546	(P)	80	39	104	53	(P)	114	213	8	
Developing countries	52,338	714	35,334	11,386	1,332	2,331	681	1,017	1,560	1,560	2,906	2,131	475	2,298
Latin America.....	16,036	579	3,072	9,533	1,156	1,981	587	889	920	1,506	2,494	1,495	348	1,009
South America.....	10,927	195	1,668	7,534	788	1,518	462	809	676	1,245	2,036	946	45	
Argentina.....	1,449	(P)	306	945	78	213	35	145	46	179	254	143	3	
Brazil.....	6,485	12	736	5,169	450	1,003	231	657	535	901	1,392	311	26	
Chile.....	162	(*)	(P)	82	6	21	(P)	0	(P)	(P)	(P)	30	0	
Colombia.....	532	-4	113	320	39	91	(P)	1	18	(P)	(P)	84	6	
Ecuador.....	307	0	(P)	35	9	10	4	0	5	0	6	(P)	0	
Peru.....	404	(P)	114	74	14	14	(P)	1	13	(P)	(P)	49	(*)	
Venezuela.....	1,370	0	97	745	163	165	36	5	45	115	212	304	10	
Other.....	216	(*)	(P)	184	28	1	(P)	0	(P)	(P)	(P)	(P)	1	
Central America.....	2,879	29	233	1,863	299	433	122	79	242	261	426	406	38	
Mexico.....	2,050	2	21	1,646	232	378	115	79	211	261	369	293	7	
Panama.....	289	(*)	89	26	(P)	9	0	0	0	0	73	27	75	
Other.....	539	27	123	191	(P)	46	6	0	32	(*)	(P)	40	4	
Other Western Hemisphere.....	2,230	355	1,170	136	69	30	4	0	2	0	32	142	266	
Bahamas.....	157	2	39	6	2	5	0	0	0	0	(*)	55	5	
Bermuda.....	398	0	56	0	0	0	0	0	0	0	0	49	268	
Netherlands Antilles.....	89	1	(P)	1	1	(*)	0	0	0	0	0	4	-14	
Trinidad and Tobago.....	(P)	0	(P)	(P)	(P)	(P)	0	0	1	0	(P)	4	1	
Other.....	(P)	352	138	(P)	(P)	(P)	4	0	1	0	(P)	30	6	
Other Africa.....	6,703	(P)	6,069	255	(P)	39	56	(P)	31	2	(P)	116	-8	
Saharan.....	3,449	0	3,295	40	(P)	6	(P)	0	0	0	(P)	32	0	
Egypt.....	344	0	332	4	0	4	0	0	0	0	0	0	0	
Libya.....	2,934	0	2,927	(P)	0	0	0	(P)	0	0	(P)	(P)	0	
Other.....	172	0	36	(P)	(P)	2	(P)	0	0	0	(P)	(P)	0	
Sub-Saharan.....	3,254	(P)	2,774	215	(P)	33	(P)	0	31	2	(P)	84	-8	
Liberia.....	44	3	3	2	2	0	0	0	0	0	0	4	-12	
Nigeria.....	1,848	0	1,736	54	2	24	1	0	0	0	(P)	(P)	2	
Other.....	1,362	(P)	1,035	160	(P)	9	(P)	0	(P)	2	(P)	(P)	2	
Middle East.....	22,260	(*)	21,120	103	(P)	41	0	(P)	23	0	(P)	106	(P)	
Israel.....	225	(P)	84	(P)	(P)	22	0	(P)	21	0	(P)	(P)	7	
OPEC.....	21,686	(*)	20,764	19	0	17	0	(*)	2	0	0	42	(P)	
Iran.....	0	(P)	16	0	0	15	0	0	2	0	0	34	-1	
Other.....	(P)	(*)	(P)	3	0	3	0	(*)	0	0	0	8	(P)	
Other.....	349	0	(P)	-1	(P)	1	0	(P)	0	0	(P)	(P)	1	
Other Asia and Pacific.....	7,339	(P)	5,073	1,495	121	270	37	105	586	51	325	415	(P)	
Hong Kong.....	542	0	71	199	2	19	(P)	22	117	0	(P)	174	24	
India.....	210	0	1	205	1	82	0	25	(P)	0	(P)	3	-1	
Indonesia.....	4,661	(P)	4,394	106	2	17	(*)	0	18	0	69	11	1	
Malaysia.....	333	(P)	161	122	(*)	12	(P)	2	80	2	(P)	28	1	
Philippines.....	549	0	(P)	278	79	70	(P)	0	23	(P)	77	42	(P)	
Singapore.....	400	0	105	210	(*)	2	20	45	127	(P)	(P)	55	-1	
South Korea.....	79	0	0	59	10	1	0	(P)	34	0	(P)	(P)	0	
Taiwan.....	260	0	9	224	16	23	0	(P)	147	(P)	(P)	24	(*)	
Thailand.....	254	2	(P)	58	8	14	1	0	(P)	0	(P)	59	(P)	
Other.....	52	0	3	33	3	30	0	0	2	0	-3	(P)	(P)	
International	1,311	0	873	0	0	0	0	0	0	0	0	0	0	438
Addendum—OPEC¹	32,948	(P)	30,227	963	181	234	41	7	83	115	301	427	(P)	1,190

MOFA—majority-owned foreign affiliate.

* Less than \$500,000 (±).

(P) Suppressed to avoid disclosure of data of individual companies.

1. Members of the Organization of Petroleum Exporting Countries (OPEC) are: Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, Venezuela, and United Arab Emirates.

Table 3.—Gross Product of MOFA's, Industry of Affiliate by Country, 1977

(Millions of dollars)

	All countries	Developed countries							Developing countries					International
		Total	Canada	Europe			Japan	Australia, New Zealand, and South Africa	Total	Latin America	Other Africa	Middle East	Other Asia and Pacific	
				Total	Europe-an Communities (9)	Other								
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
All industries	161,136	107,487	27,783	69,360	60,576	8,784	3,065	7,279	52,338	16,036	6,703	22,260	7,339	1,311
Mining.....	2,912	2,199	1,198	32	(P)	(P)	0	968	714	579	(P)	(*)	(P)	0
Metal mining.....	2,147	1,442	924	(P)	(P)	(P)	0	(P)	706	569	(P)	(*)	(P)	0
Iron.....	743	738	563	(P)	0	(P)	0	(P)	5	3	3	0	0	0
Copper, lead, zinc, gold, and silver.....	538	225	(P)	0	0	0	0	(P)	313	250	(P)	(*)	(P)	0
Bauxite, other ores, and services.....	867	479	(P)	(P)	(P)	1	0	309	388	317	(P)	0	(P)	0
Coal and other nonmetallic minerals.....	765	757	274	(P)	4	(P)	0	(P)	8	10	-3	0	1	0
Petroleum.....	62,010	25,808	6,110	16,944	14,394	2,550	(P)	(P)	35,334	3,072	6,069	21,120	5,073	873
Oil and gas extraction.....	18,639	5,517	2,835	2,220	1,275	945	(P)	(P)	12,935	1,194	5,447	1,881	4,413	187
Crude petroleum (no refining) and gas.....	17,536	5,061	2,722	1,879	(P)	(P)	(P)	(P)	12,475	1,033	5,307	1,752	4,383	0
Oil and gas field services.....	1,103	456	113	341	(P)	(P)	(*)	2	460	161	141	129	30	187
Petroleum and coal products.....	32,621	(P)	3,078	10,695	(P)	(P)	0	(P)	(P)	(P)	(P)	(P)	400	0
Integrated refining and extraction.....	26,735	(P)	(P)	5,981	0	0	0	(P)	(P)	(P)	(P)	(P)	(P)	0
Refining without extraction.....	5,889	5,083	(P)	4,691	(P)	(P)	0	(P)	756	(P)	0	0	0	0
Petroleum and coal products, nec.....	46	(P)	(P)	23	23	0	0	(P)	(P)	1	0	0	0	0
Petroleum wholesale trade.....	8,897	5,265	(P)	3,292	1,845	1,447	(P)	866	(P)	1,149	439	1,796	(P)	(P)
Other.....	1,854	(P)	(P)	737	(P)	(P)	0	(P)	(P)	(P)	(P)	(P)	(P)	(P)
Manufacturing.....	71,609	60,223	15,151	40,441	37,306	3,135	1,468	3,163	11,386	9,533	255	103	1,495	0
Food and kindred products.....	5,598	4,267	1,364	2,455	2,237	218	(P)	(P)	1,332	1,156	(P)	(P)	121	0
Grain mill and bakery products.....	1,246	1,026	308	612	548	64	2	109	219	194	(P)	0	(P)	0
Beverages.....	1,167	815	216	432	(P)	(P)	(P)	352	291	(P)	(P)	(P)	(P)	0
Other.....	3,186	2,425	846	1,411	(P)	(P)	4	165	761	671	18	1	71	0
Chemicals and allied products.....	10,075	7,744	1,623	5,412	4,981	431	228	481	2,331	1,981	39	41	270	0
Industrial chemicals and synthetics.....	3,786	3,045	859	1,997	1,820	177	13	176	741	697	0	11	33	0
Drugs.....	2,903	2,120	205	1,682	1,583	99	99	134	684	511	(P)	(P)	126	0
Soap, cleaners, and toilet goods.....	2,154	1,598	311	1,069	976	93	100	118	555	457	(P)	(P)	80	0
Agricultural chemicals.....	389	174	73	82	80	2	0	18	215	185	4	0	26	0
Other.....	943	807	175	582	522	60	16	34	136	130	0	0	6	0
Primary and fabricated metals.....	4,231	3,551	1,346	2,091	1,971	120	11	102	681	587	56	0	37	0
Primary metal industries.....	1,136	809	294	508	448	61	0	7	327	278	(P)	0	(P)	0
Ferrous.....	465	380	173	201	(P)	(P)	0	7	34	(P)	0	0	(P)	0
Nonferrous.....	672	429	121	308	(P)	(P)	0	(*)	243	(P)	0	0	0	0
Fabricated metal products.....	3,095	2,741	1,052	1,582	1,524	59	11	95	354	309	(P)	0	(P)	0
Machinery, except electrical.....	13,555	12,539	1,682	9,540	9,056	484	(P)	(P)	1,017	889	(P)	(P)	105	0
Farm and garden machinery and equipment.....	967	872	15	793	(P)	(P)	0	63	95	95	0	0	0	0
Construction and related machinery.....	2,083	1,816	269	1,372	1,263	110	(P)	(P)	267	254	(P)	(P)	(P)	0
Office and computing machines.....	8,047	7,584	950	5,714	(P)	(P)	(P)	(P)	463	(P)	0	(P)	81	0
Other.....	2,458	2,267	448	1,661	1,533	128	36	122	191	(P)	0	0	(P)	0
Electric and electronic equipment.....	8,062	6,502	1,276	4,985	4,123	812	62	228	1,560	920	31	23	586	0
Household appliances.....	1,414	1,308	586	625	551	75	0	97	106	89	0	0	17	0
Radio, television, and communication equipment.....	3,452	(P)	177	(P)	(P)	0	0	(P)	330	(P)	(P)	(P)	(P)	0
Electronic components and accessories.....	1,543	1,006	(P)	830	(P)	(P)	62	(P)	537	151	5	5	376	0
Other.....	1,654	(P)	(P)	(P)	(P)	0	0	(P)	350	(P)	(P)	(P)	(P)	0
Transportation equipment.....	13,921	12,362	3,815	7,705	7,259	446	1	840	1,560	1,506	2	0	51	0
Motor vehicles and equipment.....	13,584	12,063	3,640	7,591	7,145	446	1	831	1,521	(P)	2	0	(P)	0
Other.....	337	299	176	114	114	0	0	9	39	(P)	0	0	(P)	0
Other manufacturing.....	16,165	13,259	4,044	8,303	7,679	624	97	815	2,906	2,494	(P)	(P)	325	0
Tobacco manufactures.....	3,506	(P)	(P)	2,523	(P)	0	0	(P)	(P)	(P)	0	0	1	0
Textile products and apparel.....	1,010	809	253	518	451	67	1	37	202	178	1	0	22	0
Lumber, wood, furniture, and fixtures.....	740	661	553	93	89	5	2	12	79	19	(P)	(P)	(P)	0
Paper and allied products.....	2,167	1,658	1,100	431	433	48	(P)	(P)	508	476	(P)	(P)	(P)	0
Printing and publishing.....	431	394	99	252	(P)	(P)	1	42	37	32	0	0	5	0
Rubber products.....	2,380	1,520	535	863	754	109	0	122	860	646	(P)	(P)	(P)	0
Miscellaneous plastics products.....	499	407	57	280	(P)	(P)	(P)	(P)	91	87	0	0	4	0
Glass products.....	623	509	(P)	378	(P)	(P)	0	(P)	114	114	0	0	1	0
Stone, clay, cement, and concrete.....	1,068	911	366	500	391	109	(P)	(P)	157	(P)	0	0	0	0
Instruments and related products.....	2,770	2,541	425	1,952	1,876	76	40	124	229	(P)	0	1	(P)	0
Other.....	971	(P)	232	463	429	35	20	(P)	(P)	(P)	0	1	(P)	0
Trade.....	14,316	12,185	1,944	8,897	6,290	2,607	434	910	2,131	1,495	116	106	415	0
Wholesale trade.....	11,301	9,524	375	7,628	5,150	2,478	375	646	1,776	1,195	(P)	(P)	(P)	0
Durable goods.....	8,825	7,584	703	6,013	3,985	2,028	239	579	1,290	867	101	95	227	0
Nondurable goods.....	2,476	1,990	173	1,615	1,165	450	135	67	496	328	(P)	(P)	(P)	0
Retail trade.....	3,015	2,661	1,069	1,269	1,140	129	59	264	354	300	(P)	(P)	(P)	0
Finance (except banking), insurance, and real estate.....	1,948	1,473	910	276	216	60	94	192	475	348	-8	(P)	(P)	0
Finance, except banking.....	890	727	303	235	192	44	(P)	164	70	-13	(P)	(P)	(P)	0
Insurance.....	969	709	595	22	17	5	(P)	260	248	4	4	4	5	0
Real estate.....	63	44	27	13	12	1	3	20	1	(*)	(P)	(P)	(P)	0
Holding companies.....	25	-6	-15	6	-4	10	1	2	32	29	1	-2	3	0
Individuals, estates, and trusts.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other industries.....	8,341	5,605	2,468	2,770	(P)	(P)	(P)	(P)	2,298	1,009	(P)	(P)	(P)	438
Agriculture, forestry, and fishing.....	405	48	(P)	20	17	3	0	(P)	357	259	44	3	50	0
Construction.....	2,416	1,543	(P)	515	479	36	(*)	(P)	873	225	103	404	141	0
Transportation, communication, and public utilities.....	1,590	1,035	(P)	133	(P)	(P)	(P)	0	118	64	(P)	(P)	(P)	438
Transportation.....	791	327	(P)	68	(P)	(P)	0	0	26	22	2	0	2	438
Communication and public utilities.....	799	708	(P)	(P)	(P)	(P)	0	0	91	42	(P)	(P)	(P)	0
Services.....	3,929	2,978	621	2,102	1,761	341	83	173	951	461	25	404	60	0

MOFA = majority-owned foreign affiliate.

* Less than \$500,000 (±).

† Suppressed to avoid disclosure of data of individual companies.

percent compared with 15 percent.³

- By component, the share of total gross product accounted by employee compensation was larger, and the shares accounted for by profit-type return and indirect business taxes smaller, for U.S. parents than for MOFA's.

3. These rates were computed using unpublished estimates of MOFA gross product in 1966, the year covered by BEA's previous benchmark survey. The rates are only a rough indicator of MOFA growth because the 1966 and 1977 gross product estimates from which the rates were calculated differ somewhat in methodology and coverage.

Overall, the MNC gross product estimates are highly consistent conceptually with national income and product account (NIPA) estimates of all-U.S.-business GDP. Exhibit A compares the NIPA and MNC methodologies and shows that the net effect of the conceptual differences is very small—\$4.4 billion (line 22), or less than one-half of 1 percent of all-U.S.-business GDP.

The effect of conceptual differences on individual NIPA and MNC components is, however, more significant.

For MNC's, these components are compensation of employees, profit-type return (PTR), net interest, indirect business taxes, etc., and capital consumption allowances (CCA). Perhaps the most important conceptual difference between the MNC and the corresponding NIPA components arises because of differences in the measurement of depreciation. NIPA depreciation charges are based on Federal income tax returns; therefore, valuation of these charges reflects accounting practices under Internal

Table 4.—Gross Product of MOFA's Compared with Business GDP for Selected Host Countries, 1977

[Millions of dollars]

	MOFA gross product		Host country GDP		Adjusted MOFA gross product as a percent of adjusted host country business GDP (col. 2÷col. 4)
	As shown in table 2	Adjusted for comparability	Total	Business, adjusted for comparability	
	(1)	(2)	(3)	(4)	(5)
Developed countries:					
Australia	5,578	5,400	100,128	82,631	7
Austria	844	844	47,952	34,961	2
Belgium	4,244	4,223	79,185	64,479	7
Canada	27,783	26,873	199,672	162,876	17
France	9,688	9,635	381,650	278,239	3
Germany	18,115	18,037	515,503	409,870	4
Greece	389	384	26,160	21,998	2
Ireland	762	764	9,334	7,852	10
Italy	5,825	5,802	215,299	152,344	4
Japan	3,065	2,971	693,833	547,033	1
Luxembourg	198	202	2,823	1,729	12
Netherlands	4,209	4,190	103,092	74,652	6
New Zealand	384	378	14,689	11,319	*
Norway	1,655	1,660	35,769	30,260	5
Portugal	178	178	16,307	15,338	1
South Africa	1,317	1,309	39,802	32,162	4
Spain	2,019	2,012	120,829	100,008	2
Switzerland	2,015	2,015	60,657	60,657	3
Turkey	266	266	47,922	39,279	1
United Kingdom	16,861	16,843	247,298	198,266	9
Developing countries:					
Argentina	1,449	1,446	52,121	50,558	3
Brazil	6,485	6,459	164,161	133,703	5
Chile	162	162	13,368	11,148	1
Columbia	532	526	19,459	18,373	3
Ecuador	307	307	6,495	5,154	6
Egypt	344	344	14,259	12,058	3
Hong Kong	542	518	13,050	10,463	5
India	210	211	105,349	94,955	*
Indonesia	4,661	4,660	45,809	40,575	11
Iran	3,071	3,072	76,024	58,619	5
Israel	225	218	14,723	10,598	2
Liberia	44	56	861	741	8
Libya	2,934	2,934	19,476	17,234	17
Malaysia	333	332	13,140	12,401	3
Mexico	2,050	2,043	74,191	63,350	3
Nigeria	1,848	1,846	50,194	43,738	4
Panama	289	262	2,170	1,861	14
Peru	404	404	13,639	11,983	3
Philippines	549	549	20,996	20,966	3
Singapore	400	401	6,547	5,635	7
South Korea	79	79	35,378	31,620	*
Thailand	254	254	19,264	17,319	1
Venezuela	1,370	1,360	36,315	29,217	5

MOFA=majority-owned foreign affiliate.

GDP=gross domestic product.

*Less than 0.5%.

Note.—This table provides only a rough indication of the contribution of MOFA's to total business activity in selected host countries. Estimates of host country GDP are from the World Bank's unpublished *Handbook of National Accounts* and were compiled largely according to the United Nations System of National Accounts. The countries shown are those in table 2 for which World Bank GDP estimates were also available. Host country business GDP excludes data for nonbusiness sectors (governments and households) and the statistical discrepancy. Adjustments to both the business GDP and MOFA data were necessary because the GDP data do, but the MOFA gross product estimates do not, cover banking. GDP in banking was not shown separately in the World Bank data, but instead was included as a part of "banking, insurance, and real estate." To

make coverage of the host country and MOFA data the same, the GDP data were adjusted to exclude "banking, insurance, and real estate" and the MOFA data were adjusted to exclude "finance (except banking), insurance, and real estate." (In the World Bank data, "banking, insurance, and real estate" covers both banking and all other financial business.) Exclusion of nonbusiness sectors and adjustments for banking could not be made for particular countries because the necessary data were not available separately.

Average exchange rates were used to translate GDP from foreign currencies into U.S. dollars. Foreign affiliate data in the 1977 benchmark survey were reported in dollars. In translating foreign affiliate data to dollars, companies were required to follow generally accepted accounting principles. While translation does not affect comparisons of affiliate shares of foreign business GDP, it can affect comparisons among countries of levels of both business GDP and MOFA gross product. For a discussion, see Ned G. Howenstine, "Gross Product of Foreign Affiliates of U.S. Companies," SURVEY OF CURRENT BUSINESS 57 (February 1977): 26.

Revenue Service regulations.⁴ MNC depreciation charges, in contrast, are drawn from accounting records on which annual reports are based, and may not conform to tax regulations. This difference affects both PTR and CCA. Although the effects on these two components cannot be quantified, they are offsetting; thus, total gross product is not affected.⁵

NIPA and MNC gross product data disaggregated other than by component also may not be as comparable as the totals. Because sources of data for the MNC and NIPA estimates differ, differences in timing, valuation, and industry classification, among others, could significantly affect comparisons.

4. Two measures of capital consumption are used in the NIPA's: CCA and CCA with capital consumption adjustment (CCAAdj). In the former, depreciation is based on the acquisition cost of assets. In the latter, depreciation is based on estimates of the current replacement cost of assets, uniform asset service lives, and uniform depreciation formulas, and is designed to provide a consistent measure over time of the using up of capital in production. CCA, rather than CCA with CCAAdj, is shown in exhibit A because it is conceptually closer to the MNC measure.

5. For a more detailed discussion of the difference between NIPA and MNC depreciation, see Ned G. Howenstine, "Gross Product of Foreign Affiliates of U.S. Companies," SURVEY 57 (February 1977): 28.

Table 5.—Gross Product of U.S. Parents and MOFA's, Industry by Component, 1977

[Millions of dollars]

	Gross product	Compensation of employees	Profit-type return	Net interest	Indirect business taxes, etc.	Capital consumption allowances
U.S. parents:¹						
All industries.....	490,529	305,504	103,375	9,823	32,642	39,185
Mining.....	1,974	1,179	369	41	148	237
Petroleum.....	52,052	17,093	16,008	2,140	9,913	6,898
Manufacturing.....	301,286	204,782	58,005	4,363	13,734	20,402
Food and kindred products.....	21,782	13,142	4,826	519	2,021	1,274
Chemicals and allied products.....	39,133	22,959	10,023	1,025	1,346	3,781
Primary and fabricated metals.....	35,380	27,347	2,871	1,143	1,036	2,933
Machinery, except electrical.....	42,356	28,708	9,552	272	822	3,003
Electric and electronic equipment.....	26,683	19,210	4,980	309	796	1,383
Transportation equipment.....	71,302	53,030	12,437	-650	3,108	3,378
Other manufacturing.....	64,649	40,386	13,317	1,745	4,555	4,646
Trade.....	31,308	20,916	5,154	1,600	2,230	1,499
Finance (except banking), insurance, and real estate.....	22,825	14,166	8,717	-2,849	1,988	303
Other industries.....	81,084	47,368	15,121	4,529	4,630	9,436
MOFA's:¹						
All industries.....	161,136	59,534	52,197	2,778	35,409	11,218
Mining.....	2,912	997	863	191	416	445
Petroleum.....	62,010	4,876	28,978	848	24,143	3,165
Manufacturing.....	71,609	40,416	14,352	1,929	8,837	5,575
Food and kindred products.....	5,598	3,136	1,415	205	521	321
Chemical and allied products.....	10,075	5,366	2,624	511	693	882
Primary and fabricated metals.....	4,231	2,271	890	152	153	311
Machinery, except electrical.....	13,555	7,551	3,520	200	630	1,654
Electric and electronic equipment.....	9,062	5,404	1,373	209	657	419
Transportation equipment.....	13,921	8,127	2,387	225	2,105	1,077
Other manufacturing.....	16,165	8,109	2,643	429	4,074	910
Trade.....	14,316	6,971	4,063	335	1,645	1,304
Finance (except banking), insurance, and real estate.....	1,348	855	1,604	-657	90	56
Other industries.....	3,341	5,420	1,837	132	278	673

MOFA = majority-owned foreign affiliate.

1. U.S. parent data are classified by industry of parent; MOFA data are classified by industry of affiliate.

NOTE.—Tables showing U.S. parent and MOFA gross product data by component for more detailed industries, and MOFA gross product data by component cross classified by country, are available at cost from Bureau of Economic Analysis (BE-50, RB), U.S. Department of Commerce, Washington, D.C. 20230.

Exhibit A.—Comparison of U.S. MNC and NIPA Gross Product Methodology

NIPA component	Line	Billions of dollars GDP of all U.S. business in 1977 ¹	MNC components compared with NIPA's	Billions of dollars MNC gross product in 1977	
				U.S. parents	MOFA's
Total (2+5+9+14+18).....	1	1488.3	n.a.	490.5	161.1
Compensation of employees (3+4).....	2	893.4	n.a.	305.5	59.5
Wages and salaries.....	3	760.7	Same as NIPA's	250.2	48.6
Supplements to wages and salaries.....	4	132.7	Same as NIPA's	55.3	10.9
Profit-type return (6+7+8).....	5	256.9	n.a.	103.4	52.2
Corporate profits before tax and proprietors' income, both before adjustments in line 8 (on a tax return basis).....	6	261.6	Same as NIPA's (except on annual report basis)	103.4	52.2
Corporate and proprietors' inventory valuation adjustments.....	7	-17.4	Not included	Not included	Not included
Bad debt; depreciation of expenditures for mining exploration, shafts, and wells; and other adjustments that could not be made for MNC's.....	8	12.7	Not included	Not included	Not included
Net interest (10+11-12-13).....	9	54.1	n.a.	9.8	2.8
Monetary interest paid.....	10	146.5	Same as NIPA's	(?)	(?)
Imputed interest paid.....	11	32.3	Same as NIPA's	(?)	(?)
Less: Monetary interest received.....	12	111.0	Same as NIPA's	(?)	(?)
Less: Imputed interest received.....	13	13.6	Not included	Not included	Not included
Indirect business taxes, etc. (15+16-17).....	14	142.0	n.a.	32.6	35.4
Indirect business taxes and nontax liability.....	15	139.3	Same as NIPA's	32.6	36.0
Business transfer payments.....	16	7.8	Not included	Not included	Not included
Less: Subsidies.....	17	5.1	Same as NIPA's	0	0
Capital consumption allowances (19+20).....	18	142.0	n.a.	39.2	11.2
Depreciation (on a tax return basis) before adjustments in line 20.....	19	135.8	Same as NIPA's (except on annual report basis)	39.2	11.2
Depreciation of mining exploration, shafts, and wells; and other adjustments that could not be made for MNC's.....	20	6.1	Not included	Not included	Not included
Addenda:					
GDP of all U.S. businesses excluding items that were not included in MNC gross product (1-7-8+13-16-20) or (1-22).....	21	1483.9	n.a.	n.a.	n.a.
Net effect on all-U.S.-business GDP of items that were not included in MNC gross product (-7-8+13-16-20).....	22	4.4	n.a.	n.a.	n.a.

MNC=multinational company.
MOFA=majority-owned foreign affiliate.
NIPA=national income and product account.
GDP=gross domestic product.
n.a.=Not applicable.

1. Excludes GDP of banks, government and government enterprises, and private households; imputed gross product of owner-occupied farm and nonfarm housing; rental income of persons; and the statistical discrepancy.
2. Not available separately.
3. Imputed interest paid by MNC's that are regulated investment companies was not included; however, such imputed interest paid was probably negligible.
4. Data on subsidies received by U.S. parent companies were not collected in the 1977 benchmark survey. Subsidies are assumed to be zero for U.S. parents because few U.S. parents were in the industries that receive most of the subsidies in the United States.

Macroeconomic Effects of Price Shocks: A Simulation Study

RESPONSIBILITY for the high rate and acceleration of general price inflation in the United States that characterized most of the last decade, as well as for declines in real economic activity, has often been attributed to a large extent to accelerations of primary commodity prices.^{1 2} Frequently, surges in such prices stemmed from abrupt changes in supply conditions. Well-known examples are the price explosions that accompanied or followed the shortfalls in the supplies of grain and other foodstuffs in 1972-73 and OPEC's curtailments of crude oil production in 1973-74 and 1978-80. Price responses, whether they result from the impersonal mechanism of the market or from decisions by members of a cartel, are the natural concomitants of these "supply shocks" and tend to clear the market under the new supply conditions.

Other commodity price increases resulted from "demand shocks." For example, prices of nonferrous metals rose sharply in 1972-73 in the wake of simultaneous upswings in the business cycle in the industrial nations, while increases in the productive capacity for many of these metals were limited.

A third class of price shocks, not precipitated by either supply or demand shocks, may be called "insti-

tutional" price shocks. They are the result of (public or private) policy decisions. Recent examples were the introduction and subsequent removal of general price and wage controls in 1971-74 and the decontrol of domestic crude oil during 1978-81.

In conventional macroeconomic models, which are essentially demand-driven, supply shocks (with market-clearing price responses) and institutional price shocks are handled in the same way. From the standpoint of the model—as from that of buyers in actual markets—these two kinds of shocks are basically indistinguishable, both appearing as price shocks. Thus, in order to incorporate them into a model simulation or forecast, it is usually necessary first to translate them into their mirror-image price shock.³

A demand shock, unlike a supply shock, can usually be incorporated as an explicit model input. A shift in demand can be represented by such variables as a change in sales, orders, inventories, or capacity utilization; the resulting price change is an endogenous response. Of course, if the demand shock originates abroad and does not impinge primarily on U.S. exports, the resulting change in world commodity prices is, from the U.S. point of view, again a purely exogenous price shock.

Previous studies of price shocks have largely concentrated on prices of energy and food. This article, in con-

trast, analyzes and compares short- and medium-term effects on major macroeconomic variables of a broad variety of price shocks as estimated from simulations with the BEA quarterly econometric model. More specifically, the prices subjected to shocks include prices of both primary commodities (or "basic materials") and final products.⁴ The variables affected include GNP, major GNP components, the GNP and personal consumption expenditures implicit price deflators, shares of national income by type of income, the unemployment rate, and interest rates. In all but one of the cases—an increase in farm product prices—the cause of the shock (i.e., whether a supply or a demand shift or a policy decision) is not specified; rather, the shock is treated as an exogenous price change.

The simulations are highly stylized rather than faithful representations of the real world, so that one can derive useful generalizations. However, approximations to realistic cases can often be made by appropriate interpolation or extrapolation. On the basis of this study, two generalizations can be made concerning the effects of price shocks: (1) The effects on real GNP and unemployment, as well as on the general price level, are usually strong; and (2) the magnitudes of these effects differ substantially among different types of shocks and are also sensitive to the economic and monetary policy environments in which they occur.

The first section of the article outlines the structure of the price-wage sector of the BEA model to provide the necessary background for understanding the mechanisms involved in

NOTE.—Otto Eckstein, Marvin Koters, Joel Popkin, and Richard Wertheimer made helpful comments on a preliminary draft of this article. The extensive underlying computer simulations were performed by Bruce Baker.

1. See, for example, Otto Eckstein, *Core Inflation* (Englewood Cliffs, N.J.: Prentice Hall, 1981) and Barry P. Bosworth and Robert Z. Lawrence, *Commodity Prices and the New Inflation* (Washington, D.C.: The Brookings Institution, 1982).

2. "Primary commodities" consist of crude materials (such as crude oil, foods and feeds, and iron ore) and materials that have passed through initial stages of processing (such as wood products and fibers).

3. Conventional models often do contain certain breakdowns of production sectors, with outputs as well as prices of these sectors feeding back into the main sector. The farm sector in the BEA quarterly econometric model, which is used in the simulations described in this article, is of this type. Indeed, one of the price shock cases to be analyzed in this article stems from an assumed shortfall of farm output; in that case, both output and price variables explicitly affect the overall model results.

4. The distinction between "primary commodities" and "basic materials" is explained below.

the price-shock simulations.⁵ The second section describes the general methodology used in the simulations and the cases for which simulations were run. The final section presents and analyzes the results.

The Price-Wage Sector: An Overview

In the BEA model, prices—or more precisely, implicit price deflators (hereafter referred to as “deflators”), as defined in the national income and product accounts (NIPA’s)—are largely determined in a “stage-of-processing” framework. Producer prices of energy and farm products and prices of imported commodities are exogenous.⁶ Together with wage rates or unit labor costs and demand pressure variables, such as capacity utilization, the unemployment rate, or manufacturers’ new orders, energy and import prices explain producer prices of five classes of “basic materials,” the lowest tier of endogenous prices; the five commodity groups are primary iron and steel products, primary nonferrous metal products, nonmetallic mineral products, lumber and wood products, and primary nondurable products.⁷

Basic materials prices, along with variables (including energy prices) similar to those used in the equations for basic materials prices, in turn determine producer prices of finished consumer goods and, through the latter, deflators for corresponding personal consumption expenditures (PCE) components and for business purchases of motor vehicles. Similar equations determine (directly) deflators for nonconsumption goods purchases. In addition, the producer price index for farm products largely explains movements in the PCE deflator

for food and beverages and producer energy prices determine corresponding PCE deflators for energy products. Other equations, not involving intermediate goods prices but with the wage rate or unit labor cost playing the dominant role, explain movements in deflators for nonenergy services (except the deflator for government employee compensation, which is exogenous).

The basic wage-rate variable—the change in compensation per hour for the nonfarm business sector excluding housing—depends primarily on the inverse of the overall unemployment rate (adjusted for changes in the “high-employment” unemployment rate) and lagged changes in the PCE price deflator. The inverse form of the unemployment rate introduces an important nonlinearity into the model and is based on the assumption that in tight labor markets (reflected in low unemployment rates), wage rates respond much more sensitively to the availability of workers than in loose labor markets. Short- and long-run changes in the PCE deflator have different influences on the change in the wage rate; the short-run elasticity (i.e., up to 1 year) of the wage rate with respect to consumer prices is 0.5, while the long-run elasticity is 0.9. These graduated effects are based on the assumption that short-run changes in the inflation rate are much less firmly implanted in expectations of future inflation than are longer run changes and, accordingly, have less of an influence on wage rates. The differential also reflects the short-run fixity of union wage contracts.

Description of Model Simulations

General methodology

The analysis of price shocks in a macromodel context is essentially an adaptation of “multiplier” analysis. Multipliers measure the changes in endogenous variables that are induced by a unit change in an exogenous variable or by an exogenous change in an endogenous variable. Usually, it is such policy-determined variables as Federal expenditures, taxes (tax rates or direct receipts ef-

fects), and money supply that are the subjects of the multiplier analysis and, accordingly, are the variables that are changed exogenously.⁸ For this study, it is price indexes or implicit price deflators that are “shocked” (i.e., changed), in each case by a fixed percentage, although these percentages differ for different cases, as will be explained shortly.

In linear models, multipliers are fixed parameters of the system; i.e., once such a model has been estimated, its multipliers can be directly calculated and taken to be valid under all economic environments and for different assumed amounts of exogenous change. Because most macroeconomic models, including the BEA model, are—realistically—nonlinear, such invariance does not hold; accordingly, multipliers must be determined by model simulation under specified conditions. The procedure is to run a “control” solution of the model, obtain another solution with the changed input (in the present study, the price shocks), and finally, to measure the differences between corresponding outputs of the shocked and the control solutions.

Two control solutions, each extending over a 5-year (20-quarter) period and representing different cyclical states of the economy, were utilized. In one control solution, a relatively high unemployment rate—between 7½ and 8 percent (i.e., near the midpoint of its actual range during the last 5 years)—was maintained; in the other, a relatively low rate—between 5½ and 6 percent—was maintained.⁹

8. See Albert A. Hirsch, “Policy Multipliers in the BEA Quarterly Econometric Model”, *SURVEY*, 57 (June 1977): 60-71.

9. Each of these solutions was obtained by running the model over a historical period and modifying selected exogenous variables—mainly major fiscal and monetary policy variables—relative to actual values in order to bring the unemployment rate within the desired range throughout the simulation period. More specifically, the high-unemployment control solution was obtained by running the model over the period 1976-80; for the low-unemployment solution, the period 1978:2 through 1983:1 was used. (Exogenous variables for the latter portion of the second period are pragmatic projections, rather than realistic forecasts.) Although, from the standpoint of making comparisons, it would have been desirable to use a common period, the use of different periods was dictated by the practical requirement that in each instance, historical levels of the unemployment rate in the early quarters of the simulation period be within or near the desired range.

5. A full description of this sector is given in Albert A. Hirsch, “A Stage-of-Processing Price Sector for the BEA Quarterly Econometric Model,” BEA Working Paper 1, September 1982. (See the abstract in the *SURVEY OF CURRENT BUSINESS*, 62 (December 1982):10.)

6. Energy prices used in the model are the producer price indexes for coal, refined petroleum products, gas fuels, and electric power. If assumed changes in energy prices are given in terms of crude materials, such as crude oil, they must first be translated into appropriate producer prices by extraneous calculations.

7. “Basic materials” overlap but differ somewhat from “primary commodities” in that they include commodities that have undergone a substantial amount of initial processing and exclude crude materials.

All of the price-shock simulations were run with the high-unemployment control solution; in one case, the low-unemployment solution was also used in order to examine the sensitivity of the results to this alteration of the economic environment.

For each shocked solution, exogenous adjustments to the relevant price indexes or deflators were made as follows. Where the shocked price index or deflator is itself exogenous, its level was set in each quarter at a fixed percentage above its corresponding control solution level. Where the price index/deflator is endogenous, adjustments were made to the intercept of the equation that explains it in order to yield a fixed-percentage increase in the price, before model feedbacks, relative to corresponding control solution levels.

For multiplier analysis in which income or product flows are shocked, it is meaningful to compare results for common dollar amounts of all shocks. The appropriate analog for price multipliers, however, involves shocks of varying sizes because different prices have different weights in terms of the proportion of GNP that is directly affected. The approach used to solve the weighting problem, and thereby to facilitate comparisons among price shocks, was to scale the size of each shock so that its "direct" effect (i.e., its effect before system feedback) on the GNP deflator is a common fixed-percentage increase.

More specifically, the size of each shock was set so as to raise the GNP deflator 1 percent above its corresponding control solution level by the fourth quarter after the introduction of shock, as a result of direct effects only.¹⁰ Normalization in the fourth quarter allows for lags in pass-throughs of intermediate goods (energy, basic materials, and farm products) prices. For a shock in the deflator for a final-demand component, the direct effect is the percent-

age increase in the deflator multiplied by the relative weight of that component in real GNP. For a shock in the price of an intermediate good, the direct effect on the GNP deflator is calculated on the basis of the pass-through of the price (i.e., cost) increase to final-product prices.¹¹

Where necessary, the direct effect was sorted out from indirect (i.e., model feedback) effects by a simulation in which all the normally endogenous variables in the model except prices were exogenized. An important variable in the exogenized set is the private nonfarm sector wage rate, which accounts for most of the system feedback to prices. (In addition, certain other adjustments to eliminate inappropriate feedbacks were made.)

Ad-hoc modifications to model structure.—Certain aspects of the BEA model's structure that are not critical for most applications of the model are significantly misspecified if it is used to analyze price shocks, especially for periods longer than 2 to 3 years—the typical forecasting horizon over which the model is considered useful. Accordingly, the following special modifications to the structure were introduced for this study.

(1) Government purchases of goods and services are ordinarily exogenous in current dollars because they reflect budgetary appropriations, which are, of course, made in current dollars. In reality, however, when there are large unexpected price changes, real purchases will not be modified to compensate fully for them. Accordingly, the following assumptions were made: (a) All national defense purchases were made exogenous in real terms; i.e., real purchases are unresponsive to price shocks; and (b) current-dollar State and local noncompensation purchases were increased by one-half of the relative increase in the deflator for these purchases; i.e., the elasticity of real purchases with respect to their price was assumed to be -0.5 .

(2) Federal transfer payments to persons other than unemployment in-

urance benefits, which are ordinarily exogenous, were assumed to respond to the lagged change in the Consumer Price Index (CPI) to reflect the actual indexation of most transfer payments. Specifically, social security benefits were fully indexed to the CPI and other Federal transfers were assumed to increase in the shocked solution relative to the control solution by 0.25 times the corresponding difference in the lagged CPI due to a price shock.

(3) Because there is a tendency to adjust wage rates in the government sector to comparable wage-rate changes in the private sector (although in recent years, less than proportionally), government employee compensation payments and deflators (both exogenous) were modified in the price-shock simulations by setting the percent difference from the control solution values in the compensation deflators in quarter t equal to 0.7 times the corresponding difference in private nonfarm compensation per hour in quarter $t-2$.¹²

(4) Crude adjustments were made to the foreign exchange rate in response to changes in net foreign investment and in short-term interest rates that are induced by the price shocks. The change in the value of the dollar, in turn, affects the volume of exports and the deflator for imports.

Monetary accommodation of price shocks.—The question arises what assumption should be made about monetary policy in the presence of price shocks. The assumption used for most of the simulations analyzed in this article is that monetary policy is nonaccommodating. Specifically, the M2 variant of the money supply, which is the principal exogenous monetary policy instrument in the BEA model, is held unchanged from its control solution levels in the shocked solution.¹³

The rationale for this course is that with the money supply fixed, a price shock should result (allowing suffi-

10. Although, as noted, in a nonlinear system, multipliers can vary with the size of the exogenous change, such variability is in fact small, at least over a moderate range of variation of the input. Accordingly, no simulations of larger or smaller changes in any price were prepared for this article. Similarly, experimentation showed that positive and negative price shocks of the same magnitude have approximately symmetric effects; accordingly, no instances of negative price shocks are reported.

11. Insofar as pass-throughs of energy and basic materials prices to products prices are determined by input-output coefficients, pass-throughs are constrained to be on a dollar-for-dollar basis. However, in certain equations pass-throughs are determined from regression-based estimates. Thus, one cannot be certain as to how much the system estimates of pass-throughs deviate from a strict dollar-for-dollar effect.

12. In reality, adjustments in social security benefits and Federal pay normally occur only once a year—on July 1 for the former and on October 1 for the latter. However, in keeping with the stylized nature of these simulations, these seasonal elements were not introduced.

13. M2 contains small time and savings deposits, money market funds, overnight repurchase agreements, and Eurodollar deposits, in addition to demand deposits, other checkable deposits, and currency, which define M1. M1 is endogenous in the model and is related to M2.

cient time for market participants to make adjustments) in a change in relative prices, but not in the aggregate price level or, in the long run, in the level of economic activity. This outcome would materialize, according to theory, because the exogenous price increase induces substitution by purchasers toward commodities whose prices did not initially increase (and that have, therefore, fallen in a relative sense) and away from the commodity whose price increased. This demand response, in turn, tends to reduce the price of the shocked commodity, thus partly offsetting the initial increase, and to increase the prices of the substituted commodities.

An "accommodative" monetary policy cannot be unambiguously defined. The criteria for such a policy can be specified alternatively in terms of monetary aggregates, interest rates (short-term or long-term), or measures of economic activity, such as real output or employment (or its complement, unemployment).¹⁴ For this study, a monetary accommodation assumption was specified in terms of a monetary aggregate. Specifically, M2 was set 1 percent above the control solution levels (i.e., the levels maintained in nonaccommodating cases).¹⁵ Alternative simulations (i.e., with accommodation) were run for the case in which the low- as well as the high-unemployment control solution was used.

The rationale for this criterion of accommodation is that if prices of commodities other than the shocked commodities are "rigid," i.e., unresponsive to demand shifts, the 1-percent increase in the money supply is just enough to satisfy the additional transactions demand for money associated with the directly generated 1-percent increase in the GNP deflator; it is not enough, however, to satisfy the additional transactions demand associated with the secondary changes in the price level (i.e., price-wage feedbacks resulting from the price shock).

With a stable velocity of money (ratio of the money supply to current-dollar GNP), there would be no change in real GNP other than that resulting from secondary price effects.¹⁶

Although a more accommodating criterion—for example, increasing the money supply to satisfy the additional transactions demand associated with the secondary changes in the price level—could have been used, this was not done because the intent was only to bracket the probable monetary response. Of course, there is a broad spectrum of policy responses—one that includes fiscal as well as monetary policy—that could be used to mitigate the effects of an exogenous price shock. Model simulation could also be used to study the mitigating effect of these policy responses, but this kind of analysis is beyond the scope of this article.

Price shock cases

Simulations with the BEA model were run for seven cases, designated by the name of the price that is shocked. The first three cases relate to increases in the prices of primary commodities or basic materials. The remaining four cases relate to increases in the prices of final products. Except in case 4, price increases are for specific commodities (or commodity groups) or services; these increases therefore result (at least initially) in relative price changes. In case 4, the price increase is for goods and services in general (represented by simultaneous increases in final-product deflators). The final three cases relate to specific final products with differing elasticities of demand or impacts upon wage rates and are designed to study the macroeconomic effects of these factors.

In order to indicate the sensitivity of results to different economic environments and to different assumptions about monetary accommodation, alternative simulations were run for

case 1 with accommodating monetary policy, using the high-unemployment control solution, and with and without accommodating monetary policy, using the low-unemployment control solutions.

Case 1. Price of domestic crude oil.—To reflect an increase in the price of domestic oil, the producer price index (PPI) for refined petroleum was increased about 21 percent above corresponding control solution levels.¹⁷ Also, the PPI for electricity was increased 2.3 percent, an amount that reflects the small share of oil as a fuel source for electricity generation. Under an assumed long-run price elasticity of demand for oil of -0.25 , the increase in the price of oil results in a reduced volume of oil imports (which are exogenous in the model).

Case 2. Price of primary iron and steel products.—The PPI for primary iron and steel products, an endogenous basic materials price, was increased about 23 percent.

Case 3. Price of farm products.—The PPI for farm products was increased 20 percent above corresponding control-solution levels. Because gross farm product and farm proprietors' income are explicit model variables, it is meaningful, in terms of the model structure, to assume that an autonomous reduction in farm output (and thus gross farm product) i.e., a supply shock—is the cause of the increase in farm prices. Specifically, associated with the increase in farm prices are an 11-percent decrease in real gross farm product and, in the first quarter of the simulation, a \$2½ billion (1972 prices) decrease in farm inventory investment.¹⁸ Underlying the decrease

17. An increase in the price of domestically produced oil in the absence of a concomitant increase in the world price could occur, for instance, with decontrol. A comparable simulation was tried in which the price of imported oil was increased. Because the macroeconomic effects were on the whole very similar to those for the domestic oil price increase (with the main difference being that income is shifted abroad rather than from personal income to domestic corporate profits), the results of this variant are not reported here. A simultaneous change in domestic and foreign oil prices can also be expected to yield similar results.

An allowance was made for a lag in the pass-through of cost from crude to refined petroleum by raising the refined petroleum PPI only two-thirds the full pass-through amount in the first simulation quarter.

18. The temporary decrease in inventory investment results from the lack of an instantaneous market-clearing price response in wholesale and consumer markets for farm products.

14. For a full treatment of this issue, with definitions of extreme cases, see Edward M. Gramlich, "Macro Policy Responses to Price Shocks," *Brookings Papers on Economic Activity* (1979, 1): 125-66.

15. More precisely, because the case in point involves the price of the primary commodity (oil), the higher M2 level was phased in linearly over the first year, consistent with the gradual impact of the price change on the GNP deflator.

16. Initially, an interest-rate criterion of accommodation was considered. Specifically, a short-term interest rate was to be held at control solution levels, and thus the money supply was to be allowed to increase (endogenously) consistent with the stable interest rate and higher price levels. However, because it turns out that even with nonaccommodation, interest rates eventually fall below control-solution levels as a result of weakened economic activity, this criterion would actually have resulted in a lower money supply than in the control solution.

in gross farm product is a 5½-percent decrease in farm output and a 2-percent decrease in intermediate products consumed. Farm proprietors' income increases an average of 60 percent, as increases in farm prices far outweigh production losses.¹⁹

Case 4. Implicit price deflators for final products.—All final product deflators, except those for imports and compensation of government employees, were increased about 1 percent. In addition to its main purpose, this simulation may be used to represent a stylized removal of price controls.

Case 5. Implicit price deflator for consumer purchases of new and net used automobiles.—This case illustrates the effects of shocking a deflator for a consumption component with a high price elasticity of demand, in this case -1.1. The deflator, which is basically endogenous, was exogenously increased 39 percent.

19. In the version of the model used for this study, farm output, prices, and income are all exogenous. Consistent relationships among them and between them and final demand for food and agricultural exports were derived by external calculation.

Case 6. Implicit price deflator for personal consumption expenditures for household operation, except gas and electricity.—This case illustrates the effects of a price shock for a consumption component with a low price elasticity of demand, -0.14. The deflator (which, again, is basically endogenous) was exogenously increased 43 percent.

Case 7. Implicit price deflator for investment in producers' durable equipment, except motor vehicles.—This case illustrates the effects of increasing the price of a nonconsumption component of GNP, which avoids a price-wage spiral. The deflator (also basically endogenous) was increased exogenously 14 percent.

Analysis of Results

In what follows, an analysis is first made of the principal simulations, i.e., the high-unemployment, nonaccommodating-monetary-policy (HU/NMP) simulations for all cases. Then, for case 1, low-unemployment (LU) and accommodating monetary policy (AMP) alternatives are compared with their HU and NMP counterparts.

Principal simulations

The analysis of the principal simulations proceeds as follows: (a) case 1—the domestic crude oil price shock—is used as a base case; (b) cases 2 through 4 are compared with case 1; and (c) cases 5 through 7, representing shocks to specific final product deflators, are compared with case 4 and with one another. Where other comparisons are of interest, they are also made. Tables 1.1 through 1.7 show, for the HU/NMP variants of cases 1 through 7, respectively, differences between price-shock and control-solution values for major economic variables at selected horizons (quarters) of the simulations. Chart 5 shows, for the same cases, the percent differences (price shock case less control solution) in the GNP deflator and in real GNP, respectively.

Case 1. Price of domestic crude oil.—The increase in the price of domestic crude oil results in gradual increases in the GNP deflator relative to the control solution. By the fourth quarter, the GNP deflator is 1.4 percent above the control-solution level and the difference continues to grow

Table 1.1—Effects of Price Shocks: Case 1. Price of Domestic Crude Oil

[Differences: price shock less control solution]

	Quarters after change									
	1	2	3	4	6	8	10	12	16	20
	Percent of control solution level									
GNP, constant dollars	-0.1	-0.5	-0.9	-1.2	-1.4	-1.6	-1.8	-1.9	-2.1	-1.9
Implicit price deflator, GNP	.3	.8	1.2	1.4	1.6	1.7	1.8	1.9	2.0	1.7
Implicit price deflator, personal consumption expenditures	.4	.8	1.0	1.1	1.3	1.4	1.5	1.6	1.7	1.5
Compensation per hour, nonfarm business sector except housing	0	0	.1	.2	.5	.6	.8	.9	.9	.8
	Billions of dollars									
GNP	2.6	5.3	4.9	3.4	3.5	2.4	-.8	-1.3	-2.8	-6.7
Personal income	.1	1.1	.7	.4	1.1	.6	-1.6	-2.5	-5.7	-15.0
Corporate profits with IVA and CCAj	2.9	5.8	6.5	5.4	4.2	3.5	3.2	3.8	7.1	14.2
Net exports of goods and services	-.3	1.9	5.2	7.8	9.6	9.2	9.4	9.9	11.0	9.8
Federal surplus of deficit, NIPA's	1.1	.9	-.3	-1.3	-1.5	-1.7	-3.0	-3.6	-4.7	-4.6
	Billions of 1972 dollars									
GNP	-1.8	-6.1	-11.2	-15.6	-18.7	-21.0	-24.6	-26.5	-30.1	-28.8
Personal consumption expenditures	-1.5	-4.7	-7.6	-9.3	-8.6	-9.4	-11.6	-12.9	-15.4	-15.8
Nonresidential fixed investment	.4	.4	-.6	-2.4	-5.1	-6.4	-7.6	-8.2	-9.3	-9.7
Residential investment	-.2	-.8	-1.6	-2.2	-2.6	-2.5	-2.5	-2.4	-2.1	-.7
Change in business inventories	.1	-.1	-.9	-1.7	-2.4	-2.1	-2.1	-2.2	-1.7	-1.4
Net exports of goods and services	-.4	-.4	.1	.6	.7	.5	.3	.3	-.1	.1
Government purchases of goods and services	-.1	-.4	-.6	-.7	-.8	-1.0	-1.2	-1.2	-1.5	-1.4
Disposable personal income	-3.2	-6.1	-8.2	-9.7	-11.0	-12.3	-14.3	-15.7	-18.7	-21.4
	Percent									
Share of national income:										
Compensation of employees	-.2	-.4	-.4	-.4	-.3	-.3	-.3	-.3	-.4	-.5
Proprietors' income with IVA and CCAj	0	0	0	0	0	0	0	0	0	0
Corporate profits with IVA and CCAj	-.2	.4	.4	.4	.3	.2	.2	.2	.4	.7
Net interest	0	0	0	0	0	0	0	0	-.1	-.3
Rental income of persons with CCAj	0	0	0	0	0	0	0	0	0	0
Unemployment rate	0	.1	.2	.3	.3	.4	.6	.7	.9	1.0
Yield, 4-6 month commercial paper	.4	.7	.5	.3	0	-.1	-.1	-.1	-.2	-.7
Yield, domestic corporate bonds (Moody's)	.1	.2	.2	.2	.2	.1	.1	.1	0	-.3
Quarterly change at annual rate:										
GNP, constant dollars	-.6	-1.4	-1.6	-1.4	-.3	-.5	-.5	-.1	-.2	.6
Implicit price deflator, GNP	1.2	2.1	1.5	1.0	.2	-.1	.1	.2	0	-.2

Note.—The abbreviations used in tables 1 and 2 are: CCAj—capital consumption adjustment; GNP—gross national product; IVA—inventory valuation adjustment; NIPA's—national income and product accounts.

through the 16th quarter to 2.1 percent, then narrows slightly. Initially, the difference reflects the gradual pass-through of higher oil prices; later it increasingly reflects the interaction of the wage rate and consumer prices. The GNP deflator is up slightly more than the PCE deflator, mainly because there is a reduction in relatively high-priced oil imports. The oil price shock increases the inflation rate only temporarily; annual rates of increase in the GNP deflator are up more than 1 percentage point only during the first year. However, the price level remains substantially above the control solution over the whole simulation period, showing only a slight tendency to retreat toward it in the fifth year.

