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INDUSTRIAL PRODUCTION AND CAPACITY UTILIZATION

Industrial production contracted 0.1 percent in July, its tenth consecutive monthly decline. Production in the second quarter was revised up but still fell at an annual rate of 4.2 percent. Manufacturing output, which had dropped sharply in June, was unchanged in July; utilities production declined 0.5 percent, and mining output decreased 0.6 percent. At 142.8 percent of its 1992 average, industrial production in July was 3.2 percent lower than in July 2000. Capacity utilization for total industry was 77.0 percent, a level more than 5 percentage points below its 1967–2000 average.

Market Groups

The output of consumer goods increased 0.5 percent after a decline of 0.3 percent in June. The 2.5 percent rise in the production of durable consumer goods was led by a sizable gain in the output of automotive products, particularly light trucks, which more than offset declines in the production of home electronics and appliances. The

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INDUSTRIAL PRODUCTION AND CAPACITY UTILIZATION: SUMMARY

Seasonally adjusted

Industrial Production	Index, 1992=100				Percent change				July 00 to July 01
	2001 Apr. ^r	May ^r	June ^r	July ^p	2001 Apr. ^r	May ^r	June ^r	July ^p	
Total index	144.6	144.2	143.0	142.8	-.3	-.3	-.9	-.1	-3.2
Previous estimates	144.2	143.5	142.5		-.5	-.5	-.7		
Major market groups:									
Products, total	133.8	133.6	132.7	132.8	-.5	-.2	-.6	.1	-2.2
Consumer goods	122.1	122.6	122.2	122.8	-.3	.4	-.3	.5	-.1
Business equipment	193.3	191.5	188.2	187.7	-1.2	-.9	-1.7	-.3	-3.8
Construction supplies	139.6	139.4	138.8	138.6	-.6	-.2	-.4	-.2	-3.6
Materials	164.1	163.4	161.5	160.9	.1	-.4	-1.2	-.3	-4.8
Major industry groups:									
Manufacturing	149.6	149.2	147.7	147.7	-.3	-.2	-1.0	.0	-3.9
Durable	190.1	189.8	187.3	187.5	-.6	-.2	-1.3	.1	-3.7
Nondurable	112.8	112.4	111.7	111.6	.1	-.3	-.6	-.1	-4.1
Mining	103.5	103.8	103.1	102.5	.8	.3	-.7	-.6	2.0
Utilities	120.9	119.0	120.1	119.6	-.9	-1.6	1.0	-.5	.4
Capacity Utilization	Percent of capacity								Capacity growth
	Average 1967–00	1982 Low	1988–89 High	2000 July	2001 Apr. ^r	May ^r	June ^r	July ^p	July 00 to July 01
Total industry	82.1	71.1	85.4	82.3	78.4	78.0	77.2	77.0	3.3
Previous estimates					78.1	77.6	77.0		
Manufacturing	81.1	69.0	85.7	81.6	76.9	76.6	75.7	75.6	3.7
Advanced processing	80.6	71.0	84.2	79.8	77.4	77.1	76.4	76.4	2.1
Primary processing	82.2	65.7	88.3	85.6	77.2	76.7	75.6	75.3	6.5
Mining	87.4	80.3	88.0	86.3	90.0	90.3	89.8	89.3	-1.4
Utilities	87.6	75.9	92.6	89.5	88.5	86.8	87.4	86.6	3.7

output of nondurable consumer goods was unchanged. The output of consumer energy products fell 0.7 percent; the production of non-energy nondurables edged up 0.1 percent, as increases in the production of foods and tobacco, clothing, and chemical products slightly outweighed a drop in the output of paper products.

Continuing its slide of recent months, the index for business equipment declined 0.3 percent in July. The production of information processing equipment fell 1.4 percent, its sixth consecutive monthly decline; since January, production has dropped nearly 7 percent, and the output of communications equipment over the period has been particularly weak. Although the production of transit equipment rose 2.0 percent in July, it remained more than 7 percent below its level in July 2000. The output of industrial and other equipment dipped 0.1 percent in July after having fallen almost 2 percent per month over the previous three months.

The output of business supplies fell 0.5 percent from a downward-revised June estimate; it was the sector's eighth consecutive monthly decline. Among the contributors to the contraction were paper business supplies, newspaper advertising, and job printing. The production of construction supplies fell 0.2 percent.

The output of industrial materials decreased 0.3 percent. The declining output of equipment parts, particularly semiconductors, was responsible for a decrease in the index for durable materials. Among nondurable materials, the output of chemicals, textiles, and paper continued to fall; the production of energy materials fell 0.6 percent.

Industry Groups

After a 1.0 percent contraction in June, manufacturing output held steady in July but remained 3.9 percent below its level in July 2000. After large declines in June, the production of durables edged up 0.1 percent in July, while the production of nondurables fell by the same amount; output in both industry groups remained well below their year-earlier levels. The largest advance among major durable goods industries was in motor vehicles and parts. Smaller gains were recorded by instruments, miscellaneous manufacturing, fabricated metal products, and stone, clay, and glass products. The output of electrical machinery dropped more than 2 percent; furniture and fixtures production also declined. Within nondurables, increases in apparel and in rubber and plastics production were slightly more than offset by declines in petroleum products and in printing and publishing.

The factory operating rate edged down 0.1 percentage point, to 75.6 percent. After June revisions, the utilization rate for primary-processing industries declined to 75.3 percent, while the rate for advanced processing held steady at 76.4 percent. The operating rates of almost all manufacturing industries contracted, as they have through much of the past year. Declines have been particularly notable in the industrial machinery and equipment industry, in which utilization has fallen to 73.5 percent from 82.1 percent in July 2000, and in the electrical machinery industry, in which the rate dropped 23.2 percentage points in the past year. The operating rate at utilities fell 0.8 percentage point to 86.6 percent. The operating rate for mining slipped 0.5 percentage point, to 89.3 percent.

