

FEDERAL RESERVE statistical release



G.17 (419) Supplement

For release at 9:15 a.m. (EST)
February 15, 2002

INDUSTRIAL PRODUCTION AND CAPACITY UTILIZATION

Industrial production declined 0.1 percent in January. Output fell 1/4 percent per month, on average, in the three months from November through January after having dropped 0.5 percent per month over the preceding twelve months. At 136.5 percent of its 1992 average, output in January was 5.2 percent below its level in January 2001. After decreases in fourteen of the preceding fifteen months, manufacturing output was unchanged; one factor preventing another drop in manufacturing was a substantial rebound in steel production after a large drop in December. The output of utilities decreased 0.7 percent, as temperatures remained unseasonably mild, and the output at mines declined 0.5 percent.

Capacity utilization for total industry edged down 0.2 percentage point in January, to 74.2 percent, a level well below its 1967–2001 average of 81.9 percent. Because investment is expected to remain weak, capacity is projected to expand only 1.0 percent in 2002, the slowest rate of increase for this statistic since it began in 1967.

(over)

INDUSTRIAL PRODUCTION AND CAPACITY UTILIZATION: SUMMARY

Seasonally adjusted

	Index, 1992=100				Percent change				Jan. 01 to Jan. 02
	2001 Oct. ^r	Nov. ^r	Dec. ^r	2002 Jan. ^p	2001 Oct. ^r	Nov. ^r	Dec. ^r	2002 Jan. ^p	
Industrial Production									
Total index	137.7	137.1	136.7	136.5	-6	-4	-3	-1	-5.2
Previous estimates	137.5	136.9	136.7		-7	-4	-1		
Major market groups:									
Products, total	126.8	126.7	126.6	126.2	-7	-1	-2	-3	-4.9
Consumer goods	119.6	119.9	120.8	120.3	-3	.3	.7	-5	-6
Business equipment	166.9	166.9	164.1	164.7	-9	.0	-1.7	.4	-12.7
Construction supplies	134.6	134.3	135.2	134.2	-2.5	-2	.7	-7	-3.3
Materials	155.9	154.3	153.4	153.8	-4	-1.0	-6	.2	-5.5
Major industry groups:									
Manufacturing	142.1	141.8	141.3	141.3	-5	-2	-4	.0	-5.1
Durable	173.9	174.0	173.4	173.6	-1.3	.0	-3	.1	-6.5
Nondurable	110.8	110.3	109.8	109.6	.3	-4	-4	-2	-3.5
Mining	99.5	98.8	97.4	96.9	-2.5	-7	-1.4	-5	-4.3
Utilities	119.4	115.9	117.2	116.5	1.1	-2.9	1.1	-7	-7.0
	Percent of capacity								Capacity growth
Capacity Utilization	Average 1967–01	1982 Low	1988–89 High	2001 Jan.	2001 Oct. ^r	Nov. ^r	Dec. ^r	2002 Jan. ^p	Jan. 01 to Jan. 02
Total industry	81.9	71.1	85.4	79.3	75.0	74.7	74.4	74.2	1.3
Previous estimates					74.9	74.5	74.4		
Manufacturing	80.9	69.0	85.7	77.6	73.3	73.1	72.8	72.7	1.2
Advanced processing	80.3	71.0	84.2	77.0	72.9	73.0	72.9	72.6	.7
Primary processing	82.0	65.7	88.3	78.4	73.9	73.1	72.6	72.9	2.0
Mining	87.6	80.3	88.0	90.5	88.4	87.7	86.3	85.9	.8
Utilities	87.6	75.9	92.6	93.4	85.7	82.9	83.4	82.6	5.2

Market Groups

The output of consumer goods fell 0.5 percent, thereby reversing about half of the gain recorded over the preceding two months. The production index for appliances, furniture, and carpeting advanced for a third month; the January reading was 1.5 percent above its level in January 2001. However, output indexes for automotive products and for household audio and video equipment fell after sharp year-end increases. Motor vehicle assemblies totaled 12.2 million units (annual rate) in January, just below the December level, but still substantially above the levels achieved during much of last year. The output of consumer nondurables fell 0.4 percent. The output of food and tobacco dipped after several months of increases; also contributing to the drop in nondurables was another substantial drop in production in the category covering periodicals, books, and cards.

The production of business equipment advanced 0.4 percent; an increase in the production of industrial and other equipment was mostly offset by a drop in transit equipment. In the industrial and other equipment category, the output of farm machinery and construction equipment rebounded, although their output indexes remained well below their year-ago levels. The continued retrenchment in the production of commercial aircraft and related equipment led the overall drop in the output of transit equipment. The output of information-processing equipment was little changed; the production of communications equipment continued to contract significantly, but the output of other equipment, including computers, moved up further. The production of defense and space equipment climbed 1.2 percent, its fifth consecutive monthly increase.

The production indexes for construction supplies and for business supplies dropped about 3/4 percent. The decline in construction supplies followed an increase of similar size in December; output for this group has changed little, on net, since October. The output of business supplies has fallen between 0.7 percent and 1.1 percent in each of the past three months; it has dropped almost 0.7 percent per month, on average, over the past twelve months, and decreases have been widespread among its components.

The 0.2 percent rise in the output of materials was only the second monthly increase for the category since September 2000. The production of both durable and nondurable materials advanced 0.3 percent in January, while the index for energy materials edged up 0.1 percent. Among durables, a rebound in steel output and a gain in the manufacture of semiconductors were partly offset by a decrease in the production of motor vehicle parts. The output of semiconductors and related electronic components has risen more than 5 percent since its trough in August 2001. An increase in chemical materials, which reversed just part of the sharp loss posted over the preceding two months, contributed importantly to the gain in the output of nondurable materials.

Industry Groups

Manufacturing output was unchanged as a 0.1 percent rise in the production of durables was offset by a decrease of 0.2 percent in nondurables. In addition to the rebound in iron and steel, other notable gains among durable goods industries occurred in furniture and fixtures; stone, clay, and glass products; and industrial machinery and computer equipment. The output of motor vehicles and parts fell 1.2 percent; even so, it is one of only two major durable goods industries (along with lumber and products) with output indexes above their levels in January 2001. Among nondurables, the largest decreases in January were in printing and publishing, textiles, and food. The output indexes for textiles and for printing and publishing have fallen about 10 percent or more since January 2001; apparel and leather products have fallen by like amounts.

Capacity utilization in manufacturing edged down 0.1 percentage point, to 72.7 percent, a level about 8 percentage points below its 1967–2001 average. The operating rate for advanced-processing industries decreased 0.3 percentage point, while the rate for primary-processing industries increased 0.3 percentage point. Operating rates for all major manufacturing industries with the exception of petroleum refining remain below their long-term averages. The industry with the lowest operating rate is electrical machinery, which has had steep declines in the output of communications equipment and of semiconductors and related equipment since the beginning of 2001.

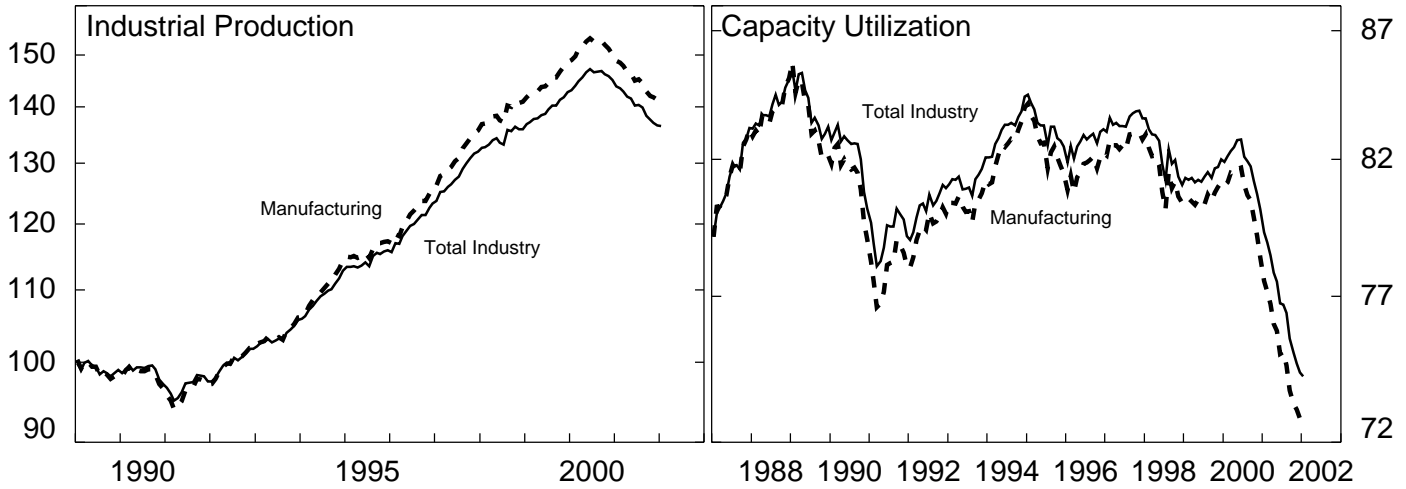
Relatively warm temperatures and the low levels of activity at factories have pushed the operating rate for utilities about 5 percentage points below its long-term average. The operating rate for mining has fallen about 6 percentage points since last spring, to a level 2 percentage points below its long-term average.

Industrial Production and Capacity Utilization

(January data, seasonally adjusted)