The higher price of oil and its secondary inflationary effects result in reductions in real GNP relative to the control solution of roughly the same magnitude. The decrease is largest—2.1 percent—in the 17th quarter, one quarter after the peak increase in the GNP deflator, and remains large thereafter. The rates of change in real GNP and in the GNP deflator move sharply in the quarters immediately following the price shock; then the differences from the control solution diminish rapidly to small amounts for the remainder of the period. This pattern is also typical for the cases that follow.

Higher prices relative to control solution of consumer oil products—gasoline and home heating oil—and of electricity (also due to the oil price increase) directly reduce consumer purchases of these energy products and also of motor vehicles, especially recreation vehicles. An increase in the PCE deflator relative to the control solution—the result of pass-throughs of higher oil prices to nonenergy as well as to energy products—also reduces real PCE, generally by lowering real disposable income and real household wealth. Compensation per hour is also higher and tends to hold down the reduction in real disposable income; however, it increases substantially less than the PCE deflator. The nonwage components of disposable income respond only slightly to the price increases. Employment is also down, tending to reduce labor income.

Initially, the decrease in real PCE relative to the control solution ac-

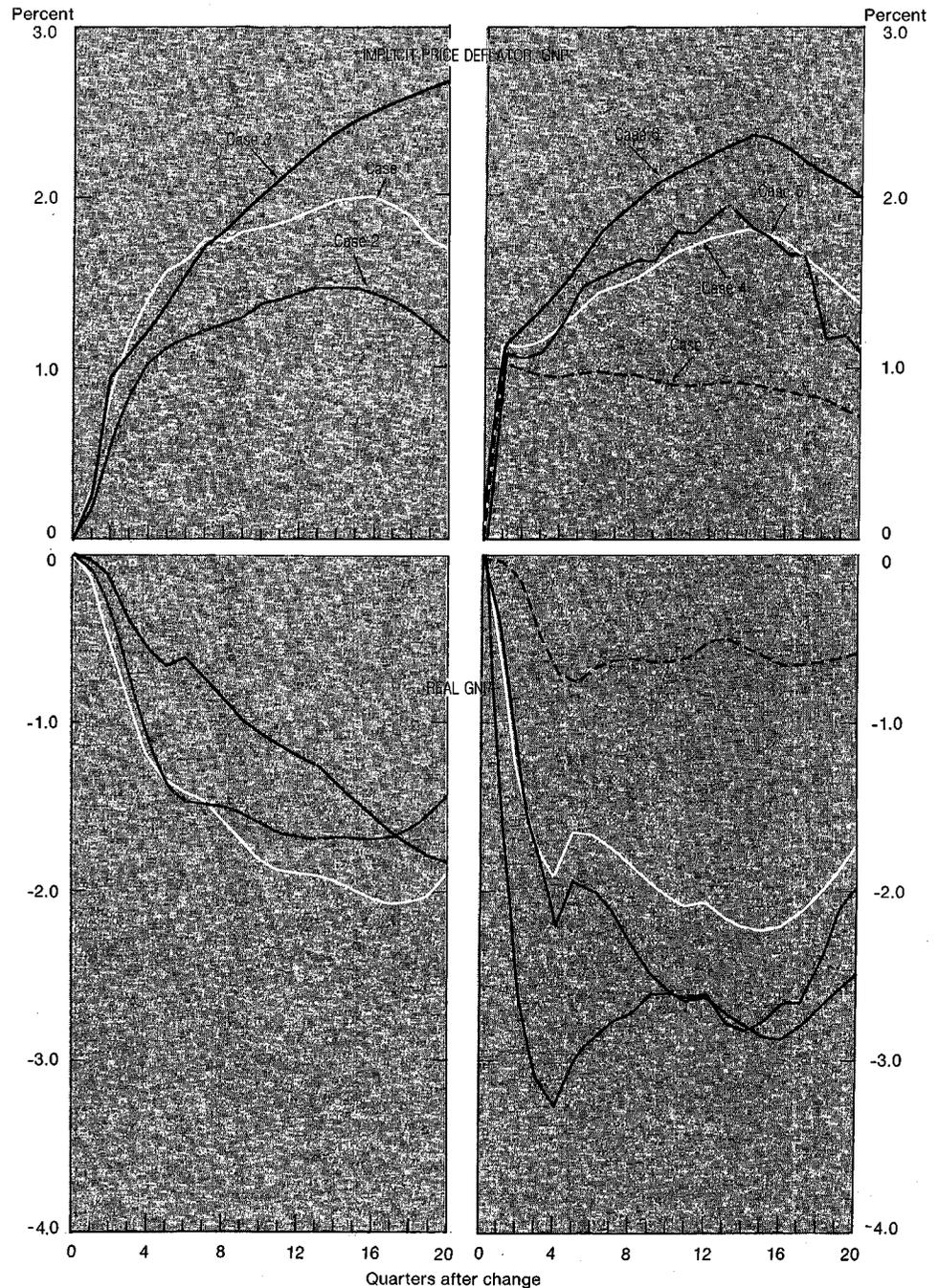
counts for most of the decrease in real GNP. After about a year, however, nonresidential fixed investment and inventory investment are down in response to the reduction in PCE. Both residential and nonresidential fixed investment are down because of higher long-term interest rates (see below). Government purchases are also down in response to the increases in the prices of noncompensation pur-

chases. Real net exports are up slightly after the second quarter, despite higher export prices, mainly because of the assumed reduction in oil imports. (Because of the relatively large deflator for oil imports, this difference is greatly magnified in current-dollar net exports.)

The unemployment rate is also up relative to the control solution, as lower output reduces employment. By

**Effects of Price Shocks: Principal Simulations
(Price shock less control solution, relative differences)**

CHART 5



the 16th quarter, the rate is up nearly 1 percentage point and the spread continues to increase slightly thereafter, lagging the modest turnaround in the reduction in real GNP.

Current-dollar GNP is initially up slightly from the control solution, as the increase in the deflator more than offsets the decrease in real GNP; it is down in the 10th quarter and increasingly so thereafter, as the decreases in real GNP exceed the increases in the deflator.

Personal income is changed little from the control solution for about the first 2 years, as smaller wages are roughly offset by somewhat larger proprietors' income, dividends, interest income, and transfers to persons. Thereafter, personal income is down increasingly, reflecting reductions in labor income and eventually in interest income. Lower labor income reflects reductions in employment that outweigh concomitant increases in hourly compensation. Lower interest income reflects reductions in interest rates (see below).

Corporate profits are up substantially from the control solution in the

early quarters, as higher oil prices are passed on to prices of final products.²⁰ The increase diminishes gradually from the third quarter to the middle of the period, as weakened demand tends to offset the price effect, then increases again as wage costs decrease. Shifts in shares of national income from employee compensation and net interest to corporate profits and, to a lesser extent, to proprietors' income are substantial by the end of the period.

The oil price shock increases the Federal deficit slightly in the first two years. In this part of the period, larger expenditures more than offset larger receipts. In the third through fifth years, the difference increases. This increase results from the effects of an exogenous price shock on both prices and real GNP. A decline relative to the control solution in personal income in the later quarters (centered in wages) holds down receipts, while expenditures are up because of

indexation and larger unemployment benefits.²¹

The yield on 4-to-6 month commercial paper, a representative short-term interest rate, is up significantly in the early quarters, as larger current-dollar GNP increases the demand for transactions balances in the face of a fixed money supply. In the eighth quarter, the difference in the commercial paper rate becomes negative and increasingly so thereafter. Differences in long-term rates, as exemplified by Moody's average corporate bond yield, lag substantially the differences in short-term rates.

Case 2. Price of primary iron and steel products.—The GNP deflator is up significantly less from corresponding control-solution levels in this case than in case 1. The maximum increase (reached in the 12th quarter) is 1.5 percent, compared with 2.0 percent in case 1. As might be expected,

21. Inflation *per se* tends to increase the Federal surplus (reduce the deficit). (See Frank de Leeuw and Thomas M. Holloway, "The High-Employment Budget: Revised Estimates and Automatic Inflation Effects," SURVEY, 62 (April 1982): 21-33.)

20. No windfall profits tax was assumed for this simulation.

Table 1.2—Effects of Price Shocks: Case 2. Price of Primary Iron and Steel Products

[Differences; price shock less control solution]

	Quarters after change									
	1	2	3	4	6	8	10	12	16	20
	Percent of control solution level									
GNP, constant dollars	-0.1	-0.3	-0.7	-1.1	-1.5	-1.5	-1.6	-1.7	-1.7	-1.4
Implicit price deflator, GNP	.2	.6	.9	1.0	1.2	1.3	1.4	1.5	1.4	1.1
Implicit price deflator, personal consumption expenditures	.1	.3	.6	.7	.9	1.0	1.0	1.1	1.1	.8
Compensation per hour, nonfarm business sector except housing	0	0	0	.1	.2	.3	.4	.5	.5	.3
	Billions of dollars									
GNP	2.0	3.6	2.2	-1.3	-5.4	-4.8	-4.6	-5.5	-7.0	-8.3
Personal income	0	.2	-.9	-2.2	-3.6	-4.4	-5.4	-6.8	-10.1	-18.2
Corporate profits with IVA and CCAAdj	1.5	2.5	1.7	-.9	-3.9	-2.8	-1.2	-.7	2.2	10.5
Net exports of goods and services	0	.2	.8	1.7	2.7	2.4	2.3	2.6	2.6	2.5
Federal surplus or deficit, NIPA's	1.3	1.9	.9	-1.1	-3.4	-3.3	-3.1	-3.6	-4.4	-3.0
	Billions of 1972 dollars									
GNP	-1.1	-4.4	-9.4	-14.5	-19.5	-20.1	-21.6	-23.4	-24.8	-21.5
Personal consumption expenditures	1.0	-3.1	-5.7	-7.9	-8.7	-8.7	-9.8	-10.9	-12.0	-11.9
Nonresidential investment	.4	.6	-.3	-2.1	-5.2	-5.9	-6.3	-6.7	-7.5	-6.9
Residential investment	-.2	-.7	-1.3	-1.7	-1.9	-1.8	-1.8	-1.8	-1.3	-.1
Change in business inventories	.1	-.1	-.7	-1.5	-2.7	-2.3	-1.8	-1.8	-1.3	-.6
Net exports of goods and services	.4	-1.0	-1.3	-1.1	-.8	-1.0	-1.5	-1.7	-2.0	-1.5
Government purchases of goods and services	-.1	-.2	-.2	-.3	-.3	-.4	-.5	-.6	-.7	-.5
Disposable personal income	-1.0	-2.8	-5.4	-7.5	-9.7	-10.8	-12.0	-13.2	-14.8	-16.1
	Percent									
Share of national income:										
Compensation of employees	-.1	-.2	-.1	0	.1	.1	0	-.1	-.2	-.3
Proprietors' income with IVA and CCAAdj	0	0	0	0	0	0	0	0	0	0
Corporate profits with IVA and CCAAdj	-.1	.2	.1	0	-.2	-.1	0	0	.2	.5
Net interest	0	0	0	0	-.1	-.1	0	0	-.1	-.2
Rental income of persons with CCAAdj	0	0	0	0	0	0	0	0	0	0
Unemployment rate	0	.1	.2	.2	.4	.4	.5	.6	.7	.8
Yield, 4-6 month commercial paper	.3	.5	.4	.2	0	-.1	0	-.1	-.3	-.7
Yield, domestic corporate bonds (Moody's)	.1	.1	.2	.1	.1	.1	0	0	-.1	-.4
Quarterly change at annual rate:										
GNP, constant dollars	.4	-1.0	-1.6	-1.6	-.4	-.1	-.3	-.1	-.1	.5
Implicit price deflator, GNP	.9	1.5	1.3	.8	.2	.2	.4	.2	.2	.4

because of the high steel content of the commodities included, the final product deflators showing the largest relative increase are those for PCE for motor vehicles and for producers' durable equipment outlays. For consumer expenditures other than motor vehicles, the direct price effects are small. Thus, the spread between increases in the GNP and PCE deflators is greater than in case 1, in which the direct effects of the exogenous price increase are more widely dispersed among final products. As a result, the price-wage "spiral" is less pronounced than in case 1.

Nevertheless, real GNP is down about as much as in case 1 in the early quarters, although somewhat less in the later quarters. Nonresidential fixed investment is down substantially, in part because of the higher cost of investment goods. Similarly, the higher price of motor vehicles reduces consumer purchases. Moreover, total real PCE is held down by reductions in real disposable income that are almost as large as in case 1 through the 12th quarter, although,

as noted, the PCE deflator is up less than in case 1. Compensation per hour is also up less. Real net exports are down slightly, in contrast to case 1, in which oil imports are smaller.

Corporate profits are up only moderately in the first three quarters and down somewhat for about the next two years, in contrast to case 1, in which they are up continuously and more substantially. This contrast reflects both smaller current-dollar GNP and larger capital consumption allowances in case 2, the latter being due to higher capital replacement costs.

Case 3. Price of farm products.—In contrast to case 2, this price shock impinges heavily on the PCE deflator—specifically, on the deflator for consumer food purchases. It also increases substantially the deflator for merchandise exports, in which agricultural commodities have a weight of about 20 percent. Because of the concentrated impact on consumer prices, the price-wage spiral is more pronounced than in both cases 1 and 2. By the 12th quarter, the PCE deflator

is up 2.3 percent, compared with 1.6 percent in case 1 and 1.1 percent in case 2; the corresponding increases in the GNP deflator are 2.2 percent, 1.9 percent, and 1.5 percent; for private nonfarm compensation per hour, they are 1.5 percent, 0.9 percent, and 0.5 percent.

Despite the larger price increases, real GNP is down substantially less than in cases 1 and 2 during most of the simulation period—in the 12th quarter the loss is 1.2 percent, compared with 1.9 percent in case 1 and 1.7 percent in case 2.²² The causes of this difference are the relatively low price elasticity of consumer demand for food (−0.36 in the long run) and, associated with this low elasticity, the substantial increase in farm proprietors' income, which offsets the reduction in real labor income. Because of this shift within personal income, total real disposable income and, as a

22. In the first three quarters, especially the first, real net exports are too high because of a timing misspecification that affects the merchandise exports deflator. Accordingly, real GNP should be somewhat lower in those quarters.

Table 1.3.—Effects of Price Shocks: Case 3. Price of Farm Products

[Differences: price shock less control solution]

	Quarters after change										
	1	2	3	4	6	8	10	12	16	20	
	Percent of control solution level										
GNP, constant dollars	0	-0.1	-0.4	-0.6	-0.6	-0.9	-1.1	-1.2	-1.6	-1.9	
Implicit price deflator, GNP	.2	1.0	1.1	1.2	1.6	1.8	2.0	2.2	2.5	2.7	
Implicit price deflator, personal consumption expenditures	.2	1.1	1.3	1.4	1.7	2.0	2.2	2.3	2.6	2.8	
Compensation per hour, nonfarm business sector except housing	0	0	.2	.3	.7	1.0	1.2	1.5	1.8	1.9	
	Billions of dollars										
GNP	3.3	13.9	11.8	11.4	17.1	17.1	18.8	20.7	21.5	20.0	
Personal income	11.8	14.1	14.3	15.2	19.5	22.2	24.9	29.9	34.2	36.2	
Corporate profits with IVA and CCAAdj	-8.8	.9	.3	-1.7	-1.2	-4.6	-5.5	-8.8	-11.9	-13.4	
Net exports of goods and services	4.6	4.0	4.6	5.5	5.4	4.8	5.9	5.9	7.2	7.6	
Federal surplus or deficit, NIPA's	-2.2	1.4	-8	-1.3	0	-1.2	-1.7	-3.1	-5.5	-8.5	
	Billions of 1972 dollars										
GNP	-6	-1.6	-5.3	-7.4	-8.3	-11.5	-14.5	-16.8	-22.8	-27.8	
Personal consumption expenditures	.7	-3.5	-5.9	-6.2	-4.1	-5.4	-6.5	-6.8	-9.4	-11.7	
Nonresidential fixed investment	-8	.8	1.1	.3	-1.1	-2.1	-2.9	-3.6	-5.1	-6.7	
Residential investment	.1	-3	-1.1	-1.3	-1.7	-1.9	-2.2	-2.4	-3.1	-3.5	
Change in business inventories	-2.6	.7	.3	.5	.8	.7	-1.1	-1.3	-1.6	-1.9	
Net exports of goods and services	2.1	.7	.3	.2	.3	.8	-1.0	-1.6	-2.2	-2.4	
Government purchases of goods and services	0	0	0	-1	-3	-6	-8	-1.0	-1.5	-1.6	
Disposable personal income	5.8	-7	-2.0	-2.7	-4.0	-4.7	-5.3	-5.0	-7.6	-10.5	
	Percent										
Share of national income:											
Compensation of employees	-1	-7	-6	-5	-5	-4	-4	-3	-2	-2	
Proprietors' income with IVA and CCAAdj	.8	.8	.7	.7	.7	.8	.8	.8	.8	.7	
Corporate profits with IVA and CCAAdj	-7	0	-1	-2	-2	-4	-4	-6	-7	-7	
Net interest	0	0	-1	0	0	0	0	.1	.1	.1	
Rental income of persons with CCAAdj	0	0	0	0	0	0	0	0	0	0	
Unemployment rate	-1	0	0	.1	.1	.2	.3	.4	.5	.7	
Yield, 4-6 month commercial paper	.3	1.2	.3	.2	.3	.2	.3	.4	.3	.3	
Yield, domestic corporate bonds (Moody's)	.1	.3	.2	.2	.3	.3	.3	.3	.4	.4	
Quarterly change at annual rate:											
GNP, constant dollars	-2	-3	-1.1	-7	.2	-5	-4	-3	-4	-2	
Implicit price deflator, GNP	1.0	3.0	.6	.5	.8	.3	.4	.4	.2	.1	

result, real PCE are reduced much less than in the previous cases.²³

By the 20th quarter, however, the decline in real GNP is as large as in case 1 and larger than in case 2. This catchup reflects primarily a large decrease in residential investment, which is in turn due to higher mortgage interest rates and a lower real return to owners of rental housing.

Increases in the unemployment rate are small during the first 3 years—0.4 percentage points by the 12th quarter compared with 0.7 percentage points in case 1 and 0.6 percentage points in case 2. A sizable share of the decreases in real GNP—during the first 3 years, about one-third on the average—is in gross farm product, to which there is no significant employment response. The smaller decrease in employment tends to hold up real wages.

23. Contrary to the assumption (implicit in the model) that the marginal propensity to consume with respect to farm proprietors' income is the same as with respect to other personal income, a lower propensity might prevail if farmers viewed much of their income as not available for consumption, but rather as business income. If so, the difference between real GNP losses in this case and in cases 1 and 2 might be much smaller.

Because farmers, most of whom are unincorporated, are the beneficiaries of higher prices, their gains, together with larger employee compensation, squeeze the share of corporate profits. Because marginal tax rates on profits are high, the Federal fiscal balance eventually moves toward substantially larger deficits.

The increases in current-dollar GNP, in contrast to smaller increases or decreases in previous cases, together with a fixed money supply, yield short- and long-term interest rates that remain above control-solution levels, in contrast to lower rates in the previous cases. Higher interest rates contribute to weakness in residential and nonresidential fixed investment.

Case 4. Implicit price deflators for final products.—The macroeconomic effects of increasing final-product deflators proportionally are, in general, remarkably similar to those resulting from the domestic oil price shock. Because final-product prices are directly and immediately increased by the price shock in this case, increases in the GNP deflator and decreases in real GNP are larger in the early

quarters of the simulation than in case 1.

In the fourth quarter, although the PCE and GNP deflators are up roughly the same as in case 1, real GNP is down substantially more—9½ billion in 1972 dollars—than in case 1. More than one-half of the difference between the two cases in real GNP is due to nonresidential fixed investment, which responds to reduced cash flow as well as to earlier reductions in final sales. The impact on cash flow is from smaller corporate profits, which, in contrast, initially increase in case 1. In addition, real PCE is down \$2.6 billion more than in case 1, mainly because of a larger reduction in employment, and inventory investment is down \$1.7 billion more because of lower final sales.

After the fourth quarter, however, the difference between cases 1 and 4 in real GNP losses narrows quickly, as the lagged responses to the oil price shock are registered in case 1 and, more importantly, as the transitory effect of reduced cash flow terminates in case 4. By the 12th quarter, differences between the two cases in real GNP and unemployment, as well

Table 1.4.—Effects of Price Shocks; Case 4. Implicit Price Deflators for Final Products

[Differences: price shock less control solution]

	Quarters after change									
	1	2	3	4	6	8	10	12	16	20
Percent of control solution level										
GNP, constant dollars.....	-0.6	-1.3	-1.7	-1.9	-1.7	-1.8	-2.0	-2.1	-2.2	-1.7
Implicit price deflator, GNP.....	1.1	1.1	1.2	1.2	1.4	1.5	1.7	1.8	1.7	1.4
Implicit price deflator, personal consumption expenditures.....	1.2	1.2	1.2	1.3	1.5	1.6	1.7	1.8	1.8	1.5
Compensation per hour, nonfarm business sector except housing.....	0	.1	.3	.4	.6	.7	.9	1.0	1.0	.8
Billions of dollars										
GNP.....	8.6	-3.4	-10.2	-12.0	-4.5	-6.3	-8.0	-7.1	-12.2	-10.0
Personal income.....	.3	-.8	-2.5	-2.6	-.4	-1.3	-3.2	-3.6	-8.9	-17.0
Corporate profits with IVA and CCAAdj.....	8.5	-.5	-7.0	-8.9	-3.6	-4.3	-3.2	-1.7	.4	12.9
Net exports of goods and services.....	-1.1	.4	2.0	2.8	1.7	1.7	2.1	2.4	3.1	2.2
Federal surplus or deficit, NIPA's.....	5.7	-2.7	-5.6	-6.4	-4.1	-4.9	-5.7	-5.6	-7.6	-4.5
Billions of 1972 dollars										
GNP.....	-7.8	-16.9	-22.4	-25.0	-22.1	-24.5	-27.5	-28.7	-32.3	-26.1
Personal consumption expenditures.....	-6.8	-11.1	-11.9	-11.9	-9.7	-11.4	-13.4	-14.6	-16.9	-15.9
Nonresidential fixed investment.....	1.8	-1.1	-5.1	-7.3	-6.6	-7.5	-8.2	-8.0	-10.3	-8.7
Residential investment.....	-.9	-2.1	-2.1	-2.0	-2.0	-1.8	-1.8	-1.8	-1.1	.5
Change in business inventories.....	.5	-1.2	-2.8	-3.4	-2.4	-2.1	-2.0	-2.1	-1.8	-.4
Net exports of goods and services.....	-2.0	-1.2	-.3	0	-.9	-.9	-1.1	-1.2	-1.0	-.6
Government purchases of goods and services.....	-.4	-.4	-.3	-.4	-.6	-.8	-.9	-1.0	-1.2	-1.0
Disposable personal income.....	-10.0	-10.8	-12.3	-13.1	-13.6	-14.9	-16.8	-18.0	-21.2	-22.5
Percent										
Share of national income:										
Compensation of employees.....	-.5	0	.3	.4	.1	.2	.1	0	-.1	-.4
Proprietor's income with IVA and CCAAdj.....	0	0	0	0	0	0	0	0	0	0
Corporate profits with IVA and CCAAdj.....	.6	0	-.4	-.5	-.2	-.2	-.2	-.1	.1	.6
Net interest.....	-.1	0	.1	.1	0	0	0	0	-.1	-.4
Rental income of persons with CCAAdj.....	0	.1	.1	.1	.1	.1	.1	.1	.1	.1
Unemployment rate.....	.1	.3	.4	.4	.4	.5	.7	.8	1.0	1.0
Yield, 4-6 month commercial paper.....	1.6	-.1	-.1	-.1	0	0	-.1	-.2	-.5	-.8
Yield, domestic corporate bonds (Moody's).....	.4	.1	.1	.1	.1	0	0	0	-.2	-.5
Quarterly change at annual rate:										
GNP, constant dollars.....	-2.6	-2.9	-1.7	-.8	0	-.4	-.4	.1	.1	.6
Implicit price deflator, GNP.....	4.8	0	.1	.4	.5	.2	.3	.3	-.2	-.4

as in the aggregate deflators, are small.

A difference persists, however, in real net exports, because of lower oil imports in case 1; the difference is magnified in current-dollar net exports because of the relatively high deflator for oil imports and, to a somewhat smaller degree, in current-dollar GNP and corporate profits. Lower current-dollar GNP results eventually in larger reductions in interest rates. Consequently, between the ends of the fourth and fifth years, there is more of a positive turnaround in real fixed investment and, accordingly, in the reduction in real GNP.

Two important conclusions can be derived from this analysis. First, an exogenous increase in the general price level—as distinct from an exogenous increase in the price of a particular commodity—is far from neutral in its impact on economic activity (i.e., on real GNP and employment). Although such a price increase produces, before output responses, a corresponding increase in current-dollar income, it results in a shift in income shares from those with a relatively

high propensity to spend to those with a relatively low propensity to spend. This shift, in turn, leads to a net reduction in real expenditures; the reduction in aggregate demand, which is reinforced by multiplier feedbacks, persists—as does the increase in the price level—with only a modest reversal of the reduction within the 5-year simulation period.

Second, some relative price increases, such as an increase in the price of crude oil, have effects similar to that of a general price level increase. This similarity reflects the widespread intermediate and end uses of these commodities and limited substitutability of lower priced alternatives.

Case 5. Implicit price deflator for consumer purchases of new and net used automobiles.—Real GNP is down more and unemployment is up more from the control solution in this case than in any other. By the fourth quarter, with a 1.3-percent increase in the GNP deflator—about the same increase as in case 4—real GNP is down 3.3 percent, compared with 1.9 percent in case 4, and unemployment is

up 1.3 percentage points, compared with 0.4 percentage points in case 4.

The price shock results directly in a large reduction in real auto purchases. This reduction, together with that in real disposable income resulting from both the higher overall PCE deflator and lower employment, reduces real PCE generally and both nonresidential fixed investment and inventory investment. A sharp initial falloff in corporate profits reinforces the reduction in nonresidential fixed investment. Net exports are up somewhat because of lower imports.

The reduction in real GNP begins to moderate in the fifth quarter, primarily because of a sudden dropoff in the inflation rate, as measured by the four-quarter change in the PCE deflator—a variable that has a substantial negative effect on total real PCE. Moderations in the reductions in other GNP components accompany or follow that in PCE. Although the reduction in GNP is smaller than in the fourth quarter, it remains large until the fifth year, as the price-wage spiral results in continuing increases in the PCE deflator. In the fourth year,

Table 1.5—Effects of Price Shocks: Case 5. Implicit Price Deflator for Consumer Purchases of New and Net Used Automobiles

[Differences: price shock less control solution]

	Quarters after change										
	1	2	3	4	6	8	10	12	16	20	
	Percent of control solution level										
GNP, constant dollars.....	-1.5	-2.6	-3.1	-3.3	-2.9	-2.7	-2.6	-2.6	-2.7	-2.0	
Implicit price deflator, GNP.....	1.1	1.1	1.1	1.3	1.5	1.6	1.8	1.9	1.7	1.1	
Implicit price deflator, personal consumption expenditures.....	1.6	1.6	1.7	1.8	2.2	2.3	2.4	2.5	2.2	1.6	
Compensation per hour, nonfarm business sector except housing.....	0	.1	.3	.4	.7	.9	1.0	1.1	1.1	.6	
	Billions of dollars										
GNP.....	-7.2	-27.0	-34.6	-36.5	-25.3	-21.5	-16.7	-16.2	-24.5	-24.4	
Personal income.....	-4.3	-9.1	-14.3	-16.7	-12.9	-12.1	-11.0	-11.8	-18.9	32.2	
Corporate profits with IVA and CCAj.....	-7	-11.6	-14.6	-13.4	-6.4	-3.8	.6	2.8	4.2	20.9	
Net exports of goods and services.....	-4	2.4	4.4	5.1	2.9	1.3	.3	.5	1.8	.6	
Federal surplus or deficit, NIPA's.....	1.5	-11.2	-14.1	-14.7	-11.1	-9.2	-7.1	-7.0	9.6	-4.7	
	Billions of 1972 dollars										
GNP.....	-19.6	-34.0	-40.1	-43.0	-38.1	-36.3	-35.1	-36.3	-38.6	-29.6	
Personal consumption expenditures.....	-18.8	-24.7	-26.0	-26.4	-21.3	-20.0	-20.1	-21.8	-23.8	-22.9	
Nonresidential fixed investment.....	.3	-4.1	-8.6	-11.5	-11.6	-11.8	-10.7	-10.0	-12.2	-9.4	
Residential investment.....	-6	-1.5	-1.3	-1.1	-1.1	-9	-8	-8	.4	2.5	
Change in business inventories.....	.3	-4.7	-5.9	-6.0	-4.4	-2.8	-1.7	-1.7	-1.7	.4	
Net exports of goods and services.....	-3	.7	1.8	2.0	.6	-4	-1.1	-1.3	-1.5	.4	
Government purchases of goods and services.....	0	.1	.1	0	-3	-5	-6	-7	-9	-6	
Disposable personal income.....	-16.9	-19.4	-23.0	-25.6	-26.6	-26.7	-27.1	-28.2	-29.4	-30.8	
	Percent										
Share of national income:											
Compensation of employees.....	0	.6	.6	.5	.2	.1	-.1	-.1	-.1	-.5	
Proprietors' income with IVA and CCAj.....	0	0	0	0	0	0	0	0	0	0	
Corporate profits with IVA and CCAj.....	0	-.7	-.8	-.7	-.3	-.2	.1	.2	.3	1.1	
Net interest.....	0	.1	.2	.2	.1	0	-.1	-.2	-.3	-.6	
Rental income of persons with CCAj.....	0	0	.1	.1	0	0	0	0	0	0	
Unemployment rate.....	.3	.8	1.1	1.3	1.1	1.1	1.2	1.3	1.4	1.3	
Yield, 4-6 month commercial paper.....	1.3	-.4	-.4	-.3	-.3	-.3	-.1	-.3	-.7	-1.2	
Yield, domestic corporate bonds (Moody's).....	.3	0	0	0	-.1	-.1	-.1	-.2	-.4	-.8	
Quarterly change at annual rate:											
GNP, constant dollars.....	-6.5	-4.5	-1.9	-.8	.6	.1	.1	.1	.5	.6	
Implicit price deflator, GNP.....	4.7	-2	.2	.6	.2	.2	.7	.4	-.4	-.6	

higher unemployment rates reduce the wage-rate increases. This effect, together with higher productivity and a substantial reduction in long-term interest rates, reduces the increase in the PCE deflator, which in turn reduces the decrease in real GNP from 2.7 percent in the 16th quarter to 2.0 percent in the 20th.

Corporate profits are down sharply in the early quarters in response to the reduced demand. After widening through the fourth quarter, the difference relative to the control solution narrows sharply. In the 10th quarter, the difference becomes positive and by the 20th quarter, profits are up nearly \$21 billion, although current-dollar GNP is down more than \$24 billion. The large increase in profits toward the end of the period is mainly due to large reductions in employee compensation and net interest.

Case 6. Implicit price deflator for personal consumption expenditures for household operation, except gas and electricity.—Because of the much lower price elasticity of demand for household operation services than for automobiles, real PCE for household

operation is reduced by much smaller amounts than are automobile purchases in case 5. As a result, total real PCE and real GNP are reduced substantially less during the first two years after the price shock than in case 5 and unemployment rises less.

The smaller increase in unemployment, however, produces a smaller offset to the effect of the higher PCE deflator on compensation per hour; thus the price-wage spiral is stronger. By the 12th quarter, compensation per hour is up 1.6 percent compared with 1.1 percent in case 5. Smaller reductions in employment also tend to hold up real disposable personal income and thus real PCE. Nevertheless, because the PCE deflator is also up more, tending to reduce both real disposable personal income and real household wealth, real PCE is down as much in case 6 as in case 5 by the 16th quarter. Moreover, with the money supply fixed, smaller reductions in current-dollar GNP (reflecting the higher GNP deflator) eventually result in higher long-term interest rates, which tend to depress fixed investment. Thus, after 3 years, re-

ductions in real GNP are somewhat larger than in case 5.

Because this case is comparable to case 3 in the sense that the price shock impinges on a PCE component with a relatively low price elasticity of demand, similar macroeconomic results might be expected (apart from a short-run timing difference, due to the lagged pass-through of farm prices). The price effects are, indeed, roughly similar after the first year. However, real GNP is down more than in case 3 because of a stronger shift of income shares from personal income to corporate profits; in case 3, the shift is to proprietors' income, with respect to which the propensity to consume is (in the model) as large as with respect to other personal income.²⁴

Case 7. Implicit price deflator for investment in producers' durable

24. The qualification expressed in footnote 23 concerning the realism of this relatively high propensity also applies to the comparison of cases 3 and 6. Further, the difference between cases 5 and 6 in PCE responses overstates those that would actually occur to the extent that cross-elasticities of demand are understated in the model.

Table 1.6.—Effects of Price Shocks: Case 6. Implicit Price Deflator for Personal Consumption Expenditures for Household Operation, Except Gas and Electricity

[Differences: price shock less control solution]

	Quarters after change									
	1	2	3	4	6	8	10	12	16	20
	Percent of control solution level									
GNP, constant dollars	-0.4	-1.3	-1.9	-2.2	-2.0	-2.3	-2.6	-2.7	-2.9	-2.4
Implicit price deflator, GNP	1.2	1.2	1.4	1.5	1.8	2.0	2.1	2.3	2.3	2.0
Implicit price deflator, personal consumption expenditures	1.7	1.8	2.0	2.1	2.4	2.5	2.6	2.7	2.8	2.5
Compensation per hour, nonfarm business sector except housing	0	0	0	.6	1.0	1.2	1.4	1.6	1.6	1.4
	Billions of dollars									
GNP	11.7	-1.2	-9.4	-13.7	-4.3	-6.8	-10.6	-9.5	-15.1	-13.3
Personal income	1.2	1.9	-.3	-1.3	1.5	0	-3.3	-3.7	-10.4	-21.1
Corporate profits with IVA and CCA _{adj}	11.4	1.5	-5.7	-7.7	-2.6	-3.9	-3.4	-1.8	1.3	16.4
Net exports of goods and services	-2.2	-9	1.0	2.3	1.3	1.5	2.4	2.8	3.7	2.9
Federal surplus or deficit, NIPA's	7.6	-3.0	-6.6	-8.7	-5.8	-6.8	-8.5	-8.3	-10.1	-6.5
	Billions of 1972 dollars									
GNP	-5.7	-16.7	-24.4	-29.1	-26.5	-30.4	-35.3	-36.9	-41.7	-36.7
Personal consumption expenditures	-5.5	-12.4	-14.4	-15.6	-12.6	-15.1	-18.4	-19.9	-23.4	-23.5
Nonresidential fixed investment	2.3	-.8	-5.1	-7.9	-7.7	-9.1	-10.4	-10.3	-12.8	-11.4
Residential investment	-.7	-1.9	-2.1	-2.1	-2.1	-2.0	-2.0	-1.9	-1.1	-.6
Change in business inventories	-.2	-.3	-2.5	-3.5	-2.8	-2.6	-2.8	-2.7	-2.3	-.9
Net exports of goods and services	-2.0	-1.3	-.4	-.2	-.8	-.9	-.8	-.9	-.8	-.4
Government purchases of goods and services	0	0	0	-.1	-.5	-.3	-.1	-.1	-.1	-.2
Disposable personal income	-14.3	-14.4	-17.2	-18.7	-19.8	-21.9	-24.6	-26.1	-30.8	-34.2
	Percent									
Share of national income:										
Compensation of employees	-.7	-.1	.2	.4	.1	.1	.1	0	-.1	-.4
Proprietors' income with IVA and CCA _{adj}	0	.1	.1	0	.1	0	0	0	.1	.1
Corporate profits with IVA and CCA _{adj}	.8	.1	-.3	-.5	-.1	-.2	-.2	-.1	-.1	-.8
Net interest	-.1	-.1	.1	.1	0	0	0	-.1	-.2	.5
Rental income of persons with CCA _{adj}	0	0	0	0	0	0	0	.1	.1	0
Unemployment rate	.1	.3	.4	.5	.6	.8	1.1	1.2	1.4	1.4
Yield, 4-6 month commercial paper	1.6	0	-.1	-.1	.1	-.1	-.2	-.2	-.6	-1.1
Yield, domestic corporate bonds (Moody's)	.4	.1	.2	.1	.1	.1	0	0	-.3	-.6
Quarterly change at annual rate:										
GNP, constant dollars	-1.9	-3.5	-2.4	-1.4	-.1	-.7	-.6	.1	0	.6
Implicit price deflator, GNP	4.9	.4	.5	.5	.8	.3	.2	.3	-.2	-.4

equipment, except motor vehicles.—A relatively low price elasticity of demand—in the long run, about -0.3 —attaches to investment in producers' durable equipment. The endogenous responses in this case are much smaller than in any of the previous cases. Because the exogenous price increases is for a nonconsumption component of GNP, so that there is only a very small feedback to the PCE deflator, reductions in real disposable income and real household wealth, and thus, in PCE, are small. Together with the small increases in the PCE deflator, increases in unemployment, although modest, virtually prevent a price-wage spiral.²⁵

An initial step-up in cash flow raises nonresidential fixed investment above the control solution in the first and second quarters. By the third

quarter, however, the difference is negative. PCE is again the real GNP component showing the largest absolute decrease from the control solution; reductions in real household wealth as well as the reductions in real disposable income contribute to this effect.

Varying the economic and policy environment

The results presented thus far have been for a HU/NMP environment. The effects of varying the unemployment rate in the control solution and the assumed monetary policy response in the shocked solution will now be examined, using case 1 for illustration (see table 2 and chart 6).

The results for case 1 are illustrative of all of the price shock cases reported in the sense that they indicate the direction and, for many of the cases, the order of magnitude of the differences in results due to the effects of varying the unemployment rate and the monetary response. It cannot be assumed, however, that the differences would be of even approxi-

mately the same magnitude for all the cases.

Low-unemployment control solution.—In both the LU/NMP and HU/NMP cases, the differences from the control solution in real GNP and the GNP deflator are about the same for the first six quarters.²⁶ After that, however, the differences begin to diverge. Because of the nonlinear relationship between changes in the wage rate and the level of unemployment, an increment to the unemployment rate of a given size that results from a positive price shock has a substantially more mitigating effect on compensation per hour when that increment is added to a base unemployment rate of $5\frac{1}{2}$ to 6 percent (LU) than when it is added to a base rate

26. The slight differences are hard to account for, but are probably mainly due to the small differences in the historical periods used in the control solutions.

The sizable differences in interest-rate effects (as represented by the yield on commercial paper) are due to the fact that interest rates in the initial quarter of the LU control solution are almost twice as high as the corresponding rates in the HU control solution. The larger absolute differences in rates reflect comparable relative differences (note that the interest rates in the money demand equation are expressed in logarithmic form).

25. The reason that the PCE deflator increases at all is that changes in the general price level appear as explanatory variables in some PCE component deflator equations. Their appearance is, perhaps, a misspecification in the present context. On the other hand, there may be an offsetting specification error in that nonconsumption prices do not appear as an explanatory variable in the wage-rate equation.

Table 1.7.—Effects of Price Shocks: Case 7. Implicit Price Deflator for Investment in Producer's Durable Equipment, Except Motor Vehicles

[Differences: price shock less control solution]

	Quarters after change									
	1	2	3	4	6	8	10	12	16	20
	Percent of control solution level									
GNP, constant dollars.....	-0.1	-0.5	-0.7	-0.8	-0.6	-0.6	-0.6	-0.5	-0.7	-0.5
Implicit price deflator, GNP.....	1.0	1.0	1.0	1.0	1.0	1.0	.9	.9	.9	.7
Implicit price deflator, personal consumption expenditures.....	.3	.3	.3	.3	.4	.4	.4	.4	.3	.2
Compensation per hour, nonfarm business sector except housing.....	0	0	.1	.1	.1	.2	.2	.2	.1	0
	Billions of dollars									
GNP.....	14.9	9.0	4.3	3.0	6.8	6.1	5.9	8.8	4.7	4.3
Personal income.....	1.0	.2	-1.1	-1.5	-.8	-1.2	-1.6	-.9	-3.8	-7.3
Corporate profits with IVA and CCAdj.....	5.8	1.7	-3.1	-4.2	-1.5	-2.1	-1.9	-.2	-2.3	-.3
Net exports of goods and services.....	-2.3	-1.7	-.8	-.3	1.0	-1.0	-1.0	-1.3	-1.0	-1.3
Federal surplus or deficit, NIPA's.....	8.1	2.7	.6	.1	1.7	1.4	1.4	2.6	1.2	2.0
	Billions of 1972 dollars									
GNP.....	-1.6	-5.9	-9.1	-10.2	-8.2	-8.4	-8.3	-6.9	-9.7	-8.2
Personal consumption expenditures.....	-1.8	-3.5	-3.8	-3.5	-2.9	-3.5	-3.7	-3.8	-5.0	-4.7
Nonresidential fixed investment.....	2.5	.9	-1.3	-3.0	-1.7	-1.8	-1.6	-.2	-2.0	-2.0
Residential investment.....	-.6	-1.7	-1.8	-1.7	-1.6	-1.4	-1.3	-1.3	-1.2	-.8
Change in business inventories.....	.1	-.1	-1.0	-1.5	-1.0	-.7	-.6	-.4	-.5	-.2
Net exports of goods and services.....	-1.8	-1.4	-.8	-.6	-1.0	-.9	-.9	-1.1	-.8	-.5
Government purchases of goods and services.....	0	0	0	0	-.1	-.1	-.1	-.1	-.1	0
Disposable personal income.....	-2.1	-2.7	-3.5	-3.8	-3.8	-4.0	-4.0	-3.7	-5.0	-5.3
	Percent									
Share of national income:										
Compensation of employees.....	-.3	-.1	.1	.2	0	.1	.1	0	0	0
Proprietors' income with IVA and CCAdj.....	0	0	0	0	0	0	0	0	0	0
Corporate profits with IVA and CCAdj.....	.4	.1	-.2	-.3	-.1	-.1	-.1	0	-.1	0
Net interest.....	0	-.1	-.1	.1	.1	-.1	.1	.1	.1	0
Rental income of persons with CCAdj.....	0	0	0	0	0	0	0	0	0	0
Unemployment rate.....	0	.1	-.1	.2	.1	.2	.2	.2	.3	.3
Yield, 4-6 month commercial paper.....	1.5	0	0	0	0	0	0	.1	-.1	-.2
Yield, domestic corporate bonds (Moody's).....	.3	.1	.1	.1	.1	.1	.1	.1	0	0
Quarterly change at annual rate:										
GNP, constant dollars.....	-.6	-1.3	-1.0	-.3	.2	0	-.1	.3	0	-.2
Implicit price deflator, GNP.....	4.3	-.1	-.1	0	.1	-.1	-.1	.1	-.1	-.2

of 7½ to 8 percent (HU). Thus, the price-wage spiral is weaker than in the HU-based simulation.

The differences from the LU control solution in aggregate price level and compensation per hour begin to trend down in the third year; in the HU-based simulation, such a trend begins only in the fifth year. In the final quarter of the LU-based simulation, the GNP deflator is up only 0.7 percent, compared with its peak increase of 1.5 percent in the seventh quarter and 1.7 percent in the final quarter of the HU-based simulation; compensation per hour is actually down 0.5 percent, with the effect of higher unemployment on the wage rate dominating that of higher prices.

The smaller price increases in the LU-based simulation hold down the reduction in real GNP, which also eventually reverts toward zero. During the last half of the period, when the reductions tend to diminish, they are much smaller than in the HU-based simulation. The reduced price increases operate through higher real values of household financial assets, which hold down the reduction in PCE (real disposable income is down about the same in the two simulations), and through lower interest rates and larger profits,

which hold up fixed investment; also, the reductions in real government purchases are smaller. A larger shift in income shares from wages and interest to profits occurs in the LU-based simulation, another result of the greater sensitivity of wage rates to changes in unemployment.

It may seem paradoxical that a positive price shock is more self-limiting when it impinges on a high-employment economy, in which one might expect the potential for triggering accelerating inflation to be stronger, than when it impinges on a low-employment economy. The explanation is that a positive price shock, which is characterized in this article as a one-time exogenous step-up in a price or price level, has only a transitory inflationary impact. Fundamentally, it is deflationary, tending to lower demand and, eventually, prices. The deflationary effect is greater at a lower unemployment rate because of the nonlinearity in the response of wage rate changes to given shifts in the unemployment rate.

Monetary accommodation.—Again using the HU control solution and case 1, the AMP assumption of increasing M2 1 percentage point has virtually no effect on the aggregate price level during the first half of the

period and only a slight effect during the last half of the period. The reductions in real GNP are only slightly smaller, due to lower interest rates.

The differences between the AMP and NMP simulations are also small using the LU control solution. However, in the LU/AMP simulation, there are somewhat larger price responses relative to those in the LU/NMP sim-

CHART 6

Effects of Price Shock With Alternative Unemployment Rates and Monetary Responses: Case 1 (Price shock less control solution, relative differences)

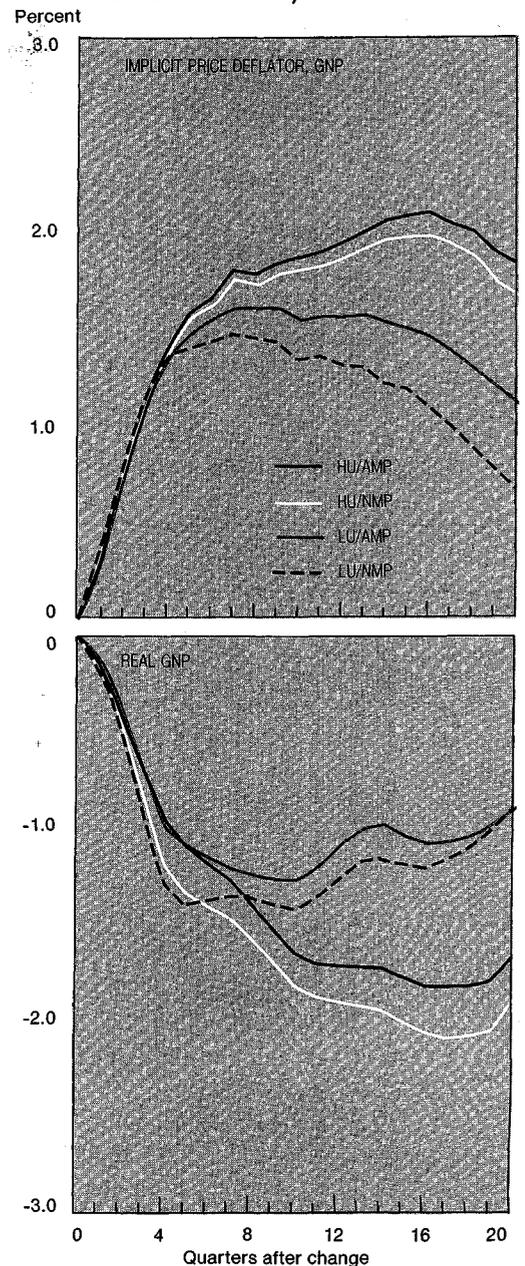


Table 2.—Effects of Price Shock with Alternative Unemployment Rates and Monetary Responses: Case 1

[Differences: price shock less control solution]

	Quarters after change										
	1	2	3	4	6	8	10	12	16	20	
Percent of control solution level											
Implicit price deflator, GNP:											
HU/NMP.....	0.3	0.8	1.2	1.4	1.6	1.7	1.8	1.9	2.0	1.7	
HU/AMP.....	.3	.8	1.1	1.4	1.7	1.8	1.9	1.9	2.1	1.8	
LU/NMP.....	.4	.8	1.0	1.1	1.2	1.4	1.3	1.3	1.1	.7	
LU/AMP.....	.3	.8	1.1	1.4	1.6	1.6	1.6	1.6	1.5	1.1	
GNP, constant dollars:											
HU/NMP.....	-1	-5	-9	-12	-14	-16	-18	-19	-21	-19	
HU/AMP.....	-1	-4	-7	-10	-12	-14	-17	-17	-18	-17	
LU/NMP.....	-2	-5	-9	-13	-14	-14	-14	-13	-12	-9	
LU/AMP.....	-1	-4	-7	-10	-12	-13	-13	-11	-11	-9	
Percent											
Unemployment rate:											
HU/NMP.....	0	.1	.2	.3	.3	.4	.6	.7	.9	1.0	
HU/AMP.....	0	.1	.1	.2	.3	.4	.6	.7	.8	.9	
LU/NMP.....	0	.1	.2	.3	.4	.5	.6	.7	.7	.7	
LU/AMP.....	0	.1	.2	.2	.3	.5	.6	.6	.6	.7	
Yield, 4-6 month commercial paper:											
HU/NMP.....	.4	.7	.5	.3	0	-1	-1	-1	-2	-7	
HU/AMP.....	0	.2	0	-.2	-.1	-.2	-.2	-.3	-.4	-1.0	
LU/NMP.....	.6	1.2	1.0	.6	-.1	-.2	-.2	-.4	-.6	-.9	
LU/AMP.....	0	.4	.1	-.4	-.2	-.5	-.9	-.7	-.8	-1.2	

ulation than in the HU/AMP simulation relative to the HU/NMP simulation, with noticeable differences in the GNP deflator appearing as early as the fourth quarter; by the end of the period, the deflator is 0.4 percent higher in the LU/AMP simulation than in the LU/NMP simulation, in contrast to a corresponding difference of only 0.1 percent in the HU-based simulations. There is less of a contrast between differences in real GNP responses—AMP versus NMP—when the LU- and HU-based simulations are compared. Toward the end of the

period the differences are slightly smaller for the LU-based simulations, the result of the larger price differences. Although these differences are not large, they show that the demand stimulus created by the larger money supply has more inflationary impact in a high-employment than a low-employment economy, whereas, as noted earlier, a price shock itself has a more inflationary impact in a low-employment economy.

It may be noted that an accommodating monetary policy, as here defined, does not, even after 5 years,

neutralize the effects on real output and employment of a price shock, and results in higher price levels. Although current-dollar GNP is larger in the AMP simulation than in the NMP simulation, the differences are not nearly enough to maintain constancy in the velocity of money. This implies that the money supply must be increased several times the amount required to accommodate the additional transactions demand engendered directly by the price shock in order to neutralize the effects on real output and employment.

Constant-Dollar Inventories, Sales, and Inventory-Sales Ratios for Manufacturing and Trade: Revised Estimates

The constant-dollar sales series usually shown each quarter in the SURVEY OF CURRENT BUSINESS have been revised to incorporate new source data for recent years and improvements in the deflation procedure. Constant-dollar sales for manufacturing and merchant wholesalers are revised beginning with 1967; retail trade sales, beginning with 1959. Revised estimates of sales and the related inventories and inventory-sales

ratios, quarterly from 1977: I-1982:IV, and monthly from January-December 1982, are shown in tables 1-5.

Revised estimates for earlier periods are available upon request from the National Income and Wealth Division (BE-54), Bureau of Economic Analysis, U.S. Department of Commerce, Washington, D.C. 20230.

Table 1.—Manufacturing and Trade Inventories in Constant

[Billions of

Line		1977				1978				1979				1980			
		I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
1	Manufacturing and trade.....	237.1	239.8	243.8	246.2	250.5	253.8	256.2	259.7	262.2	264.8	265.2	264.4	263.9	264.7	263.6	262.8
2	Manufacturing.....	131.3	132.2	133.7	134.1	135.2	136.8	138.5	139.8	141.8	143.3	144.3	145.0	146.6	147.4	146.3	145.9
3	Durable goods.....	86.6	86.8	87.6	88.1	89.1	90.5	91.9	93.3	95.3	96.7	97.7	98.8	99.6	100.4	99.9	99.9
4	Primary metals.....	13.7	13.7	13.7	13.5	13.1	13.2	13.4	13.5	13.2	13.4	13.5	13.6	13.5	13.6	13.2	13.1
5	Fabricated metals.....	11.1	11.2	11.4	11.4	11.6	11.7	11.8	11.9	12.1	12.1	12.1	12.1	12.0	11.9	11.6	11.8
6	Machinery, except electrical.....	20.3	20.3	20.3	20.8	21.1	21.5	21.8	22.4	23.0	23.3	23.6	24.0	24.4	24.9	24.9	24.5
7	Electrical machinery.....	12.0	12.3	12.5	12.7	13.0	13.5	13.8	13.9	14.4	14.5	14.7	15.4	15.8	16.0	16.0	16.0
8	Transportation equipment.....	14.5	14.3	14.7	14.6	14.9	15.1	15.4	15.7	16.5	17.0	17.4	17.5	17.5	17.5	17.8	18.1
9	Motor vehicles.....	5.5	5.7	5.8	5.8	5.9	5.9	6.2	6.0	6.6	6.4	6.5	5.9	5.6	5.2	5.0	4.9
10	O.T.E.....	9.0	8.6	8.9	8.8	9.0	9.1	9.2	9.7	9.9	10.6	10.9	11.6	11.9	12.3	12.8	13.2
11	Other durable goods ¹	14.9	14.9	15.0	15.2	15.4	15.5	15.7	15.9	16.1	16.3	16.3	16.2	16.4	16.5	16.4	16.4
12	Nondurable goods.....	44.7	45.4	46.1	46.0	46.1	46.3	46.5	46.5	46.5	46.6	46.7	46.1	47.0	47.1	46.4	46.0
13	Food and kindred products.....	11.6	11.9	12.1	11.6	11.5	11.5	11.6	11.6	11.7	11.9	11.8	11.8	11.8	11.6	11.7	11.6
14	Nonfood.....	33.1	33.5	34.0	34.4	34.6	34.7	34.9	34.9	34.8	34.7	34.8	34.3	35.2	35.4	34.7	34.4
15	Paper and allied products.....	3.7	3.8	3.8	3.8	3.8	3.8	3.9	3.9	3.8	3.9	3.9	4.0	4.1	4.1	4.1	4.0
16	Chemicals and allied products.....	8.1	8.2	8.4	8.5	8.7	8.7	8.8	8.8	8.7	8.9	8.7	8.5	8.8	8.9	8.6	8.6
17	Petroleum and coal products.....	3.2	3.3	3.3	3.3	3.3	3.2	3.2	3.2	3.2	3.1	3.2	3.3	3.4	3.5	3.4	3.4
18	Rubber and plastic products.....	3.2	3.3	3.4	3.4	3.4	3.5	3.5	3.5	3.5	3.5	3.6	3.5	3.5	3.5	3.3	3.3
19	Other nondurable goods ²	14.9	15.0	15.1	15.3	15.4	15.5	15.5	15.5	15.5	15.3	15.4	15.1	15.4	15.5	15.3	15.1
20	Merchant wholesalers.....	46.1	46.8	48.0	49.0	50.8	51.6	51.5	52.5	53.2	53.3	53.6	53.4	53.2	53.5	53.8	53.9
21	Durable goods.....	30.8	31.2	31.8	32.5	33.6	34.2	34.4	35.1	35.5	35.3	35.9	35.7	35.6	36.1	36.0	36.3
22	Nondurable goods.....	15.3	15.6	16.2	16.5	17.2	17.4	17.1	17.4	17.8	17.9	17.8	17.7	17.5	17.4	17.9	17.6
23	Groceries and farm products.....	5.9	6.1	6.4	6.6	7.0	7.0	6.6	6.5	6.6	6.9	7.0	7.0	6.9	6.8	7.1	7.0
24	Other nondurable goods.....	9.4	9.5	9.9	9.9	10.2	10.4	10.6	10.9	11.2	11.0	10.7	10.7	10.6	10.6	10.8	10.7
25	Retail trade.....	59.8	60.8	62.1	63.1	64.5	65.4	66.2	67.3	67.1	68.3	67.2	66.1	64.2	63.7	63.5	63.0
26	Durable goods.....	23.9	29.2	30.0	30.5	31.2	31.2	31.4	32.5	32.9	33.9	33.1	32.1	30.5	29.8	29.2	29.1
27	Auto dealers.....	14.2	14.5	15.1	15.7	15.9	15.6	15.7	16.7	17.0	18.1	17.3	16.5	15.4	14.6	14.0	13.9
28	Other durable goods.....	14.7	14.7	14.9	14.9	15.3	15.6	15.7	15.8	15.8	15.9	15.6	15.6	15.1	15.3	15.2	15.2
29	Nondurable goods.....	30.9	31.6	32.0	32.6	33.3	34.2	34.7	34.8	34.3	34.3	34.1	33.9	33.7	33.9	34.3	33.9
30	Food stores.....	6.3	6.4	6.4	6.4	6.4	6.5	6.5	6.5	6.5	6.5	6.7	6.8	6.8	7.0	6.9	7.0
31	Other nondurable goods.....	24.6	25.2	25.7	26.2	26.9	27.8	28.2	28.3	27.8	27.8	27.4	27.2	26.8	27.0	27.5	26.9

See footnotes to table 4.