Revision of Industrial Production and Capacity Utilization

On November 27, the Federal Reserve Board will publish revisions to the index of industrial production (IP), to the related measures of capacity and capacity utilization, and to the index of industrial use of electric power. The updated measures will reflect the incorporation of newly available, more comprehensive source data typical of annual revisions. The new source data are for recent years, primarily 1999 and 2000, although data from 1992 onward will be subject to revision.

Industrial production and capacity utilization will continue to be based on the 1987 Standard Industrial Classification (SIC) until the 2002 annual revision, after which they will be constructed from the North American Industrial Classification System (NAICS). The new NAICS-related production indexes will be based on annual output measures that are constructed by reclassifying the establishments in historical Censuses of Manufactures and Mineral Industries under NAICS; annual output indexes constructed this way will maximize the reliability and historical consistency of the IP industry detail.

The updating of source data for IP in the 2001 annual revision will include annual data from the 1999 Bureau of the Census Annual Survey of Manufactures and from selected editions of its 1999 and 2000 Current Industrial Reports. Annual data from the U.S. Geological Survey regarding metallic and nonmetallic minerals (except fuels) for 1999 and 2000 will also be introduced. The updating will include revisions to the monthly indicator for each industry (either physical product data, production-worker hours, or electric power usage) and to seasonal factors.

Capacity and capacity utilization will be revised to incorporate preliminary data from the 2000 Survey of Plant Capacity of the Bureau of the Census, which covers manufacturing, along with other new data on capacity from the U.S. Geological Survey, the Department of Energy, and other organizations. The statistics on the industrial use of electric power will incorporate additional information received from utilities for the past few years and will include some data from the 1997 Census of Manufactures and the 1998 and 1999 Annual Survey of Manufactures.

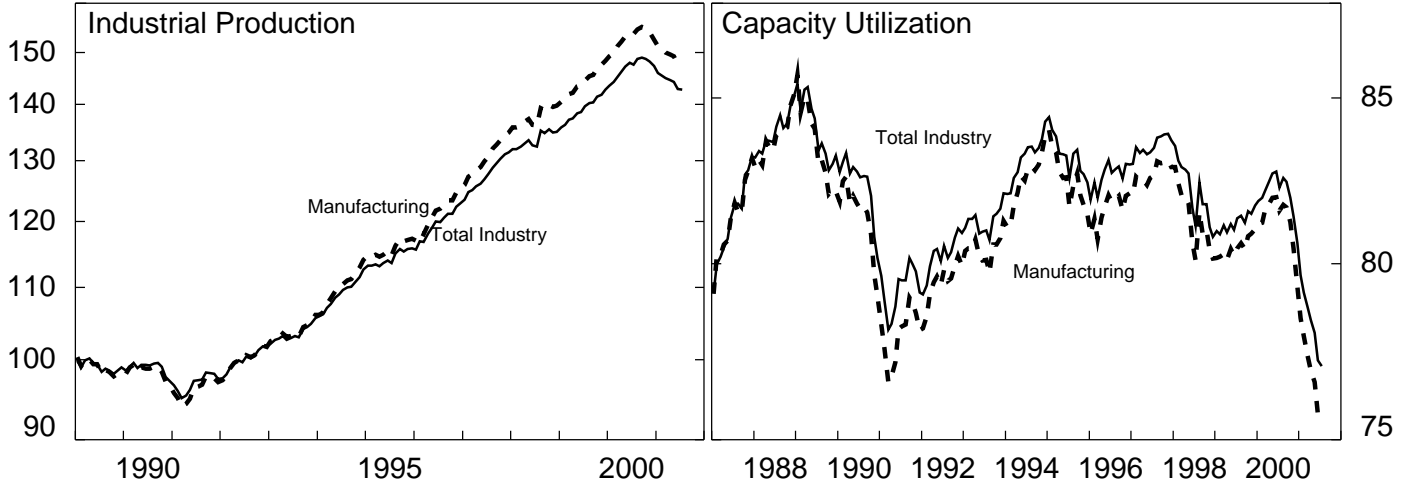
Once the revision is published, it will be made available on the Board's web site. The revised data will also be available through the web site of the Department of Commerce. Further information on these revisions is available from the Board's Industrial Output Section (telephone 202-452-3197).

Industrial Production and Capacity Utilization

(July data, seasonally adjusted)