Ratio scale, 1992=100

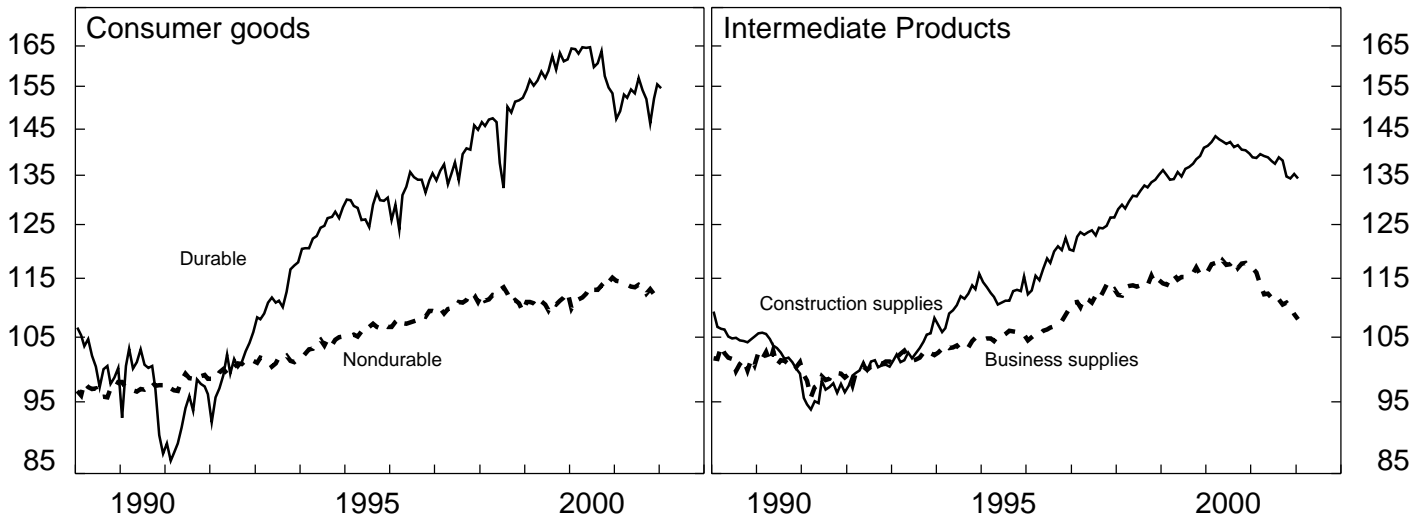
Percent of capacity



Ratio scale, 1992=100

Industrial Production, Market Groups

Ratio scale, 1992=100



Ratio scale, 1992=100

Ratio scale, 1992=100

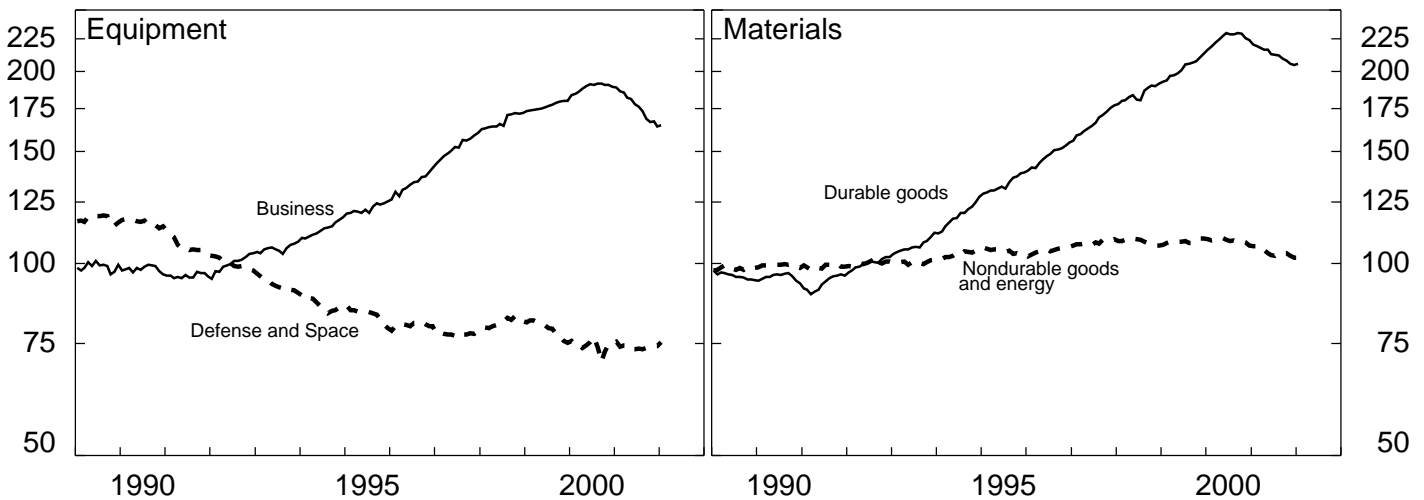


Table 2B
INDUSTRIAL PRODUCTION: INDUSTRY GROUPS

Percent change

Item	SIC	2000 Q4 to 2001 Q4	Seasonally adjusted annual rate				Seasonally adjusted				Not seasonally adjusted				Jan. 01 to Jan. 02
			2001 Q1	Q2	Q3	Q4 ^r	2001 Oct. ^r	Nov. ^r	Dec. ^r	2002 Jan. ^p	2001 Oct. ^r	Nov. ^r	Dec. ^r	2002 Jan. ^p	
Total index		-5.9	-6.1	-5.9	-4.7	-6.9	-6	-4	-3	-1	-1.4	-2.6	-1.6	.4	-5.2
Manufacturing		-6.2	-7.1	-6.2	-4.9	-6.6	-5	-2	-4	.0	-1.1	-3.2	-3.0	-4	-5.1
Primary processing		-7.3	-11.2	-7.0	-4.2	-6.6	-6	-9	-6	.5	-2.2	-2.5	-2.2	-1.3	-5.2
Advanced processing		-5.5	-4.2	-5.7	-5.4	-6.6	-5	.3	-2	-4	-4	-3.6	-3.5	.2	-5.1
Durable		-8.4	-9.7	-6.5	-7.7	-9.9	-1.3	.0	-3	.1	-2.1	-2.7	-2.7	-.9	-6.5
Lumber and products	24	-7	-13.0	11.3	8.4	-7.3	-3.1	.7	.1	-5	-2.6	-4.6	-5.1	1.1	3.5
Furniture and fixtures	25	-7.3	-6.4	-8.5	-7.7	-6.4	-1.2	1.4	.9	.9	-4.7	-3.6	-.5	-1.3	-3.8
Stone, clay, and glass products	32	-3.3	.4	-1.7	-5.3	-6.4	.3	-1.5	-2.1	.9	.5	-6.3	-6.2	-.6	-4.3
Non-durable		-14.3	-16.8	-1.1	-8.6	-28.2	-2.4	-3.9	-6.1	5.2	-3.0	-5.2	-8.0	7.4	-12.9
Iron and steel	331,2	-12.9	-18.2	13.3	-5.2	-34.5	-2.0	-3.0	-11.4	11.6	-2.4	-5.4	-13.1	14.1	-8.3
Raw steel		-13.3	-3.2	-8.8	9.4	-41.5	-6.0	-4.4	-10.1	20.1	-6.3	-7.8	-11.5	26.3	-3.6
Nonferrous	333-6,9	-15.6	-15.2	-14.2	-12.1	-20.7	-2.9	-4.7	-.2	-1.1	-3.6	-5.0	-2.5	1.0	-17.6
Fabricated metal products	34	-6.6	-7.7	-9.7	-.7	-7.9	-1.0	-.3	.9	-.7	-1.6	-1.3	-.2	-4.3	-6.5
Industrial machinery and equipment	35	-11.9	-3.9	-16.3	-14.4	-12.8	-1.1	.0	-1.5	.8	-.5	-2.2	-3.3	1.1	-11.7
Computer and office equip.	357	-8.2	-3.9	-16.3	-14.7	3.6	1.3	1.7	1.9	1.1	6.9	2.0	-2.4	-5.9	-5.5
Electrical machinery	36	-14.7	-15.0	-23.3	-17.5	-1.3	.0	-.3	-.1	-.6	-8.7	1.0	4.9	-12.4	-13.6
Semiconductors and related electronic components	3672-9	-15.5	-16.2	-29.8	-22.2	11.6	2.0	-.4	.3	1.5	-16.2	5.5	14.8	-20.5	-11.5
Transportation equipment	37	-3.8	-14.5	16.9	-1.0	-13.3	-3.1	2.2	1.3	-1.0	1.5	-4.5	-8.2	7.5	3.8
Motor vehicles and parts	371	-.4	-23.1	33.6	6.6	-10.0	-4.2	5.5	3.8	-1.2	3.1	-5.9	-12.3	14.1	15.8
Autos and light trucks		5.3	-15.8	35.6	14.8	-6.3	-5.8	10.3	4.3	-1.4	2.8	-4.7	-13.4	13.8	20.6
Aerospace and misc.	372-6,9	-9.0	.1	-4.5	-12.0	-18.5	-1.2	-2.9	-2.8	-.6	-1.1	-2.0	-1.6	-2.2	-12.6
Instruments	38	-4.7	.0	-7.9	-7.8	-2.9	.8	-.4	-.7	.5	-1.6	-2.8	-.3	-1.5	-5.7
Miscellaneous	39	-9.1	-8.5	-4.0	-7.9	-15.7	-.8	-2.7	2.4	.0	.0	-2.2	1.4	-4.2	-7.8
Nondurable		-3.4	-3.7	-5.9	-1.6	-2.6	.3	-.4	-.4	-.2	.1	-3.7	-3.4	.3	-3.5
Foods	20	-7	-1.5	-2.1	-.6	1.3	.5	.5	1.0	-.7	-.9	-4.4	-2.7	-1.7	.1
Tobacco products	21	-1.2	7.0	-4.0	-.8	-6.3	.2	-.1	-2.1	.8	9.6	-8.0	-22.4	28.3	-5.0
Textile mill products	22	-10.8	-4.0	-14.3	-11.4	-13.0	-3.5	-1.5	1.0	-1.1	.2	-8.6	-8.8	6.8	-11.6
Apparel products	23	-11.0	-3.7	-6.9	-15.4	-17.3	-1.7	-.7	.7	.1	-2.9	-2.0	.6	-4.1	-10.0
Paper and products	26	-6.0	-11.5	-1.4	-1.4	-9.4	-1.4	-1.7	-2.8	-.1	.6	-5.0	-4.8	4.4	-7.1
Printing and publishing	27	-7.9	-5.5	-13.2	-5.7	-7.1	.1	-1.0	-1.4	-1.2	-1.9	-4.3	-3.1	-5.2	-9.9
Chemicals and products	28	.1	-3.3	-6.4	5.0	5.6	1.8	-.3	-.5	.4	1.8	-2.3	-1.3	1.7	1.2
Petroleum products	29	-1.2	-1.1	2.3	-7.7	1.8	2.5	-.8	-1.6	1.5	-.4	-.8	-3.2	-4.3	-.5
Rubber and plastics products	30	-5.2	-5.4	-5.5	-.9	-9.0	-1.5	-.8	.9	-.3	-1.8	-1.3	.6	-2.5	-4.5
Leather and products	31	-15.1	-9.6	-21.1	-10.6	-18.4	-2.3	-2.2	-.5	2.8	-3.0	-2.4	-.9	-1.9	-11.5
Mining		-2.5	3.5	3.5	-4.1	-12.2	-2.5	-.7	-1.4	-.5	-1.3	-2.4	-5.2	-.3	-4.3
Metal mining	10	-13.6	-10.2	-5.7	-5.9	-30.1	-6.2	-6.3	-1.1	-.2	-8.2	-3.8	-1.2	-2.7	-18.0
Coal mining	12	-.5	30.5	2.4	-10.5	-18.2	-4.7	.1	-.8	-.9	-2.8	-2.0	-5.1	1.8	-7.9
Oil and gas extraction	13	-2.6	.4	3.6	-2.5	-11.3	-2.3	-.6	-1.7	-.4	-1.3	-.6	-2.9	.6	-3.6
Stone and earth minerals	14	.7	14.8	7.4	-10.6	-6.6	-1.2	-.8	.3	-.9	2.7	-13.7	-23.1	-9.5	-1.6
Utilities		-5.7	-3.4	-10.7	-3.0	-5.3	1.1	-2.9	1.1	-.7	-5.9	4.9	19.5	9.5	-7.0
Electric	491,3pt	-3.9	-2.0	-6.2	-4.7	-2.8	1.1	-1.3	.2	.3	-10.9	-3.1	10.1	6.0	-4.5
Gas	492,3pt	-11.5	-8.0	-24.6	2.9	-14.1	1.0	-8.5	4.8	-4.5	29.9	45.0	51.6	18.4	-15.5
SPECIAL AGGREGATES															
Computers, communications eq. and semiconductors ¹		-15.9	-13.6	-25.9	-21.8	.0	.8	-.3	.0	.6	-8.1	3.0	7.2	-14.5	-13.8
Manufacturing excluding:															
Motor vehicles and parts		-6.6	-5.8	-8.7	-5.8	-6.3	-.3	-.6	-.7	.1	-1.4	-2.9	-2.2	-1.4	-6.5
Computer and office equipment		-6.2	-7.1	-6.0	-4.7	-6.8	-.6	-.2	-.4	-.1	-1.2	-3.3	-3.0	-.2	-5.1
Computers and semiconductors ¹		-5.6	-6.6	-4.5	-3.8	-7.5	-.7	-.2	-.4	-.1	-.5	-3.6	-3.8	.8	-4.7
Computers, communications eq. and semiconductors ¹		-5.2	-6.3	-3.9	-3.2	-7.1	-.7	-.2	-.4	-.1	-.5	-3.7	-3.9	.9	-4.2

1. Semiconductors include related electronic components.

Note—Percent changes shown in the first and last columns are based on seasonally adjusted data.