Table 2.—Manufacturing and Trade Sales in Constant

[Billions of

Line		1977				1978				1979				1980			
		I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
1	Manufacturing and trade.....	148.8	150.9	152.3	154.5	154.3	161.1	161.7	164.0	163.7	163.8	164.4	162.9	162.4	155.0	157.6	161.3
2	Manufacturing.....	71.0	72.1	72.8	73.9	73.5	76.4	76.7	78.0	78.6	77.9	77.9	76.5	76.7	72.1	73.3	75.4
3	Durable goods.....	38.5	39.3	39.7	40.4	40.1	42.1	42.6	43.8	44.4	43.7	43.6	42.4	42.7	39.2	40.2	41.8
4	Primary metals.....	4.9	5.1	4.9	5.0	5.0	5.2	5.4	5.5	5.5	5.4	5.4	5.1	5.1	4.5	4.5	4.8
5	Fabricated metals.....	4.5	4.6	4.7	4.7	4.7	4.8	4.9	5.0	5.0	4.9	5.0	4.8	4.9	4.4	4.5	4.7
6	Machinery, except electrical.....	6.7	6.8	7.0	7.1	7.1	7.6	7.8	8.1	8.2	8.4	8.5	8.5	8.5	8.3	8.5	8.7
7	Electrical machinery.....	5.3	5.4	5.6	5.8	5.8	6.0	6.2	6.4	6.5	6.7	6.8	6.9	7.2	6.9	7.0	7.1
8	Transportation equipment.....	9.5	9.5	9.6	9.6	9.5	10.0	10.1	10.5	10.9	9.9	9.5	8.8	8.7	7.5	7.9	8.2
9	Motor Vehicles.....	6.9	6.9	7.0	6.9	6.8	7.2	7.2	7.6	7.7	6.9	6.2	5.7	5.4	4.3	4.7	4.9
10	O.T.E.....	2.7	2.7	2.6	2.7	2.7	2.8	2.9	2.9	3.1	3.0	3.3	3.2	3.3	3.2	3.2	3.3
11	Other durable goods ¹	7.6	7.8	8.0	8.1	8.1	8.4	8.3	8.4	8.2	8.4	8.5	8.4	8.3	7.7	7.9	8.3
12	Nondurable goods.....	32.5	32.8	33.1	33.5	33.4	34.3	34.2	34.2	34.3	34.2	34.3	34.1	34.1	32.9	33.1	33.6
13	Food and kindred products.....	10.5	10.5	10.6	10.8	10.7	10.9	10.9	10.9	10.7	10.7	10.9	11.0	11.0	11.0	11.1	11.0
14	Nonfood.....	21.9	22.3	22.5	22.7	22.7	23.4	23.3	23.3	23.5	23.5	23.4	23.1	23.1	21.9	22.0	22.6
15	Paper and allied products.....	2.7	2.7	2.6	2.7	2.7	2.8	2.8	2.8	2.8	2.8	2.9	2.8	2.8	2.7	2.8	2.8
16	Chemicals and allied products.....	5.7	5.8	5.9	5.9	6.0	6.2	6.1	6.2	6.4	6.3	6.2	6.2	6.1	5.7	5.8	6.1
17	Petroleum and coal products.....	3.0	3.0	3.0	3.0	2.9	3.0	3.1	3.2	3.3	3.3	3.2	3.1	3.0	2.9	2.8	2.8
18	Rubber and plastic products.....	2.0	2.1	2.1	2.2	2.1	2.2	2.2	2.2	2.3	2.2	2.1	2.0	2.1	1.8	1.9	2.0
19	Other nondurable goods ²	8.6	8.8	8.9	9.0	8.9	9.2	9.1	9.0	8.8	8.9	9.1	9.1	9.1	8.8	8.7	8.8
20	Merchant wholesalers.....	33.4	33.9	34.8	35.2	35.7	37.7	38.0	38.1	37.6	38.5	38.9	38.8	38.8	37.8	38.6	39.6
21	Durable goods.....	15.5	16.0	16.2	16.7	17.0	17.9	18.2	18.3	18.1	18.6	18.8	18.6	18.6	17.6	18.0	18.7
22	Nondurable goods.....	17.9	17.9	18.5	18.5	18.7	19.7	19.9	19.9	19.5	19.9	20.1	20.2	20.1	20.3	20.6	20.9
23	Groceries and farm products.....	9.3	9.4	9.9	9.8	9.9	10.5	10.5	10.4	10.1	10.1	10.4	10.6	10.6	10.8	10.6	10.8
24	Other nondurable goods.....	8.6	8.5	8.6	8.6	8.7	9.3	9.4	9.4	9.5	9.8	9.7	9.6	9.5	9.4	10.0	10.2
25	Retail Trade.....	44.4	44.9	44.7	45.4	45.2	47.0	46.9	47.9	47.5	47.3	47.7	47.6	47.0	45.1	45.7	46.3
26	Durable goods.....	15.3	16.1	16.0	16.3	15.8	17.2	16.9	17.4	17.2	17.2	17.2	16.8	16.3	14.7	15.2	15.6
27	Auto dealers.....	9.4	9.6	9.3	9.5	9.2	10.3	9.8	10.2	10.2	9.8	9.5	9.3	8.9	7.7	8.2	8.2
28	Other durable goods.....	5.9	6.4	6.6	6.8	6.6	7.0	7.0	7.2	7.1	7.4	7.7	7.5	7.4	7.0	7.1	7.4

Dollars, Seasonally Adjusted, End of Period

1972 dollars]

1981				1982				1982												Line
I	II	III	IV	I	II	III	IV	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
263.1	265.9	269.4	269.9	266.0	265.2	266.0	261.4	267.7	266.5	266.0	266.5	264.5	265.2	265.6	265.5	266.0	265.2	262.3	261.4	1
146.9	147.5	149.4	148.4	146.4	144.6	148.3	140.3	146.9	146.9	146.4	146.0	145.3	144.6	144.4	144.0	143.3	142.6	141.0	140.3	2
100.5	100.9	102.5	101.8	100.1	99.2	98.3	95.7	100.6	100.4	100.1	99.8	99.5	99.2	98.8	98.6	98.3	97.6	96.4	95.7	3
13.7	13.6	14.2	14.2	14.2	13.6	13.4	12.7	14.1	14.2	14.2	13.9	13.8	13.6	13.6	13.5	13.4	13.3	13.0	12.7	4
11.6	11.5	11.6	11.4	11.2	11.1	10.8	10.3	11.4	11.3	11.2	11.1	11.1	11.1	10.9	11.0	10.8	10.7	10.4	10.3	5
24.5	24.6	25.1	25.2	24.9	24.7	24.3	23.4	24.9	25.0	24.9	24.9	25.0	24.7	24.7	24.6	24.3	24.1	23.9	23.4	6
16.1	16.4	16.6	16.3	16.0	15.7	15.4	15.2	16.1	16.0	16.0	15.8	15.8	15.7	15.6	15.5	15.4	15.3	15.3	15.2	7
18.0	18.1	18.1	17.9	17.5	17.8	18.2	18.5	17.5	17.5	17.5	17.7	17.7	17.8	17.9	18.0	18.2	18.2	18.0	18.5	8
4.7	4.4	4.4	4.0	3.7	3.7	3.7	3.6	3.7	3.7	3.7	3.7	3.6	3.7	3.8	3.7	3.7	3.6	3.5	3.6	9
13.4	13.7	13.7	13.8	13.8	14.1	14.5	14.9	13.9	13.8	13.8	14.0	14.1	14.1	14.1	14.3	14.5	14.6	14.5	14.9	10
16.6	16.7	17.0	16.8	16.4	16.2	16.1	15.7	16.5	16.4	16.4	16.3	16.2	16.2	16.2	16.1	16.1	16.0	15.8	15.7	11
46.5	46.6	46.8	46.7	46.3	45.4	45.0	44.6	46.4	46.5	46.3	46.2	45.8	45.4	45.6	45.4	45.0	45.1	44.7	44.6	12
11.6	11.6	11.6	11.3	11.1	10.8	11.1	11.0	11.3	11.2	11.1	11.1	11.0	10.8	11.0	11.1	11.1	11.0	10.9	11.0	13
34.9	35.0	35.2	35.4	35.2	34.5	34.0	33.6	35.1	35.2	35.2	35.1	34.8	34.5	34.6	34.3	34.0	34.1	33.7	33.6	14
4.1	4.1	4.2	4.3	4.3	4.2	4.3	4.3	4.2	4.3	4.3	4.3	4.3	4.3	4.2	4.2	4.3	4.3	4.3	4.3	15
8.7	8.9	8.9	8.9	8.8	8.7	8.5	8.3	8.8	8.8	8.8	8.8	8.9	8.7	8.7	8.6	8.6	8.5	8.5	8.3	16
3.5	3.5	3.4	3.3	3.4	3.2	3.2	3.2	3.3	3.3	3.4	3.3	3.2	3.2	3.2	3.2	3.2	3.2	3.3	3.2	17
3.3	3.4	3.4	3.3	3.2	3.2	3.0	3.0	3.2	3.2	3.2	3.3	3.2	3.2	3.1	3.1	3.0	3.1	3.0	3.0	18
15.2	15.2	15.4	15.6	15.4	15.2	15.0	14.7	15.5	15.6	15.4	15.4	15.4	15.4	15.3	15.2	15.0	15.0	14.8	14.7	19
53.4	53.9	54.1	55.3	54.5	55.2	55.5	55.2	55.4	54.5	54.5	55.4	54.5	55.2	55.6	55.0	55.5	55.8	55.3	55.2	20
36.0	36.5	36.7	37.4	36.9	36.9	37.4	36.8	37.2	36.7	36.9	37.5	36.6	36.9	37.5	37.0	37.4	37.6	37.1	36.8	21
17.3	17.4	17.4	17.9	17.6	18.3	18.1	18.4	18.2	17.8	17.6	17.9	17.9	18.3	18.1	18.0	18.1	18.2	18.3	18.4	22
6.7	6.5	6.5	6.8	6.5	6.9	6.9	7.3	7.0	6.8	6.5	6.6	6.6	6.9	6.8	6.7	6.9	6.9	7.1	7.3	23
10.6	10.8	10.9	11.1	11.0	11.4	11.2	11.2	11.2	11.0	11.0	11.3	11.3	11.4	11.4	11.3	11.2	11.3	11.2	11.2	24
62.8	64.6	65.9	66.1	65.1	65.4	67.2	65.9	65.4	65.0	65.1	65.2	64.7	65.4	65.5	66.4	67.2	66.9	65.9	65.9	25
28.6	30.0	30.4	30.3	29.3	29.7	31.3	30.0	29.8	29.4	29.3	29.4	29.1	29.7	30.0	30.7	31.3	30.9	30.1	30.0	26
13.1	14.6	14.9	14.6	14.2	14.4	15.8	14.3	14.4	14.1	14.2	14.2	13.8	14.4	14.8	15.4	15.8	15.4	14.5	14.3	27
15.5	15.4	15.6	15.7	15.1	15.2	15.5	15.7	15.4	15.3	15.1	15.2	15.3	15.2	15.2	15.4	15.5	15.5	15.5	15.7	28
34.2	34.6	35.5	35.7	35.8	35.7	35.8	35.9	35.6	35.7	35.8	35.8	35.6	35.7	35.6	35.7	35.8	36.0	35.8	35.9	29
7.2	7.2	7.3	7.4	7.4	7.5	7.4	7.8	7.4	7.5	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.5	7.6	7.8	30
27.0	27.4	28.2	28.3	28.3	28.2	28.4	28.1	28.1	28.1	28.3	28.3	28.1	28.2	28.2	28.4	28.4	28.5	28.2	28.1	31

Dollars, Seasonally Adjusted Total at Monthly Rate

1972 dollars]

1981				1982				1982												Line
I	II	III	IV	I	II	III	IV	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
162.6	162.8	161.6	156.4	154.3	155.4	154.0	151.0	152.1	155.2	155.4	153.5	157.3	155.5	155.0	153.3	153.5	149.7	151.8	151.3	1
75.1	76.1	75.1	71.2	69.6	70.2	69.9	66.5	68.4	70.2	70.1	69.1	70.8	70.8	70.6	69.5	69.6	66.4	66.6	66.5	2
41.4	42.4	41.5	38.7	37.3	37.7	37.1	34.5	36.6	37.6	37.7	37.1	38.2	37.9	37.8	36.9	36.6	34.4	34.6	34.5	3
4.8	4.9	4.8	4.1	3.9	3.6	3.5	3.2	4.1	3.9	3.6	3.7	3.6	3.6	3.5	3.4	3.4	3.2	3.1	3.2	4
4.7	4.7	4.6	4.1	4.0	4.2	4.1	3.7	4.0	4.0	4.1	4.1	4.2	4.2	4.2	4.1	4.0	3.7	3.8	3.6	5
8.9	8.9	8.9	8.9	8.5	8.0	7.7	7.4	8.3	8.6	8.8	7.9	8.2	8.0	7.6	7.6	7.9	7.2	7.5	7.5	6
7.0	7.2	7.2	6.9	6.8	6.9	6.8	6.5	6.7	6.8	6.8	6.9	7.0	6.8	7.1	6.7	6.7	6.6	6.5	6.5	7
7.7	8.3	7.9	6.9	6.4	7.2	7.2	6.2	5.9	6.6	6.7	6.8	7.4	7.4	7.5	7.4	6.8	6.2	6.2	6.3	8
4.5	5.1	4.8	4.0	3.7	4.5	4.7	3.6	3.4	3.8	4.0	4.4	4.6	4.7	4.9	4.9	4.2	3.5	3.6	3.7	9
3.2	3.2	3.1	3.0	2.7	2.7	2.5	2.6	2.6	2.8	2.7	2.5	2.8	2.8	2.7	2.5	2.5	2.6	2.6	2.6	10
8.4	8.5	8.2	7.8	7.7	7.7	7.5	7.6	7.6	7.8	7.7	7.7	7.8	7.8	7.8	7.7	7.7	7.5	7.6	7.4	11
33.6	33.7	33.6	32.5	32.3	32.5	32.8	32.0	31.9	32.6	32.4	32.0	32.6	33.0	32.8	32.6	33.0	32.0	32.0	32.0	12
11.2	11.3	11.2	11.0	11.2	11.2	11.2	11.1	11.1	11.4	11.2	11.0	11.3	11.3	11.3	10.9	11.5	11.1	11.2	11.0	13
22.4	22.4	22.4	21.5	21.0	21.3	21.6	20.9	20.7	21.2	21.2	21.0	21.3	21.6	21.4	21.7	21.6	20.8	20.8	21.0	14
2.9	2.8	2.8	2.8	2.7	2.7	2.7	2.7	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	15
6.1	5.9	5.9	5.6	5.5	5.7	5.8	5.6	5.5	5.6	5.6	5.6	5.7	5.9	5.7	5.9	5.7	5.4	5.6	5.6	16
2.7	2.7	2.7	2.6	2.5	2.8	2.7	2.5	2.5	2.5	2.5	2.8	2.7	2.7	2.7	2.7	2.7	2.6	2.5	2.5	17
1.8	1.8	1.8	1.7	1.6	1.6	1.6	1.5	1.6	1.6	1.5	1.6	1.6	1.7	1.7	1.6	1.6	1.5	1.5	1.4	18
9.0	9.1	9.2	8.7	8.7	8.6	8.7	8.6	8.3	8.8	8.9	8.4	8.6	8.6	8.6	8.8	8.8	8.5	8.5	8.8	19
40.3	40.0	39.7	39.3	39.1	39.0	38.2	37.6	38.7	39.0	39.6	38.5	39.5	39.1	38.5	38.2	37.8	37.2	37.9	37.6	20
19.0	19.1	18.8	18.1	17.6	16.8	16.4	16.6	17.8	17.5	17.4	16.9	16.9	16.6	16.7	16.2	16.4	16.4	16.8	16.6	21
21.3	20.9	20.9	21.2	21.5	22.2	21.7	21.0	20.9	21.5	22.2	21.6	22.5	22.5	21.9	22.0	21.4	20.9	21.1	21.0	22
11.2	10.9	11.0	11.4	11.4	11.5	11.4	11.1	11.2	11.6	11.6	11.1	11.7	11.6	11.3	11.5	11.2	11.0	11.2	11.0	23
10.1	10.0	10.0	9.8	10.1	10.7	10.4	9.9	9.7	9.9	10.6	10.5	10.8	10.9	10.6	10.5	10.1	9.9	9.8	10.0	24
47.2	46.7	46.9	45.9	45.6	46.2	45.9	46.9	45.0	46.1	45.7	46.0	47.1	45.5	45.9	45.6	46.2	46.1	47.3	47.2	25
16.3	15.8	16.0	15.0	14.9	15.3	15.0	15.8	14.5	15.2	15.1	15.3	15.9	14.9	14.9	14.7	15.3	15.1	16.4	16.0	26
8.8	8.3	8.6	7.9	8.0	8.3	8.1	8.9	7.6	8.2	8.1	8.3	8.9	7.9	8.0	7.9	8.5	8.3	9.5	8.9	27
7.6	7.5	7.4	7.1	7.0	7.0	6.8	6.9	6.9	7.0	6.9	7.0	7.1	7.0	6.9	6.8	6.8	6.8	6.9	7.1	28
30.9	31.0	30.9	30.9	30.7	30.8	30.9	31.1	30.5	30.9	30.6	30.7	31.2	30.7	31.0	30.9	31.0	31.0	31.0	31.2	29
9.6	9.7	9.7	9.9	9.7	9.7	9.8	9.9	9.7	9.7	9.8	9.7	9.8	9.7	9.7	9.9	9.9	9.9	9.9	9.9	30
21.3	21.2	21.1	21.0	21.0	21.1	21.1	21.2	20.9	21.2	20.9	21.0	21.3	21.0	21.2	21.1	21.0	21.2	21.1	21.3	31

Table 3.—Constant-Dollar Inventory-Sales Ratios

[Ratio, based

Line		1977				1978				1979				1980			
		I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
1	Manufacturing and trade.....	1.59	1.59	1.60	1.59	1.62	1.58	1.58	1.58	1.60	1.62	1.61	1.62	1.63	1.71	1.67	1.63
2	Manufacturing.....	1.85	1.83	1.84	1.82	1.84	1.79	1.80	1.79	1.80	1.84	1.85	1.89	1.91	2.04	2.00	1.94
3	Durable goods.....	2.25	2.21	2.21	2.18	2.22	2.15	2.16	2.13	2.15	2.21	2.24	2.33	2.33	2.56	2.48	2.39
4	Primary metals.....	2.81	2.70	2.78	2.71	2.64	2.54	2.49	2.43	2.41	2.49	2.49	2.68	2.62	3.05	2.93	2.73
5	Fabricated metals.....	2.45	2.41	2.45	2.42	2.50	2.43	2.43	2.40	2.39	2.46	2.44	2.53	2.48	2.73	2.59	2.49
6	Machinery, except electrical.....	3.02	2.97	2.92	2.91	2.95	2.83	2.81	2.78	2.80	2.79	2.78	2.84	2.88	2.99	2.94	2.83
7	Electrical machinery.....	2.28	2.30	2.22	2.17	2.24	2.26	2.24	2.18	2.20	2.17	2.17	2.24	2.20	2.32	2.30	2.25
8	Transportation equipment.....	1.52	1.50	1.54	1.52	1.57	1.50	1.53	1.50	1.52	1.72	1.84	1.98	2.01	2.35	2.26	2.19
9	Motor vehicles.....	.79	.82	3.38	.84	.87	.82	.86	.80	.85	.93	1.05	1.04	1.03	1.23	1.08	.98
10	O.T.E.....	3.41	3.25	3.28	3.28	3.34	3.25	3.22	3.38	3.18	3.51	3.35	3.64	3.61	3.83	3.99	4.00
11	Other durable goods ¹	1.97	1.91	1.89	1.88	1.91	1.84	1.89	1.90	1.97	1.95	1.93	1.94	1.97	2.14	2.06	1.98
12	Nondurable goods.....	1.38	1.39	1.39	1.37	1.38	1.35	1.36	1.36	1.36	1.36	1.36	1.35	1.38	1.43	1.40	1.37
13	Food and kindred products.....	1.10	1.14	1.15	1.07	1.07	1.06	1.06	1.07	1.09	1.11	1.09	1.07	1.07	1.06	1.06	1.06
14	Nonfood.....	1.51	1.50	1.51	1.52	1.53	1.48	1.50	1.50	1.48	1.47	1.49	1.48	1.53	1.62	1.58	1.52
15	Paper and allied products.....	1.39	1.40	1.45	1.44	1.39	1.38	1.39	1.37	1.37	1.36	1.34	1.42	1.46	1.53	1.48	1.42
16	Chemicals and allied products.....	1.42	1.41	1.43	1.45	1.45	1.40	1.45	1.42	1.37	1.40	1.40	1.38	1.46	1.57	1.48	1.40
17	Petroleum and coal products.....	1.06	1.10	1.11	1.12	1.14	1.08	1.03	1.03	.96	.96	1.02	1.05	1.14	1.20	1.24	1.19
18	Rubber and plastic products.....	1.62	1.58	1.60	1.55	1.61	1.58	1.58	1.62	1.55	1.62	1.75	1.75	1.72	1.87	1.72	1.69
19	Other nondurable goods ²	1.74	1.72	1.69	1.71	1.72	1.68	1.71	1.73	1.77	1.72	1.70	1.66	1.68	1.75	1.74	1.71
20	Merchant wholesalers.....	1.38	1.38	1.38	1.39	1.43	1.37	1.36	1.38	1.42	1.38	1.38	1.38	1.37	1.42	1.39	1.36
21	Durable goods.....	1.98	1.95	1.95	1.94	1.98	1.91	1.90	1.92	1.97	1.90	1.91	1.92	1.91	2.06	2.00	1.94
22	Nondurable goods.....	.86	.87	.88	.90	.92	.88	.86	.88	.91	.90	.88	.88	.87	.86	.87	.84
23	Groceries and farm products.....	.64	.65	.64	.67	.71	.66	.63	.62	.66	.69	.68	.66	.65	.63	.67	.65
24	Other nondurable goods.....	1.09	1.11	1.15	1.15	1.16	1.13	1.12	1.16	1.18	1.12	1.11	1.12	1.12	1.12	1.08	1.05
25	Retail trade.....	1.35	1.36	1.39	1.39	1.43	1.39	1.41	1.41	1.41	1.44	1.41	1.39	1.37	1.41	1.39	1.36
26	Durable goods.....	1.89	1.82	1.88	1.88	1.98	1.81	1.87	1.87	1.91	1.98	1.93	1.91	1.88	2.03	1.92	1.87
27	Auto dealers.....	1.51	1.51	1.62	1.66	1.74	1.53	1.60	1.64	1.68	1.85	1.81	1.79	1.73	1.89	1.71	1.69
28	Other durable goods.....	2.49	2.29	2.24	2.18	2.31	2.23	2.24	2.19	2.24	2.15	2.07	2.06	2.04	2.18	2.16	2.07
29	Nondurable goods.....	1.06	1.10	1.11	1.12	1.13	1.15	1.16	1.14	1.13	1.14	1.12	1.10	1.10	1.12	1.13	1.10
30	Food stores.....	.70	.70	.70	.70	.69	.71	.72	.71	.71	.70	.71	.71	.70	.72	.72	.73
31	Other nondurable goods.....	1.23	1.28	1.31	1.31	1.34	1.34	1.34	1.33	1.32	1.33	1.30	1.28	1.28	1.30	1.32	1.27

See footnotes to table 4.

Table 4.—Fixed-Weight Constant-Dollar Inventory-Sales Ratios

[Ratio, based

Line		1977				1978			
		I	II	III	IV	I	II	III	IV
1	Manufacturing and trade.....	1.60	1.58	1.60	1.59	1.62	1.56	1.57	1.56
2	Manufacturing.....	1.87	1.85	1.85	1.83	1.85	1.80	1.81	1.79
3	Durable goods.....	2.28	2.23	2.24	2.21	2.24	2.17	2.17	2.14
4	Nondurable goods.....	1.39	1.39	1.40	1.39	1.39	1.36	1.38	1.38
5	Merchant wholesalers.....	1.37	1.37	1.38	1.38	1.42	1.36	1.35	1.36
6	Durable goods.....	1.98	1.95	1.96	1.95	2.00	1.92	1.92	1.92
7	Nondurable goods.....	.87	.88	.90	.91	.94	.89	.88	.89
8	Retail trade.....	1.33	1.32	1.35	1.35	1.39	1.34	1.36	1.35
9	Durable goods.....	1.91	1.81	1.86	1.86	1.96	1.80	1.85	1.85
10	Nondurable goods.....	1.04	1.08	1.10	1.09	1.11	1.11	1.11	1.10

1. Includes lumber and wood products; furniture and fixtures; stone, clay, and glass products; instruments and related products; and miscellaneous manufacturing industries.

2. Includes tobacco manufacturers; textile mill products; apparel products; printing and publishing; and leather and leather products.

Note.—Manufacturing inventories are classified by the type of product produced by the estab-

lishment holding the inventory. Trade inventories are classified by the type of product sold by the establishment holding the inventory.

Table 4: The I-S ratios shown in this table were obtained by weighting detailed industry I-S ratios by 1972 sales. For manufacturing 21 industries were used; for merchant wholesalers, 20 kinds of business; and for retail trade, 8 kinds of business.

for Manufacturing and Trade, Seasonally Adjusted

on 1972 dollars]

1981				1982				1983												Line
I	II	III	IV	I	II	III	IV	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
1.62	1.63	1.67	1.73	1.72	1.71	1.73	1.73	1.76	1.72	1.71	1.74	1.68	1.71	1.71	1.73	1.73	1.77	1.73	1.73	1
1.96	1.94	1.99	2.09	2.10	2.06	2.05	2.11	2.15	2.09	2.09	2.11	2.05	2.04	2.05	2.07	2.06	2.15	2.12	2.11	2
2.42	2.38	2.47	2.63	2.68	2.63	2.65	2.77	2.75	2.67	2.65	2.69	2.61	2.62	2.61	2.67	2.69	2.84	2.79	2.77	3
2.84	2.79	2.96	3.43	3.67	3.76	3.83	4.03	3.46	3.66	3.98	3.74	3.82	3.81	3.83	3.84	3.89	4.13	4.25	4.01	4
2.47	2.46	2.54	2.80	2.78	2.67	2.64	2.78	2.88	2.81	2.74	2.74	2.64	2.65	2.58	2.68	2.73	2.89	2.76	2.82	5
2.76	2.77	2.83	2.84	2.91	3.08	3.15	3.17	3.01	2.91	2.84	3.15	3.05	3.08	3.25	3.24	3.06	3.34	3.18	3.14	6
2.30	2.28	2.31	2.38	2.36	2.27	2.26	2.33	2.40	2.36	2.35	2.30	2.25	2.30	2.20	2.32	2.30	2.32	2.37	2.34	7
2.35	2.19	2.28	2.57	2.73	2.46	2.52	2.97	2.95	2.66	2.60	2.59	2.40	2.39	2.37	2.44	2.69	2.95	2.91	2.91	8
1.04	.88	.92	1.03	.99	.81	.79	1.00	1.09	.98	.92	.85	.79	.79	.78	.75	.87	1.02	.97	.97	9
4.22	4.28	4.41	4.61	5.13	5.27	5.70	5.69	5.38	4.92	5.13	5.66	5.05	5.11	5.29	5.80	5.76	5.54	5.61	5.69	10
1.97	1.97	2.08	2.15	2.13	2.10	2.09	2.08	2.17	2.12	2.12	2.13	2.08	2.09	2.07	2.10	2.09	2.12	2.08	2.10	11
1.38	1.38	1.39	1.44	1.43	1.40	1.37	1.40	1.46	1.43	1.43	1.44	1.40	1.38	1.39	1.39	1.36	1.41	1.40	1.40	12
1.04	1.02	1.04	1.02	.99	.97	.98	.99	1.01	.99	.99	1.01	.98	.96	.97	1.02	.97	.99	.98	1.00	13
1.55	1.56	1.57	1.65	1.67	1.62	1.58	1.61	1.69	1.66	1.66	1.67	1.63	1.60	1.61	1.58	1.57	1.64	1.62	1.61	14
1.44	1.46	1.51	1.56	1.58	1.58	1.58	1.60	1.52	1.57	1.58	1.58	1.61	1.57	1.56	1.56	1.57	1.58	1.59	1.61	15
1.44	1.50	1.51	1.58	1.59	1.53	1.47	1.49	1.61	1.57	1.59	1.59	1.53	1.48	1.51	1.46	1.48	1.56	1.49	1.48	16
1.26	1.30	1.24	1.26	1.35	1.15	1.18	1.27	1.31	1.36	1.35	1.18	1.14	1.17	1.17	1.21	1.17	1.21	1.30	1.31	17
1.86	1.82	1.84	1.97	2.06	2.00	1.87	2.07	1.99	2.06	2.14	2.08	2.03	1.92	1.86	1.94	1.89	2.04	2.08	2.14	18
1.69	1.67	1.67	1.78	1.77	1.78	1.71	1.72	1.86	1.77	1.73	1.83	1.79	1.76	1.79	1.72	1.71	1.76	1.73	1.68	19
1.32	1.35	1.36	1.41	1.39	1.41	1.46	1.47	1.43	1.40	1.38	1.44	1.38	1.41	1.44	1.44	1.47	1.50	1.46	1.47	20
1.89	1.91	1.96	2.07	2.10	2.20	2.28	2.22	2.09	2.10	2.12	2.22	2.17	2.22	2.25	2.28	2.28	2.30	2.21	2.21	21
.82	.83	.88	.85	.82	.82	.83	.88	.87	.83	.79	.83	.80	.81	.83	.82	.85	.87	.87	.88	22
.60	.60	.60	.57	.60	.61	.66	.66	.62	.59	.56	.59	.56	.59	.58	.61	.63	.63	.66	.63	23
1.05	1.08	1.09	1.13	1.10	1.07	1.08	1.12	1.15	1.11	1.04	1.08	1.05	1.04	1.07	1.08	1.11	1.14	1.13	1.11	24
1.33	1.38	1.41	1.44	1.43	1.42	1.46	1.41	1.45	1.41	1.42	1.42	1.37	1.44	1.43	1.46	1.46	1.45	1.39	1.40	25
1.75	1.90	1.90	2.02	1.96	1.93	2.09	1.90	2.05	1.94	1.94	1.93	1.83	2.00	2.01	2.09	2.05	2.05	1.84	1.88	26
1.50	1.75	1.72	1.84	1.78	1.73	1.95	1.61	1.90	1.73	1.74	1.72	1.56	1.83	1.85	1.94	1.87	1.85	1.53	1.61	27
2.05	2.06	2.11	2.22	2.18	2.17	2.27	2.27	2.22	2.18	2.18	2.17	2.17	2.19	2.20	2.27	2.27	2.29	2.25	2.21	28
1.11	1.12	1.15	1.16	1.17	1.16	1.16	1.16	1.17	1.15	1.17	1.16	1.14	1.17	1.15	1.16	1.16	1.16	1.16	1.15	29
.75	.74	.76	.75	.77	.77	.76	.78	.77	.78	.76	.77	.76	.77	.76	.75	.75	.75	.76	.78	30
1.27	1.29	1.33	1.35	1.35	1.34	1.35	1.33	1.35	1.33	1.36	1.35	1.32	1.37	1.33	1.35	1.35	1.35	1.34	1.32	31

for Manufacturing and Trade, Seasonally Adjusted

on 1972 dollars]

1979				1980				1981				1982				Line
I	II	III	IV													
1.58	1.59	1.58	1.60	1.59	1.69	1.65	1.60	1.59	1.60	1.64	1.72	1.74	1.73	1.77	1.78	1
1.80	1.83	1.82	1.87	1.87	2.01	1.95	1.89	1.91	1.89	1.95	2.06	2.10	2.07	2.08	2.15	2
2.15	2.21	2.20	2.29	2.27	2.48	2.41	2.31	2.35	2.31	2.40	2.56	2.63	2.62	2.66	2.75	3
1.38	1.38	1.38	1.37	1.40	1.45	1.42	1.39	1.40	1.40	1.41	1.47	1.48	1.43	1.40	1.45	4
1.39	1.36	1.35	1.35	1.34	1.41	1.38	1.35	1.31	1.33	1.35	1.41	1.41	1.46	1.52	1.52	5
1.96	1.90	1.90	1.91	1.90	2.05	1.99	1.93	1.88	1.90	1.95	2.06	2.09	2.20	2.33	2.28	6
.92	.91	.89	.89	.88	.87	.88	.86	.84	.86	.86	.88	.85	.85	.84	.88	7
1.36	1.39	1.35	1.34	1.33	1.39	1.36	1.32	1.28	1.34	1.36	1.41	1.39	1.38	1.44	1.37	8
1.89	1.96	1.91	1.89	1.86	2.01	1.89	1.84	1.72	1.88	1.88	1.99	1.94	1.91	2.08	1.89	9
1.10	1.10	1.08	1.06	1.07	1.09	1.09	1.06	1.07	1.07	1.10	1.11	1.12	1.11	1.12	1.11	10

Table 5.—Manufacturing Inventories by Stage of Fabrication

[Billions of

Line		1977				1978				1979				1980			
		I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
	MATERIALS AND SUPPLIES																
1	Manufacturing.....	47.6	48.7	48.9	48.3	48.2	48.8	49.6	49.9	50.4	50.4	51.0	51.6	52.2	52.2	51.3	51.2
2	Durable goods.....	29.2	29.9	30.0	29.7	29.6	30.1	31.0	31.2	31.8	31.9	32.3	32.9	33.1	33.0	32.4	32.3
3	Primary metals.....	5.8	5.8	5.7	5.5	5.2	5.2	5.3	5.3	5.3	5.2	5.3	5.3	5.4	5.5	5.5	5.2
4	Fabricated metals.....	4.7	4.9	4.9	4.8	4.8	4.8	4.9	5.0	5.0	5.0	5.0	5.0	5.0	4.9	4.7	4.8
5	Machinery, except electrical.....	5.8	5.8	5.8	5.9	6.0	6.2	6.3	6.4	6.5	6.6	6.6	6.9	7.0	7.1	7.0	7.0
6	Electrical machinery.....	3.7	3.7	3.8	3.8	3.9	4.1	4.2	4.2	4.4	4.5	4.5	4.7	4.7	4.8	4.8	4.8
7	Motor vehicles.....	2.4	2.5	2.7	2.6	2.6	2.7	2.9	2.7	3.1	2.9	3.1	2.8	2.6	2.4	2.1	2.2
8	O.T.E.....	1.3	1.6	1.6	1.5	1.5	1.4	1.6	1.7	1.6	1.7	1.8	2.0	2.1	2.3	2.3	2.3
9	Other durable goods ¹	5.5	5.6	5.6	5.6	5.6	5.7	5.8	5.9	5.9	6.0	6.0	6.0	6.1	6.1	6.1	6.1
10	Nondurable goods.....	18.3	18.7	18.9	18.6	18.6	18.7	18.6	18.7	18.7	18.5	18.7	18.7	19.1	19.2	18.9	18.9
11	Food and kindred products.....	4.3	4.5	4.6	4.1	4.1	4.2	4.1	4.0	4.0	4.0	4.0	4.2	4.2	4.2	4.1	4.2
12	Paper and allied products.....	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.2	2.2
13	Chemicals and allied products.....	3.0	3.0	3.1	3.1	3.1	3.2	3.3	3.3	3.3	3.4	3.3	3.3	3.5	3.4	3.3	3.4
14	Petroleum and coal products.....	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.8	.9	.9	.9
15	Rubber and plastic products.....	1.2	1.2	1.2	1.2	1.3	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.3
16	Other nondurable goods ²	7.0	7.1	7.1	7.2	7.2	7.1	7.0	7.1	7.1	6.9	7.1	7.0	7.1	7.2	7.1	7.0
	WORK-IN-PROCESS																
17	Manufacturing.....	42.3	41.8	42.9	43.5	44.4	45.2	45.6	46.5	47.1	48.3	49.0	49.6	50.0	50.3	50.4	50.6
18	Durable goods.....	35.3	34.8	35.7	36.1	37.0	37.8	38.2	39.0	39.7	40.6	41.2	42.0	42.3	42.7	42.9	43.0
19	Primary metals.....	4.6	4.6	4.6	4.6	4.5	4.6	4.7	4.8	4.7	4.8	4.9	4.9	4.7	4.9	4.6	4.7
20	Fabricated metals.....	3.7	3.7	3.9	4.0	4.2	4.2	4.2	4.1	4.2	4.2	4.2	4.2	4.1	4.1	4.0	4.1
21	Machinery, except electrical.....	8.9	8.9	9.0	9.2	9.4	9.6	9.8	10.0	10.2	10.4	10.5	10.8	10.9	11.0	11.0	10.9
22	Electrical machinery.....	5.2	5.4	5.6	5.7	5.9	6.1	6.2	6.3	6.6	6.6	7.0	7.3	7.4	7.5	7.6	7.7
23	Motor vehicles.....	2.1	2.2	2.2	2.2	2.3	2.3	2.4	2.4	2.4	2.4	2.3	2.1	2.0	1.9	2.0	1.7
24	O.T.E.....	6.8	6.1	6.4	6.4	6.5	6.8	6.7	7.0	7.1	7.7	7.9	8.4	8.6	8.8	9.1	9.5
25	Other durable goods ¹	3.9	3.8	4.0	4.1	4.2	4.2	4.3	4.4	4.4	4.5	4.4	4.4	4.5	4.6	4.5	4.5
26	Nondurable goods.....	7.0	7.1	7.2	7.3	7.3	7.4	7.4	7.5	7.5	7.6	7.8	7.6	7.7	7.6	7.5	7.6
27	Food and kindred products.....	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.3	1.4	1.3	1.3	1.2	1.2	1.2
28	Paper and allied products.....	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.5	.5	.5
29	Chemicals and allied products.....	1.3	1.3	1.3	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.5	1.3	1.4	1.4	1.4	1.4
30	Petroleum and coal products.....	.7	.7	.8	.8	.8	.7	.7	.7	.8	.8	.8	.8	.8	.8	.8	.8
31	Rubber and plastic products.....	.5	.5	.5	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.5	.5	.5
32	Other nondurable goods ²	3.0	3.0	3.1	3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.1	3.1	3.1	3.0	3.1
	FINISHED GOODS																
33	Manufacturing.....	41.4	41.7	41.9	42.3	42.6	42.8	43.2	43.4	44.3	44.7	44.3	43.8	44.4	44.9	44.6	44.0
34	Durable goods.....	22.0	22.1	22.0	22.2	22.5	22.6	22.7	23.1	23.9	24.2	24.1	24.0	24.2	24.7	24.6	24.5
35	Primary metals.....	3.3	3.4	3.4	3.4	3.3	3.4	3.4	3.3	3.3	3.3	3.3	3.3	3.2	3.2	3.2	3.2
36	Fabricated metals.....	2.6	2.6	2.6	2.7	2.6	2.7	2.7	2.8	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
37	Machinery, except electrical.....	5.6	5.6	5.5	5.6	5.7	5.7	5.8	6.0	6.2	6.4	6.5	6.3	6.4	6.8	6.8	6.7
38	Electrical machinery.....	3.1	3.2	3.1	3.2	3.2	3.4	3.4	3.3	3.4	3.4	3.3	3.5	3.6	3.7	3.6	3.5
39	Motor vehicles.....	.9	1.0	1.0	1.0	1.0	1.0	.9	1.0	1.1	1.2	1.1	1.0	1.0	1.0	.9	.9
40	O.T.E.....	.9	.9	.9	.9	1.0	.9	.9	1.0	1.1	1.2	1.2	1.2	1.2	1.2	1.3	1.4
41	Other durable goods.....	5.5	5.5	5.4	5.4	5.6	5.5	5.6	5.7	5.8	5.9	5.9	5.8	5.8	5.8	5.8	5.9
42	Nondurable goods.....	19.3	19.6	20.0	20.1	20.2	20.2	20.5	20.3	20.4	20.5	20.2	19.9	20.2	20.3	20.0	19.5
43	Food and kindred products.....	6.2	6.3	6.4	6.3	6.3	6.3	6.4	6.4	6.5	6.6	6.5	6.4	6.3	6.2	6.4	6.3
44	Paper and allied products.....	1.3	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.4	1.3	1.4	1.4	1.4	1.4	1.4
45	Chemicals and allied products.....	3.8	3.9	4.0	4.1	4.2	4.1	4.2	4.1	4.0	4.1	3.9	3.9	3.9	4.1	3.8	3.8
46	Petroleum and coal products.....	1.6	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.5	1.5	1.6	1.6	1.7	1.8	1.7	1.6
47	Rubber and plastic products.....	1.5	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.6	1.6	1.7	1.6	1.6	1.6	1.6	1.5
48	Other nondurable goods ²	4.9	4.9	4.9	5.0	5.0	5.2	5.3	5.2	5.3	5.3	5.1	5.0	5.1	5.2	5.1	5.0

See footnotes to table 4.

in Constant Dollars, Seasonally Adjusted End of Period

1972 dollars)

1981				1982				1982												Line	
I	II	III	IV	I	II	III	IV	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.		
51.6	51.6	52.3	51.9	51.0	50.3	49.5	48.5	51.7	51.6	51.0	51.1	50.6	50.3	50.3	49.9	49.5	49.3	48.8	48.5	1	
32.6	32.7	33.1	32.8	32.1	31.5	31.0	30.2	32.6	32.5	32.1	32.0	31.7	31.5	31.5	31.2	31.0	30.9	30.5	30.2	2	
5.3	5.2	5.3	5.3	5.3	5.2	5.1	4.9	5.3	5.3	5.3	5.3	5.3	5.3	5.2	5.1	5.1	5.0	4.9	4.9	3	
4.8	4.7	4.8	4.7	4.6	4.5	4.4	4.3	4.7	4.6	4.6	4.6	4.5	4.5	4.5	4.5	4.4	4.5	4.4	4.3	4	
6.8	6.9	7.0	6.9	7.0	6.8	6.7	6.5	7.1	7.1	7.0	6.9	6.9	6.8	6.8	6.8	6.7	6.7	6.6	6.5	5	
4.7	4.9	4.9	4.8	4.6	4.5	4.4	4.4	4.8	4.7	4.6	4.7	4.5	4.5	4.5	4.4	4.4	4.4	4.5	4.4	6	
2.3	2.2	2.3	2.2	1.8	1.8	1.7	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.8	1.7	1.7	1.7	1.8	7	
2.5	2.6	2.6	2.6	2.7	2.7	2.8	2.8	2.7	2.8	2.7	2.7	2.7	2.7	2.7	2.8	2.8	2.8	2.8	2.8	8	
6.2	6.2	6.3	6.2	6.1	5.9	5.8	5.6	6.1	6.1	6.1	6.1	5.9	5.9	5.8	5.8	5.8	5.7	5.6	5.6	9	
19.0	18.9	19.1	19.2	19.0	18.8	18.5	18.3	19.1	19.1	19.0	19.1	19.0	18.8	18.9	18.7	18.5	18.4	18.3	18.3	10	
4.1	4.0	4.1	3.9	4.0	4.0	4.0	3.9	4.0	4.0	4.0	4.1	4.0	4.0	4.0	4.0	4.0	3.9	3.9	3.9	11	
2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.3	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	12	
3.4	3.4	3.4	3.3	3.3	3.3	3.3	3.2	3.4	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.2	3.2	13	
.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.8	.9	.9	14	
1.3	1.3	1.3	1.3	1.2	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	15	
7.1	7.1	7.3	7.4	7.3	7.3	7.1	7.0	7.4	7.4	7.3	7.4	7.4	7.3	7.3	7.3	7.1	7.0	7.0	7.0	16	
51.1	51.3	51.6	51.0	50.1	49.8	49.1	48.3	50.3	50.1	50.1	49.9	49.8	49.8	49.2	49.2	49.1	48.9	48.4	48.3	17	
43.4	43.6	44.0	43.5	42.8	42.4	42.0	41.3	42.9	42.8	42.8	42.5	42.5	42.4	41.9	41.9	42.0	41.8	41.4	41.3	18	
5.0	5.1	5.3	5.4	5.4	5.1	5.0	4.7	5.4	5.4	5.4	5.2	5.1	5.1	5.0	5.0	5.0	4.9	4.9	4.7	19	
4.0	4.0	3.9	3.9	3.8	3.8	3.7	3.5	3.9	3.9	3.9	3.8	3.8	3.8	3.7	3.7	3.7	3.6	3.5	3.5	20	
10.9	10.8	11.0	10.9	10.4	10.3	10.0	9.6	10.5	10.5	10.4	10.4	10.3	10.3	10.2	10.1	10.0	10.0	9.8	9.6	21	
7.8	8.0	8.0	7.9	7.8	7.8	7.5	7.5	7.8	7.8	7.8	7.6	7.7	7.8	7.6	7.6	7.5	7.4	7.5	7.5	22	
1.5	1.5	1.4	1.2	1.2	1.3	1.3	1.2	1.1	1.2	1.2	1.2	1.2	1.3	1.2	1.3	1.3	1.2	1.2	1.2	23	
9.5	9.8	9.7	9.7	9.6	9.8	10.2	10.6	9.6	9.6	9.8	9.8	9.8	9.8	9.7	9.9	10.2	10.3	10.3	10.6	24	
4.5	4.6	4.6	4.6	4.5	4.4	4.3	4.3	4.5	4.5	4.5	4.5	4.4	4.4	4.4	4.4	4.3	4.3	4.3	4.3	25	
7.6	7.7	7.6	7.5	7.3	7.3	7.2	7.0	7.4	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.2	7.1	7.0	7.0	26	
1.3	1.2	1.1	1.2	1.1	1.0	1.0	1.0	1.2	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	27	
.5	.5	.5	.5	.4	.5	.5	.5	.5	.4	.4	.4	.5	.5	.5	.5	.5	.5	.5	.5	28	
1.5	1.6	1.5	1.4	1.4	1.5	1.4	1.3	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.3	29	
.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	30
.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	31
3.0	3.1	3.1	3.0	2.9	2.9	2.9	2.8	3.0	3.0	2.9	3.0	3.0	2.9	2.9	2.9	2.9	2.9	2.9	2.8	32	
44.2	44.6	45.5	45.5	45.3	44.5	44.7	43.5	44.9	45.2	45.3	45.1	44.9	44.5	44.8	44.9	44.7	44.4	43.8	43.5	33	
24.4	24.6	25.4	25.5	25.3	25.3	25.3	24.2	25.1	25.2	25.3	25.3	25.4	25.3	25.4	25.4	25.3	24.9	24.5	24.2	34	
3.3	3.3	3.5	3.5	3.5	3.3	3.4	3.1	3.4	3.5	3.5	3.4	3.4	3.3	3.4	3.4	3.3	3.3	3.2	3.1	35	
2.8	2.9	2.9	2.8	2.8	2.7	2.7	2.5	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.7	2.7	2.6	2.6	2.5	36	
6.8	6.9	7.1	7.4	7.5	7.6	7.6	7.3	7.3	7.4	7.5	7.6	7.7	7.6	7.7	7.7	7.6	7.5	7.5	7.3	37	
3.5	3.5	3.6	3.6	3.6	3.5	3.5	3.3	3.5	3.5	3.6	3.5	3.5	3.5	3.5	3.5	3.5	3.4	3.3	3.3	38	
.8	.7	.7	.6	.6	.6	.7	.7	.6	.6	.6	.6	.6	.6	.6	.7	.7	.6	.6	.6	39	
1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.5	40	
5.9	5.9	6.1	6.0	5.9	5.9	6.0	5.8	5.9	5.8	5.9	5.8	5.9	5.9	5.9	5.9	6.0	5.9	5.8	5.8	41	
19.8	19.9	20.1	20.0	20.0	19.3	19.4	19.3	19.8	20.0	20.0	19.8	19.5	19.3	19.4	19.4	19.4	19.5	19.3	19.3	42	
6.3	6.4	6.4	6.2	6.0	5.8	6.1	6.1	6.1	6.2	6.0	5.9	5.9	5.8	6.0	6.1	6.1	6.0	6.1	6.1	43	
1.4	1.4	1.4	1.5	1.6	1.6	1.6	1.6	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	44	
3.9	4.0	4.0	4.1	4.1	3.9	3.8	3.8	4.0	4.1	4.1	4.1	4.0	3.9	3.9	3.8	3.8	3.9	3.8	3.8	45	
1.7	1.7	1.7	1.6	1.7	1.5	1.5	1.6	1.6	1.6	1.6	1.7	1.6	1.5	1.5	1.5	1.5	1.6	1.6	1.6	46	
1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.3	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.3	47	
5.0	5.0	5.0	5.1	5.1	5.0	5.0	4.9	5.1	5.1	5.1	5.1	5.1	5.0	5.1	5.0	5.0	4.9	4.9	4.9	48	

CURRENT BUSINESS STATISTICS

THE STATISTICS here update series published in the 1979 edition of BUSINESS STATISTICS, biennial statistical supplement to the SURVEY OF CURRENT BUSINESS. That volume (available from the Superintendent of Documents for \$9.50, stock no. 003-010-00089-9) provides a description of each series, references to sources of earlier figures, and historical data as follows: For all series, monthly or quarterly, 1975 through 1978, annually, 1947-78; for selected series, monthly or quarterly, 1947-78 (where available).

The sources of the series are given in the 1979 edition of BUSINESS STATISTICS; they appear in the main descriptive note for each series, and are also listed alphabetically on pages 171-172. 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.