Ratio scale, 1992=100

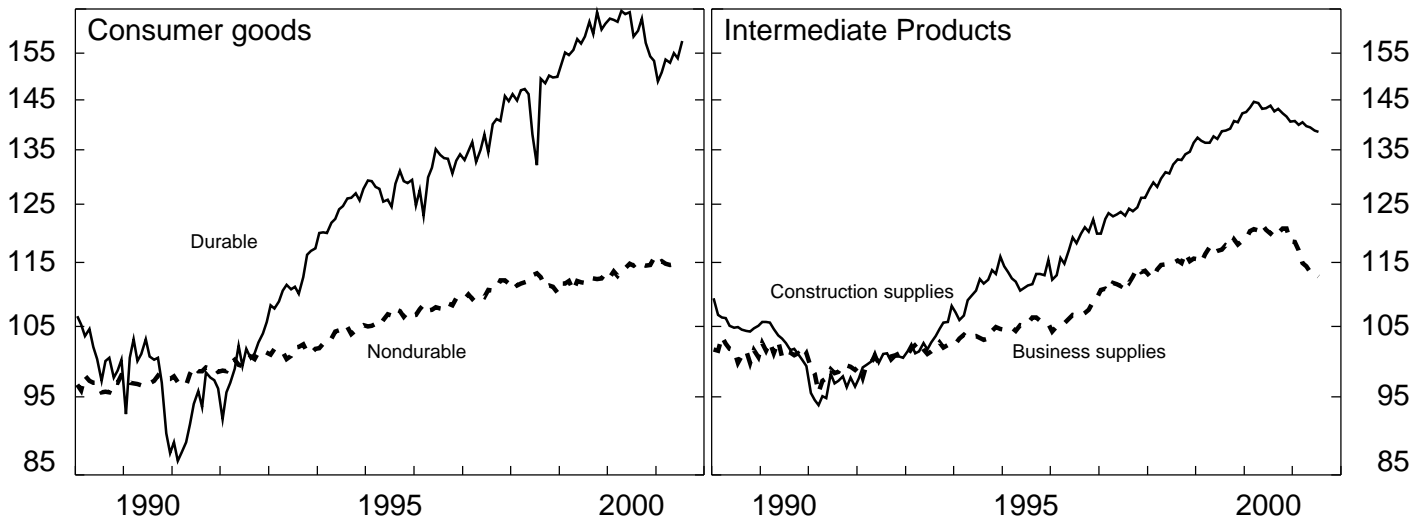
Percent of capacity



Ratio scale, 1992=100

Industrial Production, Market Groups

Ratio scale, 1992=100



Ratio scale, 1992=100

Ratio scale, 1992=100

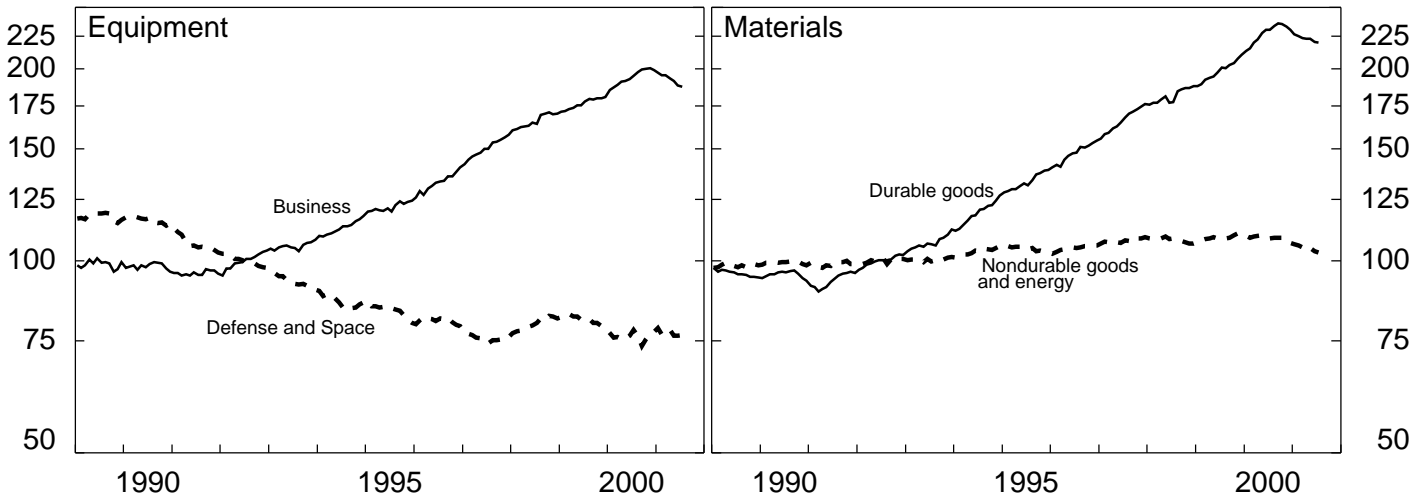


Table 2B
INDUSTRIAL PRODUCTION: INDUSTRY GROUPS

Percent change

Item	SIC	1999 Q4 to 2000 Q4	Seasonally adjusted annual rate				Seasonally adjusted				Not seasonally adjusted				July 00 to July 01
			2000 Q3	2001 Q4	2001 Q1	2001 Q2 ^r	2001 Apr. ^r	2001 May ^r	2001 June ^r	2001 July ^p	2001 Apr. ^r	2001 May ^r	2001 June ^r	2001 July ^p	
Total index		4.2	3.5	-9	-6.8	-4.2	-3	-3	-9	-1	-2.6	.2	2.1	-4.3	-3.2
Manufacturing		4.3	3.7	-1.6	-7.9	-4.8	-3	-2	-1.0	.0	-2.0	.6	2.1	-5.3	-3.9
Primary processing		5.6	3.8	-3.6	-13.0	-5.3	.1	-4	-1.2	-.3	-2.4	.1	2.7	-7.4	-6.3
Advanced processing		3.4	3.7	-.2	-4.6	-4.5	-.5	-.2	-.9	.1	-1.7	.9	1.6	-4.1	-2.3
Durable		8.4	8.1	-.4	-9.6	-5.2	-.6	-.2	-1.3	.1	-4.2	1.3	1.9	-8.8	-3.7
Lumber and products	24	-7.3	-10.5	-12.4	-12.0	10.7	-.5	2.7	-1.2	-.2	1.1	1.3	3.7	-5.8	-5.3
Furniture and fixtures	25	5.6	7.2	4.2	-5.6	-3.0	-.5	.7	-1.2	-.9	1.7	-.1	3.7	-1.8	-1.4
Stone, clay, and glass products	32	.9	7.3	-4.3	-.6	-5.2	-.7	-.1	-.9	.2	3.8	-1.0	2.0	-1.4	-3.0
Non-durable		-5.6	-10.0	-16.5	-18.9	2.6	3.9	.3	-2.0	.0	2.9	-.8	-2.1	-4.6	-10.2
Iron and steel	331,2	-8.6	-15.4	-24.9	-20.0	22.2	4.5	3.0	.1	-.1	4.8	.7	.1	-4.5	-6.2
Raw steel		-13.7	-14.4	-38.1	.2	-5.4	-7.2	7.6	2.6	.5	-7.0	6.5	.1	-4.1	-11.1
Nonferrous	333-6,9	-2.4	-3.4	-6.4	-17.7	-14.9	3.1	-2.5	-4.3	.1	.9	-2.5	-4.6	-4.8	-14.4
Fabricated metal products	34	1.0	.5	-4.6	-9.5	-8.0	-.4	-.4	-1.0	.3	-2.3	2.0	1.9	-2.2	-6.0
Industrial machinery and equipment	35	14.4	13.3	7.4	-8.2	-14.2	-1.8	-1.7	-1.9	-.2	-3.2	-.4	-1.4	-3.8	-4.8
Computer and office equip.	357	42.0	51.9	24.8	-3.5	-8.7	-.9	-.9	-.6	-.8	.9	1.0	-.9	3.4	4.4
Electrical machinery	36	39.0	39.1	16.7	-7.1	-19.0	-1.9	-1.1	-1.6	-2.6	-11.9	1.7	7.7	-12.2	-5.5
Semiconductors and related electronic components	3672-9	73.4	66.4	23.3	-9.6	-26.4	-3.6	-1.7	-2.5	-2.7	-22.3	4.3	15.2	-22.1	-7.5
Transportation equipment	37	-4.1	-6.2	-13.4	-18.2	18.8	-.5	2.3	-1.0	2.6	-6.5	4.5	.4	-24.4	.6
Motor vehicles and parts	371	-6.4	-11.2	-23.6	-27.2	36.7	-.7	4.5	-1.2	4.7	-7.7	6.2	.9	-37.7	3.0
Autos and light trucks		-10.5	-13.8	-33.9	-16.0	39.9	-.1	4.5	-2.0	8.9	-8.5	9.9	-1.2	-42.6	6.8