Table 4
INDUSTRIAL CAPACITY: MANUFACTURING, MINING, AND UTILITIES

Item	SIC	Percent change								Capacity indexes						
		Annual rate			Fourth quarter to fourth quarter					Percent of 1992 output						
		1967- 2002 Ave.	1967- 1975 Ave.	1975- 2002 Ave.	1998	1999	2000	2001	2002 ^p	2001 Jan.	2001 Aug.	Sept.	Oct.	Nov.	Dec.	2002 Jan.
Total industry		3.1	3.8	2.9	6.4	3.9	4.0	1.7	1.0	181.5	183.2	183.3	183.5	183.6	183.8	183.9
Manufacturing		3.4	4.0	3.3	7.2	4.5	4.7	1.6	1.0	192.0	193.6	193.8	193.9	194.0	194.2	194.3
Primary processing		3.8	4.4	3.7	9.8	5.0	7.8	2.7	1.9	220.6	223.8	224.1	224.3	224.5	224.8	225.0
Advanced processing		3.2	3.7	3.0	5.5	4.2	2.9	.9	.3	176.0	176.9	177.0	177.1	177.2	177.3	177.3
Durable		4.2	3.7	4.3	10.4	6.6	8.1	3.0	1.9	243.6	247.5	247.9	248.1	248.5	248.8	249.1
Lumber and products	24	1.9	2.9	1.5	4.1	.5	2.1	1.0	-1	148.0	148.8	148.9	149.0	149.1	149.2	149.2
Furniture and fixtures	25	3.3	4.5	2.8	9.2	4.5	3.1	.5	.1	185.7	186.2	186.1	186.1	186.1	186.2	186.1
Stone, clay, and glass products	32	1.6	2.5	1.3	3.8	2.9	2.6	1.9	1.3	161.5	163.2	163.5	163.7	163.9	164.1	164.3
Primary metals	33	.4	1.7	-1	3.4	3.0	.3	-6	-4.6	151.1	150.6	150.5	150.4	150.4	150.3	149.9
Iron and steel	331,2	-.4	.7	-8	2.8	1.9	-1	-1.5	-8.1	148.1	146.8	146.6	146.4	146.2	146.0	145.2
Raw steel		-1.0	.3	-1.4	2.5	1.7	-.8	-2.8	-9.5	135.4	133.2	132.9	132.5	132.2	131.9	131.0
Nonferrous	333-6,9	1.7	3.8	1.0	4.4	4.4	1.0	.5	-7	155.0	155.6	155.7	155.7	155.8	155.9	155.9
Primary copper	3331	.1	1.8	-4	8.3	-1.2	-7.5	-5.3	-5.0	135.2	131.0	130.5	129.9	129.4	128.8	128.3
Primary aluminum	3334	1.1	5.2	-2	.0	1.3	.2	.4	.5	106.0	106.3	106.3	106.4	106.4	106.5	106.5
Fabricated metal products	34	2.0	3.1	1.7	7.0	2.0	2.8	.7	.4	179.6	180.2	180.2	180.2	180.2	180.3	180.3
Industrial machinery and equipment	35	5.7	4.7	6.0	9.9	11.4	8.5	2.6	.2	294.4	298.8	299.2	299.5	299.8	300.1	300.2
Computer and office equip.	357	21.6	12.0	25.0	24.6	46.1	37.6	9.6	9.7	1593.7	1674.8	1682.6	1690.7	1699.3	1708.6	1718.7
Electrical machinery	36	10.1	5.9	11.5	27.7	16.3	30.8	9.9	9.3	708.1	745.5	748.0	750.0	752.3	755.1	758.7
Semiconductors and related electronic components	3672-9	21.5	13.1	24.5	56.0	27.6	54.3	16.8	18.9	2552.5	2780.6	2796.0	2807.7	2821.4	2837.7	2864.0
Transportation equipment	37	2.7	3.0	2.6	5.4	2.3	1.8	1.5	1.3	175.5	176.9	177.1	177.3	177.5	177.8	177.9
Motor vehicles and parts	371	3.5	4.4	3.2	6.3	3.2	2.3	2.6	2.0	218.2	221.5	222.0	222.5	222.9	223.4	223.8
Autos and light trucks ¹					6.0	2.9	2.7	3.8	4.2	195.7	200.2	200.8	201.4	202.1	202.7	203.3
Aerospace and misc.	372-6,9	1.6	1.1	1.7	4.0	1.1	1.1	-2	.2	135.4	135.2	135.2	135.1	135.1	135.1	135.1
Instruments	38	4.3	7.6	3.2	6.9	2.7	1.1	.1	-6	155.0	155.1	155.0	155.0	155.0	155.0	155.0
Miscellaneous	39	2.0	4.4	1.2	2.4	2.9	.7	.2	.1	157.9	158.1	158.1	158.2	158.2	158.2	158.3
Nondurable		2.5	4.3	1.9	3.2	1.7	.4	-2	-2	143.1	142.9	142.9	142.9	142.9	142.9	142.9
Foods	20	2.2	3.0	1.9	2.4	2.7	.6	.4	.2	142.5	142.9	142.9	143.0	143.0	143.1	143.1
Textile mill products	22	1.4	4.4	.4	-1.1	-1.1	-2.2	-3.3	-3.9	118.7	116.4	116.0	115.7	115.4	115.0	114.7
Apparel products	23	1.0	2.3	.6	2.3	-.1	-.2	-2.1	-2.5	136.1	134.4	134.1	133.8	133.5	133.3	133.0
Paper and products	26	2.6	3.9	2.2	2.7	1.5	1.0	.6	-.7	138.4	138.8	138.9	139.0	139.0	139.1	139.1
Pulp and paper	261-3	2.1	2.9	1.9	.3	1.2	1.0	.6	-1.1	125.1	125.6	125.6	125.7	125.7	125.8	125.8
Printing and publishing	27	2.5	3.0	2.3	3.2	2.4	-.4	-.6	-1.5	136.4	136.0	135.9	135.9	135.8	135.8	135.6
Chemicals and products	28	3.5	6.8	2.4	5.3	2.1	.7	.4	1.5	158.1	158.5	158.5	158.5	158.6	158.6	158.7
Plastics materials	2821	5.8	12.7	3.7	5.5	3.2	1.8	1.3	.8	151.9	153.0	153.1	153.3	153.4	153.6	153.7
Synthetic fibers	2823,4	3.0	9.7	.9	3.8	-.3	-4.9	-7.3	1.8	118.8	113.6	112.9	112.2	111.4	110.7	110.6
Petroleum products	29	1.4	4.2	.6	2.2	1.6	.5	.7	.6	122.0	122.4	122.5	122.6	122.7	122.7	122.8
Rubber and plastics products	30	5.1	8.4	4.1	5.3	4.0	3.3	1.9	.5	173.3	175.2	175.4	175.6	175.9	176.1	176.3
Leather and products	31	-3.5	-1.5	-4.2	-3.8	-2.6	-4.8	-7.3	-8.3	93.8	89.7	89.2	88.6	88.0	87.4	86.8
Mining		.0	-.1	.0	-.6	-2.4	-1.9	.6	.3	111.9	112.2	112.3	112.5	112.6	112.8	112.8
Metal mining	10	1.0	.5	1.1	-.1	-1.1	-2.4	-2.8	-1.1	117.4	115.4	115.2	114.9	114.7	114.5	114.3
Coal mining	12	2.1	2.4	2.0	.4	.4	1.3	1.2	.6	128.2	129.2	129.3	129.4	129.5	129.6	129.7
Oil and gas extraction	13	-.6	-1.0	-.5	-1.8	-3.4	-2.2	.8	.6	104.5	104.9	105.0	105.2	105.4	105.6	105.7
Oil and gas well drilling	138	.7	.8	.7	-1.1	-1.7	.9	7.2	1.7	173.0	180.3	181.5	182.7	183.9	185.1	185.7
Stone and earth minerals	14	1.4	2.6	1.0	3.0	1.7	.5	.7	.3	151.5	152.1	152.1	152.2	152.3	152.4	152.4
Utilities		2.8	6.1	1.7	.1	2.4	2.9	5.1	4.0	134.0	138.1	138.7	139.3	139.9	140.5	141.0
Electric	491,3pt	3.7	7.8	2.4	.2	2.4	3.2	6.4	5.1	132.4	137.4	138.2	139.0	139.8	140.6	141.2
Gas	492,3pt	.3	2.3	-.3	.6	.2	-.2	-.2	.3	135.9	135.8	135.7	135.7	135.7	135.7	135.7
SPECIAL AGGREGATES																
Computers, communications eq. and semiconductors ²		17.3	9.5	20.0	36.6	28.6	42.9	12.7	12.9	1527.1	1630.9	1638.3	1644.7	1651.8	1660.1	1671.0
Manufacturing ex. computers, communications eq., and semiconductors ²		2.3	3.7	1.8	4.4	2.0	1.0	.3	-.1	155.1	155.3	155.3	155.4	155.4	155.4	155.4

p. Preliminary estimate for current year.

1. Series begins in 1977.

2. Semiconductors include related electronic components.

Table 5A
INDUSTRIAL PRODUCTION, CAPACITY AND UTILIZATION FOR TOTAL INDUSTRY: HISTORICAL DATA

Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
Industrial Production, Percent Change¹																	
1990	-.5	.5	.5	-.6	.4	.0	.0	.2	.1	-.6	-1.3	-.6	2.0	.6	1.0	-5.8	-.2
1991	-.5	-.8	-.9	.3	.8	1.2	.1	.1	1.0	-.1	-.1	-.6	-8.3	1.5	6.2	1.1	-2.0
1992	.0	.5	.9	.7	.3	-.1	.9	-.3	.4	.5	.6	.0	.6	6.6	3.3	4.4	3.1
1993	.3	.4	.2	.3	-.4	.2	.2	-.2	1.0	.4	.5	.8	3.6	1.5	1.8	6.5	3.4
1994	.2	.3	.8	.6	.7	.5	.3	.4	.2	.8	.6	1.1	5.7	7.6	5.2	7.5	5.5
1995	.5	.0	.1	-.2	.3	.4	-.5	1.3	.4	-.1	.3	.2	5.9	.8	3.6	3.6	4.8
1996	-.3	1.2	-.1	1.0	.7	.7	.2	.6	.5	.0	1.0	.6	2.9	8.4	6.3	5.8	4.6
1997	.4	1.1	.1	.6	.3	.5	.5	1.0	.7	.7	.6	.2	7.7	6.0	7.7	8.2	6.9
1998	.6	.1	.3	.5	.3	-.6	-.2	1.9	-.2	.6	-.4	.0	4.5	3.2	2.8	3.5	5.1
1999	.7	.2	.4	.1	.4	.2	.6	.5	.0	.8	.4	.7	3.6	3.3	4.7	5.8	3.7
2000	.2	.6	.6	.5	.7	.4	-.4	.1	.1	-.4	-.3	-.4	5.8	7.0	.6	-2.6	4.5
2001	-.8	-.3	-.4	-.6	-.3	-.9	.1	-.3	-1.1	-.6	-.4	-.3	-6.1	-5.9	-4.7	-6.9	-3.9
2002	-.1																
Industrial Production																	
1990	98.6	99.1	99.6	99.0	99.4	99.3	99.3	99.5	99.6	99.1	97.7	97.2	99.1	99.2	99.5	98.0	98.9
1991	96.7	95.9	95.0	95.4	96.1	97.2	97.3	97.4	98.4	98.3	98.1	97.5	95.9	96.2	97.7	98.0	97.0
1992	97.5	98.0	98.9	99.6	99.9	99.7	100.6	100.3	100.7	101.2	101.8	101.8	98.1	99.7	100.5	101.6	100.0
1993	102.2	102.6	102.8	103.1	102.7	102.9	103.2	103.0	104.0	104.4	104.9	105.7	102.5	102.9	103.4	105.0	103.4
1994	105.9	106.3	107.2	107.8	108.5	109.1	109.4	109.9	110.1	111.0	111.7	112.9	106.5	108.4	109.8	111.8	109.1
1995	113.4	113.4	113.5	113.3	113.6	114.1	113.5	115.0	115.5	115.4	115.8	116.0	113.4	113.7	114.7	115.7	114.4
1996	115.6	117.1	116.9	118.1	118.9	119.8	120.0	120.7	121.4	121.4	122.6	123.3	116.5	118.9	120.7	122.4	119.6
1997	123.7	125.1	125.3	126.1	126.5	127.2	127.8	129.1	130.0	130.9	131.7	132.0	124.7	126.6	129.0	131.5	127.9
1998	132.7	132.8	133.3	134.0	134.4	133.6	133.3	135.9	135.6	136.4	135.9	136.0	133.0	134.0	134.9	136.1	134.5
1999	136.9	137.2	137.8	137.9	138.5	138.8	139.6	140.2	140.3	141.3	141.9	142.9	137.3	138.4	140.0	142.0	139.4
2000	143.2	144.0	144.9	145.6	146.6	147.2	146.5	146.7	146.8	146.3	145.8	145.1	144.0	146.5	146.7	145.7	145.7
2001	143.9	143.5	142.9	142.0	141.6	140.3	140.4	140.0	138.5	137.7	137.1	136.7	143.5	141.3	139.6	137.1	140.1
2002	136.5																
Capacity																	
1990	119.2	119.3	119.5	119.7	119.9	120.1	120.2	120.4	120.6	120.8	121.0	121.2	119.3	119.9	120.4	121.0	120.2
1991	121.4	121.6	121.7	121.9	122.1	122.2	122.4	122.6	122.7	122.9	123.0	123.2	121.6	122.1	122.6	123.0	122.3
1992	123.4	123.6	123.8	124.1	124.3	124.5	124.7	124.9	125.2	125.4	125.6	125.8	123.6	124.3	124.9	125.6	124.6
1993	126.1	126.3	126.5	126.7	127.0	127.2	127.4	127.7	127.9	128.2	128.5	128.8	126.3	127.0	127.7	128.5	127.3
1994	129.1	129.4	129.8	130.1	130.5	130.9	131.4	131.8	132.2	132.7	133.2	133.7	129.4	130.5	131.8	133.2	131.2
1995	134.2	134.8	135.3	135.8	136.4	137.0	137.6	138.2	138.8	139.4	140.0	140.6	134.8	136.4	138.2	140.0	137.3
1996	141.2	141.9	142.5	143.1	143.8	144.4	145.0	145.7	146.3	147.0	147.6	148.3	141.9	143.8	145.7	147.6	144.7
1997	149.0	149.7	150.4	151.2	151.9	152.7	153.5	154.4	155.2	156.1	157.0	157.9	149.7	151.9	154.4	157.0	153.3
1998	158.9	159.8	160.7	161.6	162.5	163.3	164.2	164.9	165.7	166.4	167.1	167.8	159.8	162.5	164.9	167.1	163.6
1999	168.4	168.9	169.5	170.0	170.5	171.0	171.5	172.0	172.5	173.1	173.6	174.2	168.9	170.5	172.0	173.6	171.3
2000	174.8	175.4	176.0	176.6	177.2	177.9	178.5	179.0	179.6	180.1	180.6	181.1	175.4	177.2	179.0	180.6	178.1
2001	181.5	181.8	182.2	182.4	182.6	182.8	183.0	183.2	183.3	183.5	183.6	183.8	181.8	182.6	183.2	183.6	182.8
2002	183.9																
Utilization																	
1990	82.7	83.0	83.3	82.7	82.9	82.7	82.6	82.6	82.6	82.0	80.8	80.2	83.0	82.8	82.6	81.0	82.3
1991	79.6	78.9	78.1	78.2	78.7	79.6	79.5	79.5	80.2	80.0	79.8	79.2	78.9	78.8	79.7	79.6	79.3
1992	79.0	79.3	79.8	80.3	80.3	80.1	80.7	80.3	80.4	80.7	81.0	80.9	79.4	80.2	80.5	80.9	80.2
1993	81.1	81.3	81.2	81.4	80.9	80.9	81.0	80.6	81.3	81.4	81.6	82.1	81.2	81.1	81.0	81.7	81.2
1994	82.1	82.1	82.6	82.8	83.1	83.3	83.3	83.4	83.3	83.6	83.8	84.4	82.3	83.1	83.3	84.0	83.2
1995	84.5	84.2	83.9	83.4	83.3	83.3	82.5	83.2	83.2	82.8	82.7	82.5	84.2	83.3	83.0	82.7	83.3
1996	81.9	82.5	82.0	82.5	82.7	82.9	82.7	82.9	83.0	82.6	83.0	83.1	82.1	82.7	82.9	82.9	82.7
1997	83.1	83.6	83.3	83.4	83.3	83.3	83.2	83.6	83.7	83.8	83.9	83.6	83.3	83.3	83.5	83.8	83.5
1998	83.6	83.1	82.9	82.9	82.7	81.8	81.2	82.4	81.8	82.0	81.3	81.1	83.2	82.5	81.8	81.5	82.2
1999	81.3	81.2	81.3	81.1	81.2	81.2	81.4	81.5	81.3	81.7	81.7	82.0	81.3	81.2	81.4	81.8	81.4
2000	81.9	82.1	82.3	82.5	82.7	82.8	82.1	81.9	81.7	81.2	80.7	80.2	82.1	82.6	81.9	80.7	81.8
2001	79.3	78.9	78.5	77.8	77.5	76.7	76.7	76.4	75.5	75.0	74.7	74.4	78.9	77.4	76.2	74.7	76.8
2002	74.2																