Unless otherwise stated in footnotes below, data through 1978 and descriptive notes are as shown in the 1979 edition of BUSINESS STATISTICS	1980	1981	1981	1982												1983
	Annual	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	
GENERAL BUSINESS INDICATORS																
PERSONAL INCOME BY SOURCE †																
Seasonally adjusted, at annual rates: †																
Total personal income	2,160.4	2,415.8	2,497.6	2,499.1	2,513.8	2,518.6	2,535.5	2,556.2	2,566.3	2,588.3	2,592.0	2,597.2	*2,611.4	*2,631.2	*2,638.1	2,638.9
Wage and salary disbursements, total	1,356.1	1,493.9	1,530.5	1,535.7	1,546.6	1,542.6	1,546.6	1,560.4	1,562.9	1,569.5	1,570.3	1,570.1	1,571.5	*1,572.2	*1,579.2	1,595.7
Commodity-producing industries, total	468.0	510.8	514.0	513.5	517.1	512.2	511.6	515.1	514.1	513.0	510.3	507.3	503.0	500.9	*500.6	507.8
Manufacturing	354.4	386.4	384.7	383.7	387.6	384.1	383.9	386.4	386.7	385.8	384.0	381.5	377.2	*375.5	*374.8	378.6
Distributive industries	330.5	361.4	367.8	369.7	373.0	371.4	372.5	376.9	376.8	378.1	378.9	378.2	378.3	*377.6	*380.0	383.4
Service industries	297.4	338.6	355.0	357.0	360.1	361.4	363.7	368.5	370.7	374.3	378.2	381.0	382.7	*384.5	*387.7	392.6
Govt. and govt. enterprises	260.2	283.1	293.6	295.4	296.4	297.6	298.8	300.0	301.2	304.2	302.8	303.6	307.5	*309.2	*310.8	311.8
Other labor income	127.2	140.4	146.9	148.0	149.1	150.2	151.3	152.5	153.6	154.6	155.5	156.5	157.2	*157.9	*158.7	159.5
Proprietors' income: ‡																
Farm	19.4	24.0	22.8	19.9	17.3	16.3	16.9	17.3	18.0	17.3	16.6	16.0	*17.1	*28.1	*28.0	19.0
Nonfarm	96.9	100.7	99.5	98.6	98.4	98.8	99.3	100.3	100.2	100.9	101.7	102.5	104.2	*105.3	*105.3	105.4
Rental income of persons with capital consumption adjustment	32.9	33.9	33.6	33.7	33.9	34.0	34.1	34.2	34.3	34.5	34.6	34.7	34.8	34.4	32.5	35.2
Dividends	55.9	62.5	65.4	65.6	65.9	65.9	66.1	66.2	66.1	66.6	67.3	67.7	68.4	68.9	69.3	69.7
Personal interest income	263.4	329.0	352.1	355.5	359.8	363.8	368.0	372.0	376.0	377.6	378.3	378.8	378.0	377.2	376.4	375.6
Transfer payments	297.2	336.3	353.6	352.4	353.8	357.5	363.9	364.8	366.9	379.7	380.2	383.3	392.7	*399.4	*401.4	395.1
Less: Personal contrib. for social insur.	88.7	104.9	106.8	110.3	110.9	110.6	110.8	111.6	111.7	112.4	112.5	112.4	112.4	*112.4	*112.7	116.4
Total nonfarm income	2,117.3	2,364.1	2,444.6	2,448.6	2,465.5	2,470.8	2,486.8	2,506.9	2,516.0	2,538.5	2,542.8	2,548.5	2,561.5	*2,570.1	*2,576.9	2,586.6
DISPOSITION OF PERSONAL INCOME *																
Seasonally adjusted, at annual rates:																
Total personal income	2,160.4	2,415.8	2,497.6	2,499.1	2,513.8	2,518.6	2,535.5	2,556.2	2,566.3	2,588.3	2,592.0	2,597.2	*2,611.4	*2,631.2	*2,638.1	2,638.9
Less: Personal tax and nontax payments	336.3	386.7	394.7	389.9	396.3	394.2	389.1	403.7	410.7	393.5	395.3	394.6	*397.5	*399.0	*402.7	403.4
Equals: Disposable personal income	1,824.1	2,029.1	2,103.0	2,109.2	2,117.5	2,124.4	2,146.3	2,152.5	2,155.6	2,194.8	2,196.7	2,202.7	*2,213.9	*2,232.2	*2,235.4	2,235.5
Less: Personal outlays	1,717.9	1,898.9	1,954.7	1,965.8	1,986.9	1,981.1	1,993.9	2,013.1	2,014.4	2,033.8	2,041.3	2,063.1	2,077.2	*2,098.2	*2,099.4	2,099.4
Personal consumption expenditures	1,667.2	1,843.2	1,896.4	1,907.4	1,928.3	1,922.4	1,934.8	1,954.0	1,954.7	1,974.1	1,981.5	2,003.2	2,017.3	*2,038.2	*2,038.9	2,038.6
Durable goods	214.3	234.6	230.1	234.7	240.1	238.8	238.8	245.6	237.8	236.8	236.6	247.6	240.7	*255.6	*257.2	253.7
Nondurable goods	670.4	734.5	751.0	746.0	755.9	745.4	747.0	759.2	758.9	767.9	767.7	769.5	777.2	*773.9	*775.0	775.3
Services	782.5	874.1	915.3	926.7	932.3	938.2	949.1	968.0	969.4	977.3	986.0	999.4	*1,008.7	*1,006.8	1,009.6	
Interest paid by consumers to business	49.9	55.1	57.6	57.7	57.7	57.9	58.2	58.3	58.8	58.9	58.9	59.1	59.0	*59.2	*59.6	59.9
Personal transfer payments to foreigners (net)	0.8	0.6	0.7	0.8	0.8	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.9	0.9	0.9	0.9
Equals: personal saving	106.2	130.2	148.3	143.4	130.6	143.3	152.4	139.4	141.2	161.0	155.4	139.5	*136.7	*133.9	*136.0	136.1
Personal saving as percentage of disposable personal income %	5.8	6.4	7.2	6.7	6.6	6.7	6.8	6.7	6.8	7.0	6.9	6.5	*6.2	*6.1	6.0	.....
Disposable personal income in constant (1972) dollars	1,018.0	1,043.1	1,048.6	1,042.9	1,047.7	1,050.0	1,057.6	1,058.1	1,048.8	1,060.8	1,058.0	1,056.1	*1,054.4	*1,062.4	1,065.3	.....
Personal consumption expenditures in constant (1972) dollars	930.5	947.7	945.6	943.1	954.1	950.1	953.4	960.5	951.0	954.1	954.4	960.4	960.8	*970.1	971.7	.....
Durable goods	137.1	140.0	133.9	135.4	139.0	138.0	137.7	141.5	135.8	134.9	134.5	140.0	136.3	*145.5	146.1	.....
Nondurable goods	355.8	362.4	365.1	359.5	365.5	361.4	362.7	367.8	362.9	366.1	366.0	365.5	367.4	*366.4	368.8	.....
Services	437.6	445.2	446.7	448.2	449.6	450.7	453.0	451.2	452.3	453.2	453.9	454.9	*457.0	*458.2	456.8	.....
Implicit price deflator for personal consumption expenditures	179.2	194.5	200.5	202.2	202.1	202.3	202.9	203.4	205.5	206.9	207.6	208.6	210.0	210.1	209.8	.....
INDUSTRIAL PRODUCTION																
<i>Federal Reserve Board Index of Quantity Output</i>																
Not Seasonally Adjusted																
Total index	147.0	151.0	139.1	136.6	142.7	142.0	139.4	138.5	141.8	136.2	140.5	141.2	*138.5	*134.8	*131.2	*132.1
By industry groupings:																
Mining and utilities	149.5	155.0	155.2	164.3	159.7	152.7	146.7	142.4	143.9	144.6	146.8	140.1	*136.7	*136.7	*142.0	*147.2
Manufacturing	146.7	150.4	137.0	133.1	140.7	140.7	138.4	138.0	141.6	135.1	139.3	141.2	*138.8	134.5	*129.4	*130.2
Nondurable manufactures	161.2	164.8	149.4	147.1	156.6	156.6	154.7	154.5	159.9	152.9	161.9	164.1	*162.4	*155.5	*147.7	*148.5
Durable manufactures	136.7	140.5	128.4	123.4	129.7	129.7	127.1	126.6	128.9	122.7	123.7	125.4	*122.5	*119.9	*116.9	*117.4
Seasonally Adjusted																
Total index	147.0	151.0	143.4	140.7	142.9	141.7	140.2	139.2	138.7	138.8	138.4	137.3	*135.7	134.8	*135.0	*136.2
By market groupings:																
Products, total	146.7	150.6	146.2	142.9	144.6	143.7	142.9	142.3	142.1	142.6	142.0	140.8	*139.3	*139.0	*139.8	*140.6
Final products	145.3	149.5	146.3	142.8	144.1	143.3	142.6	142.2	142.1	142.5	141.2	140.0	*138.7	*138.2	*139.2	*140.0
Consumer goods	145.4	147.9	142.0	139.6	141.8	141.5	142.1	143.6	144.8	145.8	144.1	143.4	142.2	141.1	*142.0	*143.3

See footnotes at end of tables.

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Unless otherwise stated in footnotes below, data through 1978 and descriptive notes are as shown in the 1979 edition of BUSINESS STATISTICS	1980	1981	1982												1983
	Annual	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.

GENERAL BUSINESS INDICATORS—Continued

BUSINESS INVENTORIES															
Mfg. and trade inventories, book value, end of year or month (unadj.), total †..... mil. \$.	477,287	513,530	513,530	513,516	513,844	517,710	512,689	513,132	512,799	511,302	509,661	511,150	516,744	*514,563	499,657
Mfg. and trade inventories, book value, end of year or month (seas. adj.), total †..... mil. \$.	482,570	519,394	519,394	516,256	513,906	513,054	515,074	510,517	512,981	513,387	514,554	515,399	514,224	*508,630	505,579
Manufacturing, total †..... do.	264,016	283,152	283,152	281,155	281,688	280,065	278,985	276,449	275,115	274,914	274,302	272,474	271,710	*269,297	266,688
Durable goods industries..... do.	174,674	188,429	188,429	187,054	187,121	186,063	185,916	184,870	184,289	183,798	183,550	182,793	181,843	*179,324	177,683
Nondurable goods industries..... do.	89,341	94,723	94,723	94,100	94,567	94,002	93,070	91,579	90,826	91,116	90,752	89,681	89,867	*89,973	89,005
Retail trade, total \$..... do.	114,114	125,693	125,693	124,131	123,395	123,332	123,175	122,367	124,351	125,939	127,151	129,073	128,628	*126,638	126,848
Durable goods stores..... do.	53,747	58,835	58,835	57,807	56,957	56,803	56,663	55,984	57,346	58,246	60,075	61,628	60,708	*59,059	59,058
Nondurable goods stores..... do.	60,367	66,858	66,858	66,324	66,438	66,529	66,512	66,383	67,005	66,693	67,076	67,445	67,920	*67,579	67,790
Merchant wholesalers, total @..... do.	104,441	110,549	110,549	110,971	108,823	109,657	112,913	111,701	113,515	113,534	113,101	113,852	113,886	*112,695	112,043
Durable goods establishments..... do.	67,033	73,224	73,224	73,036	72,003	72,782	74,668	72,858	73,908	75,241	74,956	75,799	75,953	*74,784	74,039
Nondurable goods establishments..... do.	37,408	37,325	37,325	37,935	36,820	36,875	38,245	38,843	39,607	38,293	38,145	38,053	37,933	*37,911	38,004
Mfg. and trade inventories in constant(1972)dollars, end of year or month(seas.adj.),total*..... bil. \$.			269.9	267.7	266.5	266.0	266.5	264.5	265.2	265.6	265.5	266.0	*265.2	*262.3	261.4
Manufacturing *..... do.			148.4	146.9	146.9	146.4	146.0	145.3	144.6	144.4	144.0	143.3	*142.6	*141.0	140.3
Retail trade *..... do.			66.1	65.4	65.0	65.1	65.2	64.7	65.4	65.5	65.4	66.4	67.2	66.9	65.9
Merchant wholesalers *..... do.			55.3	55.4	54.5	54.5	55.4	54.5	55.2	55.6	55.0	55.5	55.8	55.3	55.2
BUSINESS INVENTORY-SALES RATIOS															
Manufacturing and trade, total †..... ratio..	1.45	1.44	1.52	1.54	1.50	1.50	1.52	1.46	1.48	1.49	1.52	1.52	1.55	1.51	1.52
Manufacturing, total †..... do.	1.66	1.66	1.77	1.81	1.78	1.78	1.79	1.72	1.70	1.70	1.73	1.71	1.78	*1.77	1.76
Durable goods industries..... do.	2.18	2.19	2.38	2.48	2.40	2.38	2.41	2.32	2.34	2.33	2.38	2.39	2.51	2.47	2.45
Materials and supplies..... do.	0.70	0.69	0.74	0.77	0.74	0.73	0.74	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.73
Work in process..... do.	0.95	0.97	1.05	1.09	1.05	1.05	1.06	1.02	1.03	1.01	1.04	1.05	1.11	1.10	1.09
Finished goods..... do.	0.53	0.53	0.60	0.62	0.60	0.61	0.61	0.60	0.60	0.60	0.62	0.62	0.66	*0.63	0.62
Nondurable goods industries..... do.	1.13	1.13	1.18	1.18	1.18	1.18	1.18	1.13	1.10	1.11	1.12	1.08	1.12	*1.13	1.13
Materials and supplies..... do.	0.45	0.45	0.47	0.48	0.47	0.47	0.46	0.44	0.44	0.45	0.45	0.43	0.44	0.45	0.45
Work in process..... do.	0.19	0.19	0.20	0.20	0.20	0.20	0.20	0.19	0.19	0.19	0.19	0.18	0.19	*0.19	0.19
Finished goods..... do.	0.48	0.48	0.50	0.51	0.51	0.52	0.51	0.48	0.47	0.47	0.48	0.47	0.49	0.49	0.49
Retail trade, total \$..... do.	1.41	1.39	1.45	1.45	1.41	1.41	1.40	1.35	1.41	1.40	1.44	1.44	1.42	1.37	1.39
Durable goods stores..... do.	2.14	2.08	2.25	2.28	2.13	2.11	2.02	1.90	2.11	2.13	2.25	2.24	2.18	*1.96	2.02
Nondurable goods stores..... do.	1.08	1.07	1.11	1.11	1.09	1.10	1.10	1.08	1.10	1.07	1.08	1.09	1.09	1.08	1.09
Merchant wholesalers, total @..... do.	1.13	1.09	1.16	1.18	1.15	1.13	1.18	1.15	1.18	1.21	1.22	1.25	1.27	1.24	1.25
Durable goods establishments..... do.	1.70	1.67	1.78	1.81	1.80	1.85	1.93	1.90	1.95	1.98	2.02	2.02	2.01	*1.94	1.95
Nondurable goods establishments..... do.	0.70	0.66	0.69	0.70	0.67	0.64	0.67	0.66	0.68	0.69	0.69	0.71	0.73	0.72	0.73
Manufacturing and trade in constant (1972) dollars, total *..... do.			1.77	*1.76	*1.72	*1.71	*1.74	*1.68	*1.71	*1.71	*1.73	*1.73	*1.77	*1.73	1.73
Manufacturing *..... do.			2.14	*2.15	*2.09	*2.09	*2.11	*2.05	*2.04	*2.05	*2.07	*2.06	*2.15	*2.12	2.11
Retail trade *..... do.			1.47	*1.45	*1.41	*1.42	*1.42	*1.37	*1.44	*1.43	*1.46	*1.46	*1.45	*1.39	1.40
Merchant wholesalers *..... do.			1.46	*1.43	*1.40	*1.38	*1.44	*1.38	*1.41	*1.44	*1.44	*1.47	*1.50	*1.46	1.47
MANUFACTURERS' SALES, INVENTORIES, AND ORDERS															
Shipments (not seas. adj.), total †..... do.	1,850,983	1,994,600	155,117	144,431	160,220	165,832	158,058	161,541	169,159	147,553	155,187	165,584	157,882	*151,967	147,100
Durable goods industries, total..... do.	930,482	1,001,001	76,863	68,605	78,829	83,776	79,101	80,485	84,307	70,361	73,374	79,908	75,845	*72,301	70,586
Stone, clay, and glass products..... do.	46,083	49,141	3,404	3,238	3,543	3,871	3,801	3,923	4,166	3,708	3,957	4,107	4,021	*3,685	3,346
Primary metals..... do.	133,930	136,847	9,000	9,634	10,046	9,742	9,507	8,951	8,981	7,481	7,951	8,310	7,797	*7,041	7,070
Blast furnaces, steel mills..... do.	61,486	69,195	4,663	4,837	5,051	4,813	4,440	3,974	4,120	3,291	3,413	3,554	3,077	*2,942	3,009
Fabricated metal products..... do.	116,194	123,282	8,812	8,360	9,528	9,978	10,244	10,531	9,126	9,746	9,876	9,397	9,391	*8,928	8,366
Machinery, except electrical..... do.	180,727	203,737	17,692	14,455	16,964	18,032	15,602	15,810	16,815	13,619	13,925	15,845	14,204	*14,015	14,970
Electrical machinery..... do.	128,587	137,873	11,125	10,410	11,689	12,094	11,622	11,716	12,354	10,654	11,131	12,076	11,708	*11,281	11,048
Transportation equipment..... do.	186,282	203,000	15,645	12,640	15,524	17,362	16,889	18,004	18,983	14,767	14,616	16,825	16,183	*15,548	14,953
Motor vehicles and parts..... do.	104,560	114,882	7,353	6,979	8,521	9,905	10,297	10,682	11,361	8,412	8,483	9,799	9,223	*8,536	7,459
Instruments and related products..... do.	44,139	47,530	4,054	3,379	3,832	4,171	3,758	3,936	4,285	3,519	3,873	4,316	3,895	*3,853	3,789
Nondurable goods industries, total..... do.	920,501	993,597	78,255	75,826	81,391	82,055	78,957	81,056	84,852	77,192	81,813	85,676	82,037	*79,666	76,514
Food and kindred products..... do.	255,872	269,130	21,582	20,530	22,814	23,140	21,813	22,721	23,812	21,657	22,335	24,298	23,207	*22,830	22,158
Tobacco products..... do.	11,893	13,000	1,162	1,083	1,069	1,061	1,153	1,140	1,388	1,024	1,279	1,492	1,260	*1,103	1,343
Textile mill products..... do.	47,397	52,274	3,837	3,553	4,135	4,625	4,070	4,209	4,547	3,412	4,259	4,469	4,292	*4,035	3,818
Paper and allied products..... do.	72,650	79,489	6,139	6,416	6,782	6,915	6,538	6,447	6,727	6,080	6,721	6,684	6,598	*6,278	5,918
Chemical and allied products..... do.	161,559	175,131	13,581	13,360	14,369	15,176	14,542	14,629	15,360	12,960	13,977	14,840	13,164	*13,163	13,236
Petroleum and coal products..... do.	198,673	220,333	18,067	17,298	16,547	15,533	16,194	17,287	17,770	17,341	17,006	17,443	17,098	*16,429	15,926
Rubber and plastics products..... do.	47,342	46,504	3,319	3,375	3,669	3,607	3,648	3,592	3,898	3,469	3,682	3,778	3,699	*3,264	2,906
Shipments (seas. adj.), total †..... do.			159,614	155,023	158,142	157,517	156,114	160,828	161,519	161,382	158,619	159,278	152,473	*152,343	151,421
By industry group:															
Durable goods industries, total #..... do.			79,133	75,551	77,976	78,124	77,136	79,518	78,888	79,036	77,248	76,562	72,342	*72,708	72,664
Stone, clay, and glass products..... do.			3,808	3,884	3,795	3,821	3,728	3,863	3,834	3,764	3,730	3,800	3,720	*3,709	3,741
Primary metals..... do.			9,626	10,028	9,572	8,829	8,953	8,682	8,598	8,443	8,383	8,250	7,689	*7,315	7,585
Blast furnaces, steel mills..... do.			4,892	5,009	4,812	4,254	4,156	3,904	3,989	3,685	3,654	3,597	3,065	*3,061	3,151
Fabricated metal products..... do.			9,361	9,231	9,557	9,765	9,750	10,096	9,890	9,965	9,680	9,520	8,921	*9,108	8,849
Machinery, except electrical..... do.			17,116	15,939	16,587	16,570	15,432	15,899	15,488	14,879	14,847	15,402	14,044	*14,535	14,257
Electrical machinery..... do.			11,252	11,210	11,451	11,508	11,677	11,639	12,108	11,434	11,452	11,220	11,220	*11,163	11,160
Transportation equipment..... do.			16,118	13,847	15,152	15,805	15,945	17,314	17,573	17,806	17,589	16,292	15,053	*15,088	15,566
Motor vehicles and parts..... do.			8,262	7,3											

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	Annual	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	
GENERAL BUSINESS INDICATORS—Continued																
MANUFACTURERS' SALES, INVENTORIES, AND ORDERS—Continued																
Shipments (seas. adj.) †—Continued																
By market category: †																
Home goods and apparel	mil. \$.	'128,123	'136,418	10,513	10,467	11,176	11,208	10,708	10,803	10,858	11,328	11,242	11,149	10,909	'10,636	10,719
Consumer staples	do.	'328,375	'349,269	28,479	29,021	29,970	29,753	29,578	30,310	31,043	30,660	30,207	31,361	29,943	'30,176	30,032
Equipment and defense prod., exc. auto	do.	'276,299	'306,929	26,684	24,185	25,566	25,623	23,997	25,056	24,451	24,146	23,766	24,682	23,707	'23,794	24,081
Automotive equipment	do.	'123,602	'135,005	9,804	8,836	9,769	10,332	11,002	11,661	11,974	12,456	12,494	10,983	9,315	'9,564	9,922
Construction materials and supplies	do.	'144,922	'152,663	11,515	11,398	11,400	11,738	11,446	12,058	11,720	12,102	11,899	11,787	11,537	'11,555	11,448
Other materials and supplies	do.	'849,662	'914,319	72,619	71,115	70,261	68,862	69,383	70,940	71,473	70,690	69,011	69,316	67,062	'66,618	65,219
Supplementary series:																
Household durables	do.	'58,247	'61,299	4,782	4,723	4,876	4,982	4,897	4,808	4,904	5,133	4,799	5,008	4,835	'4,676	4,482
Capital goods industries	do.	'312,672	'344,647	29,600	27,067	28,417	28,549	26,869	28,140	27,727	27,283	26,423	27,130	26,297	'26,392	26,324
Nondefense	do.	'274,246	'297,734	25,315	23,066	24,043	24,060	22,599	23,471	22,906	22,483	21,776	22,271	21,372	'21,441	21,224
Defense	do.	'38,426	'46,927	4,285	4,002	4,374	4,490	4,271	4,669	4,821	4,800	4,647	4,859	4,925	'4,951	5,100
Inventories, end of year or month: †																
Book value (unadjusted), total	do.	261,528	280,131	280,131	281,926	283,594	282,050	282,017	279,391	276,281	274,487	273,292	269,830	269,002	'266,658	263,751
Durable goods industries, total	do.	172,115	185,584	185,584	187,031	188,756	188,026	188,253	187,287	185,442	183,859	183,110	180,765	179,415	'177,112	174,918
Non-durable goods industries, total	do.	89,413	94,547	94,547	94,895	94,838	94,024	93,764	92,104	90,839	90,628	90,182	89,065	89,587	'89,546	88,833
Book value (seasonally adjusted), total †	do.	264,016	283,152	283,152	281,155	281,688	280,065	278,985	276,449	275,115	274,914	274,302	272,474	271,710	'269,297	266,688
By industry group:																
Durable goods industries, total #	do.	174,674	188,429	188,429	187,054	187,121	186,063	185,916	184,870	184,289	183,798	183,550	182,793	181,843	'179,324	177,683
Stone, clay, and glass products	do.	5,995	6,792	6,792	6,582	6,629	6,544	6,479	6,429	6,382	6,318	6,396	6,332	6,413	'6,361	6,196
Primary metals	do.	22,878	26,250	26,250	25,974	26,070	26,056	25,403	25,063	24,617	24,450	24,142	23,970	23,738	'23,107	22,308
Blast furnaces, steel mills	do.	12,063	13,347	13,347	13,120	13,128	13,441	13,075	12,867	12,566	12,485	12,154	11,985	11,847	'11,465	11,133
Fabricated metal products	do.	19,623	20,208	20,208	20,339	20,142	19,848	19,716	19,664	19,593	19,223	19,200	19,050	18,882	'18,085	17,718
Machinery, except electrical	do.	40,714	44,376	44,376	44,237	44,414	44,134	44,449	44,447	44,008	43,895	43,572	43,010	42,556	'41,923	41,004
Electrical machinery	do.	26,042	28,142	28,142	27,784	27,697	27,526	27,365	27,024	26,950	26,834	26,891	26,669	26,670	'26,745	26,502
Transportation equipment	do.	35,890	38,237	38,237	38,122	38,194	38,150	38,743	38,701	39,074	39,339	39,785	40,162	40,418	'40,052	41,025
Motor vehicles and parts	do.	9,894	9,226	9,226	8,957	8,795	8,673	8,640	8,495	8,649	8,849	8,600	8,468	8,381	'8,096	8,507
Instruments and related products	do.	9,154	9,610	9,610	9,420	9,513	9,399	9,516	9,303	9,393	9,422	9,387	9,398	9,388	'9,289	9,231
By stage of fabrication: †																
Materials and supplies	do.	55,310	58,461	58,461	58,184	57,999	56,897	56,947	55,996	55,643	55,781	55,191	54,703	54,279	'53,491	53,020
Work in process	do.	76,851	82,814	82,814	82,211	82,097	81,729	81,562	81,284	81,304	80,216	80,458	80,379	80,567	'79,786	79,281
Finished goods	do.	42,513	47,153	47,153	46,659	47,026	47,435	47,408	47,590	47,342	47,801	47,901	47,711	46,997	'46,047	45,382
Non-durable goods industries, total #	do.	89,341	94,723	94,723	94,100	94,567	94,002	93,070	91,579	90,826	91,116	90,752	89,681	89,867	'89,973	89,005
Food and kindred products	do.	21,590	20,400	20,400	20,481	20,486	20,405	20,377	20,140	19,830	20,178	20,212	19,972	19,911	'19,944	19,943
Tobacco products	do.	3,638	4,401	4,401	4,495	4,514	4,572	4,812	4,812	4,697	4,893	4,696	4,492	4,417	'4,456	4,434
Textile mill products	do.	6,695	7,011	7,011	6,761	6,710	6,587	6,513	6,501	6,367	6,428	6,381	6,369	6,350	'6,386	6,323
Paper and allied products	do.	7,788	8,825	8,825	8,675	8,850	8,921	8,842	8,810	8,757	8,734	8,748	8,831	8,890	'8,880	8,864
Chemicals and allied products	do.	19,514	21,615	21,615	21,420	21,418	21,428	21,363	20,895	20,973	20,798	20,656	20,272	20,396	'20,065	19,735
Petroleum and coal products	do.	9,814	10,544	10,544	10,373	10,615	10,531	9,675	9,060	9,101	9,220	9,329	9,274	9,201	'9,764	9,338
Rubber and plastics products	do.	6,029	6,298	6,298	6,120	6,172	6,153	6,165	6,115	6,046	5,868	5,791	5,678	5,803	'5,688	5,681
By stage of fabrication: †																
Materials and supplies	do.	36,208	38,015	38,015	37,961	37,899	37,317	37,486	37,172	36,714	36,789	36,448	35,800	35,637	'35,814	35,443
Work in process	do.	15,656	16,196	16,196	15,959	15,792	15,829	15,601	15,438	15,555	15,519	15,529	15,192	14,857	'14,793	14,621
Finished goods	do.	37,478	40,511	40,511	40,179	40,877	41,057	39,983	38,969	38,557	38,808	38,775	38,689	39,373	'39,366	38,941
By market category: †																
Home goods and apparel	do.	20,817	22,948	22,948	22,766	22,631	22,041	21,948	21,779	21,598	21,675	21,517	21,416	21,327	'21,071	21,081
Consumer staples	do.	32,196	33,100	33,100	33,309	33,644	33,631	33,673	33,355	32,832	33,351	33,262	32,632	32,692	'32,638	32,512
Equip. and defense prod., exc. auto	do.	70,150	76,445	76,445	76,265	76,744	76,716	77,708	77,506	77,622	77,423	77,618	77,464	77,083	'76,653	76,134
Automotive equipment	do.	12,328	11,873	11,873	11,567	11,366	11,220	11,191	11,102	11,226	11,332	11,054	10,807	10,800	'10,500	10,972
Construction materials and supplies	do.	20,872	22,172	22,172	21,729	21,338	21,078	20,723	20,639	20,533	20,415	20,490	20,261	20,125	'19,909	19,592
Other materials and supplies	do.	107,653	116,613	116,613	115,518	115,964	115,379	113,741	112,068	111,304	110,718	110,361	109,894	109,677	'108,526	106,397
Supplementary series:																
Household durables	do.	10,345	11,256	11,256	11,196	11,120	10,896	10,856	10,692	10,744	10,782	10,656	10,678	10,548	'10,302	10,352
Capital goods industries	do.	79,141	86,515	86,515	86,302	86,974	86,795	87,752	87,644	87,393	87,378	87,885	87,579	87,779	'87,018	86,668
Nondefense	do.	68,605	73,360	73,360	72,968	73,376	72,937	73,806	73,615	73,166	73,173	73,426	72,710	72,575	'71,667	71,162
Defense	do.	10,535	13,154	13,154	13,334	13,598	13,857	13,946	14,029	14,227	14,205	14,459	14,869	15,204	'15,351	15,506
New orders, net (not seas. adj.), total †	do.	1,868,857	1,992,179	1,992,179	1,992,179	1,992,179	1,992,179	1,992,179	1,992,179	1,992,179	1,992,179	1,992,179	1,992,179	1,992,179	'1,992,179	1,992,179
Durable goods industries, total	do.	948,723	999,268	999,268	999,268	999,268	999,268	999,268	999,268	999,268	999,268	999,268	999,268	999,268	'999,268	999,268
Non-durable goods industries, total	do.	920,134	992,912	992,912	992,912	992,912	992,912	992,912	992,912	992,912	992,912	992,912	992,912	992,912	'992,912	992,912
New orders, net (seas. adj.), total †	do.	'1,868,857	'1,992,179	156,660	154,519	155,984	157,198	154,995	156,791	157,058	158,588	154,380	156,166	149,696	'150,362	157,622
By industry group:																
Durable goods industries, total	do.	'948,723	'999,268	76,421	75,061	76,309	77,859	76,194	75,710	74,550	76,446	72,982	73,266	69,598	'70,607	78,729
Primary metals	do.	'133,936	'133,901	8,981	9,163	8,241	7,596	8,137	8,453	8,617	8,660	8,178	7,983	6,943	'7,466	6,872
Blast furnaces, steel mills	do.	'62,217	'68,410	4,462	4,469	3,741	3,432	3,583	3,928	3,789	3,999	3,749	3,351	2,795	'3,056	2,517
Nonferrous and other primary met.	do.	'60,016	'65,606	3,804	3,866	3,767	3,440	3,828	3,741	3,939	3,797	3,765	4,010	3,594	'3,729	3,742
Fabricated metal products	do.	'115,658	'122,031	9,272	8,777	9,052	9,819	8,989	9,405	9,389	9,368	8,897	8,668	8,297	'8,186	8,480
M																

Unless otherwise stated in footnotes below, data through 1978 and descriptive notes are as shown in the 1979 edition of BUSINESS STATISTICS	1980	1981	1981	1982												1983
	Annual		Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.

GENERAL BUSINESS INDICATORS—Continued

MANUFACTURERS' SALES, INVENTORIES, AND ORDERS †—Continued															
Unfilled orders, end of year or month (unadjusted), total †..... mil. \$.	318,797	316,375	316,375	319,921	319,197	319,817	318,518	312,234	305,804	301,624	295,827	292,004	291,312	*288,323	295,732
Durable goods industries, total..... do....	308,131	306,995	306,995	309,646	309,365	309,971	308,736	302,762	296,652	292,684	286,850	282,866	282,244	*279,370	286,592
Nondur. goods ind. with unfilled orders †..... do....	10,666	9,379	9,379	10,275	9,832	9,847	9,782	9,472	9,152	8,940	8,977	9,138	9,068	*8,953	9,140
Unfilled orders, end of year or month (seasonally adjusted) total †..... mil. \$.	320,977	318,621	318,621	318,114	315,957	315,639	314,521	310,482	306,032	303,235	299,001	295,883	293,107	*291,128	297,323
By industry group:															
Durable goods industries, total #..... do....	310,051	308,370	308,370	307,877	306,211	305,947	305,004	301,194	296,866	294,272	290,011	286,706	283,960	*281,861	287,924
Primary metals..... do....	29,658	26,623	26,623	25,759	24,427	23,195	22,378	22,147	22,168	22,385	22,181	21,913	21,167	*21,318	20,604
Blast furnaces, steel mills..... do....	16,966	16,113	16,113	15,573	14,502	13,679	13,106	13,129	12,930	13,244	13,369	13,093	12,823	*12,818	12,184
Nonferrous and other primary met..... do....	8,899	7,302	7,302	7,030	6,921	6,697	6,572	6,419	6,586	6,499	6,391	6,493	6,106	*6,273	6,217
Fabricated metal products..... do....	30,497	29,240	29,240	28,785	28,281	28,334	27,574	26,883	26,384	25,788	25,004	24,150	23,528	*22,605	22,236
Machinery, except electrical..... do....	73,884	72,627	72,627	71,807	69,727	67,595	67,425	65,934	63,462	61,458	59,703	58,276	58,054	*56,491	56,342
Electrical machinery..... do....	47,917	51,939	51,939	52,570	52,510	53,784	54,613	54,588	54,655	54,942	55,082	55,654	55,548	*56,577	58,102
Transportation equipment..... do....	114,304	113,709	113,709	115,043	117,196	118,529	119,178	117,876	116,652	116,359	114,855	113,390	112,604	*112,086	118,062
Aircraft, missiles, and parts..... do....	86,831	87,207	87,207	88,123	90,514	92,483	93,349	92,613	91,494	91,178	91,151	90,025	89,355	*89,021	90,469
Nondur. goods ind. with unfilled orders †..... do....	10,926	10,251	10,251	10,237	9,746	9,692	9,518	9,288	9,166	8,963	8,990	9,177	9,147	*9,267	9,399
By market category: †															
Home goods, apparel, consumer staples..... do....	4,167	4,244	4,244	4,029	3,998	4,429	3,684	3,951	4,087	3,866	3,700	3,556	3,446	*3,462	3,688
Equip. and defense prod., incl. auto..... do....	186,434	187,724	187,724	190,058	190,323	190,002	191,517	188,274	186,916	185,350	182,561	180,468	179,112	*178,065	183,306
Construction materials and supplies..... do....	17,588	16,982	16,982	16,440	16,148	16,416	15,972	15,506	15,170	15,076	14,606	14,509	14,178	*13,517	13,269
Other materials and supplies..... do....	112,788	109,671	109,671	107,588	105,488	104,793	103,346	102,751	99,859	98,943	98,134	97,350	96,371	*96,084	97,060
Supplementary series:															
Household durables..... do....	3,123	3,069	3,069	2,924	2,916	3,288	2,643	2,858	2,961	2,815	2,689	2,528	2,438	*2,475	2,597
Capital goods industries..... do....	218,190	220,621	220,621	221,841	222,197	222,888	224,799	221,766	218,756	216,480	214,264	211,737	210,440	*209,314	216,070
Nondefense..... do....	155,646	146,701	146,701	145,351	142,868	140,982	140,991	137,852	134,226	132,067	129,183	127,180	125,988	*124,721	124,079
Defense..... do....	62,544	73,919	73,919	76,490	79,329	81,905	83,808	83,914	84,530	84,413	85,081	84,557	84,452	*84,593	91,991
BUSINESS INCORPORATIONS @															
New incorporations (50 States and Dist. Col.):															
Unadjusted..... number.....	533,520	*489,059	48,650	42,680	42,511	52,574	48,845	46,008	48,876	45,282	45,572	45,461	45,029		
Seasonally adjusted..... do....			47,556	43,330	47,234	46,899	46,876	46,995	45,936	44,525	46,981	45,552	45,530		
INDUSTRIAL AND COMMERCIAL FAILURES @															
Failures, total..... number.....	11,742	16,794	1,558												
Commercial service..... do....	1,594	2,366	228												
Construction..... do....	2,355	3,614	378												
Manufacturing and mining..... do....	1,599	2,224	202												
Retail trade..... do....	4,910	6,882	586												
Wholesale trade..... do....	1,284	1,708	164												
Liabilities (current), total..... thous. \$.	4,635,080	6,955,180	626,739												
Commercial service..... do....	413,502	1,045,825	103,459												
Construction..... do....	752,109	851,780	92,749												
Manufacturing and mining..... do....	1,885,017	2,370,415	198,651												
Retail trade..... do....	993,539	1,558,528	100,409												
Wholesale trade..... do....	590,913	1,128,632	131,471												
Failure annual rate (seasonally adjusted)															
No. per 10,000 concerns..	*42.1	*61.3	72.2												

COMMODITY PRICES

PRICES RECEIVED AND PAID BY FARMERS †																
Prices received, all farm products..... 1910-14=100..	614	633	*584	*602	*609	*609	*618	*634	628	*624	*607	*619	*585	*587	*581	585
Crops #..... do....	539	580	*529	*547	*535	*522	*533	*544	541	*540	*508	*538	*491	*505	*495	490
Commercial vegetables..... do....	562	*677	*735	*904	*800	*664	*641	*605	*640	*604	*528	*501	*518	*617	*578	547
Cotton..... do....	583	*566	*435	*425	*415	*425	*459	*471	*490	*506	*446	*469	*505	*506	*484	478
Feed grains and hay..... do....	417	446	381	*399	*390	*391	404	*417	404	385	363	345	328	345	*363	371
Food grains..... do....	452	456	434	432	425	419	417	413	388	374	376	*383	*388	*393	*398	401
Fruit..... do....	458	*483	*559	*525	*553	*535	*549	*596	*612	*761	*689	*1,088	*721	*671	*546	494
Tobacco..... do....	1,219	1,363	1,452	*1,474	*1,474	*1,469	1,469	1,469	1,474	1,400	1,526	1,565	1,535	1,548	1,548	1,530
Livestock and products #..... do....	691	688	641	659	685	699	706	727	718	711	710	705	685	672	*689	685
Dairy products..... do....	798	842	856	850	844	832	820	807	801	807	807	826	844	856	*850	850
Meat animals..... do....	878	848	756	791	841	870	898	950	936	912	922	894	850	823	*828	859
Poultry and eggs..... do....	254	264	253	259	264	268	255	247	245	254	236	253	249	244	232	231
Prices paid:																
Production items..... do....	799	*855	840	*853	*855	*864	*863	*868	*873	*873	*871	*865	*859	*860	*859	869
All commodities and services, interest, taxes, and wage rates (parity index)..... 1910-14=100..	950	*1,035	*1,035	*1,056	*1,059	*1,066	*1,065	*1,070	*1,076	*1,079	*1,079	*1,077	*1,073	*1,075	*1,073	1,083
Parity ratio \$..... do....	65	61	*56	57	*58	57	58	59	*58	58	56	*57	55	55	54	54
CONSUMER PRICES (U.S. Department of Labor Indexes)																
Not Seasonally Adjusted																
ALL ITEMS, WAGE EARNERS AND CLERICAL WORKERS, REVISED (CPI-W)..... 1967=100..	247.0	272.3	281.1	282.1	282.9	282.5	283.7	286.5	290.1	291.8	292.4	292.8	293.6	293.2	292.0	292.1
ALL ITEMS, ALL URBAN CONSUMERS (CPI-U)..... 1967=100..	246.8	272.4	281.5	282.5	283.4	283.1	284.3	287.1	290.6	292.2	292.8	293.3	294.1	293.6	292.4	*293.1
Special group indexes:																
All items less shelter..... do....	235.5	258.5	266.0	267.4	268.3	268.5	268.7	270.6	273.8	275.3	275.7	276.9	277.9	278.1	278.2	278.5
All items less food..... do....	244.0	270.6	280.8	281.4	282.1	281.7	282.9	286.0	289.7	291.5	292.5	292.9	294.0	293.6	292.1	*292.6
All items less medical care..... do....	245.5	270.9	279.6	280.6	281.5	280.9	282.1	284.9	288.4	289.9	290.5	290.8	291.5	290.8	289.5	*290.0

See footnotes at end of tables.

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	Annual		Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	
COMMODITY PRICES—Continued																	
CONSUMER PRICES—Continued																	
<i>(U.S. Department of Labor Indexes)—Continued</i>																	
Not Seasonally Adjusted																	
All items (CPI-U)—Continued																	
Commodities..... 1967=100.....	233.9	253.6	258.4	258.8	259.5	258.8	258.9	261.5	265.1	266.5	266.4	266.6	267.5	267.8	267.7	267.2	
Nondurables..... do.....	245.0	266.3	269.8	270.2	271.7	270.7	269.3	270.7	274.4	275.7	275.5	276.2	276.5	276.4	275.8	275.2	
Nondurables less food..... do.....	235.2	257.5	261.1	260.2	260.1	258.4	255.0	256.2	261.2	263.0	263.6	264.6	265.7	266.1	264.7	262.4	
Durables..... do.....	210.4	227.1	233.7	233.4	233.7	233.5	239.8	243.2	244.7	244.6	244.1	246.0	246.6	247.3	247.3	247.3	
Commodities less food..... do.....	222.0	241.2	246.5	245.9	246.0	245.2	245.0	247.8	251.9	253.5	253.8	253.9	255.4	256.0	255.8	254.4	
Services..... do.....	270.3	305.7	321.8	323.9	325.3	325.5	328.4	331.8	334.9	337.0	338.9	339.7	340.3	338.6	335.6	337.9	
Services less rent..... do.....	285.1	324.3	342.0	344.2	345.7	345.7	349.1	352.8	356.5	357.5	360.5	361.3	361.6	359.3	355.5	(?)	
Food #..... do.....	254.6	274.6	277.8	281.0	283.3	283.0	283.9	285.5	287.8	288.5	287.4	287.6	287.0	286.4	286.5	288.1	
Food at home..... do.....	251.5	269.9	271.7	275.3	278.0	277.1	277.9	279.8	282.6	282.8	280.8	280.6	279.4	278.3	277.8	279.3	
Housing..... do.....	263.3	293.5	305.2	306.1	307.3	307.6	309.4	313.8	317.5	319.2	320.1	319.7	320.7	319.0	316.3	317.9	
Shelter #..... do.....	281.7	314.7	328.0	328.3	329.5	327.6	331.4	336.7	340.9	342.8	344.2	342.6	342.8	340.7	335.9	338.3	
Rent, residential..... do.....	191.6	208.2	216.5	217.8	218.6	219.6	220.1	221.8	222.6	224.8	226.0	226.9	228.9	230.2	230.8	232.2	
Homeownership..... do.....	314.0	352.7	367.8	367.5	368.7	365.7	370.6	377.4	382.8	384.5	385.9	383.0	382.8	379.5	372.9	(?)	
Fuel and utilities #..... do.....	278.6	319.2	331.8	336.2	337.1	339.3	339.2	345.4	352.2	354.7	356.3	359.5	363.4	362.2	364.1	365.4	
Fuel oil, coal, and bottled gas..... do.....	556.0	675.9	682.5	686.0	683.1	664.0	641.3	644.6	656.6	659.9	659.9	662.8	677.2	691.3	688.5	671.1	
Gas (piped) and electricity..... do.....	301.8	345.9	359.9	367.4	368.7	375.9	377.8	389.0	398.9	402.1	404.4	409.2	413.4	407.6	410.6	413.5	
Household furnishings and operation..... do.....	205.4	221.3	227.7	228.4	230.2	231.6	232.6	233.4	233.7	234.1	233.4	234.2	235.4	235.1	235.7	235.8	
Apparel and upkeep..... do.....	178.4	186.9	190.5	187.3	188.0	191.1	191.9	191.5	190.8	189.7	191.8	194.9	195.5	195.4	193.6	191.0	
Transportation..... do.....	249.7	280.0	289.8	289.9	288.0	285.1	282.9	285.6	292.8	296.1	296.2	295.3	295.5	295.8	294.8	293.0	
Private..... do.....	249.2	277.5	286.5	286.6	284.5	281.3	278.8	281.5	288.9	292.3	292.4	291.1	291.1	291.4	290.4	288.4	
New cars..... do.....	179.3	190.2	197.0	197.4	195.5	194.4	196.0	197.5	198.1	198.6	198.7	197.7	197.7	199.0	200.1	201.0	
Used cars..... do.....	208.1	256.9	281.9	280.5	279.7	280.9	285.1	291.4	298.2	302.4	304.4	304.6	306.7	310.5	312.6	311.0	
Public..... do.....	251.6	312.0	333.8	334.9	336.8	336.7	339.3	342.1	345.6	347.2	348.1	353.3	356.3	356.0	355.6	357.7	
Medical care..... do.....	265.9	294.5	310.2	313.4	316.2	318.8	321.7	323.8	326.4	330.0	333.3	336.0	338.7	342.2	344.3	347.8	
Seasonally Adjusted																	
All items, percent change from previous month.....			0.4	0.3	*0.1	*0.0	0.2	1.0	*1.1	0.6	0.3	*0.1	*0.4	*0.0	-0.3	*0.2	
Commodities..... 1967=100.....			*259.3	*259.5	*259.0	*258.8	*258.1	*261.0	*264.3	*265.8	*266.0	*266.4	267.9	*268.1	*268.4	*268.1	
Commodities less food..... do.....			*247.2	*246.7	*245.7	*245.3	*244.2	*247.3	*251.2	*253.0	*253.6	*253.8	255.6	*255.9	*256.3	*255.6	
Food..... do.....			*279.4	*281.3	*282.6	*282.8	*283.3	285.4	*287.1	*287.6	*286.9	*287.5	*288.1	*288.2	*288.1	288.3	
Food at home..... do.....			*273.2	*275.5	*277.1	*277.0	*277.4	*279.7	*281.5	*281.5	*279.9	*280.2	*280.5	*280.1	*279.4	279.5	
Apparel and upkeep..... do.....			*189.6	*189.5	*190.2	*190.6	*190.8	*191.1	*191.5	*192.2	*192.7	*192.8	*193.3	*193.2	*192.7	193.2	
Transportation..... do.....			*291.2	*290.9	*287.0	*286.6	*282.5	*285.1	*291.5	*294.1	*295.3	*295.6	*296.4	*296.0	*295.8	293.9	
Private..... do.....			*288.2	*287.7	*283.5	*283.0	*278.6	*281.2	*287.7	*290.4	*291.6	*291.6	*292.3	*291.8	*291.7	289.4	
New cars..... do.....			*196.3	*195.9	*195.3	*195.7	*196.1	*196.5	*197.2	*198.0	*199.2	*199.6	*199.2	*198.7	*199.3	199.4	
Services..... do.....			322.9	*324.8	*326.0	*326.1	*329.0	*332.1	*334.9	*336.8	*338.9	*339.1	*339.9	*339.3	*336.7	338.3	
PRODUCER PRICES §																	
<i>(U.S. Department of Labor Indexes)</i>																	
Not Seasonally Adjusted																	
All commodities..... 1967=100.....	268.8	293.4	295.8	298.3	298.6	298.0	298.0	298.6	299.3	300.4	300.2	*299.3	299.9	300.4	300.6	300.0	
By stage of processing: †																	
Crude materials for further processing..... do.....	304.6	329.0	311.5	318.4	321.6	320.0	322.6	328.3	325.6	323.4	319.8	*316.1	312.2	313.4	312.6	313.7	
Intermediate materials, supplies, etc..... do.....	280.3	306.0	309.4	311.0	311.1	310.6	309.9	309.8	309.9	311.1	310.8	*310.5	310.0	310.1	310.2	309.9	
Finished goods #..... do.....	247.0	269.8	275.4	277.9	277.9	277.3	277.3	277.8	279.9	281.7	282.3	*281.2	284.1	284.9	285.1	283.6	
Finished consumer goods..... do.....	248.9	271.3	275.8	278.3	278.6	277.7	277.3	277.7	280.1	282.1	282.8	*281.9	284.2	285.2	285.1	283.0	
Capital equipment..... do.....	239.8	264.3	274.1	276.2	275.0	275.8	277.2	278.1	279.2	280.2	280.7	*278.7	283.8	284.0	285.1	285.7	
By durability of product:																	
Durable goods..... do.....	251.5	269.8	276.0	277.6	277.4	277.4	278.1	278.5	278.3	278.9	278.8	*278.6	281.4	281.2	282.0	282.8	
Nondurable goods..... do.....	282.4	312.4	311.4	314.7	315.4	314.2	313.6	314.5	316.0	317.6	317.1	*315.7	314.3	315.5	315.1	313.4	
Total manufactures..... do.....	261.5	286.0	289.9	291.9	292.0	291.4	291.1	291.3	292.4	293.7	293.8	*292.9	293.9	294.0	294.1	293.7	
Durable manufactures..... do.....	250.8	269.6	276.5	278.0	277.8	277.8	278.7	279.2	279.3	279.9	279.8	*279.6	282.4	282.4	283.2	283.9	
Nondurable manufactures..... do.....	273.0	303.6	304.3	306.8	307.2	305.9	304.1	304.0	306.3	308.5	308.6	*307.1	305.9	306.3	305.6	303.9	
Farm prod., processed foods and feeds..... do.....	244.7	251.5	241.0	246.0	248.4	247.5	251.6	255.8	255.3	252.4	249.6	*247.4	243.9	244.0	244.8	245.9	
Farm products..... do.....	249.4	254.9	234.6	242.2	247.1	244.7	250.6	256.5	252.7	246.6	240.8	*234.5	229.1	230.6	232.5	233.1	
Foods and feeds, processed..... do.....	241.2	248.7	243.6	247.1	248.1	248.1	251.1	254.4	255.8	254.6	253.5	*253.5	251.0	250.4	250.6	251.8	
Industrial commodities..... do.....	274.8	304.1	310.0	311.8	311.6	311.0	309.9	309.6	310.6	312.8	313.2	*312.7	314.4	315.1	315.0	314.0	
Chemicals and allied products..... do.....	260.3	287.8	291.8	292.9	293.6	294.6	294.3	295.0	293.3	291.6	*290.7	290.4	290.5	290.9	289.3	289.2	
Fuels and related prod., and power..... do.....	574.0	694.4	702.5	705.1	697.8	689.7	670.6	662.2	677.3	701.1	705.6	*700.4	699.6	707.3	702.6	686.3	
Furniture and household durables..... do.....	187.7	198.4	202.9	203.5	204.6	205.5	206.0	206.5	207.0	206.8	208.1	*208.3	208.4	208.3	208.6	211.0	
Hides, skins, and leather products..... do.....	248.9	261.5	260.7	261.8	261.6	260.6	263.4	263.2	261.8	263.0	262.0	*263.5	264.7	264.3	265.2	265.6	
Lumber and wood products..... do.....	288.9	292.8	285.4	285.5	285.2	285.3	286.5	284.6	289.0	288.6	284.2	283.0	279.6	279.9	284.8	292.1	
Machinery and equipment..... do.....	239.8	263.1	272.0	274.1	275.4	276.2	277.6	278.2	278.6	279.6	279.9	*280.2	280.9	281.3	281.8	282.7	
Metals and metal products..... do.....	286.4	300.4	303.3	304.7	304.2	302.9	303.1	302.8	299.3	299.5	299.2	301.8	302.1	301.0	300.9	301.7	
Nonmetallic mineral products..... do.....	283.0	309.5	313.5	315.6	319.0	319.9	320.2	321.2	320.9	321.1	320.5	*321.2	321.2	321.5	320.9	321.5	
Pulp, paper, and allied products..... do.....	249.2	273.7	281.0	285.5	286.3	287.4	288.5	289.6	289.5	289.1	289.3	*289.4	289.2	289.6	289.5	291.1	
Rubber and plastics products..... do.....	217.4	232.8	238.3	237.3	239.3	240.8	241.1	242.1	242.5	242.0	242.6	*242.5	243.0	242.6	243.0	244.5	
Textile products and apparel..... do.....	183.5	199.6</															

Unless otherwise stated in footnotes below, data through 1978 and descriptive notes are as shown in the 1979 edition of BUSINESS STATISTICS	1980	1981	1982												1983	
	Annual	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	
CONSTRUCTION AND REAL ESTATE																
CONSTRUCTION PUT IN PLACE																
New construction (unadjusted), total	mil. \$.	230,749	238,201	18,865	15,142	14,726	16,705	17,943	19,323	20,932	20,490	21,021	21,402	*21,028	*20,635	19,698
Private, total #	do.	175,699	185,222	14,941	12,170	11,794	13,349	14,173	15,205	16,281	15,738	15,801	16,005	*16,124	*16,098	15,813
Residential.....	do.	87,261	86,566	5,966	4,963	4,417	5,175	5,915	6,609	6,899	6,680	6,628	6,602	*6,815	*7,067	6,570
New housing units.....	do.	63,139	62,664	3,951	3,450	3,166	3,789	3,856	4,175	4,406	4,676	4,846	5,006	*4,971	*5,068	4,565
Nonresidential buildings, except farm and public utilities, total #	mil. \$.	52,434	60,818	5,230	4,542	4,575	5,018	5,195	5,383	5,776	5,610	5,615	5,679	5,774	*5,652	5,334
Industrial.....	do.	13,837	17,030	1,456	1,226	1,239	1,338	1,296	1,417	1,543	1,433	1,458	1,465	1,548	*1,369	1,313
Commercial.....	do.	29,945	34,248	3,008	2,619	2,623	2,898	3,078	3,119	3,320	3,302	3,235	3,289	3,252	*3,285	3,075
Public utilities:																
Telephone and telegraph	do.	6,733	7,074	652	466	531	639	584	588	654	626	652	652	604	599	
Public, total #	do.	55,050	52,979	3,924	2,971	2,932	3,356	3,770	4,118	4,651	4,752	5,220	5,396	*4,905	*4,538	3,885
Buildings (excluding military) #	do.	18,517	17,792	1,459	1,186	1,227	1,290	1,377	1,377	1,468	1,458	1,527	1,599	*1,461	*1,512	1,344
Housing and redevelopment	do.	1,648	1,722	147	111	113	129	137	128	132	142	153	150	154	162	142
Industrial	do.	1,441	1,655	158	93	121	138	150	131	146	141	144	167	*136	*138	127
Military facilities.....	do.	1,880	1,964	161	159	114	179	137	186	168	201	215	244	184	211	204
Highways and streets.....	do.	13,807	13,904	756	434	444	585	721	1,014	1,467	1,563	1,673	1,672	1,649	*1,241	763
New construction (seasonally adjusted at annual rates), total	bil. \$.			228.8	225.1	222.6	224.6	226.1	228.7	231.6	227.3	228.1	228.1	*228.8	*235.8	239.0
Private, total #	do.			176.6	175.5	173.0	173.6	175.1	179.9	182.6	178.7	176.6	177.0	177.7	*183.8	186.8
Residential.....	do.			75.8	73.7	69.2	70.0	72.3	75.5	73.3	73.4	72.1	71.5	*74.0	*78.9	83.1
New housing units.....	do.			49.4	51.0	49.2	51.0	49.6	51.0	49.8	51.5	52.3	53.1	52.3	*54.7	57.1
Nonresidential buildings, except farm and public utilities, total #	bil. \$.			62.2	62.8	64.1	64.9	64.2	64.4	67.1	64.0	63.3	64.2	63.5	*64.7	63.5
Industrial.....	do.			16.6	17.1	17.2	16.6	15.9	17.1	18.4	16.4	16.7	16.6	17.1	*15.8	15.0
Commercial.....	do.			36.4	36.2	36.8	38.4	38.4	36.8	38.0	37.5	36.1	37.1	35.7	*37.8	37.1
Public utilities:																
Telephone and telegraph	do.			7.5	7.3	8.4	7.4	7.1	7.3	7.0	7.4	7.2	7.3	6.5	6.8	
Public, total #	do.			52.2	49.6	49.6	51.0	51.0	48.8	48.9	48.9	51.4	51.1	*51.1	*52.0	52.2
Buildings (excluding military) #	do.			17.6	16.8	17.7	16.9	17.5	16.5	16.8	16.1	16.9	16.8	*17.1	*17.8	16.2
Housing and redevelopment	do.			1.6	1.7	1.5	1.6	1.6	1.5	1.6	1.6	1.8	1.6	1.9	*2.0	1.6
Industrial	do.			1.8	1.1	1.8	1.6	1.8	1.5	1.6	1.7	1.8	1.6	*1.9	*1.9	1.4
Military facilities.....	do.			2.0	2.1	1.5	2.3	1.7	2.1	1.9	2.3	2.5	2.7	2.3	2.5	2.5
Highways and streets.....	do.			12.7	11.5	12.4	13.3	12.1	11.7	13.1	14.1	13.3	13.5	14.3	*13.9	13.2
CONSTRUCTION CONTRACTS																
Construction contracts in 50 States (F.W. Dodge Division, McGraw-Hill):																
Valuation, total	mil. \$.	148,393	*153,480	*11,980	10,580	8,881	13,036	11,713	11,821	15,444	12,528	13,896	14,180	12,549	12,909	13,977
Index (mo. data seas. adj.)..... 1977=100..		*107	*110	*115	118	115	105	88	94	111	98	112	117	105	122	131
Public ownership	mil. \$.	41,717	*38,956	*2,811	2,673	2,998	4,280	3,394	3,773	4,360	3,745	3,411	3,849	3,272	3,137	2,835
Private ownership	do.	106,676	*114,524	*9,170	7,907	5,883	8,756	8,319	8,048	11,084	8,783	10,485	10,330	9,276	9,772	11,142
By type of building:																
Nonresidential	do.	52,492	*60,088	*4,362	3,458	3,606	5,273	4,400	4,233	6,113	5,011	5,250	5,226	5,027	4,520	3,975
Residential.....	do.	63,668	*60,164	*3,677	3,008	3,143	4,600	4,656	4,984	5,602	5,144	5,414	5,525	5,629	5,628	5,184
Non-building construction	do.	32,234	*33,228	*3,941	4,113	2,132	3,164	2,658	2,604	3,729	2,372	3,232	3,429	1,893	2,761	4,818
New construction planning (Engineering News-Record) §	do.	149,143	166,366	17,516	13,920	12,102	10,844	14,043	9,119	8,278	11,992	10,385	11,936	13,373	15,530	17,683
HOUSING STARTS AND PERMITS																
New housing units started:																
Unadjusted:																
Total (private and public)	thous.	1,312.6	1,100.3	59.7	47.6	52.0	78.7	85.1	99.2	91.9	107.2	97.2	108.4	111.5	*109.9	*82.2
Privately owned	do.	1,292.2	1,084.2	59.1	47.2	51.3	78.2	84.1	98.8	91.1	106.8	96.0	106.4	110.5	*108.9	*81.7
One-family structures	do.	852.2	705.4	34.1	29.3	32.5	51.8	55.8	58.9	63.5	61.4	62.0	63.3	66.3	*66.0	*51.6
Seasonally adjusted at annual rates:																
Total privately owned	do.			*906	*877	*911	*920	*911	*1,028	*910	*1,185	*1,046	*1,134	*1,142	*1,361	*1,263
One-family structures	do.			*556	*585	*561	*607	*583	*622	*617	*625	*651	*683	*716	*868	*837
New private housing units authorized by building permits (16,000 permit-issuing places):																
Monthly data are seas. adj. at annual rates:																
Total	thous.	1,191	986	797	803	792	851	879	944	929	1,062	888	1,003	1,172	1,192	*1,305
One-family structures	do.	710	564	454	450	436	460	450	488	516	500	497	561	651	729	*736
Manufacturers' shipments of mobile homes																
Unadjusted	thous.	221.6	*240.9	14.2	13.9	*17.3	22.1	22.3	21.8	23.6	19.4	22.2	21.2	20.4	18.8	15.9
Seasonally adjusted at annual rates	do.			*216	*221	*248	*244	*249	*244	*252	*240	234	222	*224	*251	243
CONSTRUCTION COST INDEXES																
Dept. of Commerce composite	1977=100..	143.2	152.5	156.1	156.5	156.0	156.3	156.5	154.9	154.3	155.1	154.8	155.1	155.8	158.4	160.6
American Appraisal Co., The:																
Average, 30 cities	1913=100.	2,495	2,643	2,700												
Atlanta	do.	2,660	2,841	2,893												
New York	do.	2,553	2,645	2,659												
San Francisco	do.	2,671	2,873	2,934												
St. Louis	do.	2,343	2,453	2,535												
Boeckh indexes:																
Average, 20 cities:																
Apartments, hotels, office buildings 1977=100..	do.	125.1	137.4	144.1			146.0		149.0		152.6		153.6		154.9	
Commercial and factory buildings	do.	127.7	140.1	146.3			148.5		151.1		154.3		155.2		156.0	
Residences	do.	128.9	136.0	142.1			143.1		146.1		149.9		151.2		152.5	
Engineering News-Record:																
Building	1967=100..	287.7	310.3	322.3	324.7	325.7	324.8	325.0	328.6	328.5	330.6	333.5	332.9	332.8	334.5	339.6
Construction	do.	301.4	328.9	344.0	346.8	347.8	347.2	347.3	353.0	352.9	357.9	360.0	361.0	360.9	362.3	366.0
Federal Highway Adm.—Highway construction:																
Composite (avg. for year or qtr.)	1977=100..	163.0	156.7	156.8			145.3			146.8			147.8		146.1	

See footnotes at end of tables.