Aerospace and misc.	372-6,9	-.4	2.9	5.4	-3.0	-3.3	-.2	-1.0	-.7	-.6	-4.5	2.0	-.5	-2.3	-3.2
Instruments	38	1.9	5.1	1.8	-.3	-6.5	.4	-1.3	-1.1	.7	-.9	.2	2.1	.9	-1.4
Miscellaneous	39	.0	1.7	-3.1	-5.2	-3.4	.6	-1.6	1.1	.4	-1.7	.3	2.0	-3.4	-3.0
Nondurable		-.7	-1.5	-3.0	-5.9	-4.4	.1	-.3	-.6	-.1	.8	-.3	2.3	-1.3	-4.1
Foods	20	1.4	1.1	-.8	-.3	-1.1	-.4	.4	-.6	-.2	.8	2.0	3.5	.0	-1.1
Tobacco products	21	-2.7	3.2	-8.0	.1	-2.9	1.8	-1.8	1.0	1.3	-8.5	-2.7	12.0	-15.6	-1.6
Textile mill products	22	-7.9	-13.1	-18.8	-8.2	-17.2	-1.8	-3.6	-.3	-.2	3.4	-5.8	2.9	-5.3	-14.2
Apparel products	23	-5.3	-9.1	-8.0	-.8	-6.5	-.2	-.4	-2.5	1.0	-2.7	3.3	.4	-2.9	-6.0
Paper and products	26	-3.1	-12.7	3.2	-13.4	1.2	5.6	-2.5	-1.9	-.4	5.1	-5.2	1.7	-2.5	-5.7
Printing and publishing	27	1.5	4.1	.8	-10.0	-9.3	-.6	-.4	-.4	-.9	3.1	-1.8	2.7	2.7	-5.6
Chemicals and products	28	-1.3	-1.4	-2.8	-8.2	-5.1	-.9	.7	-1.0	.2	-.4	-.2	-.1	-.5	-3.9
Petroleum products	29	1.2	-3.2	-4.5	-1.7	4.0	1.5	-.4	.8	-1.4	7.6	2.4	2.8	-.8	-1.3
Rubber and plastics products	30	-1.9	-1.0	-9.7	-4.9	-6.7	-.4	-1.0	.1	.6	-2.4	1.1	1.4	-3.3	-6.2
Leather and products	31	-4.4	-2.4	-7.8	-.6	-21.8	-2.9	-2.7	-2.6	-1.1	-5.0	.8	-.7	-8.8	-12.1
Mining		1.3	2.8	-1.5	6.0	7.1	.8	.3	-.7	-.6	1.4	.9	-.3	-1.3	2.0
Metal mining	10	-1.5	-5.5	2.0	-22.3	-5.3	5.8	-.7	-2.2	-2.2	5.9	.0	-.2	-6.1	-7.5
Coal mining	12	-.1	-13.2	-2.0	23.5	7.1	.2	-.3	-1.1	-3.2	-3.9	-3.0	4.1	-10.0	1.1
Oil and gas extraction	13	2.0	6.5	-1.1	5.1	7.4	.8	.4	-.7	-.4	.2	.4	-1.0	-.8	2.3
Stone and earth minerals	14	-3.1	-8.9	-6.4	12.1	8.7	-.4	-.6	.1	.1	21.3	10.5	2.1	3.0	3.3
Utilities		6.5	1.0	9.3	-3.4	-8.2	-.9	-1.6	1.0	-.5	-16.1	-6.5	6.8	7.9	.4
Electric	491,3pt	6.3	-1.1	12.1	-6.6	-1.1	1.4	-2.9	.8	-.9	-6.1	2.7	13.5	10.0	1.8
Gas	492,3pt	7.5	8.1	.7	7.2	-26.8	-7.7	2.9	1.5	.9	-35.2	-31.6	-20.2	-4.1	-4.0
SPECIAL AGGREGATES															
Computers, communications eq. and semiconductors ¹		55.3	56.9	25.2	-6.1	-19.6	-2.2	-1.7	-1.6	-2.4	-12.0	2.2	6.9	-11.3	-3.0
Manufacturing excluding:															
Motor vehicles and parts		5.0	4.9	.1	-6.6	-7.0	-.3	-.5	-1.0	-.3	-1.5	.2	2.1	-3.0	-4.3
Computer and office equipment		3.2	2.5	-2.3	-8.1	-4.7	-.3	-.2	-1.0	.0	-2.0	.6	2.1	-5.6	-4.1
Computers and semiconductors ¹		.2	-.5	-3.7	-8.0	-3.4	-.1	-.1	-.9	.1	-.9	.4	1.6	-4.8	-4.1
Computers, communications eq. and semiconductors ¹		-.5	-1.4	-4.5	-8.2	-3.0	-.1	-.1	-.9	.2	-.8	.4	1.6	-4.8	-4.1