1. Quarterly percent changes are at annual rates. Annual percent changes are calculated from annual averages.

Table 5B
INDUSTRIAL PRODUCTION, CAPACITY AND UTILIZATION FOR MANUFACTURING: HISTORICAL DATA

Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
Industrial Production, Percent Change¹																	
1990	-2	.9	.3	-8	.4	-1	.0	.3	-1	-6	-1.3	-6	2.9	-.1	.8	-6.3	-.5
1991	-9	-7	-1.1	.3	.7	1.4	.2	.2	1.1	-1	-2	-.5	-9.7	1.2	7.8	1.7	-2.4
1992	.1	.7	1.0	.6	.4	.0	.9	-.3	.3	.5	.6	-.1	2.0	7.4	4.1	3.7	4.0
1993	.7	.2	.2	.5	-.3	.0	.2	-.3	1.1	.4	.5	.9	4.2	2.1	1.3	6.9	3.7
1994	.1	.4	1.1	.8	.8	.3	.5	.6	.3	.9	.8	1.1	5.9	9.4	6.0	9.0	6.1
1995	.6	-.1	.2	-.3	.1	.5	-.7	1.2	.7	.0	.1	.1	6.4	.4	3.0	4.2	5.3
1996	-.3	1.2	-.2	1.2	.8	.9	.6	.6	.6	.0	1.0	.7	2.4	9.2	8.4	6.2	4.9
1997	.4	1.2	.3	.5	.4	.7	.4	1.3	.6	.6	.7	.3	8.8	6.8	8.9	8.7	7.9
1998	.9	.0	.2	.7	.2	-.7	-.2	2.3	-.2	.8	-.2	.2	6.0	3.0	3.2	5.2	5.9
1999	.6	.4	.2	.2	.6	.1	.4	.8	.0	.8	.6	.6	3.9	3.6	4.8	6.9	4.2
2000	.3	.5	.9	.3	.7	.5	-.4	-.1	.1	-.5	-.5	-.7	6.3	7.1	.4	-4.0	4.8
2001	-.8	-.3	-.4	-.8	-.2	-1.0	.2	-.5	-1.1	-.5	-.2	-.4	-7.1	-6.2	-4.9	-6.6	-4.4
2002	.0																
Industrial Production																	
1990	98.1	99.0	99.3	98.6	99.0	98.9	98.8	99.1	99.0	98.4	97.2	96.6	98.8	98.8	99.0	97.4	98.5
1991	95.8	95.1	94.1	94.4	95.0	96.3	96.6	96.8	97.8	97.8	97.6	97.1	95.0	95.2	97.0	97.5	96.2
1992	97.2	97.8	98.8	99.4	99.8	99.9	100.8	100.5	100.8	101.3	101.9	101.8	97.9	99.7	100.7	101.6	100.0
1993	102.5	102.7	102.9	103.4	103.1	103.1	103.3	103.0	104.2	104.6	105.2	106.1	102.7	103.2	103.5	105.3	103.7
1994	106.2	106.6	107.7	108.6	109.4	109.7	110.3	110.9	111.3	112.2	113.1	114.3	106.8	109.2	110.8	113.2	110.0
1995	115.0	114.9	115.1	114.8	115.0	115.5	114.7	116.1	117.0	117.0	117.2	117.3	115.0	115.1	116.0	117.2	115.8
1996	117.0	118.4	118.1	119.5	120.4	121.5	122.2	122.9	123.7	123.7	124.9	125.8	117.9	120.5	122.9	124.8	121.5
1997	126.3	127.8	128.2	128.9	129.4	130.4	130.9	132.6	133.5	134.3	135.3	135.7	127.4	129.6	132.3	135.1	131.1
1998	136.9	137.0	137.3	138.2	138.5	137.6	137.2	140.3	140.0	141.1	140.8	141.0	137.1	138.1	139.2	141.0	138.8
1999	141.8	142.4	142.7	143.0	143.8	143.9	144.4	145.6	145.7	146.8	147.7	148.6	142.3	143.6	145.2	147.7	144.7
2000	149.0	149.8	151.1	151.6	152.6	153.3	152.7	152.6	152.8	152.0	151.2	150.1	149.9	152.5	152.7	151.1	151.6
2001	148.9	148.4	147.9	146.7	146.4	145.0	145.2	144.5	142.9	142.1	141.8	141.3	148.4	146.0	144.2	141.8	144.8
2002	141.3																
Capacity																	
1990	119.9	120.1	120.3	120.5	120.7	120.9	121.1	121.3	121.5	121.7	122.0	122.2	120.1	120.7	121.3	122.0	121.0
1991	122.4	122.6	122.8	123.0	123.1	123.3	123.5	123.7	123.8	124.0	124.2	124.3	122.6	123.1	123.7	124.2	123.4
1992	124.6	124.8	125.0	125.3	125.5	125.8	126.0	126.2	126.5	126.7	127.0	127.2	124.8	125.5	126.2	127.0	125.9
1993	127.5	127.8	128.0	128.3	128.5	128.8	129.1	129.3	129.6	129.9	130.3	130.6	127.8	128.5	129.3	130.3	129.0
1994	131.0	131.3	131.7	132.1	132.6	133.0	133.5	134.0	134.5	135.0	135.6	136.1	131.3	132.6	134.0	135.6	133.4
1995	136.7	137.3	137.9	138.5	139.2	139.8	140.5	141.2	141.9	142.6	143.3	144.0	137.3	139.2	141.2	143.3	140.2
1996	144.7	145.5	146.2	147.0	147.7	148.5	149.2	149.9	150.7	151.4	152.2	153.0	145.5	147.7	149.9	152.2	148.8
1997	153.7	154.5	155.3	156.2	157.1	158.0	158.9	159.9	160.9	161.9	162.9	164.0	154.5	157.1	159.9	162.9	158.6
1998	165.1	166.2	167.2	168.3	169.3	170.3	171.2	172.2	173.0	173.9	174.6	175.4	166.2	169.3	172.1	174.6	170.6
1999	176.1	176.8	177.4	178.0	178.6	179.2	179.8	180.4	181.1	181.7	182.4	183.1	176.8	178.6	180.4	182.4	179.5
2000	183.8	184.6	185.4	186.1	186.9	187.7	188.4	189.1	189.8	190.4	191.0	191.5	184.6	186.9	189.1	191.0	187.9
2001	192.0	192.4	192.7	193.0	193.2	193.4	193.5	193.6	193.8	193.9	194.0	194.2	192.3	193.2	193.6	194.0	193.3
2002	194.3																
Utilization																	
1990	81.8	82.5	82.6	81.8	82.0	81.8	81.6	81.7	81.5	80.9	79.7	79.0	82.3	81.9	81.6	79.9	81.4
1991	78.2	77.5	76.6	76.8	77.1	78.1	78.2	78.2	79.0	78.9	78.6	78.1	77.5	77.3	78.5	78.5	77.9
1992	78.0	78.4	79.0	79.4	79.5	79.4	80.0	79.6	79.7	79.9	80.2	80.0	78.5	79.4	79.8	80.0	79.4
1993	80.4	80.4	80.4	80.6	80.2	80.0	80.1	79.7	80.4	80.5	80.7	81.2	80.4	80.3	80.0	80.8	80.4
1994	81.1	81.1	81.8	82.2	82.5	82.5	82.6	82.8	82.7	83.1	83.4	84.0	81.3	82.4	82.7	83.5	82.5
1995	84.1	83.7	83.5	82.9	82.6	82.6	81.7	82.3	82.5	82.1	81.8	81.5	83.8	82.7	82.1	81.8	82.6
1996	80.9	81.4	80.8	81.3	81.5	81.8	81.9	82.0	82.1	81.7	82.1	82.2	81.0	81.6	82.0	82.0	81.6
1997	82.1	82.7	82.5	82.5	82.4	82.5	82.4	83.0	83.0	83.0	83.0	82.7	82.5	82.5	82.8	82.9	82.7
1998	83.0	82.4	82.1	82.2	81.8	80.8	80.1	81.5	80.9	81.2	80.6	80.4	82.5	81.6	80.9	80.7	81.4
1999	80.5	80.6	80.4	80.3	80.5	80.3	80.3	80.7	80.5	80.8	81.0	81.1	80.5	80.4	80.5	81.0	80.6
2000	81.0	81.1	81.5	81.4	81.6	81.7	81.0	80.7	80.5	79.8	79.2	78.4	81.2	81.6	80.7	79.1	80.7
2001	77.6	77.2	76.7	76.0	75.8	75.0	75.1	74.6	73.7	73.3	73.1	72.8	77.2	75.6	74.5	73.1	75.1
2002	72.7																