Table header with columns for years 1980, 1981, 1981, 1982 (Annual, Dec, Jan, Feb, Mar, Apr, May, June, July, Aug, Sept, Oct, Nov, Dec), and 1983 (Jan). Includes a note: 'Unless otherwise stated in footnotes below, data through 1978 and descriptive notes are as shown in the 1979 edition of BUSINESS STATISTICS'.

LABOR FORCE, EMPLOYMENT, AND EARNINGS—Continued

Main data table containing sections for LABOR FORCE, EMPLOYMENT, and EARNINGS. Rows include categories like 'Seasonally Adjusted', 'Civilian labor force', 'Unemployed', 'White-collar workers', 'Blue-collar workers', 'Manufacturing', 'Retail trade', 'Wholesale trade', etc. Values are in thousands of persons.

See footnotes at end of tables.

Unless otherwise stated in footnotes below, data through 1978 and descriptive notes are as shown in the 1979 edition of BUSINESS STATISTICS

LABOR FORCE, EMPLOYMENT, AND EARNINGS—Continued

Table with columns for years (1980, 1981, 1981, 1982, 1983) and rows for various earnings and wage categories. Includes sections for 'HOURLY AND WEEKLY EARNINGS', 'Indexes of avg. hourly earnings', and 'HELP-WANTED ADVERTISING'.

See footnotes at end of tables.

Unless otherwise stated in footnotes below, data through 1978 and descriptive notes are as shown in the 1979 edition of BUSINESS STATISTICS	1980	1981	1981	1982												1983	
	Annual		Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	
LABOR FORCE, EMPLOYMENT, AND EARNINGS—Continued																	
WORK STOPPAGES ¹																	
Work stoppages involving 1,000 or more workers:																	
Number of stoppages:																	
Beginning in month or year	187	145	2	2	2	3	9	14	17	11	15	14	3				
Workers involved in stoppages:																	
Beginning in month or year	795	729	4	6	3	8	36	44	41	36	42	390	40				
Days idle during month or year	20,844	16,908	146	200	237	352	480	636	894	831	786	2,126	949				
UNEMPLOYMENT INSURANCE																	
Unemployment insurance programs:																	
Insured unemployment, all programs, average weekly # @	3,837	3,410	3,935	4,681	4,723	4,892	4,760	4,387	4,328	4,495	4,398	4,282	4,391	4,635	5,078		
State programs (excl. extended duration prov.):																	
Initial claims	25,373	23,939	3,272	3,328	2,272	2,418	2,347	1,989	2,399	2,658	2,356	2,342	2,443	2,661	2,066		
Insured unemployment, avg. weekly	3,350	3,048	3,778	4,470	4,376	4,282	4,067	3,729	3,707	3,912	3,831	3,712	3,828	4,156	4,583		
Percent of covered employment: @																	
Unadjusted	3.9	3.5	4.3	5.1	5.0	4.9	4.6	4.3	4.3	4.5	4.4	4.2	4.4	4.7	5.2		
Seasonally adjusted			4.1	4.1	4.0	4.3	4.6	4.6	4.7	4.5	4.7	5.0	5.3	5.3	5.0		
Beneficiaries, average weekly	2,864	2,614	3,171	3,801	3,908	3,944	3,672	3,257	3,332	3,331	3,413	3,306	3,282	3,446	3,866		
Benefits paid @	13,761.1	13,257.8	1,592.5	1,764.2	1,781.8	2,072.6	1,849.9	1,573.4	1,692.2	1,682.1	1,746.2	1,710.6	1,646.6	1,818.2	2,122.2		
Federal employees, insured unemployment, average weekly																	
Insured unemployment, avg. weekly	30	32	39	40	40	38	33	29	28	29	27	26	28	31	33		
Veterans' program (UCX):																	
Initial claims	267	193	11	8	8	10	9	8	10	10	11	11	10	17	23		
Insured unemployment, avg. weekly	56	40	19	16	13	11	10	9	8	7	7	8	9	14	26		
Beneficiaries, average weekly	56	41	20	15	12	10	8	7	7	6	5	6	7	8	19		
Benefits paid @	357.7	280.7	10.2	7.1	5.3	5.1	4.0	3.4	3.3	2.8	2.8	2.9	3.4	4.0	10.9		
Railroad program:																	
Applications	162	184	19	22	11	9	5	5	36	68	20	14	20	17	17		
Insured unemployment, avg. weekly	34	40	56	73	87	65	52	43	41	54	59	65	73	78	81		
Benefits paid	176.1	210.8	25.3	30.5	28.0	33.9	26.3	19.1	18.6	18.0	27.0	31.1	31.6	35.1	39.5		

FINANCE

BANKING																
Open market paper outstanding, end of period:																
Bankers' acceptances	54,744	69,226	69,226	70,088	70,468	71,619	71,128	71,601	71,765	72,559	72,709	73,818	75,811			
Commercial and financial co. paper, total	121,597	161,114	161,114	167,271	167,460	166,373	172,540	176,937	180,015	180,878	174,094	171,627	170,365	166,941	162,387	
Financial companies	87,667	111,908	111,908	112,112	110,656	109,657	113,786	117,918	121,083	122,885	117,202	115,216	115,530	116,650	118,206	
Dealer placed	19,904	30,357	30,357	30,666	30,974	31,844	32,723	34,336	35,446	36,983	36,657	35,584	35,893	36,147	34,818	
Directly placed	67,763	81,551	81,551	81,446	79,682	77,813	81,063	83,582	85,637	85,902	80,545	79,632	79,637	79,503	83,388	
Nonfinancial companies	33,930	49,206	49,206	55,159	56,804	56,716	58,754	59,019	58,932	57,993	56,892	56,411	54,835	51,291	44,181	
Agricultural loans and discounts outstanding of agencies supervised by the Farm Credit Adm.:																
Total, end of period	68,648	78,188	78,206	78,387	79,035	79,758	80,695	80,972	81,415	81,659	81,564	81,566	81,352	80,766	80,408	
Farm mortgage loans:																
Federal land banks	38,138	46,463	46,463	46,899	47,324	47,966	48,425	48,838	49,289	49,582	49,845	50,006	50,160	50,292	50,375	
Loans to cooperatives	9,506	9,124	9,124	9,498	9,760	9,581	9,758	9,260	8,670	8,355	8,034	8,078	8,288	8,477	8,423	
Other loans and discounts	21,005	22,619	22,619	21,990	21,951	22,211	22,512	22,874	23,456	23,722	23,685	23,464	22,904	21,998	21,609	
Federal Reserve banks, condition, end of period:																
Assets, total #	171,495	176,778	176,778	179,941	170,321	172,249	182,959	173,574	173,810	177,673	180,258	180,647	186,454	187,494	190,128	176,424
Reserve bank credit outstanding, total #	137,644	143,906	143,906	141,871	138,575	139,700	148,335	141,249	140,244	143,812	144,502	146,838	142,629	149,394	153,769	142,656
Time loans	1,809	1,601	1,601	2,217	1,180	2,646	1,799	1,058	1,638	458	449	1,123	438	374	717	354
U.S. Government securities	121,328	130,954	130,954	128,230	125,410	125,589	134,257	129,407	127,005	132,640	132,858	134,393	132,080	137,676	139,312	132,368
Gold certificate account	11,161	11,151	11,151	11,151	11,150	11,150	11,149	11,149	11,149	11,149	11,149	11,148	11,148	11,148	11,148	11,144
Liabilities, total #	171,495	176,778	176,778	179,941	170,321	172,249	182,959	173,574	173,810	177,673	180,258	180,647	186,454	187,494	190,128	176,424
Deposits, total	31,546	30,816	30,816	39,324	29,630	30,073	38,357	26,834	25,325	29,893	29,076	32,095	36,638	29,884	34,934	26,275
Member-bank reserve balances	27,456	25,228	25,228	25,066	24,964	26,357	24,702	23,463	20,198	24,974	24,993	20,318	24,678	26,533	26,489	22,683
Federal Reserve notes in circulation	124,241	131,906	131,906	126,835	126,869	128,855	130,189	132,619	134,228	134,115	135,374	135,197	136,048	139,989	141,990	137,667
All member banks of Federal Reserve System, averages of daily figures:																
Reserves held, total	40,097	41,918	41,918	43,210	41,280	39,230	39,558	39,552	39,567	39,864	40,177	39,963	40,587	41,199	41,853	41,683
Required	40,067	41,606	41,606	42,785	40,981	38,873	39,284	39,192	39,257	39,573	39,866	39,579	40,183	40,797	41,353	41,314
Excess	30	312	312	425	299	357	274	360	310	291	311	384	404	402	500	369
Borrowings from Federal Reserve banks	1,617	1,642	1,642	1,526	1,713	1,611	1,581	1,105	1,205	669	510	976	455	579	697	506
Free reserves	1,471	1,277	1,277	1,026	1,282	1,080	1,140	508	666	153	80	490	35	130	164	104
Large commercial banks reporting to Federal Reserve System, Wed. nearest end of yr. or mo.:																
Deposits:																
Demand, adjusted \$	119,485	108,595	108,595	99,682	95,764	101,234	94,010	95,278	102,299	97,375	102,844	96,793	104,736	107,467	109,485	103,892
Demand, total #	228,086	187,518	187,518	170,840	169,273	172,931	157,940	179,476	178,515	158,878	182,564	164,592	187,996	190,848	189,553	173,523
Individuals, partnerships, and corp.	158,283	140,376	140,376	127,443	125,658	131,868	120,484	133,774	133,268	120,287	136,351	124,103	139,931	143,159	139,264	131,271
State and local governments	5,829	5,235	5,235	5,328	4,492	5,133	4,640	4,521	5,710	4,594	4,850	4,479	5,391	5,238	5,487	5,722
U.S. Government	1,108	2,148	2,148	3,645	3,331	1,133	2,958	1,148	2,345	1,575	900	1,874	3,014	1,064	1,767	1,213
Domestic commercial banks	41,407	21,896	21,896	19,273	19,762	19,695	16,143	23,721	20,392	17,299	20,735	17,963	22,492	23,374	23,613	19,964
Time, total #	314,128	362,502	362,502	367,200	370,510	372,461	373,733	381,227	385,108	393,402	401,576	401,320	403,348	400,672	406,888	416,773
Individuals, partnerships, and corp.:																
Savings	72,670	76,971	76,971	79,286	79,314	80,434	78,902	80,795	79,642	78,899	80,977	79,898	85,222	85,764	110,726	147,742
Other time	205,862	250,511	250,511	252,236	253,750	255,514	257,536	263,021	269,351	276,274	280,606	281,321	278,768	276,097	257,937	233,046
Loans (adjusted), total \$	433,313	470,988	470,988	470,410	472,278	476,519	479,517	486,083	490,863	488,186	495,430	499,562	503,707	503,562	505,624	507,196
Commercial and industrial	174,581	195,499	195,499	198,009	198,819	202,573	204,731	209,058	212,428	212,428	210,500	212,741	217,315	216,951	217,027	218,895
For purchasing or carrying securities	9,988	10,756	10,756	8,675	9,163	7,782	7,484	9,056	8,700	9,421	10,257	10,496	12,207	11,627	11,223	9,758
To nonbank financial institutions	26,073	26,729	26,729	26,756	26,762	27,913	28,096	27,666	27,368	27,368	28,090	27,279	27,312	27,017	26,924	26,361
Real estate loans	111,819	124,444	124,444	126,157	126,840	127,306	128,538	129,098	129,689	130,082	131,003	131,471	131,759	131,987	132,324	133,935
Other loans	135,555	146,367	146,367	144,998	144,382	140,837	138,662	143,552	144,398	143,263	151,608	148,534	154,608	152,199	153,308	155,643
Investments, total	118,098	116,905	116,905	118,503	117,596	117,936	115,768	117,554	115,122	115,404	115,831	116,311	122,120	122,031	125,862	131,837
U.S. Government securities, total	39,611	36,819	36,819	38,099	38,374	38,570	36,999	36,945	36,997	37,659	37,113	37,899	42,270	44,152	44,586	48,816
Investment account *	35,239	30,872	30,872	30,785	30,747	30,345	29,548	29,158	29,196	28,957	30,161	30,695	33,043	34,740	36,730	38,677
Other securities	78,487	80,086	80,086	80,413	79,222	79,366	78,769	80,609	78,125	77,745	78,718	78,412	79,850	77,879	81,276	83,021

Unless otherwise stated in footnotes below, data through 1978 and descriptive notes are as shown in the 1979 edition of BUSINESS STATISTICS	1980	1981	1981	1982												1983
	Annual	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	
FINANCE—Continued																
BANKING—Continued																
Commercial bank credit, seas. adj.:																
Total loans and securities ¶	1,239.6	1,316.3	1,316.3	1,320.0	1,332.4	1,342.5	1,352.5	1,362.0	1,368.8	1,376.1	1,383.1	1,389.4	1,397.5	1,398.5	1,412.4	
U.S. Treasury securities	110.0	111.0	111.0	114.1	115.1	114.4	116.6	116.3	115.8	116.5	117.8	118.2	122.3	126.4	130.9	
Other securities	214.4	231.4	231.4	231.5	232.0	233.1	234.0	234.9	235.9	235.9	237.1	237.6	237.2	235.8	239.2	
Total loans and leases ¶	915.1	973.9	973.9	974.5	985.2	995.0	1,002.0	1,010.8	1,017.1	1,023.7	1,028.3	1,033.5	1,038.1	1,036.4	1,042.3	
Money and interest rates:																
Discount rate (N.Y.F.R. Bank) @	11.77	13.41	12.10	12.00	12.00	12.00	12.00	12.00	12.00	11.81	10.68	10.00	9.68	9.35	8.73	
Federal intermediate credit bank loans	*12.22	*14.20	14.87	14.63	14.45	14.11	14.14	13.93	13.73	13.63	13.43	13.21	12.90	12.48	12.14	
Home mortgage rates (conventional 1st mortgages):																
New home purchase (U.S. avg.)	*12.25	*14.17	15.23	14.67	14.44	14.93	15.13	15.11	14.74	15.01	15.05	14.34	13.86	13.26	13.09	
Existing home purchase (U.S. avg.)	*12.58	*14.62	15.53	15.37	15.22	15.07	15.39	15.57	15.01	14.96	15.03	14.71	14.37	13.74	13.44	
Open market rates, New York City:																
Bankers' acceptances, 90 days	*12.78	*15.32	12.13	13.06	14.47	13.73	13.95	13.29	14.00	12.90	10.34	10.40	9.24	8.76	8.54	
Commercial paper, 6-month †	*12.29	*14.76	12.14	13.35	14.27	13.47	13.64	13.02	13.79	13.00	10.80	10.86	9.21	8.72	8.50	
Finance co. paper placed directly, 6-mo @	*11.28	*13.73	11.24	12.56	13.58	12.89	13.09	12.61	12.69	12.15	9.93	9.63	8.60	8.42	8.20	
Yield on U.S. Government securities (taxable):																
3-month bills (rate on new issue)	*11.506	*14.077	10.926	12.412	13.780	12.493	12.821	12.148	12.108	11.914	9.006	8.196	7.750	8.042	8.013	
CONSUMER INSTALLMENT CREDIT																
Total extended and liquidated:																
Unadjusted:																
Extended	306,076	336,341	30,914	22,574	22,758	27,986	28,449	28,389	31,098	27,415	29,608	28,988	27,680	30,905	34,311	
Liquidated	304,628	316,447	26,595	25,814	25,460	28,289	27,217	27,413	28,586	26,792	28,272	26,848	28,650	28,889	27,932	
Seasonally adjusted:																
Extended, total #			26,656	26,888	27,150	27,462	28,684	29,197	29,737	27,514	27,579	28,268	28,062	31,610	30,462	
By major holder:																
Commercial banks			13,264	11,775	12,431	12,519	12,790	12,765	13,460	12,485	12,499	12,750	13,322	14,616	13,992	
Finance companies			4,089	4,433	4,857	5,002	5,343	6,135	5,700	4,607	4,685	4,894	4,427	6,231	5,752	
Credit unions			2,517	3,326	2,695	2,631	3,010	2,902	2,887	2,711	2,904	3,092	2,897	3,438	3,315	
Retailers			4,142	4,385	4,254	4,536	4,618	4,449	4,762	4,785	4,396	4,684	4,431	4,383	4,518	
By major credit type:																
Automobile			7,352	7,474	7,283	7,183	7,871	8,429	8,182	7,332	7,112	7,546	7,970	10,329	9,618	
Revolving			11,592	11,070	11,730	12,143	12,416	12,528	13,361	12,551	12,497	12,464	12,340	12,489	12,336	
Mobile home			508	434	364	411	544	478	459	441	581	452	476	484	455	
Liquidated, total #			26,689	26,445	27,075	26,472	27,509	27,798	28,388	26,944	27,513	27,176	28,386	29,087	28,270	
By major holder:																
Commercial banks			12,104	11,765	12,602	12,353	12,694	12,778	13,560	12,551	12,751	12,269	13,371	13,712	12,893	
Finance companies			4,503	5,030	4,550	4,329	4,799	5,009	4,826	4,412	4,827	4,779	4,820	5,098	4,907	
Credit unions			2,886	2,637	2,830	2,753	2,878	2,941	2,849	2,780	2,725	2,746	2,929	3,020	3,146	
Retailers			4,480	4,358	4,378	4,365	4,437	4,381	4,458	4,488	4,505	4,624	4,519	4,481	4,553	
By major credit type:																
Automobile			7,284	7,595	7,339	7,211	7,638	7,470	7,527	7,271	7,514	7,041	8,048	8,513	8,315	
Revolving			11,533	11,266	11,885	11,836	11,917	11,991	12,854	11,939	12,354	12,254	12,232	12,382	11,804	
Mobile home			365	460	408	396	493	408	392	378	440	442	480	444	523	
Total outstanding, end of year or month #	313,472	333,375	333,375	330,135	327,435	327,131	328,363	329,338	331,851	332,471	333,808	335,948	334,871	336,991	343,372	
By major holder:																
Commercial banks	147,013	149,300	149,300	148,162	146,922	146,454	146,616	146,147	146,775	146,745	147,275	148,280	147,926	148,270	150,643	
Finance companies	76,756	89,818	89,818	88,925	89,009	89,591	90,674	91,958	93,009	93,353	93,207	93,357	92,541	93,462	94,322	
Credit unions	44,041	45,954	45,954	45,907	45,586	45,632	45,450	45,472	45,882	45,698	46,154	46,846	46,645	46,832	47,253	
Retailers	28,448	29,551	29,551	28,179	27,013	26,530	26,537	26,636	26,645	26,710	26,751	26,829	27,046	27,639	30,202	
By major credit type:																
Automobile	116,838	126,431	126,431	125,525	125,294	125,559	126,201	127,220	128,415	128,359	128,281	129,085	128,619	129,594	130,504	
Revolving	58,352	63,049	63,049	61,433	59,514	58,491	58,641	58,647	59,302	59,824	60,475	60,932	60,811	61,500	66,273	
Mobile home	17,322	18,486	18,486	18,397	18,343	18,363	18,402	18,479	18,543	18,601	18,741	18,778	18,814	18,821	18,768	
FEDERAL GOVERNMENT FINANCE																
Budget receipts and outlays:																
Receipts (net)	*517,112	*599,272	*56,822	55,269	43,042	45,291	75,777	36,753	66,353	44,675	44,924	59,694	40,539	42,007	54,498	
Outlays (net)	*576,675	*657,204	*76,290	45,930	57,822	63,546	66,073	55,683	59,629	64,506	59,628	61,403	66,708	66,166	72,436	
Budget surplus or deficit (-)	*-59,563	*-57,932	-19,468	9,339	-14,780	-18,255	9,704	-18,930	6,724	-19,831	-14,704	-1,708	-26,169	-24,158	-17,938	
Budget financing, total:	*59,563	*57,932	20,516	-8,109	14,993	18,773	-8,711	21,424	-4,457	20,962	16,751	4,575	26,462	24,845	18,103	
Borrowing from the public	*70,515	*79,329	14,274	9,783	10,693	12,305	2,527	3,187	3,260	14,348	21,086	22,129	6,228	25,923	29,895	
Reduction in cash balances	*-10,952	*-21,397	6,242	-17,892	4,300	6,468	-11,238	18,237	-7,717	6,614	-4,335	-17,554	20,234	-1,078	-11,792	
Gross amount of debt outstanding	*914,317	*1,003,941	1,034,716	1,043,817	1,053,325	1,066,393	1,070,734	1,076,798	1,084,658	1,094,628	1,114,214	1,146,987	1,147,713	1,166,569	1,201,898	
Held by the public	*715,105	*794,434	830,055	839,837	850,504	862,809	865,336	868,523	871,783	886,131	907,218	929,346	935,574	961,497	991,392	
Budget receipts by source and outlays by agency:																
Receipts (net), total	*517,112	*599,272	*56,822	55,269	43,042	45,291	75,777	36,753	66,353	44,675	44,924	59,694	40,539	42,007	54,498	
Individual income taxes (net)	*244,069	*285,917	25,770	32,646	21,007	13,391	41,672	9,576	32,273	23,987	20,867	32,592	20,832	22,452	24,946	
Corporation income taxes (net)	*64,600	*61,137	10,220	2,473	1,293	6,910	7,342	1,202	10,589	601	422	6,146	-461	-680	8,164	
Social insurance taxes and contributions (net)	*157,803	*182,720	*14,057	14,575	15,109	18,752	21,593	20,483	17,572	14,874	17,961	15,608	15,157	14,902	15,776	
Other	*50,640	*69,499	6,777	5,574	5,633	6,238	5,170	5,493	5,918	5,214	5,674	5,348	5,010	5,332	5,613	
Outlays, total #	*576,675	*657,204	*76,290	45,930	57,822	63,546	66,073	55,683	59,629	64,506	59,628	61,403	66,708	66,166	72,436	
Agriculture Department	*24,555	*26,030	4,793	4,573	2,984	4,394	2,484	1,362	1,526	2,668	2,184	3,026	4,107	5,374	7,499	
Defense Department, military	*132,840	*156,035	15,880	13,783	14,239	16,042	16,013	14,826	16,041	16,329	15,011	16,447	15,896	16,461	17,615	
Health and Human Services																
Department §	*194,691	*230,304	*33,282	7,319	20,679	21,628	21,898	19,883	21,087	22,499	21,168	21,424	22,200	22,817	23,440	
Treasury Department	*76,691	*92,633	13,277	7,935	8,164	7,598	9,641	8,286	14,090	8,643	9,235	7,179	9,149	9,076	14,327	
National Aeronautics and																

Unless otherwise stated in footnotes below, data through 1978 and descriptive notes are as shown in the 1979 edition of BUSINESS STATISTICS	1980	1981	1982												1983
	Annual	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FINANCE—Continued															
MONETARY STATISTICS															
Currency in circulation (end of period)..... bil. \$..	137.2	145.6	145.6	140.5	140.5	142.6	144.0	146.5	148.2	148.1	149.4	149.2	150.1	154.1	156.2
Money stock measures and components (averages of daily figures): †															
Measures (not seasonally adjusted): ‡															
M1..... bil. \$..	401.4	429.6	*452.1	*454.3	*438.1	*440.9	*456.3	*445.8	*450.8	*454.3	*454.3	*461.0	*470.6	*479.1	*491.2
M2..... do....	1,591.7	1,747.1	*1,799.6	*1,817.7	*1,807.9	*1,825.9	*1,848.6	*1,848.7	*1,865.4	*1,883.0	*1,896.5	*1,908.7	*1,928.4	*1,943.3	*1,963.8
M3..... do....	1,873.0	2,089.9	*2,175.9	*2,193.5	*2,189.2	*2,211.0	*2,235.3	*2,237.3	*2,257.2	*2,280.8	*2,308.8	*2,324.4	*2,350.2	*2,368.9	*2,384.6
L (M3 plus other liquid assets)..... do....	2,267.6	2,519.3	*2,629.7	*2,658.3	*2,671.8	*2,697.5	*2,724.4	*2,737.0	*2,762.8	*2,787.5	*2,809.4	2,822.7			
Components (not seasonally adjusted):															
Currency..... do....	111.7	119.8	125.4	123.3	123.0	*123.9	*125.7	127.2	128.3	129.8	*130.1	130.2	*131.3	132.7	135.2
Demand deposits..... do....	263.9	239.9	*244.0	*244.3	*229.3	*229.1	*236.9	*228.8	*230.7	*231.7	*229.6	*232.9	*237.6	*240.6	*247.7
Other checkable deposits ††..... do....	21.8	65.6	78.4	82.5	81.5	83.8	89.5	85.4	87.2	87.9	89.8	*93.3	97.3	101.5	*104.0
Overnight RP's and Eurodollars *..... do....	30.0	38.7	*36.1	*39.7	*38.0	*39.1	*36.8	*40.1	*40.3	*41.8	*42.4	*41.5	*43.9	*45.2	*44.2
Money market mutual funds..... do....	55.3	110.3	*150.9	*154.7	*156.0	*159.7	*161.8	*164.9	*170.1	*172.9	*182.3	*185.1	*187.6	*191.1	*182.1
Savings deposits..... do....	404.0	361.6	*342.1	*346.6	*344.6	*346.3	*348.5	*347.9	*348.6	*348.6	*346.8	*348.2	*357.8	*363.3	*356.5
Small time deposits @..... do....	706.4	812.9	*824.1	*828.7	*837.3	*845.8	*851.1	*855.9	*861.4	*871.6	*876.6	*879.0	*875.1	*871.2	*853.8
Large time deposits @..... do....	236.3	286.4	305.4	*308.4	*315.3	*318.9	*319.0	*320.6	*323.5	*327.4	*332.9	*334.9	*339.1	*340.8	*336.6
Measures (seasonally adjusted): ‡															
M1..... do....			*440.6	*447.8	*448.0	*448.6	*449.3	*452.4	*453.4	*454.4	*458.3	*463.2	*468.8	*474.1	*478.4
M2..... do....			*1,794.9	*1,810.1	*1,815.8	*1,828.9	*1,835.2	*1,850.6	*1,864.6	*1,880.9	*1,903.6	*1,917.0	*1,929.5	*1,944.7	*1,958.8
M3..... do....			*2,167.9	*2,181.8	*2,191.6	*2,210.9	*2,224.1	*2,240.7	*2,260.2	*2,283.4	*2,317.8	*2,333.9	*2,351.8	*2,369.9	*2,376.9
L (M3 plus other liquid assets)..... do....			*2,622.0	*2,644.4	*2,668.0	*2,692.6	*2,709.9	*2,736.9	*2,766.0	*2,795.7	*2,821.1	2,837.7			
Components (seasonally adjusted):															
Currency..... do....			*123.2	*124.0	*124.7	*125.2	126.3	127.4	*128.2	128.8	*129.6	130.5	*131.3	*131.9	*132.8
Demand deposits..... do....			236.4	*238.9	*235.5	*233.8	*233.3	*233.1	*232.3	*232.3	*232.5	*234.0	*236.1	*237.6	*239.8
Savings deposits..... do....			*344.4	*347.7	*346.9	*346.6	*345.9	*346.6	*347.2	*345.0	*346.7	*350.0	*358.0	*366.4	*359.0
Small time deposits @..... do....			*828.6	*826.6	*833.1	*840.7	*847.2	*852.5	*859.3	*872.9	*879.8	*883.2	*877.8	*874.6	*859.1
Large time deposits @..... do....			*302.6	*304.4	*309.9	*315.8	*321.2	*322.1	*327.4	*332.1	*334.9	*336.1	*339.6	340.4	*333.9
PROFITS AND DIVIDENDS (QTRLY.)															
Manufacturing corps. (Fed. Trade Comm.):															
Net profit after taxes, all industries..... mil. \$..	92,579	101,302	22,856			18,999			20,028			17,828			
Food and kindred products..... do....	8,222	9,109	2,446			2,120			2,079			2,031			
Textile mill products..... do....	977	1,157	198			78			146			258			
Paper and allied products..... do....	2,789	3,110	829			418			436			408			
Chemicals and allied products..... do....	11,578	12,973	2,985			2,900			2,764			2,451			
Petroleum and coal products..... do....	25,133	23,733	5,464			4,935			4,146			5,024			
Stone, clay, and glass products..... do....	1,833	1,627	267			-167			205			329			
Primary nonferrous metal..... do....	2,768	2,124	369			82			44			-41			
Primary iron and steel..... do....	2,334	3,507	5			25			-430			-893			
Fabricated metal products (except ordnance, machinery, and transport. equip.)..... mil. \$..	3,967	4,235	760			786			820			425			
Machinery (except electrical)..... do....	11,459	12,580	3,492			2,657			2,454			1,687			
Elec. machinery, equip., and supplies..... do....	7,114	7,872	1,745			1,781			1,801			1,688			
Transportation equipment (except motor vehicles, etc.)..... mil. \$..	3,084	3,722	707			645			693			720			
Motor vehicles and equipment..... do....	-3,424	-209	-139			1			1,072			-18			
All other manufacturing industries..... do....	14,745	15,762	3,728			2,738			3,798			3,759			
Dividends paid (cash), all industries..... do....	36,495	40,317	10,763			10,160			10,418			10,076			
SECURITIES ISSUED															
Securities and Exchange Commission:															
Estimated gross proceeds, total..... mil. \$..	81,111	75,870	5,969	3,283	5,838	6,601	4,610	*5,787	5,791	6,613	*9,386	7,507	*9,878	7,351	
By type of security:															
Bonds and notes, corporate..... do....	56,265	45,606	3,948	1,607	4,074	4,653	*2,563	3,405	3,066	4,230	7,296	5,204	7,248	4,057	
Common stock..... do....	18,996	25,108	1,935	1,477	1,430	1,750	1,875	*1,367	2,559	1,490	*1,365	1,681	*1,919	2,719	
Preferred stock..... do....	3,635	1,788	80	199	185	198	172	887	67	644	622	522	611	573	
By type of issuer:															
Corporate, total #..... mil. \$..	78,896	72,503	5,963	*3,282	5,689	6,601	4,610	*5,658	5,692	6,364	9,283	7,407	*9,778	7,350	
Manufacturing..... do....	24,398	17,397	1,212	727	479	1,142	599	755	417	1,845	2,373	1,510	2,904	1,274	
Extractive (mining)..... do....	4,893	9,113	723	724	479	919	636	360	1,800	668	464	750	*302	516	
Public utility..... do....	15,940	14,494	*1,246	962	1,088	2,219	1,684	1,747	941	909	1,674	1,902	1,941	1,403	
Transportation..... do....	3,727	2,779	105	68	76	255	41	108	131	18	464	149	521	319	
Communication..... do....	7,401	6,158	201	66	366	87	20	*346	191	179	206	305	314	129	
Financial and real estate..... do....	15,638	17,197	1,894	506	2,994	1,523	1,358	*1,665	1,906	2,305	2,914	2,343	3,015	2,811	
State and municipal issues (Bond Buyer):															
Long-term..... do....	47,133	46,134	5,072	3,780	3,459	5,531	6,692	5,268	5,667	5,822	6,635	6,381	7,959	9,505	8,178
Short-term..... do....	26,485	34,443	3,138	2,525	2,708	2,950	3,109	5,919	4,848	3,302	4,766	3,146	3,357	3,396	2,890
SECURITY MARKETS															
Stock Market Customer Financing															
Margin credit at brokers, end of year or month..... mil. \$..	14,721	14,411	14,411	13,441	13,023	12,095	12,202	12,237	11,783	11,729	11,396	11,208	11,728	12,459	13,325
Free credit balances at brokers:															
Margin accounts..... do....	2,105	3,515	3,515	3,455	3,755	3,895	4,145	4,175	4,215	4,410	4,470	4,990	5,520	5,600	5,735
Cash accounts..... do....	6,070	7,150	7,150	6,575	6,595	6,510	6,270	6,355	6,345	6,730	7,550	7,475	8,120	8,395	8,390
Bonds															
Prices:															
Standard & Poor's Corporation:															
High grade corporate:															
Composite \$..... dol. per \$100 bond..	41.4	33.7	33.2	30.9	31.1	32.9	33.3	34.0	32.1	32.8	35.7	38.0	41.7	44.2	42.9
Domestic municipal (15 bonds)..... do....	57.4	43.2	37.1	35.8	37.0	37.3	38.2	39.9	38.3	39.4	43.2	45.6	49.7	48.7	49.0
Sales:															
New York Stock Exchange, exclusive of some stopped sales, face value, total..... mil. \$..	5,190.30	5,733.07	673.76	410.47	388.34	512.80	509.13	510.05	499.02	463.04	724.38	699.80	875.39	770.43	792.60

See footnotes at end of tables.

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	Annual		Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.

FINANCE—Continued

Bonds—Continued																
Yields:																
Domestic corporate (Moody's)	12.75	15.06	15.38	16.05	16.13	15.68	15.53	15.34	15.77	15.70	15.06	14.34	13.54	13.08	13.02	12.90
By rating:																
Aaa	11.94	14.17	14.23	15.18	15.27	14.58	14.46	14.26	14.81	14.61	13.71	12.94	12.12	11.68	11.83	11.79
Aa	12.50	14.75	15.00	15.75	15.72	15.21	14.90	14.77	15.26	15.21	14.48	13.72	12.97	12.51	12.44	12.35
A	12.89	15.29	15.75	16.19	16.35	16.12	15.95	15.70	16.07	16.20	15.70	15.07	14.34	13.81	13.66	13.53
Baa	13.67	16.04	16.55	17.10	17.18	16.82	16.78	16.64	16.92	16.80	16.32	15.63	14.73	14.30	14.14	13.94
By group:																
Industrials	12.35	14.50	15.00	15.37	15.53	15.29	15.22	15.08	15.35	15.37	14.88	14.11	13.19	12.57	12.48	12.34
Public utilities	13.15	15.62	15.77	16.73	16.72	16.07	15.82	15.60	16.18	16.04	15.22	14.56	13.88	13.58	13.55	13.46
Railroads	11.48	13.22	13.84	14.10	14.08	14.00	14.03	13.93	13.99	14.05	13.90	13.69	13.08	12.74	12.60	12.27
Domestic municipal:																
Bond Buyer (20 bonds)	8.73	11.56	13.30	13.15	12.70	13.13	11.97	12.13	12.58	11.97	10.74	10.48	10.05	10.23	9.56	.....
Standard & Poor's Corp. (15 bonds)	8.51	11.23	12.77	13.16	12.81	12.72	12.45	11.99	12.42	12.11	11.12	10.61	9.59	9.97	9.91	9.45
U.S. Treasury bonds, taxable $\frac{1}{2}$	10.81	12.87	12.88	13.73	13.63	12.98	12.84	12.67	13.32	12.97	12.15	11.48	10.51	10.18	10.33	10.37
Stocks																
Prices:																
Dow-Jones averages (65 stocks)	328.23	364.61	351.31	333.99	327.54	318.94	332.69	333.11	313.66	316.31	321.30	356.89	383.92	401.57	404.83	417.61
Industrial (30 stocks)	891.41	932.92	878.28	853.41	833.15	812.33	844.96	846.72	804.37	818.41	832.11	917.27	988.71	1,027.76	1,033.08	1,064.29
Public utility (111 stocks)	110.43	108.58	110.73	105.68	105.98	107.47	112.17	114.49	108.41	106.28	109.64	116.18	119.97	119.34	117.83	123.83
Transportation (20 stocks)	307.23	398.56	387.11	353.99	345.93	328.85	344.68	340.90	314.58	316.68	318.34	368.32	402.70	436.43	446.37	457.74
Standard & Poor's Corporation: $\frac{1}{2}$																
Combined index (500 Stocks) 1941-43=100	118.78	128.04	123.79	117.28	114.50	110.84	116.31	116.35	109.70	109.38	109.65	122.43	132.66	138.10	139.37	144.27
Industrial, total (400 Stocks) #	134.52	144.24	138.35	131.08	127.56	122.85	129.19	129.68	122.61	122.49	122.29	137.09	148.11	153.90	156.02	162.02
Capital goods (111 Stocks)	131.37	139.03	128.23	121.78	120.53	112.43	117.32	115.84	105.97	106.34	106.34	119.61	131.64	139.35	142.63	151.03
Consumer goods (189 Stocks)	86.88	100.67	98.37	95.43	97.32	97.00	102.91	103.81	100.92	102.66	102.46	115.51	126.43	133.27	134.75	133.08
Utilities (40 Stocks)	50.54	51.87	53.53	51.81	51.39	52.33	54.25	54.88	52.13	51.87	53.34	56.48	59.41	60.08	59.33	61.89
Transportation (20 Stocks) 1970=100	18.52	23.26	22.21	20.05	19.95	17.68	18.71	18.50	17.21	17.22	17.53	20.27	22.19	23.52	23.84	24.93
Railroads (10 Stocks) 1941-43=100	75.57	93.09	90.84	80.86	75.99	67.73	71.20	71.16	65.49	63.15	64.71	77.20	86.27	88.27	85.83	90.26
Financial (40 Stocks) 1970=100	12.50	14.44	14.76	13.95	14.19	14.15	14.59	13.81	12.45	12.07	12.38	13.72	15.97	17.46	16.90	16.51
New York City banks (6 Stocks) 1941-43=100	44.00	52.45	54.01	51.33	53.85	53.77	55.93	52.27	48.10	45.36	47.46	50.50	64.21	68.70	65.60	63.91
Banks outside N.Y.C. (10 Stocks)	102.90	117.82	112.58	102.51	100.48	96.11	97.40	93.29	86.01	81.10	82.06	86.79	106.48	114.55	103.62	101.22
Property-Casualty Insurance (6 Stocks) do.....	127.06	141.29	149.00	141.08	146.08	147.01	149.14	142.45	126.05	120.61	118.41	134.47	156.02	166.54	168.28	162.01
New York Stock Exchange common stock indexes:																
Composite	68.10	74.02	71.81	67.91	66.16	63.86	66.97	67.07	63.10	62.82	62.91	70.21	76.10	79.75	80.30	83.25
Industrial	78.70	85.44	81.70	76.85	74.78	71.51	75.59	75.97	71.59	71.37	70.98	80.08	86.67	90.76	92.00	95.37
Transportation	60.61	72.61	68.27	62.04	59.09	55.19	57.91	56.84	53.07	53.40	53.98	61.39	66.64	71.92	73.40	75.65
Utility	37.35	38.91	40.22	39.30	38.32	38.57	39.20	39.40	37.34	37.20	38.19	40.36	42.67	43.46	42.93	45.59
Finance	64.25	73.52	74.74	70.99	70.50	69.08	71.44	69.16	63.19	61.59	62.84	69.66	80.59	88.66	86.22	85.66
Yields (Standard & Poor's Corp.):																
Composite (500 stocks)	5.26	5.20	5.57	5.95	6.06	6.28	5.99	5.97	6.28	6.31	6.32	5.63	5.12	4.92	4.93	.....
Industrials (400 stocks)	4.95	4.90	5.28	5.64	5.75	5.99	5.70	5.65	5.90	5.91	5.94	5.26	4.78	4.60	4.59	.....
Utilities (40 stocks)	9.77	10.15	10.22	10.74	10.77	10.61	10.27	10.27	10.87	11.02	10.77	10.22	9.73	9.62	9.83	.....
Transportation (20 stocks)	4.04	3.40	3.76	4.20	4.38	4.72	4.47	4.47	4.85	4.92	4.95	4.17	3.75	3.53	3.46	.....
Financial (40 stocks)	5.75	5.41	5.48	5.89	5.79	5.92	5.73	6.07	6.67	6.97	6.79	6.12	5.22	4.84	5.08	.....
Preferred stocks, 10 high-grade	10.60	12.36	12.83	13.19	13.20	12.97	12.90	12.58	12.96	13.24	12.78	12.41	11.71	11.18	11.20	11.23
Sales:																
Total on all registered exchanges (SEC):																
Market value	475,850	490,688	38,692	33,445	35,953	44,157	39,900	37,350	35,174	41,292	47,117	61,374	79,437	75,043	.....	.....
Shares sold	15,486	15,910	1,365	1,222	1,313	1,713	1,533	1,430	1,414	1,577	1,902	2,301	2,857	2,643	.....	.....
On New York Stock Exchange:																
Market value	397,670	415,913	32,701	28,301	30,268	38,232	33,714	31,913	30,420	35,580	40,659	52,551	67,157	63,837	.....	.....
Shares sold (cleared or settled)	12,390	12,843	1,092	987	1,071	1,411	1,242	1,167	1,169	1,304	1,555	1,890	2,292	2,126	.....	.....
New York Stock Exchange:																
Exclusive of odd-lot and stopped stock sales (sales effected)	11,352	11,854	959	968	972	1,270	1,136	1,027	1,111	1,145	1,673	1,548	2,069	1,857	1,682	1,858
Shares listed, N.Y. Stock Exchange, end of period:																
Market value, all listed shares	1,242.80	1,143.79	1,143.79	1,115.82	1,053.75	1,096.85	1,081.87	1,039.18	1,017.45	993.56	1,106.56	1,120.26	1,244.38	1,291.94	1,305.36	1,349.19
Number of shares listed	33,709	38,298	38,298	38,408	38,572	38,588	38,738	38,594	38,894	39,064	39,070	39,177	39,262	39,400	39,516	39,688

FOREIGN TRADE OF THE UNITED STATES

VALUE OF EXPORTS																
Exports (mdse.), incl. reexports, total @	220,704.9	233,739.0	19,139.9	17,515.3	17,637.3	20,160.9	18,610.6	19,000.7	19,416.1	17,259.3	16,264.5	16,716.7	17,274.5	15,695.0	16,723.9	.....
Excl. Dept. of Defense shipments	220,548.7	233,677.0	19,130.0	17,507.9	17,635.5	20,151.7	18,605.2	18,992.4	19,413.3	17,252.2	16,249.8	16,712.6	17,267.0	15,689.2	16,716.4	.....
Seasonally adjusted .....	.....	.....	18,885.4	18,736.7	18,703.6	18,602.0	17,842.8	18,218.0	18,821.8	18,026.5	17,497.8	17,387.3	16,697.7	15,692.7	16,335.3	.....
By geographic regions:																
Africa	9,060.4	11,097.4	925.4	850.6	972.4	967.1	1,001.7	936.3	1,038.0	681.9	693.7	720.1	915.0	601.3	.....	.....
Asia	60,168.3	63,848.7	5,628.8	5,172.3	5,194.8	5,752.2	5,215.9	5,545.1	5,786.2	5,793.3	5,186.8	4,947.1	5,372.4	5,109.7	.....	.....
Australia and Oceania	4,875.7	6,435.8	582.4	461.4	442.6	597.9	471.6	495.4	662.3	470.0	495.9	445.8	433.6	362.7	.....	.....
Europe	71,371.4	69,714.7	5,912.5	5,545.1	5,605.7	6,328.8	5,753.1	5,711.4	5,639.7	4,743.1	4,562.0	4,857.0	4,930.1	4,892.6	.....	.....
Northern North America	35,399.0	39,565.8	2,841.7	2,463.8	2,593.5	3,346.8	3,066.1	3,189.7	2,943.2	2,667.7	2,634.8	2,838.1	3,089.2	2,512.5	.....	.....
Southern North America	21,337.7	24,368.7	1,888.3	1,703.4	1,665.1	1,791.3	1,758.6	1,730.8	1,837.9	1,514.5	1,328.1	1,573.0	1,224.7	1,043.4	.....	.....
South America	17,376.8	17,732.1	1,305.6	1,318.6	1,163.0	1,376.6	1,258.2	1,323.2	1,437.0	1,334.4	1,336.0	1,278.5	1,235.6	1,125.3	.....	.....
By leading countries:																
Africa:																
Egypt	1,873.6	2,159.4	142.8	172.6	275.2	231.1	383.1	293.6	269.4	177.8	191.7	191.4	280.0	145.4	.....	.....
Republic of South Africa	2,463.5	2,911.7														

Unless otherwise stated in footnotes below, data through 1978 and descriptive notes are as shown in the 1979 edition of BUSINESS STATISTICS	1980	1981	1981	1982												1983
	Annual	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	

FOREIGN TRADE OF THE UNITED STATES—Continued

VALUE OF EXPORTS—Continued															
Exports (mdse.), incl. reexports—Continued															
Europe:															
France..... mil. \$.	7,485.4	'7,340.5	562.7	523.4	563.5	728.8	592.9	603.8	665.3	516.4	601.5	572.1	666.1	515.4	.....
German Democratic Republic (formerly E. Germany)..... mil. \$.	478.6	'295.7	16.4	49.9	26.6	43.7	9.3	22.0	22.0	5.5	0.8	1.9	16.9	10.1	.....
Federal Republic of Germany (formerly W. Germany)..... mil. \$.	10,959.8	'10,276.7	798.9	822.5	789.6	969.6	804.7	821.6	764.9	723.0	703.6	654.9	678.6	755.9	.....
Italy..... do.	5,511.1	'5,360.0	548.0	413.6	397.5	379.0	395.2	446.1	499.4	328.8	308.0	349.4	386.5	344.1	.....
Union of Soviet Socialist Republics..... do.	1,512.8	'2,431.3	358.3	398.0	450.5	421.3	325.1	265.7	134.4	71.8	55.1	77.1	80.0	160.6	.....
United Kingdom..... do.	12,693.6	'12,439.2	940.6	912.1	817.5	991.0	992.7	913.3	928.1	885.2	805.5	935.6	833.1	838.1	.....
North and South America:															
Canada..... do.	35,395.3	'39,564.3	2,841.7	2,463.5	2,593.5	3,346.2	3,065.8	3,189.5	2,942.7	2,667.5	2,634.5	2,837.9	3,089.1	2,512.3	.....
Latin American republics, total #..... do.	36,030.4	'38,950.1	2,933.4	2,757.4	2,537.2	2,926.9	2,782.8	2,924.3	2,588.5	2,387.7	2,562.2	2,118.6	1,844.7	1,546.9	.....
Brazil..... do.	4,343.5	'3,798.2	252.0	306.2	260.4	289.8	274.9	319.1	334.3	361.2	315.1	306.0	236.3	201.7	.....
Mexico..... do.	15,144.6	'17,788.7	1,380.8	1,187.8	1,123.9	1,307.2	1,173.1	1,201.1	1,202.6	1,005.4	795.2	1,042.6	633.2	504.9	.....
Venezuela..... do.	4,572.8	'5,444.9	467.2	364.4	380.9	501.7	415.0	440.6	501.8	494.0	460.8	402.5	449.2	402.6	.....
Exports of U.S. merchandise, total \$..... do.	216,592.2	'228,960.8	18,631.1	17,129.0	17,274.6	19,685.4	18,208.3	18,589.3	18,980.3	16,870.3	15,943.9	15,980.7	16,886.7	15,319.1	.....
Excluding military grant-aid..... do.	216,436.0	'228,898.7	18,621.1	17,121.6	17,272.8	19,676.2	18,202.8	18,581.0	18,977.5	16,863.2	15,929.3	15,976.6	16,879.2	15,313.3	.....
Agricultural products, total..... do.	41,255.9	'43,338.5	3,596.5	3,254.7	3,499.9	3,702.5	3,481.8	3,403.4	3,129.1	2,446.0	2,492.4	2,388.1	2,887.4	3,049.7	.....
Nonagricultural products, total..... do.	175,336.3	'185,622.6	15,034.6	13,874.3	13,774.7	15,982.9	14,726.5	15,185.9	15,851.2	14,424.3	13,451.5	13,592.5	13,999.3	12,269.4	.....
By commodity groups and principal commodities:															
Food and live animals #..... mil. \$.	27,743.7	'30,290.8	2,315.3	2,064.9	2,188.5	2,429.6	2,272.1	2,161.4	2,172.3	1,722.3	1,874.2	1,691.6	1,816.6	1,798.8	1,758.0
Beverages and tobacco..... do.	2,663.0	'2,914.7	236.8	208.9	250.0	300.2	224.2	262.5	221.3	167.0	211.6	193.1	350.3	379.8	.....
Crude materials, inedible, exc. fuels #..... do.	23,790.7	'20,992.4	1,811.4	1,724.7	1,782.6	1,837.3	1,789.3	1,839.6	1,598.7	1,350.5	1,272.0	1,328.1	1,515.4	1,663.4	1,546.9
Mineral fuels, lubricants, etc. #..... mil. \$.	7,982.3	'10,279.0	1,106.2	1,048.5	1,050.9	1,246.3	1,190.2	1,143.5	1,090.4	996.8	954.9	1,073.3	1,206.1	846.0	881.9
Oils and fats, animal and vegetable..... do.	1,946.3	'1,750.3	158.4	102.8	167.3	132.4	124.3	102.2	141.7	157.3	126.6	146.8	105.0	118.3	117.3
Chemicals..... do.	20,740.2	'21,187.1	1,715.4	1,594.2	1,662.1	1,858.4	1,688.2	1,722.4	1,862.5	1,648.6	1,715.0	1,548.7	1,487.8	1,455.2	1,647.2
Manufactured goods #..... do.	22,254.6	'20,632.5	1,446.3	1,456.9	1,388.7	1,633.8	1,439.6	1,535.6	1,591.0	1,348.5	1,274.2	1,321.7	1,390.7	1,202.5	1,155.4
Machinery and transport equipment, total..... mil. \$.	84,552.9	'95,717.2	7,931.2	7,126.7	6,979.4	8,357.6	7,547.7	7,782.5	8,175.7	7,597.3	6,738.6	6,756.3	7,136.5	6,083.4	6,846.4
Machinery, total #..... do.	55,789.7	'62,945.5	5,012.2	4,849.8	4,719.0	5,523.1	4,967.7	5,203.1	5,523.2	5,083.1	4,664.3	4,928.1	4,889.2	4,451.1	.....
Transport equipment, total..... do.	28,838.8	'32,790.9	2,921.0	2,281.4	2,261.0	2,835.1	2,580.0	2,580.0	2,652.8	2,515.6	2,081.5	1,828.8	2,248.1	1,632.7	.....
Motor vehicles and parts..... do.	14,589.6	'16,214.0	1,124.8	1,023.7	1,123.9	1,489.3	1,395.6	1,436.2	1,325.5	1,080.8	1,029.5	1,040.7	1,084.0	957.9	.....
VALUE OF IMPORTS															
General imports, total..... do.	240,834.3	'261,304.9	19,663.4	'22,606.0	18,264.6	20,823.4	17,882.1	20,804.5	21,810.9	19,763.2	22,867.8	20,187.8	21,219.3	19,002.0	18,720.2
Seasonally adjusted..... do.	.....	.....	19,516.3	'22,828.8	19,090.4	20,348.7	17,386.8	20,558.1	21,309.6	19,558.8	23,494.0	20,644.0	21,096.0	18,936.5	18,864.7
By geographic regions:															
Africa..... do.	32,250.9	'27,070.6	1,367.3	'2,358.5	1,706.3	1,500.6	1,252.1	911.3	1,317.6	1,695.1	1,467.7	1,262.7	1,586.0	1,423.8	.....
Asia..... do.	78,848.0	'92,032.6	6,961.4	'8,466.5	6,333.4	7,310.1	5,965.2	7,684.6	7,395.1	6,987.1	9,061.3	6,920.8	7,155.4	6,133.6	.....
Australia and Oceania..... do.	3,391.9	'3,352.7	280.5	'200.5	191.9	262.8	226.8	249.0	289.2	288.9	345.0	281.1	323.1	261.2	.....
Europe..... do.	47,849.7	'53,409.7	4,410.3	'4,758.5	3,674.7	4,479.6	4,012.6	4,923.4	4,907.0	4,358.7	4,743.5	4,241.8	4,712.0	4,220.1	.....
Northern North America..... do.	41,470.9	'46,432.0	3,606.0	'3,508.5	3,549.0	4,158.8	3,737.8	4,070.3	4,399.5	3,462.0	3,829.5	4,238.7	3,907.9	4,009.8	.....
Southern North America..... do.	22,656.9	'23,477.4	1,826.3	'1,860.6	1,831.9	1,967.5	1,660.2	1,824.7	2,309.5	1,881.2	2,210.3	2,100.8	1,972.3	1,779.6	.....
South America..... do.	14,361.6	'15,526.4	1,211.3	'1,452.5	977.2	1,144.3	1,027.2	1,145.1	1,182.9	1,090.1	1,210.3	1,141.9	1,562.4	1,173.7	.....
By leading countries:															
Africa:															
Egypt..... do.	458.4	'397.3	24.3	'42.6	100.1	80.0	32.7	46.5	90.7	22.4	2.3	8.5	19.2	51.2	.....
Republic of South Africa..... do.	3,320.5	'2,445.3	131.0	'168.1	183.1	138.5	141.1	138.6	147.5	144.6	159.0	184.4	227.1	162.8	.....
Asia; Australia and Oceania:															
Australia, including New Guinea..... mil. \$.	2,562.3	'2,514.8	235.4	'154.7	152.8	215.3	162.6	181.1	215.5	219.7	220.4	203.1	252.7	172.3	.....
Japan..... do.	30,701.3	'37,612.1	3,001.5	'3,720.0	2,708.0	3,586.6	2,790.4	3,759.4	3,117.2	2,887.9	3,814.7	2,904.2	3,274.0	2,695.1	.....
Europe:															
France..... do.	5,247.0	'5,851.4	534.1	'511.0	452.7	455.6	441.9	479.5	539.7	442.8	475.6	410.1	414.0	469.8	.....
German Democratic Republic (formerly E. Germany)..... mil. \$.	43.9	'47.7	4.4	'3.6	5.1	6.9	3.1	3.7	3.6	2.8	4.6	11.2	3.3	3.2	.....
Federal Republic of Germany (formerly W. Germany)..... mil. \$.	11,681.2	'11,379.0	1,055.9	'1,087.4	874.9	1,003.3	944.8	1,221.1	1,090.5	957.1	1,025.4	872.9	981.1	949.0	.....
Italy..... do.	4,313.1	'5,189.0	503.3	'499.2	394.4	492.7	439.7	494.6	459.3	379.4	498.5	459.6	350.0	413.7	.....
Union of Soviet Socialist Republics..... do.	453.2	'347.5	8.0	'18.4	22.0	18.0	15.5	10.2	31.8	7.7	25.7	27.6	34.8	8.9	.....
United Kingdom..... do.	9,755.1	'12,834.6	906.3	'981.7	780.0	1,011.3	821.4	1,151.5	1,210.4	1,139.7	1,217.6	1,079.6	1,483.0	1,037.3	.....
North and South America:															
Canada..... do.	41,455.4	'46,413.8	3,603.9	'3,507.8	3,547.6	4,156.2	3,735.7	4,068.6	4,398.1	3,459.2	3,828.4	4,236.3	3,907.2	4,009.6	.....
Latin American republics, total #..... do.	29,851.2	'32,023.3	2,573.1	'2,759.9	2,376.0	2,678.5	2,222.5	2,624.6	3,011.3	2,550.6	2,884.1	2,776.3	3,061.0	2,804.6	.....
Brazil..... do.	3,714.6	'4,474.5	376.4	'335.4	314.4	369.8	312.1	343.7	313.2	346.8	391.9	374.8	427.5	315.4	.....
Mexico..... do.	12,519.5	'13,765.1	1,170.9	'1,116.6	1,255.3	1,310.5	1,014.2	1,238.3	1,578.2	1,230.8	1,435.3	1,448.9	1,299.9	1,219.1	.....
Venezuela..... do.	5,297.1	'5,666.0	436.6	'602.2	312.4	355.2	350.2	293.0	399.2	387.0	281.4	361.9	504.0	392.3	.....
By commodity groups and principal commodities:															
Agricultural products, total..... mil. \$.	17,425.0	'17,003.4	1,367.9	'1,306.8	1,140.3	1,396.1	1,284.0	1,327.2	1,339.4	1,106.9	1,352.1	1,290.3	1,445.6	1,198.4	1,250.8
Nonagricultural products, total..... do.	223,409.2	'244,301.4	18,285.2	'21,343.0	17,173.6	19,419.5	16,610.8	19,466.3	20,476.2	18,614.7	21,519.8	18,885.8	19,790.7	17,754.0	.....
Food and live animals #..... do.	15,762.7	'15,237.6	1,299.2	'1,035.8	948.4	1,270.6	1,267.2	1,272.6	1,272.6	1,122.5	1,301.1	1,266.6	1,384.3	1,232.7	1,192.8
Beverages and tobacco..... do.	2,771.5	'3,135.3	238.9	'285.8	193.5	266.3	184.1	321.2	292.4	251.3	300.1	310.1	305.3	287.5	266.0
Crude materials, inedible, exc. fuels #..... do.	10,495.9	'11,193.4	696.1	'740.9	669.2	689.7	703.2	771.5	790.5	695.3	782.1	715.8	701.3	705.0	624.8
Mineral fuels, lubricants, etc..... do.	79,057.7	'81,416.9	5,426.9	'5,107.2	5,008.9	4,311.9	4,167.4	5,426.6	5,942.7	6,353.1	5,200.6	5,946.5	5,037.4	5,467.6	.....
Petroleum and products..... do.	73,770.9	'75,577.3	4,854.3	'4,630.8	4,523.2	4,504.2	3,862.8	3,749.4	5,025.3	5,454.9	5,954.0	4,741.4	5,486.9	4,419.7	.....
Oils and fats, animal and vegetable..... do.	533.4	'479.5	35.3	'42.8	19.2	40.2	25.4	38.8	43.1	31.8	46.6	24.4	32.2	32.3	28.9

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	Annual		Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.