1. Semiconductors include related electronic components.

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

Table 3
CAPACITY UTILIZATION: MANUFACTURING, MINING, AND UTILITIES

Percent of capacity, seasonally adjusted

Item	SIC	2000 Proportion	1967- 2000 Ave.	1978- 1980 High	1982 Low	1988- 1989 High	1990- 1991 Low	1994- 1995 High	2000 July	2001 Feb.	Mar.	Apr. ^r	May ^r	June ^r	July ^p
Total industry		100.00	82.1	87.3	71.1	85.4	78.1	84.4	82.3	79.2	78.7	78.4	78.0	77.2	77.0
Manufacturing		88.70	81.1	86.9	69.0	85.7	76.6	84.0	81.6	77.9	77.3	76.9	76.6	75.7	75.6
Primary processing		33.89	82.2	88.6	65.7	88.3	76.7	88.7	85.6	78.6	77.4	77.2	76.7	75.6	75.3
Advanced processing		54.81	80.6	86.3	71.0	84.2	76.6	81.3	79.8	78.1	77.9	77.4	77.1	76.4	76.4
Durable		49.19	79.6	87.7	63.9	84.6	73.1	83.6	82.3	77.0	76.8	76.0	75.6	74.3	74.2
Lumber and products	24	1.89	82.6	87.9	60.8	93.6	75.5	88.4	80.3	73.3	74.8	74.5	76.5	75.5	75.3
Furniture and fixtures	25	1.65	81.3	85.5	68.9	86.6	72.5	83.9	79.5	78.3	77.8	77.3	77.7	76.7	76.0
Stone, clay, and glass products	32	2.31	78.9	88.0	64.3	83.5	69.7	82.4	85.7	83.2	83.0	82.3	82.0	81.1	81.2
Primary metals	33	3.13	81.6	94.2	45.1	92.7	73.7	95.4	87.3	79.0	76.8	79.7	80.0	78.4	78.4
Iron and steel	331,2	1.67	81.4	95.8	37.0	95.2	71.8	98.5	84.8	75.2	73.8	77.2	79.6	79.8	79.8
Raw steel		.08	80.9	95.8	35.2	92.7	71.5	98.4	85.9	73.8	73.9	68.8	74.1	76.3	76.9
Nonferrous	333-6,9	1.45	82.1	91.1	60.1	89.3	74.2	92.6	90.5	83.6	80.3	82.8	80.6	77.1	77.1
Primary copper	3331	.03	76.2	81.5	42.1	86.3	73.5	102.1	71.8	77.2	75.2	76.4	76.4	75.8	
Primary aluminum	3334	.10	88.3	97.6	58.6	100.4	97.3	84.0	81.0	66.1	62.9	63.2	62.6	60.7	
Fabricated metal products	34	5.85	77.9	83.9	63.7	82.0	71.9	85.2	77.3	72.9	72.5	72.1	71.7	70.9	71.0
Industrial machinery and equipment	35	9.34	81.4	93.2	64.0	85.4	72.3	87.3	82.1	79.1	78.9	77.2	75.6	73.9	73.5
Computer and office equip.	357	2.79	81.2	92.6	65.5	86.9	66.9	85.9	78.1	73.6	72.3	70.7	69.3	68.1	66.9
Electrical machinery	36	9.26	81.4	89.4	71.6	84.0	75.0	90.1	91.8	80.0	77.0	74.5	72.8	71.0	68.6
Semiconductors and related electronic components	3672-9	4.36	80.0	91.6	75.7	81.1	75.6	90.8	99.7	76.6	72.8	68.7	66.4	64.0	61.8
Transportation equipment	37	9.75	76.1	84.8	57.2	85.8	68.5	77.0	75.9	70.8	73.5	73.1	74.7	73.9	75.7
Motor vehicles and parts	371	5.74	77.0	95.0	45.5	89.1	55.9	85.9	78.1	69.9	74.1	73.5	76.8	75.7	79.2
Autos and light trucks ¹		2.67	94.6	40.6	92.3	53.3	86.1	82.7	82.7	73.6	79.1	79.0	82.5	80.8	88.0
Aerospace and misc.	372-6,9	4.01	75.2	81.9	66.6	87.3	79.2	69.1	72.7	71.9	72.5	72.3	71.6	71.1	70.6
Instruments	38	4.69	81.6	92.7	78.4	81.4	77.2	78.3	80.0	80.1	79.6	79.8	78.7	77.8	78.2
Miscellaneous	39	1.32	75.9	79.4	65.4	79.0	71.7	79.5	82.0	78.6	78.5	78.9	77.4	78.1	78.3
Nondurable		39.52	83.2	87.5	76.4	87.3	80.7	84.6	80.6	78.8	77.9	78.0	77.7	77.3	77.2
Foods	20	8.94	82.8	84.6	79.1	85.4	82.7	84.1	81.3	81.1	80.8	80.4	80.7	80.2	80.0
Textile mill products	22	1.26	85.5	91.2	72.3	90.4	77.7	92.6	82.1	76.0	76.0	74.8	72.3	72.3	72.4
Apparel products	23	1.64	80.6	87.5	77.5	85.1	75.5	85.9	71.3	69.6	69.4	69.3	69.1	67.4	68.1
Paper and products	26	3.18	88.7	96.1	80.6	93.5	85.0	91.6	83.6	81.6	77.8	82.1	80.0	78.4	78.1
Pulp and paper	261-3	1.10	92.3	98.3	82.0	98.0	89.9	96.8	90.0	87.1	83.3	87.1	85.0	83.0	
Printing and publishing	27	6.59	85.4	93.9	82.0	91.7	79.6	82.5	81.5	79.8	78.7	78.2	77.9	77.6	76.9
Chemicals and products	28	10.56	79.3	84.6	69.9	86.2	79.3	80.1	76.2	74.3	73.4	72.8	73.3	72.6	72.7
Plastics materials	2821	.88	86.9	90.9	63.4	97.0	74.8	103.0	92.8	88.2	85.0	82.7	84.2		
Synthetic fibers	2823,4	.26	85.1	98.6	64.4	99.7	77.6	90.7	80.8	78.0	78.5	74.0	76.6	70.3	
Petroleum products	29	1.97	87.3	90.0	66.8	88.5	85.1	93.0	95.0	94.6	93.4	94.7	94.3	95.0	93.6
Rubber and plastics products	30	3.58	84.7	91.2	72.7	89.6	77.4	91.3	84.9	79.2	78.6	78.2	77.3	77.3	77.6
Leather and products	31	.20	80.6	92.1	75.8	83.3	76.1	85.7	70.2	71.3	70.1	68.3	66.8	65.3	64.9
Mining		5.96	87.4	96.0	80.3	88.0	87.0	89.1	86.3	87.9	89.2	90.0	90.3	89.8	89.3
Metal mining	10	.23	79.4	87.9	44.4	89.4	79.9	90.3	76.4	76.2	71.1	75.4	74.9	73.4	71.8
Coal mining	12	.54	86.7	99.4	76.6	91.5	83.4	88.4	86.5	86.5	91.1	91.2	90.8	89.8	86.8
Oil and gas extraction	13	4.67	88.3	97.3	82.3	88.2	88.7	89.8	87.0	88.9	90.0	90.9	91.4	90.9	90.7
Oil and gas well drilling	138	.56	73.9	104.3	50.9	69.3	60.0	76.4	78.6	85.4	87.0	87.3	87.8	86.8	85.2
Stone and earth minerals	14	.53	84.8	92.7	63.3	89.0	79.4	91.7	85.3	86.7	88.9	88.6	88.0	88.1	88.2
Utilities		5.33	87.6	89.1	75.9	92.6	83.4	92.7	89.5	89.8	89.6	88.5	86.8	87.4	86.6
Electric	491,3pt	3.90	89.7	88.2	78.9	95.0	87.1	96.0	91.8	91.6	92.4	93.4	90.3	90.6	89.5
Gas	492,3pt	1.43	81.9	93.7	69.1	85.0	67.1	87.8	81.7	83.0	80.5	74.2	76.2	77.2	77.7
SPECIAL AGGREGATES															
Computers, communications eq. and semiconductors ²		9.18	80.4	90.9	77.3	81.9	72.4	87.9	90.0	77.3	74.5	71.7	69.5	67.5	65.1
Manufacturing ex. computers, communications eq., and semiconductors ²		79.52	81.2	87.0	68.0	86.1	76.8	83.8	80.4	77.7	77.4	77.3	77.2	76.4	76.6