1. Quarterly percent changes are at annual rates. Annual percent changes are calculated from annual averages.

**Table 6
INDUSTRIAL PRODUCTION: INDUSTRY SUBTOTALS AND INDIVIDUAL SERIES**

Item	SIC	2001 IP Proportion	Index, 1992 = 100											
			Seasonally adjusted						Not seasonally adjusted					
			2001 July	Aug.	Sept.	Oct. ^f	Nov. ^f	Dec. ^f	2001 July	Aug.	Sept.	Oct. ^f	Nov. ^f	Dec. ^f
Metal mining	10	.22	88.8	87.9	91.2	85.6	80.2	79.3	86.7	87.5	91.7	84.2	81.0	80.1
Iron ore	101	.03	75.0	87.1	97.6	91.3	75.0		77.4	91.8	100.6	87.8	74.8	
Nonferrous ores	102-4,8,9	.19	91.2	88.1	90.1	84.6	81.1	80.9	88.4	86.7	90.2	83.6	82.1	81.7
Copper	102	.06	77.1	76.1	77.6	75.7			76.3	73.5	76.5	74.1		
Coal mining	12	.69	111.9	111.7	111.7	106.5	106.6	105.8	104.4	113.0	112.9	109.8	107.6	102.2
Oil and gas extraction	13	4.61	97.0	96.3	97.0	94.8	94.3	92.6	96.6	96.1	96.3	95.0	94.4	91.6
Crude oil and natural gas	131	3.62	91.0	90.4	91.3	90.2	90.4	89.6	90.4	89.9	90.2	90.2	90.4	88.9
Crude oil, total		1.82	78.5	78.4	79.2	77.3	79.5	78.9	77.8	78.1	78.1	77.7	79.8	79.3
Natural gas		1.80	108.4	106.9	108.0	107.9	105.5	104.4	107.8	106.3	107.0	107.5	104.9	102.2
Natural gas liquids	132	.27	111.2	115.1	118.4	118.7	118.3	118.6	112.3	115.9	120.5	120.0	118.9	112.5
Oil and gas well drilling	138	.72	147.1	143.1	140.4	127.2	119.9	110.3	148.2	144.9	141.7	128.4	121.6	110.0
Stone and earth minerals	14	.67	130.6	132.2	131.2	129.6	128.7	129.0	150.1	159.0	149.3	153.3	132.3	101.8
Foods	20	9.66	113.1	113.0	111.7	112.2	112.8	113.9	115.4	119.5	119.1	118.1	112.9	109.8
Meat products	201	1.67	123.3	124.0	125.6	126.1	124.6	128.6	119.9	126.6	126.0	131.7	124.0	122.8
Beef		.52	114.1	115.9	114.9	115.7	118.8	122.5	113.7	121.6	118.2	119.8	115.0	112.6
Pork		.34	110.9	110.3	113.0	115.1	112.9	115.2	100.1	107.3	112.7	123.2	121.0	119.0
Poultry		.80	142.2	142.7	145.9	145.3	140.5	145.9	139.4	145.0	143.5	150.1	136.8	137.0
Miscellaneous meats		.01	65.8	65.8	63.6	66.2	64.5	63.1	61.2	63.8	63.2	67.4	66.7	68.0
Dairy products	202	.96	101.7	100.5	103.0	102.6	103.7	103.3	101.5	96.2	96.0	96.2	97.5	99.8
Butter	2021	.01	98.5	97.2	108.4	106.2	98.5	112.0	77.0	71.1	91.2	102.7	97.5	120.6
Cheese	2022	.25	120.5	119.3	119.2	120.1	121.7	120.0	117.5	114.8	115.2	118.1	122.6	121.0
Concentrated milk	2023	.21	113.9	110.6	115.8	115.5	117.2	115.4	109.7	95.4	96.2	101.8	105.9	116.9
Frozen desserts	2024	.11	84.6	83.3	90.2	87.3	89.3	91.7	101.1	94.3	88.5	76.0	69.4	67.1
Milk and misc. dairy products	2026	.37	90.8	90.8	91.5	91.2	91.8	91.4	89.6	87.8	87.7	87.7	88.7	89.6
Canned and frozen food	203	1.23	108.0	108.0	102.3	101.8	103.9	105.6	111.5	123.0	122.3	113.5	104.3	100.3
Grain mill products	204	1.03	111.3	111.4	110.1	110.0	109.0	108.6	110.5	113.8	115.2	113.4	113.1	110.4
Bakery products	205	1.29	120.4	120.8	114.7	119.5	123.1	122.9	130.4	133.1	127.6	125.4	121.1	116.3
Sugar and confectionery	206	.62	110.1	106.7	105.5	103.9	102.8	100.9	98.7	104.3	112.3	119.8	118.9	113.9
Fats and oils	207	.18	134.2	136.9	133.5	137.3	138.7	143.8	126.7	135.2	133.5	145.9	147.5	142.6
Beverages	208	1.80	113.3	114.6	114.4	112.7	112.9	115.4	120.1	123.9	123.3	117.6	110.2	104.1
Beer and ale	2082,3	.54	92.2	91.2	95.1	87.2			97.6	94.4	92.1	82.9		
Soft drinks	2086,7	1.04	127.3	130.3	128.9	130.9	128.2	131.7	141.7	147.8	148.2	139.1	124.5	122.0
Coffee and miscellaneous	209	.88	108.1	106.1	105.9	109.5	110.3	109.7	116.2	118.3	118.2	118.6	108.8	107.0
Roasted coffee	2095	.12	102.4	105.6	103.1	106.1			90.8	104.4	93.6	116.5		
Tobacco products	21	2.11	95.0	93.2	92.7	92.8	92.7	90.8	84.5	101.5	91.2	100.0	92.1	71.4
Textile mill products	22	1.17	84.3	85.8	85.9	83.0	81.7	82.6	82.6	87.5	86.7	86.8	79.4	72.4
Fabrics	221-4	.28	74.2	76.6	75.3	75.5	72.1	72.5	69.0	77.7	75.0	77.9	70.7	67.0
Cotton and synthetic	221,2	.23	74.7	77.9	76.3	76.5			69.1	79.7	76.5	80.0		
Narrow fabrics	224	.03	93.5	86.1	81.7	89.5	78.7	79.5	88.9	86.4	82.2	89.0	79.5	78.6
Knit goods	225	.24	71.0	68.4	67.9	67.6	66.5	66.9	72.5	72.5	72.7	71.5	64.7	59.3
Knit garments	2253,4,7-9	.16	68.0	63.8	63.1	63.3	62.4	64.0	71.3	72.8	70.9	63.9	60.5	58.8
Fabric finishing	226	.10	69.6	70.0	68.9	68.1	65.7	65.6	63.6	71.2	63.4	70.2	67.8	55.3
Carpeting	227	.19	95.6	100.6	107.1	94.3	99.7	102.1	106.6	99.2	107.3	104.3	88.3	73.3
Yarns and miscellaneous	228,9	.37	110.4	113.8	113.1	108.5	106.2	107.6	104.2	115.7	114.3	111.3	105.5	100.4
Cotton and synthetic yarns	2281,2,4	.17	112.0	119.8	116.2	107.8	102.0	106.1	102.9	123.0	115.5	113.2	99.8	87.9
Apparel products	23	1.46	95.1	91.2	89.4	87.8	87.2	87.8	93.9	93.9	91.8	89.1	87.4	87.9
Lumber and products	24	2.15	114.0	116.2	116.4	112.8	113.6	113.7	112.8	120.2	120.7	117.5	112.0	106.4
Logging and lumber	241,2	.74	104.5	107.1	106.8	101.6	103.4	106.6	102.7	110.5	112.8	107.4	101.6	99.4
Logging	241	.25	84.4	84.6	86.5	83.7	85.4	87.4	89.8	93.6	95.6	91.3	87.5	85.1
Lumber products	243-5,9	1.41	121.5	123.5	124.0	121.3	121.5	119.7	120.7	127.9	127.2	125.4	120.1	112.2
Millwork and plywood	243	.80	127.9	130.1	130.0	126.1	127.4	124.9	130.1	134.2	132.8	129.1	128.4	121.7
Plywood	2435,6	.14	82.5	93.1	93.3	85.2	89.4	88.3	81.9	95.2	94.7	88.5	87.8	76.3
Manufactured homes	245	.19	95.4	97.9	102.9	100.2	99.5	97.7	86.2	110.0	107.2	109.3	94.1	76.4

1. The IP proportion data are estimates of the industries' relative contributions to overall IP growth in the following year.

Table 6 (continued)
INDUSTRIAL PRODUCTION: INDUSTRY SUBTOTALS AND INDIVIDUAL SERIES

Item	SIC	2001 IP Proportion ¹	Index, 1992 = 100											
			Seasonally adjusted						Not seasonally adjusted					
			2001 July	Aug.	Sept.	Oct. ^f	Nov. ^f	Dec. ^f	2001 July	Aug.	Sept.	Oct. ^f	Nov. ^f	Dec. ^f
Furniture and fixtures	25	1.57	138.4	138.7	135.1	133.5	135.4	136.5	138.9	148.1	144.2	137.4	132.4	131.8
Household furniture	251	.63	123.5	123.5	122.3	124.3	126.3	125.3	119.9	130.0	128.9	126.8	122.1	121.4
Paper and products	26	3.29	108.1	107.7	109.7	108.1	106.2	103.2	106.8	108.0	109.4	110.1	104.6	99.5
Pulp and paper	261-3	1.21	104.1	104.1	104.8	104.8	102.8	97.8	102.9	104.6	104.6	105.7	101.9	95.1
Wood pulp	261	.05	89.4	91.0	88.3	95.4	91.7	89.8	90.6	92.4	87.5	94.2	91.8	87.8
Paper	262	.73	104.0	102.9	105.3	104.5	101.0	96.0	102.5	102.7	104.9	105.1	100.9	94.7
Paperboard	263	.42	107.6	109.3	107.6	108.1	108.9	103.6	106.7	110.9	107.6	109.8	106.2	98.0
Paper products	265,7	2.09	110.6	110.0	112.7	110.2	108.4	106.6	109.3	110.2	112.5	112.8	106.3	102.3
Paperboard containers	265	.69	105.5	102.7	106.9	101.8	102.5	103.1	104.7	103.2	107.4	109.5	98.5	94.9
Converted paper products	267	1.40	113.6	114.3	116.1	115.0	111.8	108.8	112.0	114.2	115.4	114.8	110.7	106.5
Printing and publishing	27	6.62	101.1	100.7	99.7	99.8	98.8	97.4	104.8	105.4	106.0	104.0	99.5	96.4
Newspapers	271	1.45	83.6	83.6	83.7	82.9	81.7	81.3	80.8	78.1	84.5	90.8	85.8	82.7
Periodicals, books, and cards	272,3,7	2.18	106.5	106.3	106.2	105.2	103.5	100.9	107.1	107.7	107.8	104.9	105.1	103.5
Job printing	274-6,8,9	2.99	107.3	106.5	104.1	105.6	105.3	104.1	117.4	119.9	117.3	110.9	103.3	99.2
Chemicals and products	28	9.76	121.2	121.2	121.0	123.2	122.9	122.2	119.7	121.3	122.2	124.4	121.6	120.0
Industrial chemicals and synthetic materials	281,2,6	3.26	99.1	100.0	100.5	101.9	100.4	99.0	96.6	98.6	100.6	103.2	101.6	96.7
Basic chemicals	281	1.03	103.1	103.5	107.0	108.9	110.0	109.7	96.8	102.4	107.4	112.7	113.7	106.8
Alkalies and chlorine	2812	.06	70.2	73.7	72.1	69.9	68.5	64.5	69.1	73.0	72.0	67.9	68.7	64.3
Inorganic pigments	2816	.07	93.5	88.1	89.9	94.6	91.5	67.8	90.2	89.8	89.7	94.9	85.2	67.1
Inorganic chemicals, nec	2819	.80	107.8	108.6	113.4	115.3	117.1	119.6	99.5	106.7	113.9	120.7	122.7	116.4
Acids and other		.72	147.9	150.3	152.0	152.9	155.1	156.5	141.9	151.8	154.7	158.6	159.4	146.9
Synthetic materials	282	1.15	107.2	108.1	106.3	109.9	104.7	100.6	105.8	106.4	106.5	110.5	104.0	95.3
Plastics materials	2821	.79	117.5	118.7	116.0	119.0	116.0		116.2	117.4	116.0	119.7	116.1	
Synthetic fibers	2823,4	.24	84.9	84.6	83.7	88.3	82.0	68.5	83.5	83.4	84.6	89.6	78.9	62.6
Industrial organic chemicals	286	1.07	89.0	90.2	90.3	89.6	89.2	89.2	88.6	88.9	90.3	89.6	90.1	90.1
Chemical products	283-5,9	6.04	140.8	139.9	139.4	141.9	142.4	142.5	140.2	141.5	141.6	143.1	139.1	140.1
Drugs and medicines	283	3.63	164.8	163.7	162.5	165.0	163.6	164.7	157.6	158.3	159.0	164.1	164.5	168.4
Soap and toiletries	284	1.42	115.0	114.9	114.6	117.5	120.6	120.9	122.7	126.1	126.3	121.7	114.2	114.4
Paints	285	.36	104.9	104.3	103.7	105.7	107.5	107.1	110.3	109.9	105.0	107.0	94.2	81.3
Agricultural chemicals	287	.46	91.3	93.8	92.1	96.7	96.9	95.1	88.9	91.9	91.3	97.1	97.4	93.8
Petroleum products	29	1.92	114.6	112.9	112.1	114.9	114.0	112.2	119.8	118.0	116.0	115.6	114.6	111.0
Petroleum refining and misc.	291,9	1.70	111.1	109.5	108.6	111.9	110.2	108.1	115.6	113.4	111.5	111.4	110.4	107.6
Miscellaneous petroleum products		.32	103.9	104.2	101.9	105.2	106.2	106.2	118.2	119.2	109.9	103.1	97.9	92.5
Distillate fuel oil		.30	126.0	121.4	121.2	124.4	129.1		129.1	122.9	122.3	127.4	132.8	
Residual fuel oil		.04	69.7	69.6	73.7	80.9	74.9		71.6	69.8	73.5	78.3	76.3	
Aviation fuel and kerosene		.19	117.7	116.0	101.4	109.7	100.1		117.8	116.2	103.1	106.6	102.5	
Automotive gasoline		.85	110.3	108.9	111.1	113.0	110.4		112.6	110.3	113.0	112.9	112.4	
Paving and roofing materials	295	.22	146.1	144.3	144.2	141.4	148.4	150.7	158.8	161.1	159.2	154.6	153.8	142.2
Rubber and plastics products	30	3.78	138.0	137.3	136.5	134.4	133.3	134.5	133.8	138.2	138.4	135.9	134.2	135.1
Tires	301	.29	117.2	116.4	119.9	112.9	106.3	108.9	104.3	119.9	120.8	119.5	104.4	95.1
Other rubber products	302,5,6	.60	130.7	129.8	121.8	123.0	125.6	126.5	129.3	135.6	129.3	127.3	126.2	122.3
Plastics products, nec	308	2.89	142.6	141.9	142.3	140.0	138.7	139.8	138.7	141.3	143.0	140.2	140.0	143.2
Leather and products	31	.16	62.1	62.8	61.4	60.0	58.7	58.4	58.5	63.5	62.6	60.7	59.3	58.7
Shoes	314	.04	46.5	47.7	47.5	47.0	49.6	51.2	44.0	48.9	48.2	48.3	50.8	51.0
Stone, clay, and glass products	32	2.66	130.0	130.8	129.9	130.3	128.3	125.7	132.7	135.8	135.3	136.0	127.4	119.5
Pressed and blown glass	322	.32	105.0	105.3	106.5	106.7	107.1	107.4	106.4	107.4	107.0	107.9	107.7	98.7
Glass containers	3221	.12	75.5	75.5	76.4	77.9	76.6	77.6	77.7	78.9	75.8	79.1	77.1	60.6
Cement	324	.23	136.5	132.3	129.9	133.1	140.8		153.0	156.6	147.4	157.9	135.1	
Structural clay products	325	.12	112.1	110.3	109.8	105.6	103.3	102.7	107.2	115.3	111.1	109.1	103.5	95.8
Concrete and miscellaneous	326-9	1.60	129.6	132.7	132.2	132.4	127.8	123.9	132.2	135.8	137.3	136.6	126.8	121.5