FOREIGN TRADE OF THE UNITED STATES—Continued

Indexes	1980	1981	1981	1982	1982	1982	1982	1982	1982	1982	1982	1982	1982	1982	1982	1982	1982
Exports (U.S. mdse., excl. military grant-aid):																	
Unit value 1977=100..	138.1	150.8	152.9	156.2	155.6	154.8	154.6	154.3	152.6	153.5	151.3	150.8	151.6	151.0	152.2		
Quantity..... do..	132.9	128.8	123.9	111.6	113.0	129.4	119.9	122.5	126.5	111.8	107.1	107.8	113.3	103.2	108.9		
Value..... do..	183.6	194.1	189.5	174.2	175.8	200.2	185.3	189.1	193.1	171.6	162.1	162.6	171.8	155.8	165.7		
General imports:																	
Unit value..... do..	161.4	170.3	167.4	170.7	171.7	170.4	169.6	167.3	165.9	167.4	165.1	164.1	166.2	164.1	164.2		
Quantity..... do..	102.6	105.2	96.5	109.1	87.6	100.7	86.8	102.4	108.3	97.2	114.0	101.3	105.2	95.3	93.8		
Value..... do..	165.5	179.1	161.6	186.2	150.4	171.5	147.3	171.3	179.6	162.7	188.3	186.2	174.7	156.5	154.0		
Shipping Weight and Value																	
Waterborne trade:																	
Exports (incl. reexports):																	
Shipping weight..... thous. sh. tons.	401,172	406,796	37,820	29,927	32,880	37,243	37,240	37,178	37,012	31,425							
Value..... mil. \$.	118,835	123,495	10,350	9,657	9,856	11,113	10,237	10,299	10,514	9,080							
General imports:																	
Shipping weight..... thous. sh. tons.	487,936	464,420	31,864	39,974	27,342	28,615	26,025	27,300	34,464	33,829							
Value..... mil. \$.	164,924	177,059	12,863	15,694	11,465	12,995	11,010	13,170	13,875	12,924							

TRANSPORTATION AND COMMUNICATION

TRANSPORTATION	1980	1981	1981	1982	1982	1982	1982	1982	1982	1982	1982	1982	1982	1982	1982	1982	1982	1982
Air Carriers (Scheduled Service)																		
Certificated route carriers:																		
Passenger-miles (revenue)..... bil.	254.18	248.39	20.38	19.62	17.65	21.71	21.58	21.52	23.67	25.16	25.82	20.12						
Passenger-load factor..... percent.	59.0	58.5	57.2	55.5	55.3	60.7	61.2	58.4	63.6	63.0	64.0	54.9						
Ton-miles (revenue), total..... mil.	32,487	31,886	2,651	2,457	2,280	2,768	2,715	2,725	2,910	3,094	3,153	2,583						
Operating revenues (quarterly) # \$..... mil. \$.	*33,728	36,502	8,776			8,415			9,222			9,834						
Passenger revenues..... do..	28,049	30,579	7,238			7,039			7,767			8,317						
Cargo revenues..... do..	*2,432	2,480	651			556			602			601						
Mail revenues..... do..	623	675	192			172			171			165						
Operating expenses (quarterly) \$..... do..	*33,949	*36,922	9,284			9,046			9,063			8,479						
Net income after taxes (quarterly) \$..... do..	*124	533	-386			-689			43			172						
Domestic operations:																		
Passenger-miles (revenue)..... bil.	200.09	198.13	16.70	15.92	14.80	18.29	17.76	17.26	18.97	19.79	20.23	15.61		*14.41				
Cargo ton-miles..... mil.	3,274	3,338	264	225	230	269	249	257	250	254	258	254						
Mail ton-miles..... do..	944	994	111	79	77	87	85	82	77	79	77	80						
Operating revenues (quarterly) \$..... mil. \$.	26,404	*29,014	6,999			6,832			7,350			7,604						
Operating expenses (quarterly) \$..... do..	26,409	29,277	7,389			7,373			7,231			7,431						
Net income after taxes (quarterly) \$..... do..	*156	*360	-322			-501			31			65						
International operations:																		
Passenger-miles (revenue)..... bil.	54.09	50.28	3.68	3.70	2.85	3.42	3.83	4.26	4.70	5.36	5.59	4.51						
Cargo ton-miles..... mil.	2,458	2,337	194	162	180	208	191	202	185	214	203	205						
Mail ton-miles..... do..	392	376	43	29	29	33	32	32	31	32	32	31						
Operating revenues (quarterly) \$..... mil. \$.	*6,543	*6,390	1,501			1,866			1,601			1,912						
Operating expenses (quarterly) \$..... do..	*6,766	*6,595	1,625			1,444			1,574			1,777						
Net income after taxes (quarterly) \$..... do..	-270	-186	-59			-94			13			83						
Urban Transit Systems																		
Passengers carried, total..... mil.	8,228	7,948	651	603	623	720	650	636	645	584	631	636	678	654	654			
Motor Carriers																		
Carriers of property, large, class I, qtrly.: @																		
Number of reporting carriers.....	100	100	100			100			100			100						
Operating revenues, total..... mil. \$.	15,432	16,489	4,247			3,587			3,910			3,937						
Net income, after extraordinary and prior period charges and credits..... mil. \$.	304	199	10			48			58			48						
Tonnage hauled (revenue), common and contract carrier service..... mil. tons.	189	182	45			39			41			40						
Freight carried—volume indexes, class I and II intercity truck tonnage (ATA):																		
Common and contract carriers of property (qtrly.)..... average same period, 1967=100..																		
Common carriers of general freight, seas. adj..... 1967=100..	148.7	147.1	126.2	127.9	131.8	128.0	131.4	132.9	132.9	132.1	133.9	131.5		*124.6	*119.6		*118.1	
Class I Railroads †																		
Financial operations, qtrly. (AAR), excl. Amtrak:																		
Operating revenues, total #..... mil. \$.	28,258	30,904	7,697			7,190			7,222			6,612						
Freight..... do..	26,350	28,925	7,191			6,707			6,746			6,148						
Passenger, excl. Amtrak..... do..	439	535	143			142			145			145						
Operating expenses..... do..	26,351	28,583	7,113			6,821			6,821			6,500						
Net railway operating income..... do..	1,342	1,362	192			204			265			114						
Ordinary income..... do..	*1,130	*2,055	580			216			340			161						
Traffic:																		
Ton-miles of freight (net), total, qtrly..... bil.	920.6	*911.7	224.9			207.4			208.0									
Revenue ton-miles, qtrly. (AAR)..... do..	918.6	*910.2	225.1			207.4			208.0			190.9			191.4		*14.0	
Price index for railroad freight..... 1969=100..	284.5	327.6	337.8	350.4	350.6	350.5	351.2	351.4	351.5	352.0	352.0	351.9	351.9	351.9	352.1			355.2
Travel																		
Hotels and motor-hotels:																		
Restaurant sales index.... same month 1967=100..	182	194	195	*159	185	*207	204	200	215	212	191	188	210	187				
Hotels: Average room sale #..... dollars.	49.48	56.39	57.95	60.33	63.37	*63.96	62.44	62.00	60.82	58.66	59.17	61.34	64.28	61.87				
Rooms occupied..... % of total.	65	68	60	57	45	*71	68	68	68	64	65	63	70	62				
Motor-hotels: Average room sale, #..... dollars.	35.30	38.31	38.21	40.22	40.97	*41.79	41.41	41.30	41.02	43.15	41.77	41.89	41.26	39.19				
Rooms occupied..... % of total.	66	67	60	56	56	*71	70	66	72	72	72	62	65	58				
Foreign travel:																		
U.S. citizens: Arrivals (quarterly)..... thous.	*9,010	8,905	1,965			2,051	*729	*772	*830	*1,022	*1,093	*786	*795	*600				
Departures (quarterly)..... do..	*9,971	9,978	2,208			2,192	*830	*893	*1,025	*1,087	*961	*836	*762	*623				
Aliens: Arrivals (quarterly)..... do..	*11,252	11,976	2,681			2,381	*883	*865	*973	*1,249	*1,237	*943	*838	*686				
Departures (quarterly)..... do..	*9,285	9,933	2,339			1,931	*732	*705	*765	*870	*1,039	*759	*737	*602				
Passports issued..... do..	3,020	3,222	210	208	260	271	395	371	496	382	305	236	223					

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	Annual	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	

TRANSPORTATION AND COMMUNICATION—Continued

COMMUNICATION															
Telephone carriers:															
Operating revenues #	mil. \$.	56,738	66,498	5,978	5,911	5,802	6,163	6,128	6,080	6,238	6,225	6,329	6,291	6,327	
Station revenues	do.	24,333	28,117	2,503	2,508	2,515	2,552	2,604	2,591	2,660	2,665	2,679	2,712	2,736	
Tolls, message	do.	22,983	26,505	2,394	2,324	2,163	2,468	2,348	2,321	2,379	2,348	2,428	2,338	2,334	
Operating expenses (excluding taxes)	do.	37,983	44,594	4,505	3,924	3,944	4,304	4,229	4,216	4,315	4,292	4,189	4,366	4,417	
Net operating income (after taxes)	do.	10,194	11,903	865	1,041	987	996	1,011	998	1,037	1,059	1,148	987	986	
Phones in service, end of period	mil.	159.9	164.9	164.9	164.5	164.4	164.1	164.3	164.1	162.7	162.2	161.7	161.4	160.8	
Telegraph carriers:															
Domestic:															
Operating revenues	mil. \$.	697.0	779.2	68.3	64.2	64.3	70.3	66.9	68.1	70.0	68.4	69.1	66.9	66.5	
Operating expenses	do.	561.4	623.8	49.6	51.8	52.2	55.3	54.0	55.4	55.8	56.6	59.2	69.6	54.3	
Net operating revenues (before taxes)	do.	95.9	112.7	9.6	8.7	8.4	10.5	9.4	9.0	10.6	8.2	6.5	-7.0	8.4	
Overseas, total:															
Operating revenues	do.	*534.7	578.0	47.1	48.7	48.8	54.7	50.5	50.9	53.8	48.2	50.0	51.9	50.3	
Operating expenses	do.	*374.8	436.2	36.3	39.0	38.3	39.9	38.9	41.2	41.7	40.2	42.0	43.1	42.6	
Net operating revenues (before taxes)	do.	*137.0	117.0	9.3	7.5	8.4	12.6	9.3	7.5	9.0	5.8	5.5	4.0	5.3	

CHEMICALS AND ALLIED PRODUCTS

CHEMICALS															
Inorganic Chemicals															
Production:															
Aluminum sulfate, commercial (17% Al ₂ O ₃) ‡	thous. sh. tons.	1,286	1,206	101	87	101	118	95	91	111	94	111	99	84	
Chlorine gas (100% Cl ₂) ‡	do.	11,421	10,556	770	768	786	815	828	794	782	783	698	684	743	
Hydrochloric acid (100% HCl) ‡	do.	2,895	2,444	184	210	227	251	218	215	225	198	199	183	192	
Phosphorus, elemental ‡	do.	432	426	30	30	27	34	33	31	31	31	26	29	31	
Sodium hydroxide (100% NaOH) ‡	do.	11,606	10,650	771	764	767	801	837	807	786	794	731	696	767	
Sodium silicate, anhydrous ‡	do.	786	738	54	48	64	62	64	51	54	44	54	53	55	
Sodium sulfate, anhydrous ‡	do.	1,139	1,162	97	82	84	81	74	73	72	71	74	70	72	
Sodium tripolyphosphate (100% Na ₃ P ₃ O ₁₀) ‡	do.	727	690	57	52	56	57	48	53	55	41	54	51	56	
Titanium dioxide (composite and pure) ‡	do.	727	748	55	44	58	56	55	53	51	53	52	58	51	
Sulfur, native (Frasch) and recovered:															
Production	thous. lg. tons.	*10,298	*10,440	844	782	718	808	755	726	687	686	685	651	643	*658
Stocks (producers) end of period	do.	3,045	3,577	3,577	3,651	3,697	3,775	3,911	4,152	4,195	4,231	4,202	4,229	4,160	*4,199
Inorganic Fertilizer Materials															
Production:															
Ammonia, synthetic anhydrous ‡	thous. sh. tons.	19,653	19,043	1,570	1,361	1,296	1,434	1,498	1,523	1,356	1,203	1,173	1,196	*1,167	1,144
Ammonium nitrate, original solution ‡	do.	9,127	8,791	768	705	680	812	701	664	573	490	515	516	559	569
Ammonium sulfate ‡	do.	2,136	*1,642	(*)	136	159	164	174	154	156	161	146	141	*145	132
Nitric acid (100% HNO ₃) ‡	do.	9,232	9,039	751	682	692	822	716	664	585	524	543	558	*608	599
Nitrogen solutions (100% N) ‡	do.	2,773	*2,951	*223	*196	*202	*258	*244	*268	*230	*211	*185	*211	*134	*152
Phosphoric acid (100% P ₂ O ₅) ‡	do.	10,938	9,914	707	659	672	748	663	640	673	696	760	749	802	694
Sulfuric acid (100% H ₂ SO ₄) ‡	do.	44,157	40,795	2,888	2,638	2,625	2,818	2,612	2,443	2,462	2,551	2,703	2,772	2,894	2,743
Superphosphate and other phosphatic fertilizers (100% P₂O₅):															
Production	thous. sh. tons.	8,339	*16,903	1,076	1,128	1,213	1,240	983	857	967	1,065	1,184	1,230	*1,258	966
Stocks, end of period	do.	372	*1,068	1,068	1,197	1,306	1,317	1,200	929	917	998	926	909	*881	885
Potash, deliveries (K ₂ O) †	do.	6,950	6,478	614	416	396	417	618	552	375	340	517	389	358	313
Exports, total #	do.	29,445	22,391	1,834	1,497	1,637	2,031	1,582	1,736	1,811	1,872	1,734	1,756	1,580	1,912
Nitrogenous materials	do.	3,668	2,834	246	243	212	274	259	244	251	317	148	229	207	139
Phosphate materials	do.	17,524	13,308	1,148	860	1,135	1,309	992	1,022	911	933	979	1,013	982	1,177
Potash materials	do.	1,815	1,203	100	62	30	106	37	109	142	146	139	158	64	55
Imports:															
Ammonium nitrate	do.	247	264	17	21	16	18	33	51	29	19	16	16	17	15
Ammonium sulfate	do.	289	327	58	20	24	34	51	23	30	20	5	25	33	28
Potassium chloride	do.	8,907	8,601	719	670	552	582	722	664	483	599	643	504	661	489
Sodium nitrate	do.	158	159	0	12	0	21	9	22	19	5	18	(*)	0	15
Industrial Gases															
Production:															
Acetylene ‡	mil. cu. ft.	5,493	5,161	471	296	376	509	435	406	288	317	284	271	254	
Carbon dioxide, liquid, gas, and solid	thous. sh. tons.	*3,005	*3,813	*289	*262	*286	*334	*297	*317	*333	*330	*325	*295	*287	
Hydrogen (high and low purity) ‡	mil. cu. ft.	106,562	103,278	8,171	7,189	7,692	7,893	7,597	7,679	7,637	7,773	7,515	7,276	7,804	
Nitrogen (high and low purity) ‡	do.	479,240	490,285	39,680	40,745	38,194	41,591	39,063	39,142	40,833	41,133	42,247	40,190	40,987	
Oxygen (high and low purity) ‡	do.	430,977	430,610	32,220	31,827	31,399	35,306	31,483	30,689	30,678	30,044	28,742	27,241	27,378	
Organic Chemicals §															
Production:															
Acetylsalicylic acid (aspirin)	mil. lb.	*33.7	*29.7	1.8	2.1	2.4	2.7	2.2	2.0	1.4	1.6	1.7		2.0	
Creosote oil	mil. gal.	152.5	*181.9	8.8	5.2	6.4	8.2		8.5		5.8	5.7	6.6	4.3	
Ethyl acetate (85%)	mil. lb.	*233.6	*277.1	18.2	13.7	11.0	24.8	24.0	24.3	19.9	19.7	18.8	19.2	12.9	10.3
Formaldehyde (37% HCHO)	do.	*5,555.3	*5,720.7	376.5	375.0	379.0	398.4	443.8	402.3	368.2	334.7	391.3	394.6	427.5	382.4
Glycerin, refined, all grades	do.	314.8	299.1	16.7	17.5	18.6	20.4	22.8	19.2	18.7	20.4	16.4	18.7	21.5	*21.5
Methanol, synthetic	mil. gal.	*1,077.3	*1,291.7	121.5	93.0	85.8	109.8	110.9	95.6	104.2	97.4	76.7	77.3	94.3	83.2
Phthalic anhydride	mil. lb.	*818.2	*869.5	57.1	53.8	42.1	75.6	64.7	68.5	53.7	57.2	48.0	69.0	54.4	58.7
ALCOHOL															
Ethyl alcohol and spirits:															
Production	mil. tax gal.	643.2	571.2	45.4	42.9	39.8	48.2	37.6	41.9	52.6	51.9	44.3	53.3	61.9	
Stocks, end of period	do.	72.0	83.2	83.2	79.8	81.6	72.8	64.0	57.5	58.0	59.9	55.7	49.1	48.1	
Denatured alcohol:															
Production	mil. wine gal.	301.2	230.2	18.1	18.7	17.2	22.4	19.9	20.3	21.9	23.5	22.1	25.6	23.7	
Consumption (withdrawals)	do.	284.2	*225.9	16.3	18.3	15.2	22.8	18.5	20.2	21.7	22.4	23.2	25.5	23.6	
Stocks, end of period	do.	10.1	5.0	5.0	4.7	6.2	4.8	4.8	4.5	4.7	5.1	4.0	3.9	3.9	

See footnotes at end of tables.

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CHEMICALS AND ALLIED PRODUCTS—Continued

PLASTICS AND RESIN MATERIALS																
Production:																
Phenolic resins.....mil. lb.	'1,744.9	'1,688.0	101.8	93.2	100.7	101.5	103.7	102.5	102.7	89.7	91.8	101.1	107.0	93.4	91.3	
Polyethylene and copolymers.....do.	'11,719.9	'12,603.6	825.9	814.6	845.8	1,012.5	955.5	942.3	944.7	974.4	1,053.7	1,053.7	998.4	1,020.1	1,083.4	
Polypropylene.....do.	'3,699.0	'4,007.8	273.3	276.4	304.5	347.9	321.8	287.8	271.6	261.0	273.1	280.4	287.5	311.0	286.4	
Polystyrene and copolymers.....do.	'5,540.1	'5,915.2	404.6	351.8	397.5	432.8	414.4	435.4	422.2	432.1	441.1	460.5	434.0	421.1	352.1	
Polyvinyl chloride and copolymers.....do.	'5,485.4	'5,618.4	310.6	329.0	384.5	436.9	426.2	491.4	490.5	374.3	408.5	481.0	454.9	452.4	405.5	
MISCELLANEOUS PRODUCTS																
Explosives (industrial), shipments, quarterly mil. lb.																
	'3,000.4	3,003.6	816.7			687.0			675.1			582.9			569.9	
Paints, varnish, and lacquer, shipments:																
Total shipments.....mil. \$.	7,635.9	8,395.7	513.6	544.9	579.9	711.7	741.0	791.2	835.1	744.9	798.2	773.8	773.8	'656.4	589.9	
Architectural coatings.....do.	3,641.2	3,968.9	225.9	234.8	274.2	355.5	362.9	415.9	433.6	390.7	408.7	379.3	379.3	'302.4	253.3	
Product finishes (OEM).....do.	2,418.5	2,737.2	186.0	201.9	196.3	219.8	220.3	222.8	235.4	204.0	222.6	234.4	234.4	'206.4	204.2	
Special purpose coatings.....do.	1,576.2	1,689.5	101.7	108.2	109.4	136.4	157.9	152.5	166.1	150.2	166.9	160.1	160.1	'147.6	132.3	

ELECTRIC POWER AND GAS

ELECTRIC POWER																
Production:																
Electric utilities, total.....mil. kw.-hr.	2,286,439	2,294,812	195,590	210,098	180,310	187,662	172,588	177,261	186,204	210,543	205,656	180,662	172,967			
By fuels.....do.	2,010,418	2,034,129	171,711	183,195	153,614	157,784	144,661	149,199	158,178	183,131	181,768	160,766	153,216			
By waterpower.....do.	276,021	260,684	23,879	26,904	26,696	29,879	27,928	28,063	28,027	27,412	23,888	19,896	19,751			
Sales to ultimate customers, total (Edison Electric Institute) † mil. kw.-hr.																
Commercial \$.....do.	2,126,094	2,153,796	518,615			'542,662			512,758			563,084				
Industrial \$.....do.	524,122	541,426	131,742			'137,466			133,118			151,910				
Residential.....do.	793,812	799,885	194,026			'185,625			188,374			193,918				
Railways and railroads.....do.	4,275	4,091	1,004			'1,059			1,006			1,038				
Residential or domestic.....do.	734,411	735,724	174,008			'204,112			171,862			198,141				
Street and highway lighting.....do.	14,832	14,975	3,830			'3,936			3,458			3,633				
Other public authorities.....do.	48,284	51,055	12,424			'12,938			13,358			12,901				
Interdepartmental.....do.	6,358	6,640	1,581			'1,527			1,581			1,543				
Revenue from sales to ultimate customers (Edison Electric Institute) † mil. \$.	95,462	111,584	27,810			'30,513			29,440			33,485				
GAS																
Total utility gas, quarterly (American Gas Association):																
Customers, end of period, total.....thous.	47,263	47,859	47,859			48,352			48,253			47,894				
Residential.....do.	43,528	44,059	44,059			44,466			44,405			44,116				
Commercial.....do.	3,499	3,563	3,563			3,644			3,613			3,546				
Industrial.....do.	188	189	189			194			187			184				
Other.....do.	48	48	48			49			48			48				
Sales to customers, total.....tril. Btu.	15,409	'15,338	3,844			5,332			3,051			2,399				
Residential.....do.	4,823	'4,573	1,227			2,279			876			405				
Commercial.....do.	2,442	'2,357	642			1,078			459			285				
Industrial.....do.	7,862	'8,165	1,902			1,875			1,674			1,670				
Other.....do.	283	'243	73			100			42			39				
Revenue from sales to customers, total.....mil. \$.	48,276	'56,478	15,199			22,859			13,348			10,789				
Residential.....do.	17,409	'19,208	5,478			10,449			4,408			2,395				
Commercial.....do.	8,149	'9,267	2,683			4,787			2,162			1,409				
Industrial.....do.	22,081	'27,276	6,812			7,272			6,607			6,832				
Other.....do.	637	'727	226			351			172			152				

FOOD AND KINDRED PRODUCTS; TOBACCO

ALCOHOLIC BEVERAGES																
Beer:																
Production.....mil. bbl.	194.08	193.69	13.93	15.19	15.00	17.65	17.62	18.22	18.19	17.17	19.50	15.64	15.07	13.65		
Taxable withdrawals.....do.	173.37	176.70	12.91	11.90	12.91	15.68	15.82	16.56	17.22	16.10	16.26	14.88	13.83	13.14		
Stocks, end of period.....do.	13.96	12.95	12.95	14.16	14.93	16.32	15.83	15.59	15.28	14.45	14.31	13.99	14.00	13.43		
Distilled spirits (total):																
Production.....mil. tax gal.	140.53	152.03	14.05	11.02	12.34	15.28	13.59	10.98	10.83	6.85	6.57	10.50	14.68			
Consumption, apparent, for beverage purposes †.....mil. wine gal.	'449.42	'449.45	54.09	30.70	30.22	35.69	36.13	33.29	38.32	33.47	32.74	34.93	36.33			
Stocks, end of period †.....mil. tax gal.	623.26	613.76	613.76	612.96	608.32	618.40	621.06	616.72	616.84	614.96	565.60	604.93	605.53			
Imports.....mil. proof gal.	113.71	117.93	9.12	7.03	6.33	5.82	7.98	9.12	10.86	7.29	8.95	9.87	12.75	11.75	8.29	
Whisky:																
Production †.....mil. tax gal.	84.31	96.66	9.06	7.37	8.88	10.32	10.20	7.54	7.81	4.94	4.57	6.66	8.31			
Stocks, end of period †.....do.	554.88	541.07	541.07	541.03	543.22	545.29	547.76	547.25	545.48	544.59	501.07	539.59	536.00			
Imports.....mil. proof gal.	86.00	86.53	6.62	4.91	4.65	4.06	5.91	6.88	8.09	5.40	5.88	7.19	9.89	8.18	5.54	
Wines and distilling materials:																
Effervescent wines:																
Production.....mil. wine gal.	26.20	30.73	1.95	1.83	1.89	2.06	1.92	2.18	2.92	2.51	3.11	3.39	3.77	2.70		
Taxable withdrawals.....do.	25.28	27.27	2.72	1.15	1.12	1.93	1.62	2.57	1.98	1.21	2.17	1.90	6.55	2.85		
Stocks, end of period.....do.	9.27	11.53	11.53	12.67	13.09	13.23	13.59	13.36	13.65	15.52	15.56	16.52	14.64	14.02		
Imports.....do.	4.83	7.66	1.01	0.53	0.33	0.45	0.52	0.67	0.70	0.52	0.67	0.71	0.81	1.13	1.29	
Still wines:																
Production †.....do.	509.05	'466.23	15.00	4.02	6.03	7.07	4.87	3.81	4.97	5.18	29.96	162.79	229.61	72.07		
Taxable withdrawals †.....do.	349.35	363.63	30.96	28.98	25.63	35.16	30.03	28.62	30.96	25.76	29.17	27.10	34.14	71.06		
Stocks, end of period †.....do.	610.53	604.31	604.31	575.15	557.53	523.86	492.03	467.53	435.01	408.23	395.40	512.20	702.10	705.62		
Imports.....do.	97.68	107.60	10.91	9.96	6.49	7.81	8.16	9.45	10.61	8.83	9.99	9.93	9.13	11.94	11.47	
Distilling materials produced at wineries.....do.	224.38	188.20	10.50	2.88	2.87	4.04	11.35	1.37	2.08	1.86	11.68	43.17	71.36	27.96		

See footnotes at end of tables.

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FOOD AND KINDRED PRODUCTS; TOBACCO—Continued																
DAIRY PRODUCTS																
Butter, creamery:																
Production (factory) @ mil. lb.	1,145.3	1,228.2	109.5	128.3	116.8	123.4			*332.9			262.2				295.1
Stocks, cold storage, end of period do...	304.6	429.2	429.2	433.1	440.4	447.8			*541.6			510.0				463.2
Price, wholesale, 92 score (N.Y.) \$ per lb.	1.448	1.535						(¹)								
Cheese:																
Production (factory), total @ mil. lb.	3,984.3	4,229.0	368.6	347.0	325.8	376.3			*1,178.8			1,099.5				1,104.6
American, whole milk @ do...	2,375.8	2,608.5	220.5	218.4	204.9	232.2			*740.9			662.5				633.8
Stocks, cold storage, end of period do...	578.8	709.6	709.6	717.3	696.4	722.2			*804.4			871.2				954.9
American, whole milk do...	479.6	623.0	623.0	632.0	622.6	641.6			*712.3			765.1				871.4
Imports do...	231.2	247.7	52.9	19.0	11.8	15.7	16.8	18.8	20.6	18.2	22.7	25.6	24.6	28.7		46.8
Price, wholesale, cheddar, single daisies (Chicago) \$ per lb.	1.562	1.672	1.684	1.684	1.684	1.684	1.684	1.684	1.684	1.684	1.684	1.683	1.686	1.686	1.686	1.680
Condensed and evaporated milk:																
Production, case goods @ mil. lb.	724.7	757.9	68.6	58.1	53.6	61.5			*195.0			185.6				184.6
Stocks, manufacturers', case goods, end of period mil. lb.	51.8	46.0	46.0	45.5	40.7	47.7			*89.1			103.3				56.9
Exports do...	43.4	34.9	3.7	2.2	5.0	1.2	1.8	1.8	2.5	2.4	0.6	0.5	0.3	0.3		0.6
Fluid milk:																
Production on farms † do...	128,525	*133,013	*10,905	*11,116	*10,391	*11,728			*35,723			*33,983				*32,854
Utilization in mfd. dairy products @ do...	71,665	76,004	6,208	6,370	6,099	6,945			*21,419			19,431				18,107
Price, wholesale, U.S. average \$ per 100 lb.	13.00	13.80	14.00	13.90	13.80	13.60	13.40	13.20	13.10	13.20	13.20	13.50	13.80	14.00		*13.90
Dry milk:																
Production:																
Dry whole milk @ mil. lb.	82.7	92.7	8.9	9.2	8.0	9.4			*29.2			21.4				24.5
Nonfat dry milk (human food) @ do...	1,160.7	1,314.3	110.1	104.1	107.2	125.3			*417.2			346.7				296.8
Stocks, manufacturers', end of period:																
Dry whole milk do...	5.3	6.0	6.0	7.6	6.9	6.9			*9.6			7.3				6.0
Nonfat dry milk (human food) do...	85.0	86.7	86.7	87.7	94.5	94.4			*127.5			89.8				93.3
Exports, whole and nonfat (human food) do...	176.2	198.0	2.0	9.4	12.6	17.4	11.4	18.2	20.4	23.1	16.7	13.7	12.1	22.4		10.4
Price, manufacturers' average selling, nonfat dry milk (human food) \$ per lb.	0.887	0.939	0.940	0.936	0.936	0.937	(¹)									
GRAIN AND GRAIN PRODUCTS																
Exports (barley, corn, oats, rye, wheat) mil. bu.	3,914.4	3,918.3	318.6	285.8	299.5	360.9	353.7	339.4	344.8	243.7	248.5	245.8	268.7	269.1		264.9
Barley:																
Production (crop estimate) † do...	*361.0	*479.3														*522.4
Stocks (domestic), end of period, total † do...	303.4	*333.1	*333.1			*226.9		*149.7				*501.4				418.7
On farms † do...	185.6	*231.2	*231.2			*147.5		*94.1				*353.4				293.9
Off farms do...	117.8	*101.9	*101.9			*79.4		*55.7				*148.0				124.8
Exports, including malt \$ do...	68.9	95.9	7.7	8.5	8.2	6.5	3.9	7.5	6.3	4.9	8.6	5.7	1.5	3.0		1.9
Corn:																
Production (crop estimate, grain only) † mil. bu.	*6,644.8	*8,201.6														*8,397.3
Stocks (domestic), end of period, total † do...	5,858.8	*6,987.7	*6,987.7			*5,131.8		*3,904.1				*2,285.9				8,422.7
On farms † do...	4,141.5	*5,033.8	*5,033.8			*3,625.9		*2,758.5				*1,356.0				6,156.9
Off farms do...	1,717.3	*1,933.8	*1,933.8			*1,505.9		*1,145.6				*929.9				2,265.8
Exports, including meal and flour do...	2,485.3	2,159.3	172.4	151.1	147.2	189.3	195.0	212.4	179.8	119.8	112.8	107.4	166.5	169.8		173.8
Oats:																
Production (crop estimate) † mil. bu.	*458.3	*509.2														*617.0
Stocks (domestic), end of period, total † do...	391.0	*365.2	*365.2			*236.9		*152.0				*561.3				473.6
On farms † do...	329.3	*314.1	*314.1			*200.5		*127.2				*486.0				397.9
Off farms do...	61.7	51.1	51.1			36.3		24.8				95.3				75.7
Exports, including oatmeal do...	9.1	12.8	0.3	0.6	0.3	0.6	0.8	0.6	0.8	0.3	0.3	0.3	0.8	0.2		0.3
Price, wholesale, No. 2, white (Minneapolis) \$ per bu.	(¹)															
Rice:																
Production (crop estimate) mil. bags #	*146.2	*182.7														*154.2
California mills:																
Receipts, domestic, rough mil. lb.	3,582	3,359	287	84	184	221	202	204	77	723	225	76	505	346		139
Shipments from mills, milled rice do...	2,711	2,267	97	70	62	76	129	210	279	161	332	110	81	63		47
Stocks, rough and cleaned (cleaned basis), end of period mil. lb.	231	510	510	493	550	628	639	577	356	344	174	108	369	462		503
Southern States mills (Ark., La., Tenn., Tex.):																
Receipts, rough, from producers mil. lb.	10,831	10,821	768	505	683	784	702	552	406	434	1,198	3,278	1,507	714		720
Shipments from mills, milled rice do...	6,795	7,354	654	612	564	685	662	602	583	505	559	615	541	542		550
Stocks, domestic, rough and cleaned (cleaned basis), end of period mil. lb.	2,969	2,763	2,763	2,572	2,300	2,132	1,868	1,610	1,308	1,012	1,270	2,826	3,276	3,232		3,170
Exports do...	6,620	6,801	458	479	515	399	487	661	538	370	809	320	431	199		307
Price, wholesale, No. 2, medium grain (Southwest Louisiana) \$ per lb.	0.225	0.256	0.195	0.185	0.175	0.160	0.158	0.165	0.163	0.160	0.165	0.165	0.165	0.155		0.170
Rye:																
Production (crop estimate) † mil. bu.	*16.5	*18.8														*20.8
Stocks (domestic), end of period † do...	9.3	*7.9	*7.9			*5.8		*3.1				*16.5				10.9
Wheat:																
Production (crop estimate), total † mil. bu.	*2,374	*2,799														*2,809
Spring wheat † do...	479	465														700
Winter wheat † do...	*1,895	*2,104														*2,108
Distribution, quarterly @ @ do...	2,191	2,523	559			620			*394			*964				
Stocks (domestic), end of period, total † do...	1,903.2	*2,178.0	*2,178.0			*1,557.1		*1,163.9				*2,987.1				2,521.4
On farms † do...	753.4	*955.6	*955.6			*748.4		*581.0				*1,421.0				1,187.4
Off farms do...	1,149.7	*1,222.4	*1,222.4			808.7		*582.9				*1,566.0				1,354.0
Exports, total, including flour do...	1,344.5	1,647.7	137.8	125.6	143.8	164.5	154.1	118.9	157.9	118.7	126.8	132.4	99.9	96.0		88.9
Wheat only do...	1,309.5	1,610.8	137.4	124.2	138.7	159.1	147.4	114.8	155.7	117.9	124.0	130.8	98.5	94.1		88.5

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FOOD AND KINDRED PRODUCTS; TOBACCO—Continued																
GRAIN AND GRAIN PRODUCTS—Continued																
Wheat flour:																
Production:																
Flour †.....thous. sacks (100 lb.)	282,655	283,966	22,321	23,985	23,553	25,256	22,474	21,886	22,471	23,153	24,669	24,213	*24,965	23,584	.....	.....
Millfeed ‡.....thous. sh. tons.	4,866	5,045	403	432	423	453	403	393	*406	424	448	435	*450	431	.....	.....
Grindings of wheat †.....thous. bu.	628,599	634,381	50,197	53,740	52,786	56,663	50,348	49,018	50,215	52,333	55,826	54,340	*56,328	53,153	.....	.....
Stocks held by mills, end of period																
thous. sacks (100 lb.)	3,842	3,460	3,460	.....	.....	3,384	.....	.....	3,744	.....	.....	3,563	.....	.....	.....	.....
do.....do.....	15,014	15,839	184	605	2,165	2,336	2,858	1,760	944	352	1,196	698	593	824	185	.....
Exports.....do.....																
Prices, wholesale:																
Spring, standard patent (Minneapolis)																
\$ per 100 lb.	*10.566	10.844	10.338	10.763	10.950	10.738	10.538	10.550	10.500	10.538	10.188	10.475	10.388	10.463	10.450	10.163
Winter, hard, 95% patent (Kans. City).....do.....	*10.116	*10.347	.....	10.638	10.700	10.638	10.425	.....	.....	.....	.....	.....	.....	.....	.....	10.200
POULTRY AND EGGS																
Poultry:																
Slaughter.....mil. lb.	14,233	15,058	1,232	1,087	1,070	1,253	1,220	1,222	1,360	1,306	1,377	1,364	1,338	*1,270	1,215	.....
Stocks, cold storage (frozen), end of period, total																
mil. lb.	339	392	392	378	374	377	.....	.....	*425	.....	.....	565	.....	.....	345	.....
do.....do.....	198	238	238	238	236	233	.....	.....	*282	.....	.....	436	.....	.....	206	.....
Turkeys.....do.....																
Price, in Georgia producing area, live broilers																
\$ per lb.	0.270	0.265	0.230	0.255	0.250	0.256	0.235	0.260	0.270	0.270	0.250	0.265	0.230	0.230	0.235	0.240
Eggs:																
Production on farms.....mil. cases \$.	193.6	*194.0	.....	.....	*48.5	.....	.....	*48.8	.....	.....	*47.9	.....	.....	*48.4	.....	.....
Stocks, cold storage, end of period:																
Shell.....thous. cases \$.	31	35	35	26	19	39	.....	.....	*32	.....	.....	29	.....	.....	35	.....
Frozen.....mil. lb.	24	22	22	21	19	17	.....	.....	*23	.....	.....	28	.....	.....	27	.....
Price, wholesale, large (delivered; Chicago)																
\$ per doz.	0.628	0.690	0.721	0.762	0.742	0.752	0.683	0.604	0.608	0.617	0.616	0.659	0.668	0.662	0.641	0.602
LIVESTOCK																
Cattle and calves:																
Slaughter (federally inspected):																
Calves.....thous. animals.	2,294	2,478	254	228	210	263	.....	.....	*608	.....	.....	693	.....	.....	726	.....
Cattle.....do.....	31,642	32,819	2,829	2,771	2,591	2,819	.....	.....	*8,193	.....	.....	8,770	.....	.....	8,762	.....
Prices, wholesale:																
Beef steers (Omaha).....\$ per 100 lb.	66.96	63.84	59.24	60.75	63.54	65.80	69.11	72.10	70.18	66.18	65.14	61.25	58.78	58.91	59.82	59.33
Steers, stocker and feeder (Kansas City).....do.....	71.30	64.26	58.96	59.22	62.37	63.96	64.72	66.07	63.70	64.17	66.42	63.55	62.21	61.24	59.17	63.70
Calves, vealers (So. St. Paul).....do.....	75.52	77.25	67.50	69.00	67.50	71.50	78.00	82.88	85.00	84.84	81.12	84.60	75.00	75.00	78.40	55.88
Hogs:																
Slaughter (federally inspected).....thous. animals.	91,882	87,850	7,923	6,875	6,340	7,691	.....	.....	*20,043	.....	.....	18,310	.....	.....	20,068	.....
Prices:																
Wholesale, average, all weights (Sioux City)																
\$ per 100 lb.	39.48	44.29	40.17	45.77	49.70	49.50	52.16	58.35	59.01	59.70	63.18	63.12	57.27	53.90	55.23	57.24
Hog-corn price ratio (bu. of corn equal in value to 100 lb. live hog).....do.....	14.4	14.9	16.3	17.1	19.8	19.8	20.1	21.8	22.4	23.2	26.7	28.6	28.2	24.6	*23.7	23.7
Sheep and lambs:																
Slaughter (federally inspected).....thous. animals.	5,363	5,789	522	510	490	570	.....	.....	*1,493	.....	.....	1,577	.....	.....	1,634	.....
Price, wholesale, lambs, average (Omaha)																
\$ per 100 lb.	59.81	52.23	45.10	49.75	51.50	59.00	59.50	66.25	60.50	57.25	50.50	50.00	48.25	46.75	48.50	53.50
MEATS																
Total meats (excluding lard):																
Production, total.....mil. lb.	38,590	38,675	3,417	3,152	2,894	3,296	.....	.....	*9,097	.....	.....	9,163	.....	.....	9,659	.....
Stocks, cold storage, end of period.....do.....	750	578	578	554	524	536	.....	.....	*504	.....	.....	474	.....	.....	566	.....
Exports.....do.....	1,663	1,847	153	129	147	124	131	167	147	111	108	112	133	143	115	.....
Imports (meat and meat preparations).....do.....	2,052	1,832	118	127	106	160	169	167	215	158	234	246	194	124	114	.....
Beef and veal:																
Production, total.....do.....	21,849	22,629	1,942	1,889	1,750	1,917	.....	.....	*5,462	.....	.....	5,835	.....	.....	5,927	.....
Stocks, cold storage, end of period.....do.....	338	266	266	258	232	220	.....	.....	*197	.....	.....	254	.....	.....	309	.....
Exports.....do.....	425	486	43	33	46	44	40	52	49	40	41	42	52	56	43	.....
Imports.....do.....	1,531	1,317	80	93	72	108	130	116	158	113	180	194	146	67	69	.....
Price, wholesale, beef, fresh, steer carcasses, choice (600-700 lbs.) (Central U.S.).....\$ per lb.	1.044	0.998	0.937	0.974	1.012	1.038	1.095	1.151	1.112	1.026	1.008	0.955	0.930	0.929	0.926	0.939
Lamb and mutton:																
Production, total.....mil. lb.	310	328	30	29	28	33	.....	.....	*85	.....	.....	88	.....	.....	93	.....
Stocks, cold storage, end of period.....do.....	9	11	11	10	8	9	.....	.....	*8	.....	.....	9	.....	.....	9	.....
Pork (excluding lard):																
Production, total.....mil. lb.	16,431	15,719	1,445	1,234	1,116	1,346	.....	.....	*3,550	.....	.....	3,239	.....	.....	3,639	.....
Stocks, cold storage, end of period.....do.....	349	264	264	249	246	274	.....	.....	*264	.....	.....	183	.....	.....	225	.....
Exports.....do.....	314	347	29	30	25	21	22	42	32	19	18	16	17	22	19	.....
Imports.....do.....	433	432	33	30	30	46	34	43	50	42	45	44	43	51	40	.....
Prices, wholesale:																
Hams, smoked #.....Index, 1967=100.	*254.8	266.5	292.5	271.1	278.6	282.4	283.7	289.2	299.4	299.6	305.6	327.5	342.7	342.0	352.4	329.8
Fresh loins, 8-14 lb. average (N.Y.).....\$ per lb.	1.011	1.137	1.007	1.209	1.169	1.100	1.186	1.301	1.386	1.376	1.366	1.415	1.349	1.232	1.229	1.291
MISCELLANEOUS FOOD PRODUCTS																
Cocoa (cacao) beans:																
Imports (incl. shells).....thous. lg. tons.	148.5	245.0	11.5	10.0	29.0	17.6	15.3	16.8	11.9	13.0	20.3	14.3	14.4	14.4	17.4	.....
Price, wholesale, Accra (New York).....\$ per lb.	1.354	1.085	1.090	1.160	1.070	1.020	0.990	0.940	0.800	0.830	0.860	0.870	0.880	0.820	0.850	0.910
Coffee (green):																
Inventories (roasters', importers', dealers'), end of period.....thous. bags [l.	2,834	(⁹)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Roastings (green weight).....do.....	17,047	(⁹)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Imports, total.....do.....	18,153	16,555	1,547	1,287	1,195	1,490	1,147	1,476	1,335	1,282	1,602	1,640	2,005	1,356	1,602	.....
From Brazil.....do.....	3,505	3,243	294	186	210	267	227	299	213	264	307	412	445	196	346	.....
Price, wholesale, Santos, No. 4 (N.Y.).....\$ per lb.	2.066	1.594	1.500	1.510	1.360	1.360	1.450	1.450	1.450	1.450	1.450	1.450	1.450	1.330	1.330	1.330
Confectionery, manufacturers' sales @.....mil. \$.	4,684	5,189	466	397	507	486	390	338	360	330	491	608	*570	503	.....	.....
Fish:																
Stocks, cold storage, end of period.....mil. lb.	393	350	350	315	282	275	256	250	280	334	372	389	369	*385	*383	*337

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FOOD AND KINDRED PRODUCTS; TOBACCO—Cont.																
MISCELLANEOUS FOOD PRODUCTS—Cont.																
Sugar (United States):																
Deliveries and supply (raw basis): \$																
Production and receipts:																
Production..... thous. sh. tons..	4,713	5,157	1,154	745	(*)											
Deliveries, total..... do.....	10,838	10,922	785	648	(*)											
For domestic consumption..... do.....	10,149	9,731	746	638	(*)											
Stocks, raw and ref., end of period..... do.....	2,970	3,311	3,311	3,743	3,644	(*)										
Exports, raw and refined.....sh. tons..	608,029	979,157	47,605	4,370	16,359	4,246	2,953	2,837	15,619	2,212	1,478	1,751	4,551	1,299	837	
Imports, raw and refined..... thous. sh. tons..	4,127	5,054	902	223	100	316	215	142	218	360	133	90	520	167	133	
Prices, wholesale (New York):																
Raw..... \$ per lb.....	0.306	0.198	0.167	0.180	0.178	0.169	0.176	0.195	0.208	(*)						
Refined (excl. excise tax)..... do.....	0.405	0.303	0.261	0.282	0.282	0.282	0.280	0.300	0.300	(*)						
Tea, imports.....thous. lb.....	184,786	190,254	12,121	15,055	15,464	13,787	13,176	16,518	14,309	14,286	15,598	17,425	16,207	18,222	12,567	
TOBACCO																
Leaf:																
Production (crop estimate).....mil. lb.....	1,786	2,064														51,962
Stocks, dealers' and manufacturers', end of period.....mil. lb.....	4,850	5,080	5,080			4,983			4,675			5,034				
Exports, incl. scrap and stems.....thous. lb.....	591,518	575,255	55,577	31,670	39,392	49,862	41,756	53,960	37,226	23,910	30,179	24,805	74,480	92,236	50,528	
Imports, incl. scrap and stems..... do.....	365,622	335,920	12,970	31,264	16,579	20,393	22,659	24,820	25,012	17,725	41,903	25,541	29,006	29,126	11,714	
Manufactured:																
Consumption (withdrawals):																
Cigarettes (small):																
Tax-exempt..... millions.....	94,256	92,006	6,479	7,479	8,990	7,584	6,577	5,919	6,265	5,784	7,595	6,789	6,415	6,766		
Taxable..... do.....	620,565	638,114	42,300	48,234	52,850	57,430	48,368	48,240	60,590	49,167	55,802	56,655	54,068	49,537		
Cigars (large), taxable..... do.....	3,292	3,258	234	215	221	267	248	269	292	234	279	291	259	261		
Exports, cigarettes..... do.....	81,998	82,582	4,713	6,426	8,148	7,337	5,540	5,670	5,797	4,461	5,844	5,894	6,734	6,144	5,589	

LEATHER AND PRODUCTS

LEATHER																
Exports:																
Upper and lining leather.....thous. sq. ft..	192,597	192,193	11,660	10,849	10,343	13,696	15,534	17,449	18,610	18,486	12,065	10,417	11,842	9,726		
Price, producer:																
Sole, bends, light..... index, 1967=100..	283.8	306.7														
LEATHER MANUFACTURES																
Footwear:																
Production, total.....thous. pairs.....	396,851	375,473	27,624	26,259	27,128	31,060	26,894	27,940	28,219	23,561	27,873	28,448	28,373			
Shoes, sandals, and play shoes, except athletic																
thous. pairs.....	299,131	278,979	21,061	20,178	20,102	22,975	19,680	20,878	20,444	18,831	20,365	20,785	20,258			
Slippers..... do.....	73,337	70,834	4,715	4,829	5,734	6,672	5,991	5,672	6,427	3,933	6,044	6,288	6,604			
Athletic..... do.....	24,383	25,660	1,848	1,252	1,292	1,413	1,223	1,390	1,348	797	1,464	1,375	1,511			
Other footwear..... do.....	3,271	3,171	238	257	274	365	334	298	341	242	241	320	357			
Exports..... do.....	9,781	9,688	615	505	629	681	839	693	742	636	577	595	649	635		
Prices, producer: *																
Men's leather upper, dress and casual index, 12/80=100.....		103.1	103.7	104.9	103.5	104.0	105.8	106.0	101.2	106.2	106.3	106.4	107.0	107.0	105.4	106.1
Women's leather upper..... index, 1967=100..	211.7	214.4	212.3	204.1	205.3	207.7	215.6	214.1	218.5	219.0	219.5	220.0	222.3	221.8	221.8	218.5
Women's plastic upper..... index, 12/80=100..		99.6	93.0	94.4	94.4	94.7	98.3	98.3	98.5	99.1	99.1	99.7	99.7	99.7	99.2	99.1

LUMBER AND PRODUCTS

LUMBER—ALL TYPES #																
National Forest Products Association:																
Production, total.....mil. bd. ft.....	31,632	29,713	1,765	1,810	1,891	2,148	2,281	2,251	2,338	2,376	2,560	2,445	2,333	2,247		
Hardwoods..... do.....	7,297	7,003	418	356	402	411	416	419	443	388	382	393	400	391		
Softwoods..... do.....	24,335	22,710	1,347	1,454	1,489	1,737	1,865	1,822	1,895	1,988	2,178	2,052	1,933	1,856		
Shipments, total..... do.....	31,126	29,715	1,989	1,637	1,837	2,148	2,336	2,308	2,513	2,363	2,450	2,260	2,506	2,353		
Hardwoods..... do.....	6,679	6,812	413	393	430	446	427	465	438	381	377	396	407	398		
Softwoods..... do.....	24,447	22,903	1,576	1,244	1,407	1,702	1,909	1,843	2,075	1,982	2,073	1,864	2,099	1,955		
Stocks (gross), mill, end of period, total..... do.....	5,805	5,842	5,842	6,016	6,068	6,042	5,983	5,915	5,853	5,867	5,977	6,163	5,986	5,881		
Hardwoods..... do.....	1,807	1,972	1,972	1,936	1,906	1,842	1,827	1,786	1,789	1,797	1,802	1,799	1,789	1,783		
Softwoods..... do.....	3,998	3,870	3,870	4,080	4,162	4,200	4,156	4,129	4,064	4,070	4,175	4,364	4,179	4,098		
Exports, total sawmill products..... do.....	1,655															
Imports, total sawmill products..... do.....	9,859	9,518	591	530	585	601	792	848	888	874	888	962	758	916	781	
SOFTWOODS																
Douglas fir:																
Orders, new.....mil. bd. ft.....	6,791	6,393	459	407	393	523	473	486	550	504	569	481	573	573	537	
Orders, unfilled, end of period..... do.....	499	429	429	471	443	496	487	481	500	488	494	501	510	572	612	
Production..... do.....	6,815	6,395	396	459	457	454	465	482	472	520	556	512	490	509	452	
Shipments..... do.....	6,821	6,463	507	365	421	470	482	492	530	516	563	474	564	511	497	
Stocks (gross), mill, end of period..... do.....	912	844	844	938	974	958	941	931	939	843	936	974	900	898	853	
Exports, total sawmill products..... do.....	540	523	47	34	34	54	46	48	40	31	42	31	41	31	39	
Sawed timber..... do.....	117	129	19	11	8	18	14	14	9	8	14	7	8	6	8	
Boards, planks, scantlings, etc..... do.....	422	394	28	22	26	36	32	35	30	23	28	24	33	25	31	
Price, wholesale:																
Dimension, construction, dried, 2" x 4", R.L. \$ per M bd. ft.....	223.42															

See footnotes at end of tables.