1. Series begins in 1977.

2. Semiconductors include related electronic components.

Note—Primary processing manufacturing includes textile mill products, paper and products, industrial chemicals, synthetic materials, and fertilizers, petroleum products, rubber and plastics products, lumber and products, primary metals, fabricated metals, stone, clay, and glass products, semiconductors and related electronic components, and motor vehicle parts. Advanced processing manufacturing includes foods, tobacco products, apparel products, printing and publishing, chemical products and other agricultural chemicals, leather and products, furniture and fixtures, industrial machinery and equipment, electrical machinery except semiconductors and related electronic components, transportation equipment except motor vehicle parts, instruments, and miscellaneous manufactures.

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- 2001 Ave.	1967- 1975 Ave.	1975- 2001 Ave.	1997	1998	1999	2000	2001 ^P	2000 July	2001 Feb.	Mar.	Apr.	May	June	July
Total industry		3.2	3.8	3.0	5.9	6.5	4.6	4.6	2.4	179.4	183.7	184.2	184.5	184.9	185.2	185.4
Manufacturing		3.6	4.0	3.4	6.5	7.2	5.1	5.0	2.7	188.4	193.5	194.0	194.4	194.8	195.1	195.4
Primary processing		3.9	4.4	3.7	8.5	9.4	4.9	8.0	4.2	209.7	220.1	221.0	221.8	222.5	223.0	223.4
Advanced processing		3.3	3.7	3.2	4.9	5.7	5.2	3.0	1.8	174.9	177.2	177.4	177.7	178.0	178.2	178.5
Durable		4.3	3.7	4.6	9.3	10.2	8.4	8.8	4.9	236.6	248.1	249.3	250.3	251.2	252.0	252.7
Lumber and products	24	1.9	2.9	1.6	3.3	3.7	1.6	1.2	.6	147.8	148.7	148.8	148.9	149.0	149.0	149.1
Furniture and fixtures	25	3.3	4.5	2.9	5.4	10.0	2.9	3.9	1.9	179.4	183.8	184.1	184.5	184.7	184.9	185.1
Stone, clay, and glass products	32	1.6	2.5	1.3	3.5	3.9	2.1	2.4	2.2	159.0	161.4	161.7	162.0	162.3	162.5	162.8
Primary metals	33	.6	1.7	.2	3.4	5.1	3.3	.6	-.2	153.4	153.5	153.5	153.5	153.5	153.4	153.4
Iron and steel	331,2	-.1	.7	-.3	3.9	5.8	3.1	.9	-1.1	153.3	153.6	153.5	153.3	153.2	153.0	152.8
Raw steel		-.4	.3	-.7	6.1	6.5	2.8	1.7	-2.6	147.2	148.0	147.7	147.4	147.0	146.6	146.1
Nonferrous	333-6,9	1.8	3.8	1.1	2.9	4.4	3.4	.4	.8	153.4	153.5	153.6	153.7	153.8	153.9	154.0
Primary copper	3331	-.1	1.8	-.7	1.0	-1.1	-3.1	-2.9	-4.7	121.6	119.3	118.9	118.4	117.9	117.4	116.9
Primary aluminum	3334	1.1	5.2	-.3	.1	.7	1.5	1.3	-1.9	107.0	107.4	107.3	107.1	106.9	106.7	106.4
Fabricated metal products	34	2.1	3.1	1.7	6.3	6.0	1.8	2.5	1.8	176.0	178.8	179.0	179.3	179.6	179.8	180.0
Industrial machinery and equipment	35	6.2	4.7	6.7	11.4	11.8	18.1	10.6	4.9	309.2	322.5	323.9	325.3	326.6	327.8	328.9
Computer and office equip.	357	22.9	12.0	27.0	44.3	37.0	72.7	39.0	16.1	1753.9	2017.7	2044.2	2070.6	2095.0	2117.9	2139.3
Electrical machinery	36	10.3	5.9	11.9	26.5	28.2	18.4	33.3	17.0	622.2	742.2	754.2	764.7	773.5	780.8	787.1
Semiconductors and related electronic components	3672-9	22.2	13.1	25.4	46.3	55.2	31.8	70.1	26.2	2163.2	2969.8	3047.1	3112.3	3163.1	3201.4	3230.2