1. The IP proportion data are estimates of the industries' relative contributions to overall IP growth in the following year.

Table 6 (continued)
INDUSTRIAL PRODUCTION: INDUSTRY SUBTOTALS AND INDIVIDUAL SERIES

Item	SIC	2001 IP Proportion ¹	Index, 1992 = 100											
			Seasonally adjusted						Not seasonally adjusted					
			2001 July	Aug.	Sept.	Oct. [†]	Nov. [†]	Dec. [†]	2001 July	Aug.	Sept.	Oct. [†]	Nov. [†]	Dec. [†]
Primary metals	33	2.93	119.5	117.5	116.4	113.6	109.2	102.5	115.8	115.9	117.4	113.9	107.9	99.3
Iron and steel	331.2	1.51	118.8	115.7	112.7	110.4	107.0	94.8	116.5	113.9	113.1	110.3	104.4	90.7
Basic steel and mill products	331	1.05	118.3	115.2	112.0	109.5	105.6	89.8	117.3	114.9	111.9	108.6	102.1	84.9
Basic iron and steel		.20	97.4	97.2	96.5	90.7	81.9	73.9	95.3	96.0	95.3	90.0	80.3	72.0
Pig iron		.11	94.5	95.4	94.5	88.5	76.3	68.3	92.4	94.1	92.5	87.6	75.6	67.7
Raw steel		.06	108.3	106.2	105.8	99.5	95.1	85.5	105.1	104.8	105.5	98.9	91.2	80.7
Steel mill products		.85	124.5	120.5	116.5	115.0	112.5	94.4	123.7	120.4	116.7	114.1	108.5	88.7
Consumer durable steel		.13	127.6	125.2	115.4	117.9	120.2	88.4	99.7	125.0	119.9	121.6	117.3	79.2
Equipment steel		.07	96.3	92.5	84.0	82.9	83.1	66.1	93.5	92.5	86.8	82.0	77.9	60.8
Construction steel		.12	171.8	167.5	171.4	151.9	155.4	144.1	181.0	171.9	169.1	159.1	152.3	138.2
Can and closure steel		.03	90.5	85.4	77.2	86.3	83.3	64.3	92.2	89.8	83.2	83.2	78.1	62.0
Miscellaneous steel		.49	122.7	118.5	115.6	115.5	110.2	94.4	127.5	117.4	114.5	112.2	106.3	89.3
Iron and steel foundries	332	.46	120.8	117.6	115.2	113.4	111.4	107.6	115.6	112.4	117.0	115.5	110.8	105.3
Nonferrous metals	333-6.9	1.42	120.8	119.9	121.2	117.6	112.1	111.8	115.5	118.7	122.8	118.3	112.4	109.6
Primary nonferrous metals	333	.17	87.6	88.5	87.5	91.5	89.7	85.9	83.6	85.4	86.8	92.4	90.1	86.3
Copper	3331	.03	90.5	99.6	94.8	105.3	97.9	93.4	84.7	96.4	95.2	105.0	100.4	95.1
Aluminum	3334	.08	63.1	62.0	62.0	62.6	62.6	59.7	62.6	61.9	62.2	62.5	62.7	59.8
Nonferrous products	335.6	1.04	128.1	127.0	128.5	122.5	115.5	115.8	121.9	125.7	129.8	122.0	115.6	113.7
Nonferrous mill products	335	.79	122.5	121.3	123.3	116.9	109.4	109.9	117.3	120.0	124.7	116.3	109.0	105.4
Aluminum	3353-5	.31	88.3	94.5	95.9	88.9	83.7	82.6	84.7	94.1	97.2	88.6	79.0	74.0
Nonferrous foundries	336	.25	146.6	146.2	145.6	141.4	136.0	136.1	137.2	144.7	146.5	141.4	138.0	142.1
Fabricated metal products	34	5.85	131.1	131.0	128.7	127.5	127.1	128.3	129.8	133.9	132.4	130.2	128.5	128.3
Metal containers	341	.20	98.7	99.6	99.8	102.0	103.1	102.9	108.7	112.0	104.6	98.4	91.6	96.8
Hardware, tools, and cutlery	342	.56	115.1	118.8	113.8	114.7	114.2	115.6	116.3	124.6	119.6	118.2	113.9	110.2
Hardware and tools	3423,5.9	.49	114.9	119.1	113.9	115.5	115.0	116.7	116.9	125.3	119.9	119.0	113.9	110.1
Structural metal products	344	1.66	139.6	138.8	137.6	135.7	133.9	135.4	140.7	140.9	139.6	137.5	136.7	138.6
Other fabricated metal products	345-9	3.23	133.0	132.3	129.5	127.5	127.9	129.2	129.8	133.7	131.7	129.4	129.1	128.5
Fasteners, stampings, etc.	345-7	1.90	141.2	141.1	137.1	133.4	136.1	137.4	138.0	144.3	140.9	137.2	137.4	133.8
Industrial machinery and equipment	35	7.68	210.2	211.0	205.1	202.8	202.8	199.7	205.3	208.7	207.3	206.2	201.7	195.0
Engines and turbines	351	.49	122.5	130.1	128.6	124.6	123.8	124.9	118.8	127.9	129.5	123.8	125.7	130.2
Farm	352	.35	135.5	136.3	115.0	109.2	124.0	110.2	93.5	87.7	84.9	88.3	101.5	88.1
Construction and allied	353	.89	155.7	156.8	151.6	147.9	149.2	131.7	138.3	151.6	154.9	156.6	147.3	124.0
Metalworking	354	.85	112.2	109.9	108.1	106.5	103.2	102.6	109.7	107.8	107.4	105.9	104.2	106.3
Special industry machinery	355	.57	132.2	128.2	125.6	123.0	119.0	117.7	129.8	126.9	124.9	122.7	120.1	121.2
General industrial machinery	356	.94	102.7	103.9	102.6	104.4	103.4	103.2	105.1	108.9	107.3	104.8	101.5	100.2
Bearings and gears	3562,6.8	.28	100.7	101.2	102.8	99.9	99.2	96.7	98.8	97.8	99.5	97.2	98.5	99.3
Bearings	3562	.14	103.6	106.0	106.8	101.9	99.0	98.0	101.0	100.4	100.3	96.8	96.3	98.2
Equipment	3561,3-5,7.9	.66	103.5	105.1	102.3	106.4	105.2	106.0	107.9	113.9	110.8	108.2	102.7	100.5
Computer and office equip.	357	1.55	1074.6	1064.8	1035.7	1049.1	1067.2	1087.1	1069.7	1083.0	1073.9	1148.0	1171.1	1142.9
Service industry machines	358	.90	139.2	142.7	144.0	135.6	136.5	140.0	136.4	130.5	135.0	127.6	122.2	118.7
Refrig. and heating equip.	3585	.68	149.3	157.3	158.4	146.5	148.8	154.6	146.4	139.4	144.4	134.9	127.4	122.2
Miscellaneous machinery	359	1.14	140.5	142.0	135.8	136.5	133.2	130.9	150.0	155.3	148.3	140.3	127.8	123.2
Electrical machinery	36	7.82	485.9	485.5	484.6	484.8	483.3	483.0	458.5	483.6	529.9	483.6	488.4	512.2
Major electrical and parts	361.2	.82	119.9	120.0	116.7	119.1	121.5	121.4	123.9	127.7	124.6	119.9	118.4	117.4
Electric distribution equip.	361	.29	116.5	114.3	112.4	117.5	117.5	116.8	123.6	126.6	123.0	119.8	114.0	113.6
Household appliances	363	.49	130.4	138.8	141.3	131.6	134.5	140.0	117.7	136.9	146.0	149.2	143.2	121.2
Cooking equipment	3631	.08	130.6	160.6	158.8	134.4	167.6	157.1	127.6	162.6	153.5	147.5	162.9	120.8
Refrigerators and freezers	3632	.10	158.0	168.1	166.3	164.2	150.6	179.5	151.9	162.6	162.8	170.5	140.7	128.0
Laundry	3633	.08	137.3	146.8	151.1	149.8	151.0	153.6	111.2	136.9	150.3	158.1	148.5	133.2
Miscellaneous	3634,5.9	.22	114.4	115.6	120.2	109.8	110.4	112.8	101.3	116.6	132.5	135.2	132.6	111.7
Electrical housewares	3634	.07	94.1	97.0	92.1	87.8	97.3	82.2	79.2	112.4	132.2	151.8	158.9	80.1
Appliances, nec	3639	.09	115.4	113.2	128.6	112.2	107.8	126.9	99.2	104.2	124.4	115.8	105.7	121.5
Audio and video equipment	365	.09	62.8	77.1	73.9	62.9	70.1	71.2	57.9	77.2	86.7	71.7	75.7	66.4
Communication equipment	366	1.53	329.6	324.7	316.1	308.0	300.5	292.3	324.3	323.7	318.8	310.5	305.6	305.8
Electronic components	367	3.60	1575.4	1570.7	1594.2	1630.4	1624.1	1629.6	1408.3	1528.5	1841.7	1559.3	1641.1	1863.8
Semiconductors and related electronic components	3672-9	3.53	1655.3	1650.9	1676.9	1709.7	1703.1	1708.7	1476.3	1600.6	1939.5	1626.0	1715.7	1970.2
Misc. electrical supplies	369	.65	133.0	130.6	129.8	128.6	127.1	124.7	127.4	131.7	137.2	133.0	129.0	127.7
Storage batteries	3691	.13	155.8	152.9	152.6	154.0			155.0	157.1	192.5	174.6		
Transportation equipment	37	10.44	134.6	131.6	128.5	124.6	127.3	128.9	103.3	133.9	130.1	132.1	126.2	115.8
Motor vehicles and parts	371	6.35	174.6	169.9	164.2	157.3	165.9	172.2	111.8	175.8	167.7	173.0	162.8	142.7
Autos		1.22	105.5	97.8	99.8	93.4	101.8	108.4	64.2	102.9	105.4	104.3	99.4	86.7
Trucks and truck trailers		2.52	237.6	228.2	215.3	203.6	220.4	228.1	139.9	231.8	217.8	228.6	212.8	184.6
Trucks and buses		2.47	247.3	237.5	223.7	212.2	230.4	238.9	143.7	241.2	226.1	238.5	222.3	193.1
Consumer trucks		1.63	264.3	252.6	239.8	226.5	251.5	259.6	149.9	256.3	243.0	255.0	243.0	209.7
Business trucks		.84	218.6	212.1	196.5	188.1	194.7	204.1	132.9	215.4	197.3	210.3	187.1	164.8
Motor vehicle parts	3714	2.56	188.8	189.4	182.8	179.8	181.7	186.4	133.6	198.6	185.7	192.8	182.4	160.9
Motor homes	3716	.05	77.6	98.5	100.6	81.1	96.0	111.4	65.7	96.2	106.6	87.5	78.1	96.8
Aerospace and miscellaneous transportation equipment	372-6.9	4.10	97.1	95.7	95.0	93.8	91.1	88.6	95.1	94.7	94.8	93.8	91.9	90.4
Aircraft and parts	372	2.62	99.0	97.5	95.9	94.2	90.3	85.4	96.7	96.1	95.2	94.1	91.4	88.0
Ships and boats	373	.42	103.1	99.2	100.7	102.6	103.2	104.9	102.1	98.9	100.0	103.2	104.1	108.0
Railroad and miscellaneous	374-6.9	1.06	89.8	90.0	90.4	89.4	88.2	89.7	88.3	89.4	91.4	89.0	88.2	89.3

1. The IP proportion data are estimates of the industries' relative contributions to overall IP growth in the following year.