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LUMBER AND PRODUCTS—Continued																
SOFTWOODS—Continued																
Southern pine:																
Orders, new.....mil. bd. ft.	'6,559	'6,128	400	344	409	520	486	513	599	493	537	508	607	512		
Orders, unfilled, end of period.....do.....	419	418	418	430	448	476	446	463	467	409	427	401	438	435		
Production.....do.....	'6,758	'6,143	415	366	419	487	515	490	556	547	582	643	563	513		
Shipments.....do.....	'6,663	'6,129	412	332	391	492	516	496	595	551	519	534	570	515		
Stocks (gross), mill and concentration yards, end of period.....mil. bd. ft.	1,270	1,284	1,284	1,318	1,346	1,341	1,340	1,334	1,295	1,291	1,354	1,464	1,456	1,454		
Exports, total sawmill products.....thous. bd. ft.	280,243	227,020	15,032	14,283	18,936	20,195	23,660	19,318	26,989	18,752	17,778	22,926	19,908	22,203	20,273	
Prices, wholesale (indexes):																
Boards, No. 2 and better, 1' x 6", R.L. 1967=100.....	337.2															
Flooring, C and better, F. G., 1' x 4", S.L. 1967=100.....	324.7															
Western pine:																
Orders, new.....mil. bd. ft.	7,730	7,235	428	407	413	562	608	605	609	629	741	609	684	663	526	
Orders, unfilled, end of period.....do.....	326	219	219	257	261	333	302	331	305	304	337	357	365	364	324	
Production.....do.....	7,613	7,261	390	423	417	529	621	572	603	642	726	603	605	598	504	
Shipments.....do.....	7,807	7,342	452	369	409	490	639	576	634	630	708	590	676	664	566	
Stocks (gross), mill, end of period.....do.....	1,185	1,104	1,104	1,158	1,166	1,205	1,187	1,183	1,196	1,208	1,226	1,239	1,168	1,102	1,040	
Price, wholesale, Ponderosa, boards, No. 3, 1' x 12", R.L. (6' and over).....\$ per M bd. ft.																
	287.55															
HARDWOOD FLOORING																
Oak:																
Orders, unfilled, end of period.....mil. bd. ft.	1.9	2.8	2.8	2.0	2.2	2.6	1.9	1.8	2.1	2.2	3.3	2.7	2.8	3.4	4.8	
Shipments.....do.....	78.0	83.1	5.2	5.4	5.4	6.9	6.0	6.0	6.2	5.8	6.7	7.3	6.7	6.3	6.2	
Stocks (gross), mill, end of period.....do.....	12.4	10.1	10.1	9.9	10.3	9.9	10.5	10.2	11.8	11.4	11.3	10.4	10.6	10.9	12.0	

METALS AND MANUFACTURES

IRON AND STEEL																
Exports:																
Steel mill products.....thous. sh. tons.	4,101	2,904	227	173	154	197	148	194	180	146	152	158	133	109	97	
Scrap.....do.....	11,168	6,415	509	462	539	522	507	812	806	577	542	607	434	620	375	
Pig iron.....do.....	73	16	1		(^a)	1	1	1	6	1	1	18	1	21		
Imports:																
Steel mill products.....do.....	15,495	19,898	1,613	1,969	1,600	1,356	1,029	1,696	1,784	1,113	1,451	1,191	1,146	1,258	1,090	
Scrap.....do.....	558	572	45	32	41	36	41	57	49	37	45	37	35	38	27	
Pig iron.....do.....	400	433	64	36	16	14	48	71	35	9	15	14	41	11	13	
Iron and Steel Scrap																
Production.....thous. sh. tons.	142,207	143,260	2,817	2,742	2,753	3,019	2,597	2,418	2,320	2,119	*2,122	2,078	1,975	1,772		
Receipts, net.....do.....	140,954	141,981	2,661	2,715	2,889	3,114	2,779	2,611	2,303	2,033	*2,133	2,106	2,134	1,914		
Consumption.....do.....	183,710	185,097	5,656	5,917	5,615	6,180	5,391	5,077	4,715	4,336	*4,377	4,357	4,226	3,749		
Stocks, end of period.....do.....	8,018	8,118	8,261	7,826	7,870	7,762	7,716	7,650	7,551	7,352	*7,117	6,954	6,628	6,488		
Prices, steel scrap, No. 1 heavy melting:																
Composite.....\$ per lg. ton.	92.17	90.17	76.02	81.70	80.47	75.93	69.98	62.85	55.21	53.84	54.77	53.48	52.32	48.94	48.61	55.19
Pittsburgh district.....do.....	96.17	100.50	85.50	94.00	91.50	85.00	75.00	64.00	59.50	57.50	58.00	58.00	55.00	51.50	51.50	62.50
Ore																
Iron ore (operations in all U.S. districts):																
Mine production.....thous. lg. tons.	169,613	173,174	4,430	5,687	5,244	5,126	5,347	4,358	2,525	869	909	744	1,470	1,728		
Shipments from mines.....do.....	169,594	173,181	3,507	1,076	1,180	1,433	2,265	5,306	4,964	4,795	4,193	3,943	3,161	3,065		
Imports.....do.....	25,058	28,328	1,585	1,630	1,018	646	773	1,199	1,865	1,508	1,532	1,424	1,395	898	826	
U.S. and foreign ores and ore agglomerates:																
Receipts at iron and steel plants.....do.....	87,188	96,645	5,579	1,664	1,589	1,596	2,795	6,672	7,182	6,746	5,848	5,361	4,368	3,395	2,655	
Consumption at iron and steel plants.....do.....	89,397	94,958	6,038	5,518	5,175	5,670	4,888	4,896	4,342	4,705	4,369	4,249	4,192	3,664	3,565	
Exports.....do.....	5,073	15,546	685	44	1	1	211	349	539	289	51	448	478	9,179	210	
Stocks, total, end of period.....do.....	56,066	60,243	60,243	60,401	60,894	57,340	57,725	57,645	58,457	59,065	57,833	55,774	54,480	52,647		
At mines.....do.....	11,725	12,734	17,469	21,594	25,701	26,576	29,740	28,314	26,380	25,297	22,137	19,042	17,423	16,098		
At furnace yards.....do.....	35,706	36,203	36,203	32,298	28,813	24,654	22,504	24,209	26,909	28,860	30,276	31,326	31,501	30,953	29,923	
At U.S. docks.....do.....	6,095	6,571	6,571	6,509	6,380	6,110	5,481	5,122	5,168	4,908	5,420	5,406	5,556	5,596	5,750	
Manganese (mn. content), general imports.....do.....	795	775	49	65	49	65	55	22	58	35	33	14	25	32	15	
Pig Iron and Iron Products																
Pig iron:																
Production (including production of ferroalloys) thous. sh. tons.	68,721	73,570	4,750	4,489	4,169	4,622	3,967	3,904	3,595	3,516	3,277	3,160	3,077	2,648	2,712	3,192
Consumption.....do.....	169,053	75,051	4,824	4,766	4,384	4,869	4,083	3,975	3,648	3,554	3,431	3,261	3,201	*2,841		
Stocks, end of period.....do.....	889	859	859	881	822	782	745	747	758	*728	697	681	649	*603		
Price, basic furnace.....\$ per sh. ton.	203.00	206.00	213.00	213.00	213.00	213.00	213.00	213.00	213.00	213.00	213.00	213.00	213.00	213.00	213.00	
Castings, gray and ductile iron:																
Orders, unfilled, for sale, end of period thous. sh. tons.	964	743	743	783	761	726	696	651	610	611	608	*575	505	521		
Shipments, total.....do.....	11,799	11,929	681	771	764	860	771	741	756	616	630	*631	618	587		
For sale.....do.....	6,457	6,702	344	399	412	482	445	432	428	359	404	369	351	334		
Castings, malleable iron:																
Orders, unfilled, for sale, end of period thous. sh. tons.	22	32	32	31	29	29	25	24	24	16	16	15	13	13		
Shipments, total.....do.....	450	421	23	24	26	30	28	27	29	21	23	22	19	19		
For sale.....do.....	206	199	10	12	15	13	12	11	11	7	10	8	7	8		

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METALS AND MANUFACTURES—Continued

Steel, Raw and Semifinished																
Steel (raw):																
Production..... thous. sh. tons..	111,835	120,828	7,672	7,737	7,178	8,049	7,006	6,678	6,050	5,719	5,538	5,299	5,262	4,546	4,456	5,570
Rate of capability utilization..... percent..	72.8	78.3	58.6	59.3	60.9	61.7	55.2	50.9	47.7	43.8	42.4	41.9	40.2	35.9	34.0	43.4
Steel castings:																
Orders, unfilled, for sale, end of period																
Shipments, total..... do.....	605	385	385	381	359	335	304	276	250	232	222	213	181	170		
For sale, total..... do.....	1,878	1,752	122	115	114	129	113	101	91	63	65	68	63	56		
	1,701	1,568	110	106	104	117	103	93	82	56	58	62	56	50		
Steel Mill Products																
Steel products, net shipments:																
Total (all grades)..... thous. sh. tons..	83,853	87,014	5,666	5,608	5,434	6,163	5,488	5,149	5,372	4,514	4,724	4,760	4,309	4,088	4,234	
By product:																
Semifinished products..... do.....	5,342	5,598	389	314	285	325	318	306	291	257	269	283	291	260	255	
Structural shapes (heavy), steel piling..... do.....	5,207	4,903	299	329	323	365	321	290	284	272	265	280	321	237	210	
Plates..... do.....	8,080	7,397	482	463	498	527	393	330	316	259	300	269	261	260	260	
Rails and accessories..... do.....	1,797	1,458	81	98	102	91	73	74	68	56	41	44	36	49	51	
Bars and tool steel, total..... do.....	13,258	13,828	898	912	821	1,015	865	846	855	668	766	746	715	639	615	
Bars: Hot rolled (incl. light shapes)..... do.....	6,911	7,770	471	525	506	573	470	434	440	304	361	347	238	280	312	
Bars: Reinforcing..... do.....	4,683	4,371	323	271	205	320	298	321	319	296	325	322	323	293	241	
Bars: Cold finished..... do.....	1,585	1,620	99	112	105	117	93	87	92	66	78	73	68	64	59	
Pipe and tubing..... do.....	9,097	10,286	759	753	702	662	602	476	388	274	246	228	220	224	220	
Wire and wire products..... do.....	1,768	1,694	102	105	115	133	125	123	113	112	113	113	108	89	83	
Tin mill products..... do.....	5,709	4,927	412	389	449	400	328	338	386	331	386	502	281	266	294	
Sheets and strip (incl. electrical), total..... do.....	33,595	36,924	2,246	2,245	2,139	2,645	2,462	2,367	2,661	2,285	2,340	2,295	2,189	2,063	2,247	
Sheets: Hot rolled..... do.....	12,116	13,451	901	793	768	953	828	759	848	758	746	665	657	637	656	
Sheets: Cold rolled..... do.....	13,313	14,396	811	869	817	1,030	1,005	957	1,069	884	919	915	878	832	974	
By market (quarterly):																
Service centers and distributors..... do.....	16,172	17,546	3,704			3,429			3,213			3,099			3,029	
Construction, incl. maintenance..... do.....	8,742	8,761	1,812			1,684			1,651			1,568			1,379	
Contractors' products..... do.....	3,148	3,225	610			592			598			548			543	
Automotive..... do.....	12,124	13,101	2,472			2,367			2,791			2,311			2,036	
Rail transportation..... do.....	3,155	2,180	422			411			277			183			159	
Machinery, industrial equip., tools..... do.....	4,543	4,646	947			960			689			491			446	
Containers, packaging, ship. materials..... do.....	5,551	5,293	1,129			1,260			1,115			1,252			837	
Other..... do.....	30,415	32,264	7,075			6,500			5,676			4,546			4,201	
Steel mill shapes and forms, inventories, end of period—total for the specified sectors:																
Producing mills, inventory, end of period:																
Steel in process..... mil. sh. tons..	28.4	30.0	30.0	30.0	29.9	29.4	28.8	28.1	26.9	26.5	25.8	24.8	24.0			
Finished steel..... do.....	9.6	11.3	11.3	11.6	11.3	11.2	11.0	10.9	10.4	10.2	9.9	9.6	9.3			
Service centers (warehouses), inventory, end of period..... mil. sh. tons..	5.3	5.4	5.4	5.2	5.2	5.2	5.1	5.0	5.1	5.0	5.0	4.8	4.6			
Consumers (manufacturers only):																
Inventory, end of period..... do.....	6.6	5.9	5.9	6.0	6.2	5.9	5.7	5.3	4.9	4.8	4.6	4.4	4.2			
Receipts during period..... do.....	69.9	71.7	73.9	74.7	75.3	75.8	75.0	74.8	74.7	74.3	74.4	74.5	74.2			
Consumption during period..... do.....	73.4	72.4	74.3	74.6	75.1	76.1	75.2	75.1	74.4	74.4	74.6	74.4	74.4			
NONFERROUS METALS AND PRODUCTS																
Aluminum:																
Production, primary (dom. and foreign ores)																
Production..... thous. sh. tons..	5,130	4,948	364	351	311	336	319	321	300	297	287	271	275	266		
Recovery from scrap (aluminum content)..... do.....	1,377	1,653	123	144	156	170	170	167	188	182	186	181	180	164		
Imports (general):																
Metal and alloys, crude..... do.....	580.8	698.5	49.3	38.5	65.9	61.7	61.0	51.0	66.5	42.2	78.2	52.8	52.7	60.1	47.8	
Plates, sheets, bars, etc..... do.....	71.4	140.1	13.7	17.5	19.1	21.4	14.1	19.5	15.5	16.7	17.9	16.9	18.9	18.2	17.5	
Exports:																
Metal and alloys, crude..... do.....	714.9	344.2	24.6	22.1	18.8	46.0	26.6	19.9	48.5	24.2	42.6	23.6	59.5	42.1	27.3	
Plates, sheets, bars, etc..... do.....	315.3	271.2	16.8	18.0	17.8	18.3	15.4	15.9	19.9	13.3	14.3	22.0	20.4	12.1	12.6	
Price, primary ingot, 99.5% minimum \$ per lb..	0.6957	0.7600	0.7600	0.7600	0.7600	0.7600	0.7600	0.7600	0.7600	0.7600	0.7600	0.7600	0.7600	0.7600	0.7600	
Aluminum products:																
Shipments:																
Ingot and mill prod. (net ship.)..... mil. lb..	14,057	13,237	928	849	934	1,095	995	971	1,113	879	1,100	1,014	955			
Mill products, total..... do.....	10,485	10,328	679	738	734	831	783	762	833	744	777	781	732			
Sheet and plate..... do.....	5,862	5,978	389	430	430	482	452	441	498	444	462	465	416			
Castings..... do.....	1,538	1,581	98	106	105	120	119	116	143	102	104	108	102			
Inventories, total (ingot, mill products, and scrap), end of period..... mil. lb..	5,076	6,607	6,607	6,670	6,742	6,658	6,683	6,684	6,577	6,626	6,508	6,434	6,428			
Copper:																
Production:																
Mine, recoverable copper..... thous. met. tons..	1,181.1	1,538.2	114.0	112.6	107.4	119.9	112.0	97.0	90.0	84.6	81.1	75.3	86.5	89.2		
Refinery, primary..... do.....	1,210.9	1,544.0	130.2	106.2	104.7	117.2	105.4	99.3	93.9	99.5	91.5	94.7	95.0	114.2		
From domestic ores..... do.....	1,121.9	1,430.2	123.9	97.3	96.2	110.4	97.9	90.5	85.8	85.7	74.1	75.6	80.1	98.1		
From foreign ores..... do.....	89.0	113.8	6.2	8.9	8.5	6.9	7.4	8.8	8.0	13.8	17.4	19.0	14.9	16.1		
Secondary, recovered as refined..... do.....	573.0	631.9	60.1	47.5	51.8	51.4	49.2	52.0	39.2	34.9	28.6	60.7				
Imports (general):																
Refined, unrefined, scrap (copper cont.)..... do.....	551.8	502.5	42.3	45.2	40.6	30.8	30.6	47.5	50.6	47.5	42.9	57.3	56.2	42.3	40.0	
Refined..... do.....	459.8	359.3	24.3	20.6	15.7	18.8	22.3	20.4	29.2	27.2	25.8	29.9	27.6	26.2	21.9	
Exports:																
Refined and scrap..... do.....	330.1	339.7	21.3	35.2	21.9	29.4	30.5	39.1	20.4	33.5	34.0	36.6	40.2	34.3	22.8	
Refined..... do.....	17.4	27.2	1.8	0.4	0.6	0.9	1.0	1.6	1.6	2.9	5.4	9.9	8.6	0.8	1.1	
Consumption, refined (by mills, etc.)..... thous. sh. tons..	2,083	2,045	493			508			485			407				
Stocks, refined, end of period..... do.....	365	511	511			558			587			592				
Price, electrolytic (wirebars), dom., delivered \$ per lb..	1.0242	0.8512	0.8029	0.7863	0.7878	0.7586	0.7627	0.7487	0.7149	0.7105	0.7100	0.7106	0.7241	0.7297	0.7423	

See footnotes at end of tables.

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METALS AND MANUFACTURES—Continued																
NONFERROUS METALS AND PRODUCTS—Continued																
Copper-base mill and foundry products, shipments (quarterly total):																
Brass mill products..... mil. lb.	2,467	2,622	544			544			564							
Copper wire mill products (copper cont.)..... do...	2,783	2,847	659			654			636							
Brass and bronze foundry products..... do...	489	471	109			114			107							
Lead:																
Production:																
Mine, recoverable lead..... thous. met. tons..	549.5	444.1	41.3	40.5	43.5	48.7	44.3	42.1	42.6	37.0	42.9	41.7	45.0	42.1		
Recovered from scrap (lead cont.)..... do....	675.6	627.4	48.7	45.5	48.2	48.0	47.6	46.1	44.8	34.4	44.2	41.9	44.6	41.9		
Imports (general), ore (lead cont.), metal..... do...	52.1	68.9	2.1	5.6	3.4	4.9	3.8	1.9	5.4	1.6	8.5	2.3	8.2	1.9	2.4	
Consumption, total..... do....	1,070.3	1,125.3	107.6	93.9	84.4	90.9	88.3	82.1	84.5	73.0	90.7	87.9	95.3	83.0		
Stocks, end of period:																
Producers', ore, base bullion, and in process (lead content), ABMS..... thous. met. tons..	135.3	83.3	83.3	78.9	79.3	81.2	85.7	85.6	82.1	79.2	79.0	75.1	76.6	75.9	75.0	
Refiners' (primary), refined and antimonial (lead content)..... thous. met. tons..	54.8	79.5	79.5	68.3	70.0	73.4	65.5	61.7	69.0	66.6	61.7	66.6	69.0	73.6		
Consumers' (lead content)..... do....	95.8	98.1	98.1	92.0	88.4	85.2	87.2	81.7	88.3	84.2	83.5	84.2	79.4	77.4		
Scrap (lead-base, purchased), all smelters (gross weight)..... thous. met. tons..	59.6	41.7	41.7	41.7	36.8	35.1	34.5	32.7	36.1	39.3	34.8	31.6	30.6	37.1		
Price, common grade, delivered..... \$ per lb.	0.4246	0.3653	0.3107	0.2967	0.2870	0.2764	0.2606	0.2609	0.2476	0.2718	0.2582	0.2532	0.2319	0.2161	0.2047	
Tin:																
Imports (for consumption):																
Ore (tin content)..... metric tons..	842	232	0	295	72	162	149	0	156	93	186	194	289	88	277	
Metal, unwrought, unalloyed..... do....	45,983	45,873	4,216	2,312	1,089	2,742	3,145	2,966	2,055	2,450	2,742	1,697	2,409	2,233	2,100	
Recovery from scrap, total (tin cont.)..... do....	18,638	15,010	1,270	1,025	1,150	1,135	1,005	1,065	1,025	1,000	940	996	1,019			
As metal..... do....	1,703	1,705	160	85	95	120	150	140	140	155	145	121	164			
Consumption, total..... do....	56,362	48,450	2,950	3,400	3,300	3,750	5,100	5,000	5,100	4,900	4,700	4,700	4,600	4,500		
Primary..... do....	44,342	38,750	2,200	2,500	2,500	2,800	3,600	3,600	3,700	3,600	3,400	3,400	3,300	3,200		
Exports, incl. reexports (metal)..... do....	4,293	5,989	1,180	4,748	1,610	441	454	261	662	375	305	175	249	241	256	
Stocks, pig (industrial), end of period..... do....	5,504	5,988	5,988	3,872	3,490	3,829	5,222	4,953	4,653	3,888	2,910	2,940	2,770	3,437		
Price, Straits quality (delivered)..... \$ per lb.	8.4600	7.3305	7.9352	7.7590	7.4519	6.6917	6.5600	6.6284	6.0826	6.1255	6.2549	6.3904	6.2475	6.1347	6.1434	
Zinc:																
Mine prod., recoverable zinc..... thous. met. tons..	317.1	312.4	23.9	24.2	24.7	25.3	23.4	25.6	27.0	21.3	27.4	25.7	27.8	25.9		
Imports (general):																
Ores (zinc content)..... do....	113.8	117.7	9.2	3.2	6.1	6.3	2.4	4.0	4.9	0.7	2.8	3.9	9.1	2.3	3.6	
Metal (slab, blocks)..... do....	329.0	602.6	32.8	2.0	33.0	36.2	26.4	35.3	39.8	27.8	26.2	34.9	49.1	61.5	41.0	
Consumption (recoverable zinc content):																
Ores..... do....	67.6	58.2	5.3	4.6	4.2	4.7	6.8	6.2	3.9	3.1	2.6	3.6	4.0	4.7		
Scrap, all types..... do....	236.1	224.1	18.6	17.1	16.8	18.2	18.0	17.7	17.3	17.3	17.5	17.9	17.6	17.1		
Slab zinc: @																
Production, total..... thous. met. tons..	1369.9	341.8	23.0	24.2	21.6	21.4	19.3	21.5	21.5	18.7	20.4	61.4	24.8	18.7	18.1	
Consumption, fabricators..... do....	811.1	834.7	52.0	55.1	55.3	60.0	57.8	58.8	65.8	56.3	60.7	61.4	60.8	54.0		
Exports..... do....	0.3	0.3	(²)	0.	(²)											
Stocks, end of period:																
Producers', at smelter (ABMS)..... do....	18.7	34.6	34.6	36.7	41.2	41.8	39.9	35.3	27.9	20.5	14.9	15.9	19.9	21.5	24.6	21.9
Consumers'..... do....	22.6	44.7	72.1	70.1	67.0	65.7	60.0	60.8	57.7	62.0	57.7	56.1	56.0	62.2		
Price, Prime Western..... \$ per lb.	0.3743	0.4455	0.4259	0.4217	0.4272	0.3923	0.3550	0.3467	0.3460	0.3566	0.3779	0.3964	0.4083	0.4039	0.3846	
MACHINERY AND EQUIPMENT																
Heating, combustion, atmosphere equipment, new orders (domestic), net, qtrly #..... mil. \$.	348.3	470.0	115.3			113.7			73.3			53.8				
Electric processing heating equipment..... do....	82.8	106.9	28.4			20.2			17.5			18.1				
Fuel-fired processing heating equip..... do....	156.5	225.4	54.0			61.0			26.9			14.4				
Material handling equipment (industrial):																
Orders (new), index, seas. adj..... 1967=100..	375.5	382.0	377.8	323.0	428.0	262.3	273.0	221.4	241.2	235.1	209.5	266.0	188.4			
Industrial trucks (electric), shipments:																
Hand (motorized)..... number..	20,495	18,734	1,569	1,250	1,398	1,665	1,216	1,228	1,558	787	1,207	1,160	1,220	1,299		
Rider-type..... do....	24,110	19,784	1,976	1,447	1,452	1,828	1,386	1,402	1,567	931	1,042	1,312	1,113	1,379		
Industrial trucks and tractors (internal combustion engines), shipments..... number..	39,448	31,885	2,551	2,277	2,053	2,430	1,658	1,587	2,216	824	1,265	1,484	1,312	1,447		
Industrial supplies, machinery and equipment:																
New orders index, seas. adjusted..... 1977=100..	114.9	148.1	117.3	114.2	110.2	104.8	97.3	91.1	90.9	88.3	90.8	92.1	87.8	84.1	83.6	
Industrial suppliers distribution: †																
Sales index, seas. adjusted..... 1977=100..	134.5	142.3	132.5	135.2	130.9	133.3	134.4	123.5	121.3	120.0	119.1	115.9	109.8	106.8	100.7	103.5
Price index, not seas. adj. (tools, material handling equip., valves, fittings, abrasives, fasteners, metal products, etc.)..... 1977=100..	131.2	144.3	149.2	150.2	151.6	152.6	152.9	153.7	153.8	154.0	153.8	154.0	153.7	153.5	153.7	153.9
Fluid power products shipments indexes: *																
Hydraulic products, seas. adj..... 1972=100..	272	279	271	263	255	246	233	218	232	191	198	178	170	166	143	169
Pneumatic products, seas. adj..... do....	234	249	251	252	245	225	215	194	194	195	186	191	172	184	174	182
Machine tools:																
Metal cutting type tools:																
Orders, new (net), total..... mil. \$.	3,884.75	2,228.10	112.55	155.95	123.15	105.75	115.10	68.00	91.65	70.40	60.45	52.60	72.85	62.75	86.60	
Domestic..... do....	3,495.50	1,945.80	101.05	124.90	113.30	90.20	107.55	53.75	55.15	57.55	49.25	47.20	59.10	47.45	85.00	
Shipments, total..... do....	3,680.80	4,104.50	398.60	307.15	293.15	332.75	239.45	246.60	324.60	203.55	212.50	224.40	150.60	155.70	207.10	
Domestic..... do....	3,206.00	3,552.45	358.85	284.50	273.75	303.05	214.60	224.15	296.55	173.75	184.30	192.65	132.30	134.80	181.10	
Order backlog, end of period..... do....	4,749.7	2,873.3	2,873.3	2,722.1	2,552.1	2,325.1	2,200.8	2,022.2	1,789.2	1,656.0	1,504.0	1,332.2	1,254.4	1,161.5	1,041.0	
Metal forming type tools:																
Orders, new (net), total..... do....	869.55	716.75	39.25	49.25	40.65	32.05	37.70	37.95	34.25	36.15	26.05	34.30	46.35	25.45	35.15	
Domestic..... do....	664.95	616.85	32.90	41.25	35.90	26.75	29.95	27.40	29.25	30.40	22.70	30.20	42.55	21.90	33.50	
Shipments, total..... do....	1,010.95	991.10	92.30	76.40	66.45	78.30	60.00	49.25	84.55	46.80	44.70	51.45	50.10	37.80	59.85	
Domestic..... do....	878.55	824.20	79.95	49.60	57.50	73.15	60.30	44.90	75.35	40.65	38.90	45.95	42.25	33.70	41.50	
Order backlog, end of period..... do....	384.8	427.0	427.0	399.8	374.0	327.8	299.4	288.2	237.8	227.2	208.6	191.4	187.6	175.3	150.6	

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METALS AND MANUFACTURES—Continued																
MACHINERY AND EQUIPMENT—Continued																
Tractors used in construction, shipments, qtrly:																
Tracklaying, total	16,503	15,789	3,010		2,390				2,589			2,110	*699	*336		
units.....	1,306.1	1,569.9	311.2		264.4				272.7			259.6	*70.5	*19.4		
mil. \$.....	4,781	4,309	784		547											
Wheel (contractors' off-highway)	387.5	410.9	90.3		58.2											
mil. \$.....																
Tractor shovel loaders (integral units only), wheel and tracklaying types	45,480	33,369	6,774		6,218				7,432			5,468				
units.....	1,697.1	1,605.5	344.6		300.8				299.0			263.7				
mil. \$.....																
Tractors, wheel, farm, nonfarm (ex. garden and construction types), ship., qtrly	146,274	141,170	31,417		28,067				25,754			20,845	*10,533	*6,386		
units.....	3,183.4	3,479.3	822.7		754.2				737.7			583.0	*250.9	*197.6		
mil. \$.....																
ELECTRICAL EQUIPMENT																
Batteries (auto.-type replacement), ship.....	50,063	53,597	5,012	4,897	4,269	3,839	3,611	3,584	3,640	3,629	4,750	5,819	5,660	5,237	5,280	
Radio sets, production, total market.....	28,104	31,476	*1,814	2,012	1,671	*1,816	1,609	2,460	*3,179	2,284	4,052	*3,624	3,490			
Television sets (incl. combination models), production, total market	18,532	18,480	*1,250	1,208	1,344	*1,499	1,375	1,292	*1,710	1,177	1,420	*1,619	1,106	1,161	1,229	
Household major appliances (electrical), factory shipments (domestic and export) #	30,260	30,336	*1,810	*1,915	2,177	2,650	2,452	2,232	2,341	2,196	2,257	2,097	2,350	2,117	1,892	
Air conditioners (room)	3,204	3,692	163	191	361	572	517	419	289	145	61	17	31	71	84	
Dishwashers	2,738	2,484	144	169	160	151	201	169	160	187	203	167	218	206	178	
Disposers (food waste)	2,962	3,178	206	220	214	272	175	200	207	199	219	241	339	260	238	
Ranges	2,530	2,325	*153	*149	143	161	169	150	293	166	170	168	202	195	175	
Refrigerators	5,124	4,944	264	*277	324	343	379	359	437	456	432	381	401	310	262	
Freezers	1,681	1,561	*78	*92	99	117	107	112	161	151	156	109	80	80	73	
Washers	4,550	4,365	246	306	347	383	345	322	352	323	364	360	347	319	252	
Dryers (incl. gas)	3,177	2,977	189	228	234	253	214	195	214	196	244	245	261	251	193	
Vacuum cleaners (qtrly)	7,439	7,785	1,767		1,911				1,677			2,136			1,812	
GAS EQUIPMENT (RESIDENTIAL)																
Furnaces, gravity and forced-air, shipments.....	1,446	1,417	95	80	69	*77	70	69	85	78	96	126	140	*127	148	
Ranges, total, sales	1,538	1,496	124	99	107	135	110	113	123	96	99	133	113	*114	126	
Water heaters (storage), automatic, sales @	2,818	2,785	211	239	268	305	295	246	248	230	225	232	260	236	257	

PETROLEUM, COAL, AND PRODUCTS

COAL															
Anthracite:															
Production.....	6,056	5,423	394	353	381	459	274	329	319	*313	*370	*340	387	347	353
Exports.....	1,795	2,249	101	147	44	84	79	41	45	106	86	77	121	107	43
Price, wholesale *	463.7	582.2	643.7	643.7	643.7	645.5	648.1	639.0	637.5	637.5	637.4	637.4	637.4	638.0	638.0
Bituminous:															
Production †	823,644	818,352	75,966	65,720	69,621	82,209	72,432	69,933	*70,508	*59,145	*71,368	*66,480	68,836	63,365	60,158
Consumption, total	669,061	728,543	64,578	68,842	59,461	57,965	53,017	54,585	55,730	63,629	63,192	56,506			
Electric power utilities	568,322	595,575	52,968	57,195	*48,795	47,811	43,403	45,523	47,330	55,206	54,660	48,332	46,248	47,699	
Industrial, total	125,815	127,527	10,783	10,847	10,149	9,761	9,041	8,713	8,121	7,933	8,002	7,665			
Coke plants (oven and beehive)	66,493	60,868	4,833	4,437	4,334	4,165	3,704	3,616	3,476	3,118	3,056	2,922			
Residential and commercial	4,924	5,440	827	800	517	393	573	349	279	490	530	509			
Stocks, end of period, total	*199,077	179,607	179,607	168,274	167,676	173,574	180,807	187,248	192,664	184,237	184,429	183,872			
Electric power utilities	178,269	163,356	163,356	152,935	152,735	159,030	165,848	171,892	176,911	168,844	169,403	169,216	173,879	175,811	
Industrial, total	20,808	16,251	16,251	15,339	14,941	14,544	14,959	15,356	15,753	15,393	15,026	14,656			
Oven-coke plants	9,017	6,446	6,446	6,181	5,887	5,594	5,914	6,216	6,518	6,153	5,788	5,422			
Exports.....	89,882	110,243	11,462	6,029	8,918	10,335	10,742	10,057	10,626	9,071	7,293	8,603	9,850	7,700	6,020
Price, wholesale	466.5	493.7	510.2	520.6	525.3	525.0	527.9	529.6	529.3	533.9	534.9	*534.4	535.6	536.2	536.2
COKE															
Production:															
Beehive and oven (byproduct)	46,132	42,786	10,580		8,828				7,507			6,270			
Petroleum coke §	27,094	28,296	2,622	2,420	2,207	2,551	2,428	2,533	2,397	2,672	2,564	2,433	2,452	2,543	
Stocks, end of period:															
Oven-coke plants, total	8,627	6,724	6,724		7,455				7,871			7,969			
At furnace plants	7,521	6,320	6,320		7,015				7,489			7,639			
At merchant plants	1,106	403	403		440				382			330			
Petroleum coke ‡	*846	900	900	829	894	939	959	963	1,091	1,171	1,088	1,244	1,168	1,339	
Exports.....	2,162	1,251	134	48	105	97	37	154	175	129	61	141	62	66	34
PETROLEUM AND PRODUCTS															
Crude petroleum:															
Oil wells completed.....	27,026	37,684	4,619	*2,798	3,049	3,750	3,683	3,459	3,899	3,286	2,848	3,360	2,838	3,282	4,090
Price, wholesale	556.4	803.5	787.2	787.2	770.3	744.8	717.9	717.8	718.2	718.4	718.4	*718.3	735.6	734.1	720.4
Gross input to crude oil distillation units	5,049.3	4,656.5	395.1	372.9	325.4	361.7	353.0	378.9	388.4	399.8	380.3	376.3	376.7	364.7	
Refinery operating ratio	76	69	69	66	65	65	66	68	74	75	72	74	71	71	
All oils, supply, demand, and stocks: †															
New supply, total †	6,266.9	5,905.7	501.3	480.2	418.6	454.9	437.5	465.2	464.1	495.7	479.2	470.0	480.9	483.1	
Production:															
Crude petroleum	3,146.4	3,124.6	267.3	268.7	243.3	266.5	259.6	268.5	260.4	268.1	269.7	262.0	269.0	260.7	
Natural gas plant liquids	591.8	597.9	51.1	49.2	44.0	50.1	49.3	48.4	46.8	49.0	49.6	47.2	49.8	50.6	
Imports:															
Crude and unfinished oils	1,946.2	1,642.8	135.7	118.6	86.9	92.7	88.0	107.3	117.6	136.9	123.7	114.3	119.0	122.6	
Refined products	582.5	540.4	47.1	43.6	44.4	45.6	40.6	41.0	39.2	41.8	36.1	46.5	43.1	49.2	
Change in stocks, all oils (decrease,—)	*79.3	68.3	-17.6	-27.7	-29.5	-30.5	-51.0	-0.5	12.9	31.6	13.5	7.1	19.2	21.4	
Demand, total	6,441.7	6,057.2	535.0	518.3	468.9	509.7	505.0	485.1	469.0	486.6	471.3	488.3	474.5		
Exports:															
Crude petroleum	104.9	83.2	5.9	7.4	8.5	10.0	5.2	8.1	2.8	7.1	9.4	5.5	8.4	7.9	
Refined products	94.3	133.9	14.5	18.3	14.0	17.4	18.3	16.8	18.3	15.9	17.2	18.2	20.5	15.7	

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PETROLEUM, COAL, AND PRODUCTS—Continued

PETROLEUM AND PRODUCTS—Continued																	
All oils, supply, demand, and stocks †—Continued																	
Domestic product demand, total #	do...	6,242.4	5,840.2	514.6	492.6	446.4	482.3	481.4	460.2	447.9	457.9	460.0	447.6	459.4	450.9		
Gasoline	do...	2,420.5	2,414.9	208.9	184.2	170.5	205.8	207.5	207.0	205.4	211.7	207.4	196.2	198.9	197.2		
Kerosene	do...	58.0	46.2	6.2	6.4	5.0	3.6	3.4	3.2	2.5	3.0	2.4	3.2	4.1	4.2		
Distillate fuel oil	do...	1,049.0	1,032.8	101.0	105.7	89.2	89.3	89.9	75.8	73.5	64.6	69.1	75.4	80.2	74.2		
Residual fuel oil	do...	918.0	752.5	67.9	66.6	63.3	59.3	56.0	48.1	45.1	45.4	47.7	44.2	45.4	47.9		
Jet fuel	do...	390.7	368.6	30.7	31.2	29.7	30.3	30.0	31.2	29.6	30.6	30.2	31.0	29.8	31.4		
Lubricants	do...	58.3	56.0	4.4	3.9	4.2	4.2	4.6	4.1	4.5	4.3	4.2	4.5	4.1	4.8		
Asphalt	do...	142.4	124.8	5.8	2.9	4.3	5.2	7.1	10.5	14.3	16.7	18.2	15.4	15.2	8.9		
Liquefied gases	do...	537.8	542.2	51.8	58.1	47.6	47.4	45.8	44.4	38.6	46.1	42.1	45.8	45.9	49.0		
Stocks, end of period, total	do...	1,420.2	1,488.5	1,488.5	1,460.9	1,431.4	1,400.9	1,349.9	1,349.4	1,362.3	1,393.9	1,407.4	1,414.5	1,433.7	1,455.2		
Crude petroleum	do...	482.9	598.8	598.8	606.2	612.2	614.2	611.0	609.5	606.9	611.7	625.4	617.8	635.3	646.0		
Strategic petroleum reserve	do...	107.8	230.3	230.3	235.3	241.2	248.5	255.5	261.0	264.1	267.2	273.6	277.9	284.6	290.0		
Unfinished oils, natural gasoline, etc.	do...	192.0	176.8	176.8	181.5	184.0	183.5	178.4	174.5	174.1	176.4	171.9	173.9	167.6	165.3		
Refined products	do...	745.3	712.9	712.9	673.3	635.2	603.1	560.4	565.4	581.2	605.8	610.1	622.8	630.9	643.9		
Refined petroleum products: ‡																	
Gasoline (incl. aviation):																	
Production	mil. bbl.	2,394.1	2,350.8	206.0	192.3	166.3	186.8	183.7	196.8	203.9	211.3	201.0	196.6	194.6	188.9		
Stocks, end of period	do...	213.5	205.8	205.8	216.8	216.1	201.5	182.0	176.2	180.2	185.3	187.2	193.5	194.3	191.9		
Prices (excl. aviation):																	
Wholesale, regular	Index, 2/73=100.	576.7	666.0	657.7	651.7	642.3	621.1	578.6	555.7	582.7	628.8	636.3	628.4	619.5	611.0	600.7	578.8
Retail, regular grade (Lundberg/Platt's): ¶																	
Leaded	\$ per gal.	1.217	(*)														
Unleaded *	do...	1.261	(*)														
Aviation gasoline:																	
Production	mil. bbl.	12.8	11.5	0.8	0.6	0.6	0.7	0.5	0.9	0.9	0.9	1.1	0.7	0.8	0.7		
Stocks, end of period	do...	2.3	2.7	2.7	2.7	2.7	2.6	2.4	2.5	2.4	2.4	2.4	2.2	2.2	2.5		
Kerosene:																	
Production	do...	50.1	43.6	4.5	4.4	4.3	3.3	3.6	2.4	2.7	2.7	2.6	3.4	4.0	4.3		
Stocks, end of period	do...	11.4	11.1	11.1	9.6	9.1	8.8	9.6	8.9	9.2	9.1	9.5	9.8	10.2	11.3		
Price, wholesale (light distillate)	Index, 1967=100.	863.4	1,039.8	1,037.9	1,044.3	1,034.3	1,027.9	1,009.1	975.9	974.2	984.4	983.0	976.3	968.6	984.6	991.1	974.1
Distillate fuel oil:																	
Production	mil. bbl.	974.1	954.9	88.7	81.1	68.5	71.1	70.7	81.2	81.9	84.8	78.3	79.7	88.0	85.9		
Imports	do...	51.9	61.0	2.9	3.0	3.6	1.5	1.8	2.3	3.0	3.8	2.4	1.8	3.0	4.2		
Stocks, end of period	do...	205.4	190.2	190.2	166.0	146.7	127.7	108.8	114.5	124.6	148.2	158.9	161.2	170.2	185.6		
Price, wholesale (middle distillate)	Index, 1967=100.	850.6	1,058.1	1,060.6	1,067.8	1,058.2	1,029.3	953.6	928.7	974.6	1,024.0	1,022.2	998.8	997.7	1,040.6	1,053.6	984.4
Residual fuel oil:																	
Production	mil. bbl.	578.4	480.3	40.2	36.7	31.8	34.7	34.9	34.9	32.3	31.9	31.2	30.2	29.6	29.7		
Imports	do...	343.6	290.6	28.5	25.4	26.0	28.2	22.9	22.9	19.3	17.8	16.1	26.1	23.5	25.3		
Stocks, end of period	do...	91.5	78.3	78.3	68.2	58.1	57.3	53.6	59.1	60.5	59.0	52.8	61.8	63.6	66.4		
Price, wholesale	Index, 1967=100.	961.2	1,239.0	1,180.9	1,219.8	1,177.6	1,163.0	1,182.7	1,191.6	1,229.5	1,237.1	1,250.0	1,120.7	1,125.2	1,152.8	1,121.0	1,126.7
Jet fuel:																	
Production	mil. bbl.	365.6	353.5	29.3	27.8	28.0	34.7	30.3	27.9	27.9	29.9	30.4	29.3	30.4	30.5		
Stocks, end of period	do...	42.4	40.5	40.5	37.2	37.0	42.5	44.1	41.8	40.1	39.8	40.8	39.7	40.9	40.5		
Lubricants:																	
Production	do...	65.1	60.6	5.1	4.3	4.1	4.3	4.5	4.6	4.6	4.6	4.4	3.9	4.4	4.4		
Stocks, end of period	do...	13.6	14.2	14.2	14.4	14.3	13.7	13.4	13.5	13.4	13.5	13.4	12.7	12.6	12.6		
Asphalt:																	
Production	do...	141.2	124.2	7.6	6.5	5.4	7.0	8.0	10.5	12.4	13.1	13.3	12.4	13.6	9.7		
Stocks, end of period	do...	18.8	19.5	19.5	23.1	24.3	26.1	27.1	27.1	25.6	22.1	17.4	14.6	13.1	14.1		
Liquefied gases (incl. ethane and ethylene):																	
Production, total	do...	561.8	583.4	49.9	47.9	41.3	47.2	47.0	49.1	47.1	48.2	49.3	48.2	49.0	48.1		
At gas processing plants (L.P.G.)	do...	440.9	467.9	41.0	40.3	34.8	39.2	39.1	40.4	38.3	38.9	40.5	38.9	41.0	40.3		
At refineries (L.R.G.)	do...	120.8	115.6	8.9	7.6	6.6	8.0	7.8	8.7	8.8	9.3	8.9	9.3	8.0	7.8		
Stocks (at plants and refineries)	do...	128.0	137.0	137.0	122.2	113.5	109.0	105.8	107.7	110.9	111.1	112.5	111.5	108.6	103.5		

PULP, PAPER, AND PAPER PRODUCTS

PULPWOOD AND WASTE PAPER																	
Pulpwood:																	
Receipts	thous. cords (128 cu.ft.)	81,007	79,547	5,972	(2)												
Consumption	do...	79,703	79,604	5,653	(2)												
Stocks, end of period	do...	6,697	6,045	6,045	(2)												
Waste paper:																	
Consumption	thous. sh. tons.	13,185	13,523	966	(2)												
Stocks, end of period	do...	831	993	993	(2)												
WOODPULP																	
Production:																	
Total, all grades #	thous. sh. tons.	52,055	51,783	3,590	(2)												
Dissolving and special alpha	do...	1,418	1,366	85	(2)												
Sulfate	do...	38,931	39,597	2,675	(2)												
Sulfite	do...	1,911	1,812	130	(2)												
Groundwood	do...	4,887	5,038	420	(2)												
Semichemical	do...	3,938	3,940	279	(2)												
Stocks, end of period:																	
Total, all mills	do...	944	1,198	1,198	(2)												
Pulp mills	do...	439	690	690	(2)												
Paper and board mills	do...	449	454	454	(2)												
Nonpaper mills	do...	57	54	54	(2)												
Exports, all grades, total	do...	3,805	3,678	315	221	303	319	316	326	302	261	279	298	237	247	285	
Dissolving and special alpha	do...	769	784	85	50	42	62	52	69	55	32	60	52	50	55	51	
All other	do...	3,037	2,894	230	172	261	257	264	257	247	229	219	246	186	192	234	
Imports, all grades, total	do...	4,051	4,086	269	270	310	296	306	302	289	289	350	541	303	375	264	
Dissolving and special alpha	do...	194	201	8	26	9	10	22	8	12	6	17	8	18	18	8	
All other	do...	3,858	3,885	262	244	301	286	284	294	275	283	333	533	285	357	256	

See footnotes at end of tables.