Transportation equipment	37	2.6	3.0	2.5	3.6	4.1	2.2	1.1	1.1	168.6	169.3	169.4	169.6	169.7	169.9	170.1
Motor vehicles and parts	371	3.4	4.4	3.0	6.2	4.7	2.7	2.1	1.4	208.8	210.9	211.2	211.4	211.7	211.9	212.2
Autos and light trucks ¹					5.2	4.4	.5	.8	.2	178.7	179.3	179.3	179.3	179.4	179.4	179.4
Aerospace and misc.	372-6,9	1.5	1.1	1.6	.6	3.1	1.6	-.4	.4	130.5	130.0	130.0	130.1	130.1	130.2	130.3
Instruments	38	4.5	7.6	3.4	1.1	3.4	5.8	1.8	.9	153.2	154.0	154.1	154.2	154.4	154.5	154.6
Miscellaneous	39	2.2	4.4	1.4	1.7	2.9	2.4	1.3	1.9	161.0	162.3	162.5	162.8	163.0	163.3	163.6
Nondurable		2.6	4.3	2.1	3.4	4.1	1.3	.8	-.1	144.3	144.7	144.6	144.6	144.6	144.6	144.6
Foods	20	2.3	3.0	2.0	2.3	2.8	2.2	.4	.8	141.6	141.8	141.9	141.9	142.0	142.2	142.3
Textile mill products	22	1.6	4.4	.7	-.2	-.2	-.5	-1.6	-3.5	123.5	122.0	121.6	121.3	120.9	120.5	120.1
Apparel products	23	.9	2.3	.5	.8	.8	-.9	-2.2	-1.1	129.0	127.4	127.3	127.2	127.1	127.0	126.9
Paper and products	26	2.7	3.9	2.3	3.3	4.3	.9	.8	.9	137.4	138.3	138.4	138.5	138.6	138.7	138.8
Pulp and paper	261-3	2.2	2.9	2.0	1.6	.3	.9	.7	1.2	124.2	124.7	124.8	124.9	125.1	125.2	125.3
Printing and publishing	27	2.6	3.0	2.4	3.0	3.5	.9	-.1	.3	135.0	135.0	135.0	135.0	135.1	135.1	135.1
Chemicals and products	28	3.7	6.8	2.6	5.5	7.0	1.4	2.4	.0	163.7	165.0	165.0	165.0	165.0	165.0	164.9
Plastics materials	2821	6.0	12.7	3.8	6.8	9.6	1.3	.5	1.2	151.8	152.7	152.9	153.0	153.2	153.3	153.5
Synthetic fibers	2823,4	3.3	9.7	1.2	2.0	2.8	-1.5	1.4	1.0	120.0	121.4	121.5	121.6	121.7	121.8	121.9
Petroleum products	29	1.5	4.2	.6	2.4	2.4	1.9	.0	.5	123.2	123.1	123.1	123.2	123.3	123.3	123.4
Rubber and plastics products	30	5.3	8.4	4.2	5.2	5.7	3.8	3.5	1.9	170.2	173.3	173.6	173.8	174.1	174.3	174.5
Leather and products	31	-3.2	-1.5	-3.8	-.6	-2.0	-3.5	-4.4	-5.4	99.8	97.1	96.6	96.2	95.7	95.3	94.8
Mining		.0	-.1	.1	1.9	-.1	-1.5	-.8	-1.3	116.4	115.3	115.2	115.1	114.9	114.8	114.7
Metal mining	10	1.1	.5	1.4	3.0	.8	-.1	-1.8	-1.2	121.7	120.2	120.1	119.9	119.8	119.7	119.6
Coal mining	12	2.1	2.4	2.0	.9	.3	.8	.6	1.0	127.5	127.9	128.0	128.1	128.2	128.3	128.5
Oil and gas extraction	13	-.6	-1.0	-.5	1.5	-.8	-2.4	-1.2	-1.7	110.0	108.7	108.6	108.4	108.2	108.1	108.0
Oil and gas well drilling	138	.5	.8	.5	3.5	1.4	-1.9	-.4	.0	173.2	173.3	173.3	173.3	173.3	173.3	173.3
Stone and earth minerals	14	1.3	2.6	.8	4.8	2.0	.4	.0	-.2	145.9	145.8	145.8	145.7	145.7	145.7	145.6
Utilities		2.8	6.1	1.6	1.0	1.1	2.4	3.3	4.1	133.0	135.7	136.1	136.6	137.0	137.5	138.0
Electric	491,3pt	3.7	7.8	2.3	.2	1.1	3.2	4.4	4.5	131.9	135.3	135.8	136.3	136.8	137.3	137.8
Gas 492,3pt		.4	2.3	-.2	1.1	.5	.1	-.1	1.8	135.8	136.1	136.2	136.4	136.7	136.9	137.2
SPECIAL AGGREGATES																
Computers, communications eq. and semiconductors ²		18.0	9.5	21.0	40.3	39.5	37.8	47.6	21.5	1387.1	1726.1	1760.2	1790.7	1816.7	1839.0	1858.2
Manufacturing ex. computers, communications eq., and semiconductors ²		2.4	3.7	1.9	3.6	4.4	2.1	1.3	.6	154.8	155.6	155.6	155.7	155.8	155.8	155.9

p. Preliminary estimate for current year.