Table 6 (continued)
INDUSTRIAL PRODUCTION: INDUSTRY SUBTOTALS AND INDIVIDUAL SERIES

Item	SIC	2001 IP Proportion ¹	Index, 1992 = 100											
			Seasonally adjusted						Not seasonally adjusted					
			2001 July	Aug.	Sept.	Oct. ^f	Nov. ^f	Dec. ^f	2001 July	Aug.	Sept.	Oct. ^f	Nov. ^f	Dec. ^f
Instruments	38	4.51	115.0	113.9	112.8	113.6	113.2	112.3	117.6	118.2	116.6	114.8	111.6	111.3
Scientific and medical	381-4	3.88	118.4	117.3	116.1	117.6	116.9	116.5	121.9	122.5	120.6	119.0	114.7	115.0
Medical instruments	384	1.71	139.0	136.9	133.3	140.1	140.9	139.2	151.0	152.2	145.7	145.5	133.8	131.3
Misc. manufactures	39	1.18	120.7	116.7	114.5	113.6	110.5	113.2	116.5	117.4	116.5	116.6	114.1	115.7
Consumer goods	391,3,4,6	.51	110.9	106.4	102.4	104.0	100.3	102.2	104.7	106.3	104.2	107.0	104.5	105.0
Business supplies	395,9	.67	130.4	126.7	126.2	123.0	120.5	123.8	127.9	128.1	128.4	126.0	123.4	126.1
Electric utilities	491,3pt	5.61	121.0	124.5	121.0	122.3	120.7	120.9	138.4	144.2	126.7	112.9	109.4	120.5
Generation		2.39	116.2	120.2	117.5	118.4	117.7	118.0	131.3	134.6	117.8	106.6	109.3	118.2
Fossil fuel		1.25	125.2	130.1	122.8	124.0			147.6	154.1	128.6	117.0		
Hydro and nuclear		1.14	108.3	111.4	113.2	113.8			116.4	116.6	108.1	97.1		
Sales		3.22	124.6	127.8	123.6	125.2	122.8	123.1	143.9	151.6	133.6	117.8	109.3	122.2
Residential		1.42	125.0	130.7	123.9	126.5			154.2	165.2	135.9	109.6		
Nonresidential		1.80	124.5	125.9	123.6	124.5	122.2	122.0	136.2	141.4	132.0	124.2	115.9	117.3
Commercial and other		1.21	141.0	143.1	141.1	142.3			159.3	165.1	152.9	141.1		
Industrial		.58	99.9	100.2	97.5	98.0			101.9	106.2	100.9	99.1		
Gas utilities	492,3pt	1.48	107.4	108.1	106.9	108.0	98.8	103.6	56.0	56.2	55.6	72.2	104.7	158.8
Residential		.81	100.9	102.6	99.1	100.2	88.7	95.0	32.2	30.4	33.2	55.3	97.5	163.1
Commercial and other		.29	124.4	121.2	125.7	125.0			66.8	66.8	69.3	86.5		
Gas transmission		.26	107.2	107.8	108.2	109.0	100.0	104.0	90.2	94.3	85.9	90.5	99.4	128.1

1. The IP proportion data are estimates of the industries' relative contributions to overall IP growth in the following year.

Table 7
INDUSTRIAL PRODUCTION: GROSS VALUE OF PRODUCTS

Billions of 1996 dollars at annual rates, seasonally adjusted

Item	1992	2001	2000		2001				2001					2002 Jan. ^P
			Q3	Q4	Q1	Q2	Q3	Q4 ^f	Aug.	Sept.	Oct. ^f	Nov. ^f	Dec. ^f	
Products, total	2091.3	2724.9	2832.5	2808.7	2772.1	2751.8	2726.5	2677.8	2732.0	2694.5	2669.6	2680.1	2683.8	2673.3
Final products	1587.4	2102.9	2187.7	2166.4	2138.1	2126.8	2103.9	2067.1	2107.0	2075.1	2056.7	2070.0	2074.7	2068.3
Consumer goods	1079.6	1303.1	1327.7	1317.2	1303.3	1309.1	1311.0	1302.2	1312.1	1298.5	1291.1	1301.3	1314.2	1305.5
Durable	229.7	349.4	371.2	355.0	341.5	353.9	359.3	353.1	358.6	352.8	337.4	355.9	366.0	362.3
Automotive products	123.7	187.8	196.5	185.4	178.7	190.1	196.7	193.7	195.6	191.3	181.7	196.0	203.3	200.6
Other durable goods	106.0	160.4	175.0	171.1	164.1	162.7	159.7	156.3	160.5	159.7	154.5	156.4	158.0	157.4
Nondurable	851.9	953.6	956.8	961.8	961.0	955.1	952.0	949.0	953.6	945.6	952.8	945.5	948.8	943.7
Equipment, total	509.4	800.0	867.6	856.2	840.8	820.2	791.0	758.9	793.3	773.1	761.0	763.5	752.4	756.1
Business and defense	490.0	778.3	844.6	835.5	819.4	797.2	768.0	739.4	770.5	749.9	740.0	743.8	734.4	738.6
Business	402.1	715.7	783.8	773.9	757.2	735.3	705.6	675.6	708.4	686.8	676.2	680.2	670.5	673.6
Defense and space	89.0	64.3	64.3	64.8	64.9	64.2	64.0	64.5	63.9	64.1	64.5	64.5	64.5	65.4
Intermediate products	504.7	622.4	645.0	642.3	634.1	625.2	622.7	610.8	625.0	619.4	612.9	610.3	609.3	605.2
Construction supplies	200.1	274.1	281.6	278.7	276.0	276.1	275.7	268.6	277.4	275.8	268.0	267.9	269.9	268.3
Business supplies	304.8	347.8	362.9	363.3	357.7	348.5	346.3	341.7	346.9	342.9	344.5	341.9	338.8	336.3
Commercial energy products	72.6	92.4	91.9	92.5	92.2	93.2	93.6	92.4	94.5	91.8	93.7	91.5	91.9	91.6

Table 8
DIFFUSION INDEXES OF INDUSTRIAL PRODUCTION

Percent												
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
One Month Earlier												
1999	55.4	55.4	51.4	53.6	51.1	51.8	59.1	58.0	52.2	62.0	56.2	58.3
2000	54.3	55.1	57.2	47.8	50.4	53.6	49.6	41.3	51.4	43.5	44.2	42.8
2001	46.0	36.6	39.9	43.1	41.7	40.9	47.8	43.5	39.5	42.0	37.7	53.6
Three Months Earlier												
1999	51.1	54.3	55.8	54.7	53.3	57.6	58.0	63.4	56.2	62.0	58.3	61.6
2000	61.2	57.6	59.4	55.4	48.6	51.4	51.4	44.2	38.4	39.1	40.2	38.8
2001	39.5	37.5	36.6	38.0	37.7	37.7	39.1	40.2	41.3	36.6	31.5	38.4
Six Months Earlier												
1999	51.1	51.8	52.9	52.9	53.3	53.3	54.3	59.1	59.4	63.4	62.3	63.8
2000	63.4	62.0	65.9	59.8	57.6	58.0	53.6	45.3	43.5	41.3	40.2	37.0
2001	35.5	32.6	32.2	30.8	31.9	32.6	30.1	32.6	35.9	30.4	32.2	36.6

Note—The diffusion indexes are calculated as the percentage of series that increased over the indicated span (one, three, or six months) plus one-half the percentage that were unchanged.