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PULP, PAPER, AND PAPER PRODUCTS—Continued

PAPER AND PAPER PRODUCTS																
Paper and board:																
Production (Bu. of the Census):																
All grades, total, unadjusted..... thous. sh. tons..	65,834	66,439	4,693	(⁵)												
Paper..... do.....	30,164	30,669	2,309	(⁵)												
Paperboard..... do.....	31,143	31,561	2,177	(⁵)												
Wet-machine board..... do.....	138	160	9	(⁵)												
Construction paper and board..... do.....	4,390	3,846	197	(⁵)												
Producer price indexes:																
Paperboard..... 1967=100..	234.6	258.1	260.0	259.7	261.4	261.1	261.2	258.8	255.9	255.0	*255.4	250.7	248.0	247.6	244.5	243.6
Building paper and board..... do.....	206.2	231.7	230.3	233.8	231.4	239.6	236.3	240.2	240.0	239.8	*243.4	241.5	241.5	240.4	241.4	240.5
Selected types of paper (API):																
Groundwood paper, uncoated:																
Orders, new..... thous. sh. tons..	*1,475	*1,449	122	113	112	123	140	116	113	138	113	125	131	*121	115	
Orders, unfilled, end of period..... do.....	110	100	112	89	95	98	104	102	99	117	100	104	99	*93	91	
Shipments..... do.....	*1,498	*1,463	113	110	108	126	123	115	118	121	124	121	*139	*126	116	
Coated paper:																
Orders, new..... do.....	*4,753	*4,853	363	397	411	407	408	381	432	399	443	407	446	*413	411	
Orders, unfilled, end of period..... do.....	391	360	308	343	361	332	336	307	306	312	307	285	282	*272	283	
Shipments..... do.....	4,673	4,940	389	404	389	437	409	408	431	400	443	433	447	*433	399	
Uncoated free sheet papers:																
Orders, new..... do.....	*7,694	*7,735	592	628	612	713	641	621	645	610	674	640	684	*652	608	
Shipments..... do.....	*8,326	*8,234	600	676	658	745	689	669	670	628	705	684	716	*695	622	
Unbleached kraft packaging and industrial converting papers:																
Shipments..... thous. sh. tons..	*3,962	*3,725	269	311	324	343	288	272	291	271	326	*296	*309	*315	270	
Tissue paper, production..... do.....	*4,375	*4,518	350	355	365	406	356	365	358	339	383	359	383	366	345	
Newsprint:																
Canada:																
Production..... thous. metric tons..	8,625	8,946	743	783	719	760	694	743	652	617	642	557	698	657	599	
Shipments from mills..... do.....	8,622	8,915	800	671	709	750	703	718	611	615	591	601	685	692	717	
Stocks at mills, end of period..... do.....	165	194	194	304	326	336	327	353	394	397	448	405	418	383	265	
United States:																
Production..... do.....	4,239	4,753	359	415	378	420	396	385	383	363	372	353	406	373	330	
Shipments from mills..... do.....	4,234	4,735	367	406	376	413	374	376	381	351	363	353	398	389	346	
Stocks at mills, end of period..... do.....	21	38	38	46	48	55	76	86	89	101	110	110	118	102	86	
Consumption by publishers ¶..... do.....	10,089	10,165	892	790	775	868	863	879	804	767	804	835	*927	*890	902	
Stocks at and in transit to publishers, end of period..... thous. metric tons..	732	961	961	981	1,038	1,068	1,045	1,012	1,003	992	952	898	861	*832	834	
Imports..... thous. sh. tons..	7,279	6,977	557	585	524	608	503	620	570	460	520	489	587	567	498	
Price, rolls, contract, f.o.b. mill, freight allowed or delivered..... Index, 1967=100..	*279.3	*308.1	316.8	316.8	318.1	318.1	321.1	322.4	319.4	318.4	318.4	318.4	318.4	303.7	300.7	300.7
Paper products:																
Shipping containers, corrugated and solid fiber shipments..... mil. sq. ft. surf. area..	241,377	*246,152	*17,587	18,961	18,638	21,218	19,941	18,720	20,071	18,610	20,414	20,657	21,064	19,043	17,540	
Folding paper boxes, shipments..... thous. sh. tons..	(²)															
..... mil. \$.	(²)															

RUBBER AND RUBBER PRODUCTS

RUBBER																
Natural rubber:																
Consumption..... thous. metric tons..	586.15	634.67	42.56	54.59	51.64	53.56	54.40	48.69	*53.73	48.16	*48.06	*58.08	53.61			
Stocks, end of period..... do.....	126.67	142.43	142.43	138.36	138.02	134.39	67.00	126.26	*121.88	62.06	*115.27	*105.71	110.56			
Imports, incl. latex and guayule..... thous. lg. tons..	598.31	662.41	49.13	50.99	59.33	45.71	53.86	56.19	63.39	38.67	54.35	40.60	54.36	51.37	49.45	
Price, wholesale, smoked sheets (N.Y.).... \$ per lb..	*0.730	*0.576	0.483	0.488	0.465	0.470	0.453	0.453	0.461	0.465	0.468	0.445	0.426	0.421	0.418	0.440
Synthetic rubber:																
Production..... thous. metric tons..	2,015.24	2,021.45	125.51	140.49	145.76	170.32	154.86	155.44	*139.71	117.46	124.91	127.19	135.18			
Consumption..... do.....	1,854.01	1,889.71	131.88	143.09	138.94	149.88	134.63	133.07	*132.19	*106.50	135.22	*151.80	118.42			
Stocks, end of period..... do.....	341.77	349.02	349.02	340.36	340.43	356.30	376.91	375.59	*374.70	*357.91	345.48	*310.25	327.59			
Exports (Bu. of Census)..... thous. lg. tons..	422.78	334.63	21.65	27.76	23.46	31.18	26.53	24.73	25.23	20.40	22.04	22.83	21.13	20.47	18.86	
TIRES AND TUBES																
Pneumatic casings, automotive:																
Production..... thous..	*159,263	*181,762	11,855	14,866	15,387	17,051	15,077	14,856	15,669	12,293	14,835	15,528	15,381	13,585	13,972	
Shipments, total..... do.....	177,063	201,105	13,544	14,144	13,704	17,312	17,676	18,216	19,428	16,421	17,700	18,938	17,851	15,325	14,521	
Original equipment..... do.....	40,227	41,711	2,363	2,478	2,769	3,697	3,679	3,970	4,074	3,038	2,817	3,022	2,919	2,652	3,518	
Replacement equipment..... do.....	131,271	153,716	10,820	11,365	10,573	13,216	13,652	13,989	15,018	13,199	14,625	15,583	14,605	12,337	10,606	
Exports..... do.....	5,565	5,678	361	301	362	399	345	257	336	264	258	333	327	336	397	
Stocks, end of period..... do.....	33,298	40,863	40,863	42,904	46,254	47,817	46,583	45,337	43,475	40,763	40,192	38,685	38,116	38,436	39,955	
Exports (Bu. of Census)..... do.....	9,058	11,088	485	385	461	614	454	463	653	381	454	385	489	377	474	
Inner tubes, automotive:																
Exports (Bu. of Census)..... do.....	4,557	3,428	231	141	151	254	174	102	178	195	162	201	192	162	113	

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STONE, CLAY, AND GLASS PRODUCTS

STONE, CLAY, AND GLASS PRODUCTS																	
PORTLAND CEMENT																	
Shipments, finished cement	thous. bbl.	402,830	382,692	23,495	15,149	17,755	25,729	28,213	30,984	35,388	34,527	35,957	35,351	34,106	27,431	22,718	
CLAY CONSTRUCTION PRODUCTS																	
Shipments:																	
Brick, unglazed (common and face)																	
mil. standard brick..	6,090.1	5,199.9	276.7	176.7	213.7	345.1	370.9	398.4	439.2	426.2	425.5	446.2					
Structural tile, except facing.....	thous. sh. tons.	101.5	91.9	5.1	3.2	2.7	3.5	2.6	3.7	4.8	3.8	3.5	4.3				
Sewer pipe and fittings, vitrified.....	do.	758.7	462.2	21.9	14.9	13.4	23.3	25.9	29.0	31.0	31.6	34.8	37.5				
Facing tile (hollow), glazed and unglazed																	
mil. brick equivalent..	45.4	35.3	2.6	1.8	1.6	2.5	3.0	2.4	(?)	(?)	(?)	(?)					
Floor and wall tile and accessories, glazed and unglazed.....	mi. sq. ft.	297.6	287.8	22.8	20.7	20.7	27.0	25.7	23.4	26.1	23.4	26.6	27.6				
Price index, brick (common), f.o.b. plant or N.Y. dock	1967=100..	280.8	300.2	303.8	303.8	304.2	304.2	308.4	309.5	310.0	310.9	319.0	*319.2	312.5	322.1	322.1	322.3
GLASS AND GLASS PRODUCTS																	
Flat glass, mfrs.' shipments.....	thous. \$.	868,459	952,283	226,926		194,972			219,074			220,472					
Glass containers:																	
Production.....	thous. gross..	327,972	321,373	19,912	24,442	26,095	29,204	26,673	27,293	27,934	25,982	28,009	*24,714	27,716	23,345		
Shipments, domestic, total †	do.	323,899	319,022	23,788	*24,731	23,307	27,448	26,259	26,774	28,991	25,165	28,184	*26,515	25,956	22,906		
Narrow-neck containers:																	
Food	do.	28,075	28,728	1,968	2,517	2,208	2,579	2,488	2,520	2,834	2,598	3,489	3,365	2,483	2,092		
Beverage	do.	57,848	60,248	4,488	3,696	4,103	5,299	5,156	5,699	6,326	5,732	6,029	*5,193	4,888	4,483		
Beer.....	do.	122,678	115,680	8,396	8,559	8,462	9,503	9,509	9,695	10,254	8,661	9,111	8,261	8,122	7,603		
Liquor and wine.....	do.	24,574	24,003	1,832	2,097	1,541	1,947	1,865	1,852	1,943	1,607	1,777	1,849	2,165	1,946		
Wide-mouth containers:																	
Food and dairy products	thous. gross..	61,212	62,404	5,019	5,491	4,906	5,764	4,989	4,978	5,417	4,832	5,752	5,840	5,891	4,962		
Narrow-neck and wide-mouth containers:																	
Medicinal and toilet	do.	26,250	25,119	1,849	2,116	1,875	2,095	1,982	1,848	2,019	1,542	1,767	1,790	2,177	1,648		
Chemical, household and industrial	do.	3,262	2,840	236	255	212	261	270	182	198	193	259	217	230	172		
Stocks, end of period	do.	46,966	46,683	46,683	46,462	49,124	50,405	51,009	51,433	49,982	50,532	50,244	*52,988	49,467	49,374		
GYPSUM AND PRODUCTS @																	
Production:																	
Crude gypsum (exc. byproduct)	thous. sh. tons.	12,376	11,497	862	784	844	820	886	855	949	912	1,009	966	1,044	898		
Calcined	do.	11,848	11,687	825	872	688	919	971	809	965	923	945	971	1,036	945		
Imports, crude gypsum	do.	7,365	7,593	500	375	397	405	218	531	772	469	728	733	724	625		
Sales of gypsum products:																	
Uncalcined.....	do.	5,678	4,904	448	308	294	277	327	401	421	384	394	445	411	342		
Calcined:																	
Industrial plasters	do.	393	370	26	25	26	30	40	39	38	34	37	37	40	34		
Building plasters:																	
Regular basecoat	do.	232	225	15	16	17	21	16	14	16	16	15	(*)	(*)	(*)		
All other (incl. Keene's cement)	do.	166	157	10	10	9	13	7	6	8	7	8	*23	*21	*21		
Board products, total	mil. sq. ft.	14,144	13,759	955	965	876	1,087	1,100	971	1,120	1,098	1,169	1,140	1,216	1,134		
Lath	do.	79	59	3	4	3	4	3	3	4	3	4	3	3	3		
Veneer base.....	do.	338	325	21	22	18	25	24	20	26	24	26	23	25	25		
Gypsum sheathing.....	do.	199	208	15	15	15	18	20	20	25	22	23	25	27	28		
Regular gypsum board	do.	10,551	9,295	629	633	564	704	716	618	716	702	749	733	774	741		
Type X gypsum board	do.	2,638	3,446	258	259	236	286	262	299	298	298	315	303	330	293		
Predecorated wallboard	do.	119	122	10	10	9	11	10	9	11	10	11	10	10	10		
5/16 mobile home board	do.	*220	304	19	23	31	39	41	38	40	38	42	42	47	35		

TEXTILE PRODUCTS

TEXTILE PRODUCTS																
FABRIC																
Woven fabric, finishing plants: *																
Production (finished fabric).....	mil. linear yd.	8,420	8,176	*657	495	550	*695	540	531	*663	366	525	*661	534		
Cotton	do.	3,531	3,212	*255	172	196	*255	194	196	*259	133	200	*3259	201		
Manmade and silk fiber	do.	4,990	5,163	*402	323	354	*440	346	335	*403	233	325	*402	332		
Inventories held at end of period	do.	769	740	740	725	742	729	722	692	660	662	673	*652	668		
Cotton	do.	339	317	317	284	312	314	306	293	282	282	285	267	278		
Manmade and silk fiber	do.	430	423	423	441	430	414	416	400	378	380	389	*385	*390		
Backlog of finished orders.....	do.	8,495	9,018	601	580	575	585	592	554	529	485	439	*456	451		
Cotton.....	do.	4,577	4,711	326	249	255	269	264	254	194	182	178	185	195		
Manmade and silk fiber.....	do.	4,219	4,307	275	330	320	317	328	300	334	302	261	271	255		
COTTON																
Cotton (excluding linters):																
Production:																
Ginnings †	thous. running bales..	*10,826	*15,150	13,502							40	453	1,531	5,290	8,826	10,580
Crop estimate	thous. net weight bales \$.	*11,122	*15,646													12,019
Consumption	thous. running bales..	6,135	5,409	*400	378	391	*493	410	392	*460	317	386	*474	416	390	*430
Stocks in the United States, total, end of period #	thous. running bales..	9,261	13,777	13,777	12,567	11,424	10,060	8,976	8,117	7,170	6,399	16,362	16,439	15,731	*15,033	14,232
Domestic cotton, total.....	do.	9,260	13,776	13,776	12,566	11,422	10,058	8,974	8,116	7,169	6,397	16,359	16,436	15,728	*15,031	14,229
On farms and in transit	do.	2,502	3,752	3,752	2,257	1,810	1,221	953	924	728	300	10,617	10,475	7,545	*4,209	2,433
Public storage and compresses	do.	5,927	9,268	9,268	9,488	8,729	7,921	7,112	6,292	5,542	5,269	4,998	5,293	7,575	*10,190	11,101
Consuming establishments.....	do.	831	756	756	821	883	916	909	900	899	828	744	668	608	*632	695

See footnotes at end of tables.

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TEXTILE PRODUCTS—Continued

COTTON AND MANUFACTURES—Cont.																
Cotton (excluding linters)—Continued																
Exports (excluding linters)..... thous. running bales..	'7,975	8,021	737	653	754	873	676	484	498	396	342	351	293	382	377	
Imports..... thous. net-weight bales \$..	16	17	1	0	0	(*)	4	13	4	1	2	10	1	3		
Price (farm), American upland ¶..... cents per lb..	74.4	54.5	51.2	*50.3	*49.1	*50.4	*54.3	*55.8	*56.1	*59.9	*52.8	*55.5	59.8	59.9	57.3	
Price, Strict Low Middling, Grade 41, staple 34 (1-1/16"), average 10 markets..... cents per lb..	*71.5	*83.0	55.1	57.8	57.3	59.7	62.0	62.4	61.1	65.0	60.4	59.0	58.6	58.2	59.6	*60.2
Spindle activity (cotton system spindles):																
Active spindles, last working day, total..... mil..	15.9	15.4	15.4	15.4	15.3	15.3	15.2	15.3	14.9	14.7	14.6	14.5	*14.4	14.6		
Consuming 100 percent cotton..... do.....	6.0	5.5	5.5	5.5	5.5	5.5	5.5	5.6	5.6	5.5	5.4	5.3	5.3	5.2	5.3	
Spindle hours operated, all fibers, total..... bil..	102.4	91.8	*6.9	6.5	6.8	*8.3	6.7	6.6	*7.8	5.4	6.3	*7.7	6.6	6.2		
Average per working day..... do.....	0.388	0.357	0.278	0.327	0.339	0.414	0.337	0.327	0.310	0.268	0.314	*0.307	0.328	0.309		
Consuming 100 percent cotton..... do.....	42.0	33.6	*2.5	2.3	2.4	*3.0	2.5	2.5	*2.9	2.0	2.4	*2.8	2.5	2.3	2.6	
Cotton cloth:																
Cotton broadwoven goods over 12" in width:																
Production (qtrly.)..... mil. sq. yd..	4,456	3,913	1,002			983			953							
Orders, unfilled, end of period, compared with avg. weekly production..... no. weeks' prod..	*15.8	14.1	14.6	15.3	12.5	12.7	11.5	9.6	8.8	12.7	10.7	9.2	8.6	9.1		
Inventories, end of period, compared with avg. weekly production..... no. weeks' prod..	*4.2	5.6	6.7	6.8	7.0	7.3	7.1	6.3	7.2	11.2	8.7	5.9	5.8	5.8		
Ratio of stocks to unfilled orders (at cotton mills), end of period.....	*0.29	0.40	0.46	0.45	0.56	0.58	0.62	0.65	0.82	0.88	0.81	0.63	0.68	0.64		
Exports, raw cotton equiv. thous. net-weight \$..... bales..	540.2	345.6	21.9	18.2	18.6	20.4	20.6	24.3	24.8	22.7	15.7	18.4	20.7			
Imports, raw cotton equivalent..... do.....	567.0	766.3	58.9	66.5	55.1	47.4	45.4	54.1	47.8	41.4	48.7	49.3	44.3			
MANMADE FIBERS AND MANUFACTURES																
Fiber production, qtrly:																
Filament yarn (acetate)..... mil. lb..	308.5	257.0	54.8			52.9										
Staple, incl. tow (rayon)..... do.....	443.3	460.6	111.7			95.4										
Noncellulosic, except textile glass:																
Yarn and monofilaments..... do.....	3,725.3	3,792.8	834.2			785.4										
Staple, incl. tow..... do.....	4,148.2	4,191.1	940.8			864.6										
Textile glass fiber..... do.....	867.3	1,041.1	263.2			206.9										
Fiber stocks, producers', end of period:																
Filament yarn (acetate)..... mil. lb..	18.4	14.3	14.3			13.5										
Staple, incl. tow (rayon)..... do.....	27.2	31.1	31.1			38.2										
Noncellulosic fiber, except textile glass:																
Yarn and monofilaments..... do.....	289.3	337.0	337.0			330.7										
Staple, incl. tow..... do.....	287.0	327.8	323.8			340.3										
Textile glass fiber..... do.....	104.1	146.2	146.2			151.8										
Manmade fiber and silk broadwoven fabrics:																
Production (qtrly), total #..... mil. sq. yd..	10,774.1	11,228.7	2,586.8			2,352.3			2,282.0							
Filament yard (100%) fabrics #..... do.....	3,980.6	3,850.9	884.4			769.0			834.4							
Chiefly rayon and/or acetate fabrics..... do.....						95.5			105.8							
Chiefly nylon fabrics..... do.....						110.3			110.0							
Spun yard (100%) fab., exc. blanketing #..... do.....	5,899.6	6,431.4	1,445.6			1,326.3			1,189.7							
Rayon and/or acetate fabrics, blends..... do.....	430.2	584.1	94.1			30.5			28.7							
Polyester blends with cotton..... do.....	4,342.9	4,517.0	1,037.7			1,009.3			901.3							
Filament and spun yarn fabrics..... do.....	763.8	1,002.2	226.0			225.3			223.4							
Manmade fiber gray goods, owned by weaving mills:																
Ratio, stocks to unfilled orders, end of period.....																
Prices, manufacturer to mfr., f.o.b. mill: 50/50 polyester/carded cotton printcloth, gray, 48", 3.90 yds./lb., 78x54-56..... \$ per yd..	0.510															
Manmade fiber manufactures:																
Exports, manmade fiber equivalent..... mil. lbs..	771.54	637.73	38.08	34.90	38.35	39.72	35.96	42.01	44.21	33.93	33.13	35.86	36.87			
Yarn, tops, thread, cloth..... do.....	418.64	318.89	19.00	16.20	17.13	18.10	15.67	18.42	20.65	16.12	14.70	16.06	16.87			
Cloth, woven..... do.....	249.77	208.48	12.74	9.72	10.13	11.48	10.59	12.11	13.36	10.66	9.32	11.29	12.03			
Manufactured prods., apparel, furnishings..... do.....	352.91	318.84	19.09	18.70	21.22	21.61	20.29	23.59	23.56	17.80	18.44	19.80	19.98			
Imports, manmade fiber equivalent..... do.....	540.64	639.08	39.51	53.18	48.07	47.74	40.14	67.85	91.93	77.34	100.05	82.75	70.14			
Yarn, tops, thread, cloth..... do.....	97.48	130.52	7.71	10.88	8.73	9.33	9.58	12.27	12.48	9.50	14.40	12.95	10.65			
Cloth, woven..... do.....	67.28	95.38	5.83	7.74	6.58	6.82	6.79	8.74	9.14	6.58	10.44	9.07	7.41			
Manufactured prods., apparel, furnishings..... do.....	*443.15	508.56	31.80	42.30	39.34	38.41	30.56	55.58	79.46	67.83	85.65	69.80	59.49			
Apparel, total..... do.....	378.52	434.87	25.97	36.48	33.95	32.29	25.39	40.45	53.04	43.58	60.91	48.38	40.59			
Knit apparel..... do.....	187.74	184.70	8.64	12.46	11.22	10.55	8.56	15.32	21.76	17.80	26.41	21.52	20.04			
WOOL AND MANUFACTURES																
Wool consumption, mill (clean basis):																
Apparel class..... mil. lb..	113.4	127.8	*11.2	9.4	9.6	*12.8	9.0	8.2	*9.4	5.9	8.0	*8.3	7.1	7.7		
Carpet class..... do.....	10.0	10.9	*1.0	0.7	0.9	*1.0	0.7	0.9	*0.8	0.6	1.0	*1.2	0.7	0.8		
Wool imports, clean yield..... do.....	56.5	*75.3	5.3	8.0	6.3	6.6	4.9	6.0	6.6	4.0	4.2	4.7	2.9	3.6	3.7	
Duty-free (carpet class)..... do.....	26.0	26.1	2.0	2.1	1.6	1.8	2.0	2.0	2.6	1.7	2.0	1.8	1.4	1.3	1.2	
Wool prices, raw, shorn, clean basis, delivered to U.S. mills:																
Domestic—Graded territory, 64's, staple 2-3/4" and up..... cents per lb..	*2.45	*2.78	2.83	2.75	2.63	2.44	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.76	2.69	2.67
Australian, 64's, Type 62, duty-paid..... do.....	*3.09	*3.16	3.12	3.01	3.03	3.13	3.23	3.36	3.21	3.04	2.94	2.87				
Wool broadwoven goods, exc. felts: Production (qtrly.)..... mil. sq. yd..	158.3	165.0	33.1			38.1			36.1							
FLOOR COVERINGS																
Carpet, rugs, carpeting (woven, tufted, other), shipments, quarterly..... mil. sq. yds..	1,058.4	990.6	217.6			214.0			242.7							
APPAREL																
Women's, misses', juniors' apparel cuttings:																
Coats..... thous. units..	16,808	14,845	639													
Dresses..... do.....	179,401	136,176	8,015													
Suits (incl. pant suits, jumpsuits)..... do.....	18,162	13,605	813													
Skirts..... do.....	70,152	91,025	5,192													
Blouses..... thous. dozen..	26,704	30,322	2,097													

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TEXTILE PRODUCTS—Continued

APPAREL—Continued															
Men's apparel cuttings:															
Suits	14,074	14,686	1,139												
Coats (separate), dress and sport	16,906	17,880	1,312												
Trousers (separate), dress	124,011														
Slacks (jean cut), casual	253,640	175,445	10,178												
Shirts, dress and sport	40,988	38,112	2,441												
Hosiery, shipments	286,379	304,826	19,796	25,065	21,634	23,902	23,898	22,248	23,888	29,632	22,725	24,466	27,540	22,561	20,969

TRANSPORTATION EQUIPMENT

AEROSPACE VEHICLES															
Orders, new (net), qtrly, total @	69,624	72,852	19,526				20,079							17,572	
U.S. Government	33,496	39,102	11,808				11,016							10,469	
Prime contract	67,642	70,633	18,869				19,407							16,919	
Sales (net), receipts, or billings, qtrly, total	58,440	69,944	18,742				16,719							18,869	
U.S. Government	26,674	33,039	9,253				8,740							11,456	
Backlog of orders, end of period #	89,732	92,640	92,640				96,000							94,869	
U.S. Government	37,199	43,262	43,262				45,538							45,978	
Aircraft (complete) and parts	46,777	44,555	44,555				46,516							44,138	
Engines (aircraft) and parts	11,494	13,173	13,173				13,545							13,912	
Missiles, space vehicle systems, engines, propulsion units, and parts	8,498	11,047	11,047				10,997							10,374	
Other related operations (conversions, modifications), products, services	10,240	11,314	11,314				11,991							13,618	
Aircraft (complete):															
Shipments # #	13,043.1	13,195.0	1,592.4	708.3	774.2	1,122.0	806.0	956.5	739.9	564.0	466.1	646.5	602.4	624.7	
Airframe weight # #	97,068	89,076	9,871	4,187	3,993	5,857	4,270	5,046	4,059	3,437	2,801	3,665	3,225	3,129	
Exports, commercial ¶	8,250	8,551	952	504	369	809	412	453	434	445	370	77	378	102	421
MOTOR VEHICLES (NEW)															
Passenger cars:															
Factory sales (from U.S. plants), total	6,400	6,225	370	273	320	469	488	510	561	439	356	429	431	407	366
Domestic	5,840	5,749	344	256	302	431	441	468	523	405	334	406	406	382	344
Retail sales, total, not seasonally adj †	8,979	8,535	523	535	632	777	669	774	651	630	609	671	656	743	632
Domestic \$	6,581	6,209	358	368	457	576	499	584	452	430	409	488	488	558	448
Imports \$	2,398	2,326	165	166	175	201	170	190	199	200	200	183	169	185	184
Total, seas, adjusted at annual rate †	7.2	7.9	8.4	8.4	7.7	7.3	8.2	7.4	7.4	7.6	8.3	7.9	7.9	9.4	8.7
Domestic \$	4.9	5.4	6.2	5.6	5.6	5.4	6.2	5.1	5.4	6.0	5.5	6.0	5.5	6.8	6.1
Imports \$	2.3	2.5	2.2	2.2	2.0	1.8	2.0	2.2	2.2	2.2	2.3	2.4	2.4	2.6	2.7
Retail inventories, end of period, domestics: \$ †															
Not seasonally adjusted	1,520	1,471	1,471	1,432	1,325	1,247	1,256	1,213	1,364	1,377	1,379	1,350	1,296	1,164	1,126
Seasonally adjusted	1,440	1,495	1,495	1,383	1,241	1,171	1,187	1,146	1,247	1,378	1,531	1,481	1,412	1,229	1,191
Inventory-retail sales ratio, domestics \$ †	2.6	2.9	3.7	3.1	2.4	2.5	2.6	2.2	3.1	3.2	3.4	3.0	3.1	2.2	2.4
Exports (BuCensus), assembled cars	607.80	538.12	29.18	17.27	23.87	40.21	49.59	45.70	38.66	34.29	21.18	26.30	27.42	27.39	22.42
To Canada	509.13	470.86	22.37	13.42	19.46	36.03	45.72	42.55	35.72	32.27	18.39	23.70	23.48	23.71	19.60
Imports (BuCensus), complete units # #	3,310.7	2,998.6	233.7	259.9	195.9	285.7	249.2	309.5	275.5	261.9	263.0	217.4	262.8	253.6	232.7
From Canada, total	594.8	563.9	45.7	37.1	58.0	70.4	73.2	71.2	83.3	44.1	47.7	61.0	49.5	56.8	50.2
Registrations ¶, total new vehicles	8,761	8,444	612	509	546	626	672	708	717	626	627	625	655	678	765
Imports, incl. domestically sponsored	2,469	2,432	184	159	164	176	186	189	206	203	214	200	195	181	220
Trucks and buses:															
Factory sales (from U.S. plants), total	1,667	1,701	127	116	144	197	183	193	212	166	142	155	142	127	130
Domestic	1,464	1,514	116	108	133	184	169	180	197	154	134	146	132	118	122
Retail sales, seasonally adjusted: †															
Light-duty, up to 14,000 lbs. GVW	1,963.5	1,746.6	120.4	167.6	175.0	186.0	170.1	191.3	155.3	162.2	140.4	193.8	149.7	199.4	179.2
Medium-duty, 14,001-26,000 lbs. GVW	92.3	73.9	5.4	4.0	3.6	3.4	3.8	4.6	4.1	3.9	3.4	3.9	3.5	3.6	3.8
Heavy-duty, 26,001 lbs. and over GVW	175.7	151.7	13.0	14.0	12.4	12.5	12.6	11.7	11.7	10.1	10.4	10.1	9.6	10.0	12.5
Retail inventories, end of period, seasonally adjusted †															
Exports (BuCensus), assembled units	574.0	559.4	558.8	514.0	498.3	482.0	513.4	526.9	569.0	615.2	704.9	665.5	636.2	566.4	537.9
Imports (BuCensus), including separate chassis and bodies	1,133.28	898.92	72.29	74.80	57.15	82.00	73.68	71.63	73.27	51.73	56.50	57.33	54.44	43.28	42.27
Registrations ¶, new vehicles, excluding buses not produced on truck chassis	2,477	2,185	180	156	171	208	219	226	226	197	193	182	193	215	246
Truck trailers and chassis, complete (excludes detachables), shipments	136,702	117,635	9,628	7,476	8,418	9,903	8,453	8,023	8,382	6,046	7,826	6,910	6,421	7,480	
Vans	86,248	70,928	5,611	4,327	4,928	6,355	5,300	5,240	5,388	4,025	5,582	4,900	4,279	5,400	
Trailer bodies (detachable), sold separately	11,849	7,239	336	252	203	429	440	504	376	305	228	335	378	335	
Trailer chassis (detachable), sold separately	14,202	8,615	561	449	564	817	846	790	598	680	597	320	211	93	
RAILROAD EQUIPMENT															
Freight cars (new), for domestic use; all railroads and private car lines (excludes rebuilt cars and cars for export):															
Shipments	85,920	44,901	2,711	1,995	1,762	2,247	2,443	1,794	1,339	1,369	1,060	967	890	610	765
Equipment manufacturers	80,357	41,435	2,455	1,833	1,526	2,032	2,265	1,694	1,244	1,369	992	913	650	525	477
New orders	43,955	17,916	1,811	815	753	1,485	539	487	586	179	373	583	884	249	231
Equipment manufacturers	40,140	17,288	1,811	815	753	1,485	539	487	586	179	373	583	134	249	231
Unfilled orders, end of period	52,370	16,485	16,485	14,735	13,486	12,599	10,560	9,253	8,500	7,187	6,829	5,895	5,283	4,866	4,295
Equipment manufacturers	47,866	14,819	14,819	13,231	12,218	11,546	9,685	8,478	7,820	6,507	6,217	5,337	4,710	4,378	4,095
Freight cars (revenue), class 1 railroads (AAR): †															
Number owned, end of period	1,168	1,111	1,111	1,110	1,105	1,100	1,095	1,090	1,083	1,077	1,069	1,059	1,053	1,047	
Held for repairs, % of total owned	8.8	6.9	6.9	7.0	7.4	7.6	7.6	7.7	8.0	8.1	7.9	8.3	8.4	8.6	
Capacity (carrying), total, end of mo	92.56	89.37	89.37	89.32	89.02	88.76	88.48	88.19	87.71	87.47	86.94	86.24	85.86	85.43	84.87
Average per car	79.24	80.48	80.43	80.48	80.58	80.71	80.84	80.92	81.02	81.19	81.35	81.44	81.54	81.60	81.68

See footnotes at end of tables.

SURVEY OF CURRENT BUSINESS
FOOTNOTES FOR PAGES S-1 THROUGH S-32
General Notes for all Pages:

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

Page S-1

- † Revised series. See Tables 2.6 - 2.9 in the July 1982 SURVEY for revised estimates back to 1977. Pre-1977 estimates are available in *The National Income and Product Accounts of the United States, 1929-76: Statistical Tables*.
- ‡ Includes inventory valuation and capital consumption adjustments.
- * New series. Detailed descriptions begin on p. 18 of the Nov. 1979 SURVEY. See note "†" for this page for information on historical data.
- § 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.

Page S-2

- 1. Based on data not seasonally adjusted.
- # Includes data not shown separately.
- ‡ Revised series. For wholesale see note "‡" for p. S-8. For manufacturing see note "†" for p. S-3. For retail see note "†" for p. S-8.
- † See note "†" for p. S-3.
- § See note "†" for p. S-8.
- @ See note "‡" for p. S-8.
- * New series. Data back to 1967 are available from the National Income and Wealth Division, Bureau of Economic Analysis.

Page S-3

- ‡ Revised series. For wholesale see note "‡" for p. S-8. For manufacturing see note "†" for this page. For retail see note "†" for p. S-8.
- † Revised series. Data have been revised back to 1972. A detailed description of these revisions and historical data appear in the reports "Manufacturers' Shipments, Inventories, and Orders" M3-1.10 (1972-1980) and M3-1.11 (1977-81), available from the Bureau of the Census, Washington, D.C. 20233.
- § See note "†" for p. S-8.
- @ See note "‡" for p. S-8.
- * New series. Data back to 1967 are available from the National Income and Wealth Division, Bureau of Economic Analysis.
- # Includes data for items not shown separately.

Page S-4

- 1. Based on data not seasonally adjusted.
- † See note "†" for p. S-3.
- # 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.

Page S-5

- 1. Based on unadjusted data.
- 2. Beginning with data for January 1983, the index is affected by a change in methodology used to compute the homeownership component. For additional information regarding this change see p. S-36 of this SURVEY.
- † See note "†" for p. S-3.
- @ Compiled by Dun & Bradstreet, Inc.
- # Includes data for items not shown separately.
- § Ratio of prices received to prices paid (parity index).
- ¶ Revisions, back to 1975 for some commodities, are available upon request.
- ‡ See note "‡" for p. S-4.

Page S-6

- 1. See note 2 for p. S-5.
- 2. Index no longer available from the source, BLS.
- § For actual producer prices of individual commodities see respective commodities in the Industry section beginning p. S-19. All data subject to revision four months after original publication.
- † Revised series. Stage-of-processing producer price indexes have been revised back to 1976 to reflect updated industry input-output relationships and improved classification of some products.
- # Includes data for items not shown separately.
- ‡ Effective Feb. 1983 SURVEY, data have been revised back to 1978 to reflect updated seasonal factors. Effective Feb. 1982 SURVEY, data have been revised back to 1977 to reflect updated seasonal factors. These revisions are available upon request.

Page S-7

- 1. Computed from cumulative valuation total.
- 2. Index as of Feb. 1, 1983: building, 347.5; construction, 372.5.
- # Includes data for items not shown separately.
- § Data for Jan., Apr., July, Sept., and Dec. 1982 are for five weeks; other months four weeks.

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.
- ‡ Effective Oct. 1982 SURVEY, seasonally adjusted wholesale trade data have been revised for Jan. 1981-March 1982. Effective April 1982 SURVEY, wholesale trade data have been revised for Jan. 1972-Dec. 1981. Revised data are available upon request.
- † Effective April 1982 SURVEY, retail trade data have been revised for the years 1972-1981. Revised data and a summary of the changes are available from the Census Bureau, Washington, D.C. 20233.
- # Includes data for items not shown separately.

Page S-9

- 1. Advance estimate.
- 2. Effective Jan. 1979 data, sales of mail-order houses are included with department store sales.
- 3. As of July 1.
- # Includes data for items not shown separately.
- ‡ Revisions for Jan. 1977-Oct. 1979 appear in "Current Population Reports," Series P-25, No. 870, Bureau of the Census.
- ¶ Effective with the January 1983 SURVEY, the seasonally adjusted labor force series have been revised back to January 1978. Revised monthly series appear in the January 1983 issue of *Employment and Earnings*. Effective with the February 1982 SURVEY, the labor force series have been revised back to 1970 to reflect the 1980 Census of Population. Seasonal adjustment factors were revised accordingly. Revised monthly series appear in the February 1982 issue of *Employment and Earnings*. Revised annual series will appear in the March 1982 issue of *Employment and Earnings*, U.S. Department of Labor, Bureau of Labor Statistics.
- * New series. The participation rate is the percent of the civilian noninstitutional population in the civilian labor force. The employment-population ratio is employment as a percent of the total noninstitutional population, 16 years and over.
- † See note "†" for p. S-8.

Page S-10

- 1. This series has been discontinued.
- § These unemployment rates are for civilian workers only. The unemployment rate for all workers, including the resident armed forces, was 10.2 in Jan. 1983.
- † Effective June 1982 SURVEY, data have been revised back to 1977 based on March 1981 benchmark levels and updated seasonal adjustment factors. See "BLS Establishment Estimates Revised to March 1981 Benchmarks," in the June 1982 issue of *Employment and Earnings*. Effective July 1981 SURVEY, data have been revised back to 1974 to reflect new benchmarks and new seasonal adjustment factors. See "BLS Establishment Estimates Revised to March 1980 Benchmarks," in the July 1981 issue of *Employment and Earnings*.
- ¶ See note "¶" for p. S-9.

Page S-11

- † See note "†" on p. S-10.
- ‡ 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.

Page S-12

- 1. This series has been discontinued.
- † See corresponding note on p. S-10.
- ¶ Production and nonsupervisory workers.
- ‡ Earnings in 1977 dollars reflect changes in purchasing power since 1977 by dividing by Consumer Price Index.
- § Wages as of Feb. 1, 1983: Common, \$14.92; Skilled, \$19.46.

Page S-13

- 1. Average for Dec.
- ¶ Effective April 1982 SURVEY, the series for work stoppages involving six or more workers have been discontinued and have been replaced by series for work stoppages involving 1,000 or more workers.
- # Includes data for items not shown separately.
- § For demand deposits, the term "adjusted" denotes demand deposits other than domestic commercial bank and U.S. Government, less cash items in process of collection; for loans, exclusive of loans to and Federal funds transactions with domestic commercial banks and include valuation reserves (individual loan items are shown gross; i.e. before deduction of valuation reserves).
- * New series. Beginning Dec. 1978, data are for all investment account securities; comparable data for earlier periods are not available.
- @ Insured unemployment (all programs) data include claims filed under extended duration provisions of regular State laws; amounts paid under these programs are excluded from state benefits paid data.
- @@ Insured unemployment as a percent of average covered employment in a 12-month period.

Page S-14

1. Data are for fiscal years ending Sept. 30 and include revisions not distributed to the months.
 2. Average for the year.
 3. Daily average.
 4. Beginning Jan. 1981, data are for top-rated only. Prior data cover a range of top-rated and regional dealer closing rates. See also note 3 for this page.
 5. Beginning Oct. 1981, data represent the total surplus or deficit (budget surplus or deficit plus off-budget surplus or deficit). See also note 1.
 6. Interest rate charged as of Feb. 1, 1983 was 11.11.
- # Includes data for items not shown separately.
- § The Department of Health, Education, and Welfare was redesignated as the Department of Health and Human Services by the Department of Education Organization Act.
- ¶ 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. Data through Oct. 1979 show a maturity for 120-179 days. Beginning Nov. 1979, maturity is for 180 days.
- @ Data through Oct. 1979 show a maturity for 150-179 days. Beginning Nov. 1979, maturity is for 180 days.
- ‡‡ Courtesy of *Metals Week*.
- @@ Average effective rate

Page S-15

1. M1-A has been discontinued. M1-B will now be designated "M1."
- † Effective Feb. 1982 SURVEY, the money stock measures and components have been revised back to 1959. The Federal Reserve has redefined the monetary aggregates. The redefinition was prompted by the emergence in recent years of new monetary assets—for example, negotiable order of withdrawal (NOW) accounts and money market mutual fund shares—and alterations in the basic character of established monetary assets—for example, the growing similarity of and substitution between the deposits of thrift institutions and those of commercial banks. Monthly data from 1959 to date are available from the Banking Section of the Division of Research and Statistics at the Federal Reserve Board, Washington, D.C. 20551.
- ‡ Composition of the money stock measures is as follows:
- M1.—This measure is currency plus demand deposits at commercial banks and interest-earning checkable deposits at all depository institutions—namely NOW accounts, automatic transfer from savings (ATS) accounts, and credit union share draft balances—as well as a small amount of demand deposits at thrift institutions that cannot, using present data sources, be separated from interest-earning checkable deposits.
- M2.—This measure adds to M1 overnight repurchase agreements (RP's) issued by commercial banks and certain overnight Eurodollars (those issued by Caribbean branches of member banks) held by U.S. nonbank residents, money market mutual fund shares, and savings and small-denomination time deposits (those issued in denominations of less than \$100,000) at all depository institutions. Depository institutions are commercial banks (including U.S. agencies and branches of foreign banks, Edge Act corporations, and foreign investment companies), mutual savings banks, savings and loan associations, and credit unions.
- M3.—This measure equals M2 plus large-denomination time deposits (those issued in denominations of \$100,000 or more) at all depository institutions (including negotiable CD's) plus term RP's issued by commercial banks and savings and loan associations.
- L.—This broad measure of liquid assets equals M3 plus other liquid assets consisting of other Eurodollar holdings of U.S. nonbank residents, bankers acceptances, commercial paper, savings bonds, and marketable liquid Treasury obligations.
- ‡‡ Includes ATS and NOW balances at all institutions, credit union share draft balances, and demand deposits at mutual savings banks.
- * Overnight (and continuing contract) RP's 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.
- § Number of issues represents number currently used; the change in number does not affect the continuity of the series.

Page S-16

1. Beginning Jan. 1981 data, U.S. Virgin Islands trade with foreign countries is included.
- § 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.
- @ Data may not equal the sum of the geographic regions, or commodity groups and principal commodities, because of revisions to the totals not reflected in the component items.

Page S-17

1. See note 1 for p. S-16.
 2. Beginning Jan. 1982 data, the Customs value is being substituted for the f.a.s. value.
- # Includes data not shown separately.
- § Data may not equal the sum of geographic regions, or commodity groups and principal commodities, because of revisions to the totals not reflected in the components.

Page S-18

1. See note 1 for p. S-16.
 2. Annual total; quarterly or monthly revisions are not available.
 3. Before extraordinary and prior period items.
 4. For month shown.
 5. Domestic trunk operations only (averaging about 90 percent of domestic total).
 6. See note 2 for p. S-17.
 7. Beginning October 1982; data are not comparable because of the exclusion of some small carriers who chose to waive filing a Form 41.
- # Includes data for items not shown separately.
- § Total revenues, expenses, and income for all groups of carriers also reflect nonscheduled service.
- ‡ Beginning Jan. 1977, defined as those having operating revenues of \$50 million or more.
- ¶ Average daily rent per room occupied, not scheduled rates.
- @ Effective January 1, 1980, contract carriers are not included because the data filed by these carriers were substantially reduced in scope, in accordance with the ICC revised reporting regulations.

Page S-19

1. Reported annual total; monthly revisions are not available.
 2. Data withheld to avoid disclosing operations of individual companies.
 3. Beginning Jan. 1981, data represent gross weight (formerly phosphoric acid content weight) and are not comparable with data shown for earlier periods.
 4. A portion of data is being withheld to avoid disclosing information for individual companies; not comparable with other published data.
 5. Beginning Jan. 1980 data, another company is included.
 6. A portion of data is being suppressed because of not meeting publication standards. For nitrogen solutions, see also note 4 for this page.
 7. Less than 500 short tons.
- # Includes data for items not shown separately.
- § Data are reported on the basis of 100 percent content of the specified material unless otherwise indicated.
- ‡ Revisions, back to 1977 for some commodities, are available upon request.
- ¶ Data for Jan. 1977-June 1979 exclude potassium magnesium sulfate; not strictly comparable with data shown for other periods.

Page S-20

1. Reported annual total; monthly revisions are not available.
 2. Annual total includes Hawaii; not distributed to the months.
 3. Beginning 1982, the reporting frequency has been changed from a monthly to a quarterly basis. Revised quarterly data for 1979 through 1981 are available upon request.
 4. Reported annual total, including Hawaii; monthly data are preliminary and subject to change.
- § Data are not wholly comparable from year to year because of changes from one classification to another.
- ‡ Revisions back to 1977 are available upon request.

Page S-21

1. Average for three months, price not available for Apr.-Dec.
 2. Crop estimate for the year.
 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. Previous year's crop; new crop not reported until Oct. (beginning of new crop year).
 6. See note "@@" for this page.
 7. Data are no longer available.
 8. See note 4 for p. S-22.
 9. Crop estimate for 1982.
 10. Effective with this reporting, data are reported on a monthly basis.
- § Excludes pearl barley.
- # Bags of 100 lbs.
- ¶ Revised crop estimates back to 1975 are available upon request.
- @ Revisions, back to 1977, for some commodities, are available upon request.
- ‡ Revisions back to 1975 are available upon request.
- @@ Data are quarterly except for June (covering Apr. and May) and Sept. (covering June-Sept.).

Page S-22

1. Average for 11 months; price not available for Dec.
 2. Average for nine months; index not available for Apr.-June.
 3. Data are no longer available.
 4. Effective with this reporting, data are for three-month intervals.
- § Cases of 30 dozen.
- ¶ Bags of 132.276 lbs.
- ‡ Revisions for Jan.-July 1979 (back to 1975 for grindings of wheat) are available upon request.
- @ Revisions back to 1977 are available upon request.
- # Effective Apr. 1981 SURVEY, the wholesale price of smoked hams has been discontinued and has been replaced with the comparable price index. Annual indexes prior to 1979 and monthly indexes prior to Feb. 1980 are available upon request.

Page S-23

1. Crop estimate for the year.
 2. Average for seven months; price not available for July, Aug., and Oct.-Dec.
 3. Annual total; monthly revisions are not available.
 4. Data are no longer available.
 5. Crop estimate for 1982.
- § Monthly data reflect cumulative revisions for prior periods.
 ‡ Revisions back to 1975 are available upon request.
 * New series. Source: Bureau of Labor Statistics.
 # Totals include data for items not shown separately.

Page S-24

1. Annual data; monthly revisions not available.
2. Less than 500 short tons.

Page S-25

1. Annual data; monthly revisions are not available.
2. For month shown.
3. Effective Jan. 1981, data are revised back to Jan. 1980. Inventory data formerly calculated by the Bureau of the Census are now based on the Steel Service Center Institute monthly Business Conditions report.

Page S-26

1. Annual data; 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.
 † Effective July 1980 SURVEY data are revised and shown on a new base. The sample size has been restored to 100 firms and the base has been changed to 1977=100. The revised series are not comparable to previously published data.
 * New series. These indexes are based on shipments of hydraulic and pneumatic products reported by participating members of the National Fluid Power Association. Data back to 1959 are available upon request.

Page S-27

1. Effective Jan. 1980, total stocks for bituminous coal and lignite exclude residential and commercial stocks and are not comparable with data shown for earlier periods.
 2. Data are for five weeks; other months 4 weeks.
 3. Based on new 1981 stock level. See also note "‡" for this page.
 4. For month shown.
- # Includes data for items not shown separately.
 @ Beginning July 1977, data are representative of those manufacturers reporting and are not an average of the total industry; they are not directly comparable with earlier data.
 * New series. Annual data prior to 1978 and monthly data prior to April 1979 are available upon request.
 § Includes nonmarketable catalyst coke.
 ¶ Includes small amounts of "other hydrocarbons and alcohol new supply (field production)," not shown separately.
 † Revisions for 1978 are available upon request.
 ‡ Effective with 1981 petroleum data, the Energy Information Agency has changed some definitions and concepts to reflect recent developments in refining and blending practices. These changes include adding a category for gasohol production to motor gasoline production and accounting more precisely for distillate and residual fuel oil processed further after initial distillation. A description of these changes appears in the May 1981 issue of *Monthly Energy Review*, U.S. Department of Energy, Energy Information Administration.

Page S-28

1. Based on new 1981 stock level. See also note "‡" for p. S-27.
 2. See note 5 for p. S-29.
 3. Reported annual totals; revisions not allocated to the months.
 4. Simple averages of prices are no longer available.
- ¶ Prices are mid-month, include taxes, and represent full service; comparable prices prior to Jan. 1979 are not available.
 # Includes data for items not shown separately.
 * New series. See note "¶" for this page.
 ‡ Except for price data, see note "‡" for p. S-27.

Page S-29

1. Reported annual total; revisions not distributed to the months.
 2. Effective Jan. 1980, data are no longer available.
 3. Average for 11 months; no price for Aug. 1980 or June 1981.
 4. Average for 11 months; no price available for Nov. 1980 or for Oct. 1981.
 5. Monthly data will be discontinued as of April 1982 SURVEY, due to budgetary limitations. The related annual report, MA26A, will continue to be published.
- ¶ Source: American Paper Institute. Total U.S. estimated consumption by all newspaper users.
 § Monthly data are averages of the 4-week periods ending on the Saturday nearest the end of the month; annual data are as of Dec. 31.
 ‡ Data are monthly or annual totals. Formerly weekly averages were shown.

Page S-30

1. Reported annual total; revisions not allocated to the months.
 2. Crop for the year.
 3. Data cover five weeks; other months, four weeks.
 4. Data are not available prior to Jan. 1980.
 5. See note "‡" for this page.
 6. Data for regular basecoat plasters not available; sales of "all other" represents total sales of building plasters.
 7. Data withheld to avoid disclosing operations of individual companies.
- * New series. Data for finishing mills have replaced data for weaving mills, which are no longer available.
 # Includes data for items not shown separately.
 ¶ Cumulative ginnings to the end of month indicated.
 § Bales of 480 lbs.
 ‡ Beginning Jan. 1982, shipments include those for direct export; such shipments for 1980-81 were (thous. gross): 2,316 and 2,165 respectively.
 @ Annual totals are based on advance summaries and reflect revisions not distributed to the months.

Page S-31

1. Effective Jan. 1, 1978, includes reexports, formerly excluded.
 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. Monthly average.
 6. Less than 500 bales.
- § Bales of 480 lbs.
 ¶ 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).
 # Includes data not shown separately.

Page S-32

1. Annual total includes revisions not distributed to the months.
 2. Estimates of production, not factory sales.
 3. Beginning Jan. 1979, data reflect the inclusion of Volkswagens produced in the U. S. Beginning Jan. 1980, passenger vans (previously reported as passenger cars) are included with trucks.
 4. Monthly data for 1980 as published in earlier issues of the SURVEY, exclude exports for off-highway trucks; not strictly comparable with data shown for other periods. Such exports have since been included in the monthly data and are available upon request.
 5. Based on unadjusted data.
 6. See note "†" for this page.
 7. Effective with the September 1982 SURVEY, retail sales of trucks have been restated back to Jan. 1982 to include U.S.-built Mercedes-Benz trucks (19,501 - 33,000 lbs.); comparable stock data, prior to Aug. 1982, are not available.
 8. See last sentence of note "†" for this page.
- # 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.
 † Revisions, back to 1967 for some commodities, are available upon request. Effective with the July 1982 SURVEY, seasonally adjusted data for passenger cars have been revised back to Jan. 1977 and are available upon request. Effective with the Feb. 1983 SURVEY, seasonally adjusted data for trucks and buses have been revised back to Jan. 1980 and are available upon request.
 @ In the 1979 BUSINESS STATISTICS, 4th Qtr. 1977 should read "13,946" mil. \$.
 ‡ In the 1979 BUSINESS STATISTICS, annual data for 1977 should read "2,604.8" mil. \$.
 ## Revisions back to 1977 are available upon request.

Change in the Treatment of Homeownership in the CPI-U

Beginning with data for January 1983, the Consumer Price Index for All Urban Consumers (CPI-U), shown along with selected components on pages S-5 and S-6, reflects changes in the methodology used to compute the homeownership component. A rental equivalence measure is now used. Historical data for the CPI-U based on the new methodology will not be available. However, the change has been made in such a way that the indexes based on the new and old methodologies are equal for December 1982 (the so-called link month), and calculations based on the old method will be available for a 6-month overlap period (January through June 1983). The Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) will continue to be calculated by the old method through 1984. Beginning with data for January 1985, it will also reflect a rental equivalence measure of homeownership.

Under the old method of computation, the CPI homeownership component consisted of five subcomponents: the net price of homes purchased, the amount of mortgage interest expected to be paid over one-half the stated life of a home mortgage, property taxes, property insurance, and home maintenance and repairs. As such, it reflected investment elements, largely related to the purchase price and mortgage interest subcomponents, as well as consumption elements. The large weight of the homeownership component in the CPI and the sensitivity of the all-items index to the procedures used in its calculation focused attention on it.

A change to a flow-of-services-consumed treatment for homeownership has been under discussion for some time. Because such a treatment would abstract from investment elements of homeownership, it would be consistent with the design of the CPI as a measure of change in the prices of the market basket of services consumed in the base period. More recently, problems in obtaining reliable data for calculating the home price and mortgage interest cost subcomponents have highlighted the need for change. For home prices, the prices used in the CPI pertained only to purchases financed with FHA-insured mortgages. These prices represented a very small, specialized, and declining segment of the housing market, and thus were becoming less representative. For mortgage interest, new types of mortgages—involving variable rates, shorter financing terms, and other special arrangements—had become increasingly prominent, making the standard, long-term, fixed-rate

mortgage used in the CPI increasingly unrepresentative. Further, because of high interest rates and difficulties faced by home buyers in securing mortgages from financial institutions, many homeowners were offering to provide financing at below commercial rates in order to sell their homes; these arrangements were not reflected in the CPI.

Under the new method of computation, the CPI-U homeownership component has been replaced with a homeowners' cost component to reflect costs associated with homeowners' consumption of shelter service. (The new rental equivalence CPI-U is a descendant, with important refinements, of the CPI-U-X1, one of the experimental measures produced since 1980 and now discontinued.) In the new CPI-U, the homeowners' cost consists of owners' equivalent rent and household insurance. Owners' equivalent rent, the primary rental equivalence item, is a measure of the rental income owners forego when they choose to occupy their homes instead of renting them out. It replaces home purchase, home financing, and property tax of the old method, plus the portions of the property insurance, maintenance and repairs, and household appliances that are implicitly included in rents. The household insurance subcomponent is a measure of the portion of property insurance not implicitly included in rents—insurance for liability and house contents. Except for the portions now included in owners' equivalent rent, maintenance and repairs (now excluding capital improvement items) and household appliances are listed separately. As a result of the change in methodology, the overall weight of homeownership in the CPI-U declined, from about 26 to 14 percent.

The notes to pages S-5 and S-6 indicate which CPI-U series shown on those pages are affected by the change in methodology: the all-items index and series based on it; the indexes for commodities, services, and some major commodities and services aggregates; and the indexes for housing and its shelter and household furnishings and operation subcomponents. Two indexes—homeownership, and services less rent—are no longer available. In addition, a number of detailed and special-group indexes not shown on these pages are affected.

For a detailed discussion of the change in the treatment of homeownership, see "Changing the Homeownership Component of the Consumer Price Index to Rental Equivalence," *CPI Detailed Report*, January 1983: 1-8.

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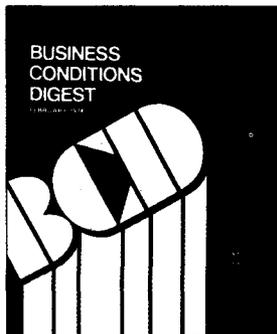


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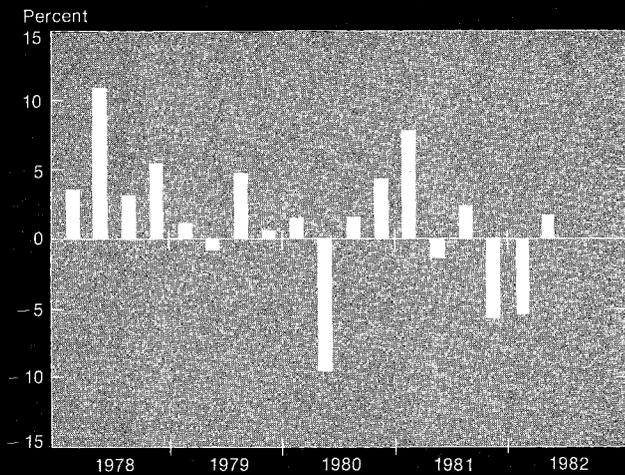
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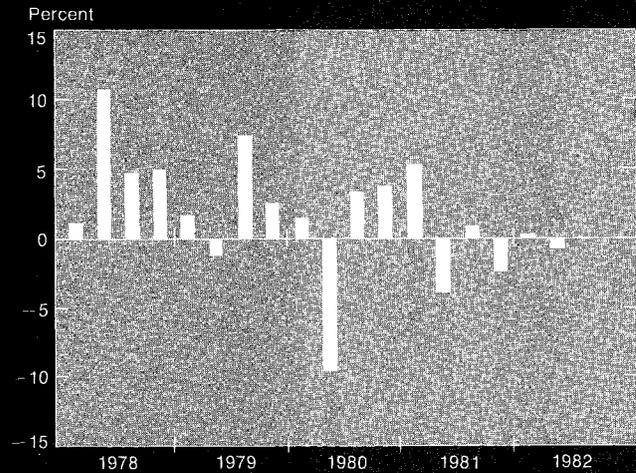
In the second quarter

- Real GNP increased $1\frac{1}{2}$ percent
- Real final sales declined $\frac{1}{2}$ percent
- GNP fixed-weighted price index increased $4\frac{1}{2}$ percent
- Real disposable personal income increased 3 percent

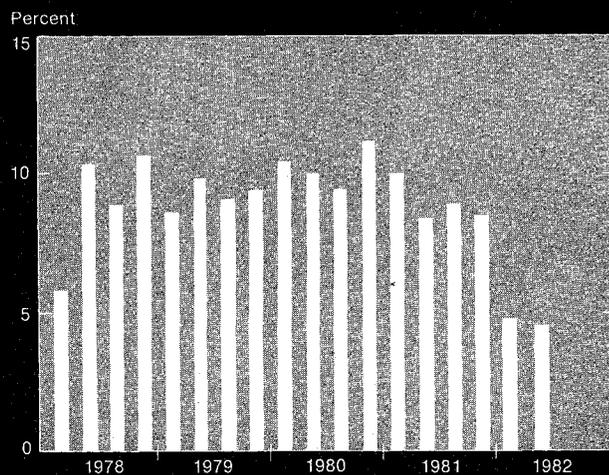
Real GNP



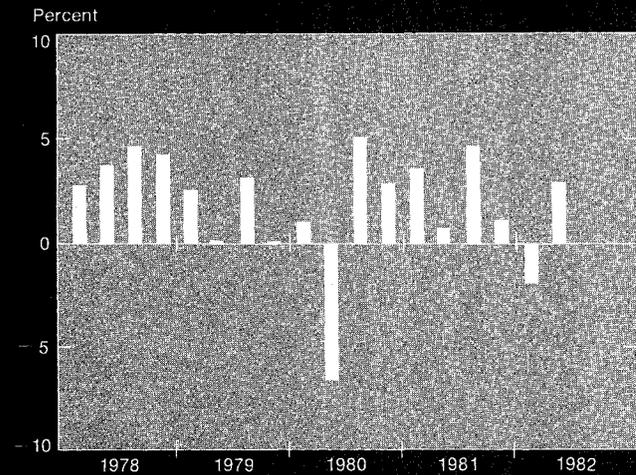
Real Final Sales



GNP Fixed-Weighted Price Index



Real Disposable Personal Income



Percent change from preceding quarter - seasonally adjusted at annual rates.