Table 9
ELECTRIC POWER USE: MANUFACTURING AND MINING

Item	1987 SIC	1992 Billion KWH	Index, 1992 = 100											
			Seasonally adjusted						Not seasonally adjusted					
			2001 July	Aug.	Sept.	Oct. ^F	Nov. ^F	Dec. ^P	2001 July	Aug.	Sept.	Oct. ^F	Nov. ^F	Dec. ^P
Total		933.2	96.3	95.3	94.6	95.7	96.3	95.8	97.4	98.8	98.4	98.1	95.7	94.2
MAJOR INDUSTRY GROUPS														
Manufacturing		853.2	96.5	95.5	94.7	95.7	96.6	96.2	97.9	99.4	98.7	98.3	95.8	94.2
Durable		366.0	98.5	98.8	96.6	96.3	97.6	97.6	99.8	102.4	100.8	98.8	96.1	94.4
Nondurable		487.2	94.9	92.8	93.1	95.3	95.8	95.0	96.4	96.9	97.0	98.0	95.6	94.1
Mining		80.1	93.0	93.0	93.8	94.5	92.7	90.8	90.4	91.5	93.8	94.5	93.9	93.2
INDUSTRY GROUPS and SERIES														
Metal mining	10	18.6	95.4	94.5	102.1	104.8	98.9	96.1	93.8	93.8	99.5	103.2	101.5	98.6
Iron ore	101	7.3	105.8	105.8	112.5	106.7	104.2	95.8	102.0	105.1	108.3	107.2	105.1	102.4
Copper ore	102	6.6	91.2	89.1	103.7	115.4	106.9	107.0	90.7	91.7	100.5	110.4	111.4	105.7
Coal mining	12	12.7	99.5	98.3	97.8	98.1	98.0	94.5	86.1	92.0	94.6	95.7	97.8	100.2
Oil and gas extraction	13	36.0	81.9	82.4	79.8	80.0	80.6	78.0	82.9	81.5	81.9	80.8	79.6	79.0
Crude oil and natural gas	131	31.0	82.3	82.7	79.6	78.9	79.2	76.8	82.5	80.7	81.5	80.1	79.1	78.5
Natural gas liquids	132	3.6	66.6	66.6	69.5	75.5	73.6	70.6	68.2	70.8	69.8	75.0	72.2	73.7
Stone and earth minerals	14	12.8	107.2	108.7	108.8	107.9	104.5	108.2	108.2	110.7	112.1	111.8	110.9	109.1
Crushed stone	142	3.5	179.3	178.5	178.5	179.8	169.0	175.0	183.1	187.7	189.2	193.2	190.6	178.0
Sand and gravel	144	2.7	110.8	115.5	107.0	106.6	106.0	107.8	119.0	120.9	114.6	115.9	112.3	105.6
Chemical and fertilizer materials	147	4.7	84.3	84.7	88.7	86.5	82.3	88.4	81.4	83.3	87.8	84.9	85.5	90.5
Foods	20	58.8	125.3	124.9	122.4	123.3	124.9	125.9	131.7	134.7	133.8	129.6	125.1	121.5
Meat products	201	10.4	143.5	141.2	136.0	138.3	144.2	145.7	155.6	154.4	149.7	143.8	142.3	139.2
Dairy products	202	6.8	107.9	110.0	111.1	112.0	114.2	118.4	117.7	118.7	119.8	113.7	111.8	112.5
Canned and frozen food	203	8.0	125.5	123.6	117.3	116.9	119.3	122.5	129.6	140.8	140.1	130.2	119.8	116.4
Grain mill products	204	11.4	125.6	127.2	123.3	122.1	126.2	126.5	124.3	128.2	125.9	128.2	130.1	123.9
Bakery products	205	3.5	132.9	131.6	125.5	130.7	135.4	137.4	143.7	144.8	139.5	137.0	133.0	129.9
Sugar and confectionery	206	4.0	154.7	155.2	161.6	157.8	145.3	133.7	143.5	148.2	150.5	155.2	158.6	144.5
Fats and oils	207	3.9	118.0	118.2	121.8	116.6	115.3	115.6	114.6	115.1	121.2	116.5	121.5	121.1
Beverages	208	6.1	113.7	114.7	113.4	114.5	111.7	116.4	126.9	130.4	130.7	121.9	108.7	108.1
Coffee and miscellaneous	209	4.7	112.8	109.9	110.3	113.5	115.0	114.2	125.0	125.1	127.1	122.8	111.3	107.6
Tobacco products	21	1.5	73.4	70.8	74.9	71.4	74.4	79.1	77.9	78.8	85.0	77.5	75.4	75.1
Textile mill products	22	31.5	90.7	82.1	82.5	87.6	83.0	84.3	91.5	94.6	91.6	90.1	80.2	78.6
Fabrics	221-4	11.9	76.6	68.0	70.9	77.7	75.6	78.2	76.6	77.6	77.9	78.6	73.9	73.4
Knit goods	225	4.1	80.9	74.6	73.8	74.0	73.0	75.0	84.9	85.1	83.0	74.8	70.9	69.0
Fabric finishing	226	2.5	77.8	76.2	71.0	74.4	71.0	69.9	75.7	78.3	73.8	75.9	73.7	68.2
Yarn and thread	228	8.3	100.6	85.3	83.7	92.5	84.5	86.6	95.0	101.3	90.4	89.9	85.7	84.1
Miscellaneous textiles	229	3.3	106.7	105.0	104.2	103.6	95.1	92.6	114.0	117.5	118.9	115.4	85.8	83.7
Apparel products	23	8.2	92.0	90.9	87.9	86.1	87.9	87.7	101.9	107.4	101.8	91.5	83.7	80.5
Men's outerwear	231,2	2.0	89.8	87.4	78.9	78.5	81.4	79.7	98.5	104.1	91.8	82.7	76.3	70.9
Women's outerwear	233	2.5	87.8	86.5	85.7	83.8	85.2	82.3	100.5	104.8	101.1	89.1	83.1	78.2
Lumber and products	24	19.7	124.5	123.4	122.0	123.7	123.0	124.2	122.8	125.2	122.2	122.0	119.3	119.5
Lumber	242	7.7	108.5	109.0	101.5	104.8	101.2	102.0	105.4	107.5	98.2	100.9	100.3	100.3
Millwork and plywood	243	5.6	133.1	134.5	137.6	137.6	138.9	142.9	131.5	136.7	138.0	136.1	135.0	137.6
Furniture and fixtures	25	6.0	117.8	116.2	113.4	113.4	115.0	114.3	118.1	124.0	121.4	116.7	111.5	109.5
Household furniture	251	3.2	112.8	109.3	108.2	109.5	111.0	109.7	109.1	114.5	113.5	111.3	106.9	105.8
Paper and products	26	112.3	87.2	86.1	84.3	85.6	86.2	85.7	88.9	88.4	86.5	87.8	85.8	85.1
Wood pulp	261	8.8	79.1	78.6	76.2	78.8	73.4	78.8	80.4	80.0	77.6	80.2	78.6	81.3
Paper	262	61.5	75.2	73.1	71.2	71.3	73.9	72.0	76.4	75.2	72.8	73.8	72.8	71.5
Paperboard	263	28.1	124.7	121.4	122.8	124.9	120.8	120.3	124.4	121.2	124.4	124.6	121.4	123.7
Paperboard containers	265	5.0	97.4	101.8	98.5	102.6	101.6	102.9	102.2	107.2	103.7	106.1	100.9	98.2
Converted paper products	267	8.9	116.3	118.8	115.1	121.1	119.1	121.5	120.9	123.2	120.8	122.4	118.9	117.4
Printing and publishing	27	17.3	105.9	106.6	102.9	105.3	107.2	105.8	116.0	119.6	115.5	110.3	104.6	101.0
Newspapers	271	3.7	95.9	97.6	96.2	100.0	100.3	99.1	106.7	108.6	107.5	103.4	97.1	95.5
Commercial printing	275	9.2	114.4	115.1	110.6	115.3	116.6	115.1	124.8	129.1	124.4	120.6	115.7	110.3
Chemicals and products	28	171.6	82.1	80.7	83.5	86.3	86.7	85.2	81.4	81.3	83.8	88.8	87.9	87.2
Basic chemicals	281	78.9	62.9	61.1	67.9	70.3	71.3	70.7	59.6	58.6	65.3	73.5	74.5	75.9
Alkalies and chlorine	2812	14.9	52.4	51.6	48.8	47.5	50.4	44.8	51.7	53.7	48.0	46.9	47.6	44.4
Inorganic chemicals, nec	2819	38.3	41.8	41.4	54.2	58.2	58.4	61.0	34.6	34.4	48.0	63.3	66.9	72.0
Acid and fertilizer materials		14.0	70.5	66.8	58.8	63.1	58.1	50.8	70.6	65.8	56.2	61.2	58.5	51.7
Nuclear materials, nondefense		24.3	27.5	28.8	51.9	55.8	58.6	66.0	16.7	18.9	43.9	64.3	71.1	82.0

Explanatory Note

The statistical release of **Industrial Production and Capacity Utilization** reports measures of output, capacity, and capacity utilization in manufacturing, mining, and the electric and gas utilities industries. The release also includes monthly indexes on the use of electric power in manufacturing and mining. Files containing data in the release and historical data are available under “Research and Data” at www.federalreserve.gov, the Board’s World Wide Web site. For paid access to these files through the Department of Commerce’s Economic Bulletin Board or World Wide Web site, please call STAT-USA at 1-800-STAT-USA or (202) 452-1986. Diskettes containing historical data and the data published in this release are available from the Board of Governors of the Federal Reserve System, Publications Services, (202) 452-3245.

Industrial Production

Coverage. The industrial production (IP) index measures output in the manufacturing, mining, and electric and gas utilities industries; the reference period for the index is 1992. For the period since 1997, the total IP index has been constructed from 276 individual series based on the 1987 Standard Industrial Classification (SIC). These individual series are classified in two ways: (1) market groups (shown in table 1), such as consumer goods, equipment, intermediate products, and materials; and (2) industry groups (shown in tables 2 and 6), such as two-digit SIC industries and major aggregates of these industries—for example, durable and nondurable manufacturing, mining, and utilities.

Market groups. For purposes of analysis, the individual IP series are grouped into final products, intermediate products, and materials. Final products are assumed to be purchased by consumers, businesses, or government for final use. Intermediate products are expected to become inputs in nonindustrial sectors, such as construction, agriculture, and services. Materials are industrial output requiring further processing within the industrial sector. Total products comprise final and intermediate products; final products are divided into consumer goods and equipment.

Timing. The first estimate of output for a month is published around the 15th of the following month. The estimate is preliminary (denoted by the superscript “p” in tables) and subject to revision in each of the subsequent three months as new source data become available. (Revised estimates are denoted by the superscript “r” in tables.) After the fourth month, indexes are not revised further until the time of an annual revision or a benchmark revision. The last three benchmark revisions were published in 1990, 1985, and 1976.

Source data. In annual or benchmark revisions, the individual IP indexes are constructed from a variety of source data, such as the quinquennial *Censuses of Manufactures and Mineral Industries* and the *Annual Survey of Manufactures*, prepared by the Bureau of the Census; the *Minerals Yearbook*, prepared by the U.S. Geological Survey; and publications of the Department of Energy. On a monthly basis, the individual indexes of industrial production are constructed from two main types of source data: (1) output measured in physical units and (2) data on inputs to the production process, from which output is inferred. Data on physical products, such as tons of steel or barrels of oil, are obtained from private trade associations as well as from government agencies including those listed above; data of this type are used to estimate monthly IP where possible and appropriate. When suitable data on physical product are unavailable, estimates of output are based on either production-worker hours or electric power use by industry. Data on hours worked by production workers are collected in the monthly establishment survey conducted by the Bureau of Labor Statistics. The data on electric power use are described below. The factors used to convert inputs into estimates of production are based on historical relationships between the inputs and the comprehensive data used to benchmark the IP indexes; these factors also may be influenced by technological or cyclical developments. Especially for the first and second estimates for a given month, the available source data are limited and subject to revision.

Weights. In the index, series that measure the output of an individual industry are weighted according to their proportion in the total value-added output of all industries. The industrial production index, which extends back to 1919, is built as a chain-type index since 1977. The components of IP are combined using annual estimates of value added per unit of output; for the data since 1992, the annual unit-value-added estimates are linearly interpolated to get monthly weights. The IP proportions shown in column 1 of tables 1A, 2A, and 6 are estimates of the industries’ relative contributions to overall growth in the following year. For example, a 1 percent increase in durable goods manufacturing in 1997 would account for an increase in total IP of nearly 1/2 percent.

Seasonal adjustment. Individual series are seasonally adjusted by the X–11 ARIMA method, developed at Statistics Canada. For series based on production-worker hours, the current seasonal factors were estimated with data through October 2000; for other series, the factors were estimated with data through at least June 2000. Series are preadjusted for the effects of holidays or the business cycle where appropriate. For the data since 1977, all seasonally adjusted aggregate indexes are calculated by aggregating the seasonally adjusted indexes of the individual series.

Reliability. The average revision to the *level* of the total IP index, without regard to sign, between the first and the fourth estimates was 0.27 percent during the 1987–99 period. The average revision to the *percent change* in total IP, without regard to sign, from the first to the fourth estimates was 0.21 percentage point during the 1987–99

period. In most cases (about 83 percent), the direction of change in output indicated by the first estimate for a given month is the same as that shown by the fourth estimate.

Rounding. The published percent changes are calculated from unrounded indexes, and may not be the same as percent changes calculated from the rounded indexes shown in the release.

Capacity Utilization

Definition. Capacity utilization is calculated for the manufacturing, mining, and electric and gas utilities industries. For a given industry, the utilization rate is equal to an output index divided by a capacity index. Output is measured by seasonally adjusted indexes of industrial production. The capacity indexes attempt to capture the concept of sustainable practical capacity, which is defined as the greatest level of output that a plant can maintain within the framework of a realistic work schedule, taking account of normal downtime, and assuming sufficient availability of inputs to operate the machinery and equipment in place. The 76 individual capacity indexes are based on a variety of data, including capacity data measured in physical units compiled by trade associations, surveys of utilization rates and investment, and estimates of growth of the capital input.

Groups. Estimates of capacity and utilization are available for a variety of groups, including primary and advanced processing industries within manufacturing, durable and nondurable manufacturing, total manufacturing, mining, utilities, and total industry. Component industries of the primary and advanced processing groups within manufacturing are listed in the note on tables 2 and 3 of the release.

Weights. Although each utilization rate is the result of dividing an IP series by a corresponding capacity index, aggregate utilization rates are equivalent to combinations of individual utilization rates aggregated with proportions that reflect current capacity levels of output valued in current-period value added per unit of actual output. The implied proportions of individual industry operating rates in the rate for total industry for the most recent year are shown in the first column of table 3.

Perspective. The historical highs and lows in capacity utilization shown in the tables above are specific to each series and did not all occur in the same month. Industrial plants usually operate at capacity utilization rates that are well below 100 percent: none of the broad aggregates has ever reached 100 percent. For total industry and total manufacturing, utilization rates have exceeded 90 percent only in wartime.

Electric Power

Data on electric power (expressed in kilowatt hours) are collected by the Federal Reserve District Banks from electric utilities and also from manufacturing and mining establishments that generate electric power for their own use (cogenerators). The indexes of power use shown in table 9 are sums of kilowatt hours used by an industry or industry group expressed as a percentage of that industry’s or group’s usage in 1992. The first column of the table shows, for reference, electric power use in billions of kilowatt hours as reported by manufacturing and mining industries in the 1992 censuses of those industries. The supplementary group, “Total, less nuclear nondefense,” is shown separately because the value-added proportion for the nondefense nuclear material series (part of SIC 2819) in total IP is considerably smaller than its share of total electric power use. Excluding this component from total power use facilitates comparisons with total IP.

References

The annual revision published on December 5, 2000 was described more completely in the *Federal Reserve Bulletin*, vol. 87 (March 2001), pp. 132–148.

A description of the aggregation methods for industrial production and capacity utilization is included in an article in the *Federal Reserve Bulletin*, vol. 83 (February 1997), pp. 67–92. *Industrial Production—1986 Edition* contains a more detailed description of the other methods used to compile the industrial production index, plus a history of its development, a glossary of terms, and a bibliography. To obtain *Industrial Production—1986 Edition* (\$9.00 per copy), write to Board of Governors of the Federal Reserve System, Publications Services, Washington, DC 20551. The basic methodology used to estimate capacity and utilization was discussed in an article in the *Federal Reserve Bulletin*, vol. 86 (March 2000), pp. 188–205. The major revisions to the IP indexes and capacity utilization since 1990 have been described in the *Federal Reserve Bulletin* (April 1990, June 1990, June 1993, March 1994, January 1995, January 1996, February 1997, February 1998, January 1999, and March 2000).

Release Schedule

At 9:15 a.m. on:

2002: January 16, February 15, March 15, April 16, May 15, June 14, July 16, August 15, September 17, October 17, November 15, and December 17.