1. Series begins in 1977.

2. Semiconductors include related electronic components.

Table 6
INDUSTRIAL PRODUCTION: INDUSTRY SUBTOTALS AND INDIVIDUAL SERIES

Item	SIC	2000 IP Proportion	Index, 1992 = 100											
			Seasonally adjusted						Not seasonally adjusted					
			2001 Jan.	Feb.	Mar.	Apr. ^f	May ^f	June ^f	2001 Jan.	Feb.	Mar.	Apr. ^f	May ^f	June ^f
Metal mining	10	.22	94.6	91.7	85.4	90.4	89.8	87.8	92.9	92.7	85.1	90.1	90.1	89.9
Iron ore	101	.04	88.7	82.1	89.1	99.0			84.8	80.5	84.3	96.0		
Nonferrous ores	102-4,8,9	.19	95.6	93.2	84.9	89.1	88.8	86.9	94.2	94.6	85.2	89.2	88.2	88.3
Copper	102	.07	82.2	85.1	72.3	78.8			81.5	86.9	74.0	79.2		
Coal mining	12	.55	115.2	110.7	116.6	116.8	116.5	115.2	113.1	115.7	119.4	114.7	111.3	115.9
Oil and gas extraction	13	5.36	96.1	96.7	97.7	98.5	98.9	98.3	96.3	97.3	98.4	98.6	99.0	98.0
Crude oil and natural gas	131	4.50	91.8	91.2	91.9	92.6	92.6	92.0	92.3	91.9	92.7	92.8	92.7	91.9
Crude oil, total		2.28	78.9	78.0	78.8	78.2	78.5	77.6	78.7	78.6	79.2	78.7	78.6	77.1
Natural gas		2.23	109.7	109.6	109.8	112.6	112.0	111.9	111.0	110.3	111.4	112.3	112.2	112.3
Natural gas liquids	132	.33	80.6	101.3	106.9	108.0	116.0	115.5	79.0	102.2	108.7	109.3	114.9	114.8
Oil and gas well drilling	138	.52	146.7	147.9	150.7	151.2	152.2	150.4	145.5	147.1	148.1	149.8	152.1	148.8
Stone and earth minerals	14	.56	121.7	126.4	129.6	129.1	128.2	128.3	89.7	92.3	106.5	129.1	142.7	145.6
Foods	20	8.81	114.1	115.0	114.6	114.2	114.6	114.0	109.3	108.8	109.4	110.3	112.6	116.6
Meat products	201	1.53	119.3	119.4	121.5	121.1	124.0	123.7	119.9	120.6	121.6	121.0	124.0	127.0
Beef		.41	110.5	107.2	110.3	108.6	114.9	115.1	110.6	107.3	107.3	105.7	115.0	121.1
Pork		.29	111.1	111.6	109.1	112.0	113.5	108.0	113.5	113.2	111.2	111.6	104.2	103.9
Poultry		.81	134.5	136.4	140.1	139.1	140.9	142.6	133.9	137.4	140.1	139.9	144.3	146.9
Miscellaneous meats		.01	67.5	65.2	65.5	66.2	61.8	65.4	65.6	67.3	72.3	68.0	58.5	62.2
Dairy products	202	.81	107.8	110.9	105.6	106.7	106.7	109.2	106.1	114.3	111.6	115.4	116.0	116.0
Butter	2021	.01	104.3	101.3	91.6	99.8	106.6	110.7	131.3	127.1	105.7	117.1	110.9	95.4
Cheese	2022	.22	129.4	129.6	128.1	125.0	126.4	127.6	127.1	129.6	132.2	129.2	131.3	130.8
Concentrated milk	2023	.20	112.2	126.1	108.4	113.8	115.0	122.7	116.9	139.1	119.2	132.3	134.4	131.4
Frozen desserts	2024	.09	94.4	95.1	90.5	94.0	88.0	90.1	73.4	90.0	96.0	105.5	101.5	114.0
Milk and misc. dairy products	2026	.30	98.3	98.4	97.4	97.5	97.9	98.6	98.4	100.4	101.2	102.2	102.8	101.1
Canned and frozen food	203	1.10	104.4	106.0	106.5	106.4	106.6	105.3	94.7	93.4	94.7	97.6	99.1	102.7
Grain mill products	204	.93	113.2	110.1	107.9	108.0	105.9	105.2	110.4	106.6	106.1	102.6	104.3	104.6
Bakery products	205	1.04	114.3	117.7	114.2	112.9	114.3	113.0	106.8	106.2	104.2	107.1	110.5	117.4
Sugar and confectionery	206	.60	120.4	121.1	124.0	125.3	124.1	121.1	123.7	118.3	117.3	111.7	111.7	112.5
Fats and oils	207	.16	113.6	116.9	114.8	115.9	117.3	119.6	114.1	120.6	118.2	114.6	113.5	115.0
Beverages	208	1.73	120.5	120.4	120.8	119.2	121.0	119.4	110.9	110.4	115.5	117.0	120.8	127.7
Beer and ale	2082,3	.50	104.9	104.1	102.2	104.0			97.6	100.8	106.7	110.3		
Soft drinks	2086,7	.99	136.8	137.0	138.7	134.4	139.5	137.0	125.5	120.9	124.4	126.9	134.8	143.8
Coffee and miscellaneous	209	.92	112.7	114.1	115.9	114.2	111.9	112.1	106.8	103.2	102.9	106.4	108.3	115.6
Roasted coffee	2095	.11	96.2	95.2	97.7	95.7	97.7		104.1	109.1	83.6	87.7	93.0	
Tobacco products	21	1.71	95.2	93.7	92.2	93.8	92.1	93.1	96.5	99.3	99.2	90.8	88.3	98.9
Textile mill products	22	1.23	93.0	92.7	92.4	90.7	87.4	87.1	87.9	91.0	91.3	94.4	89.0	91.6
Fabrics	221-4	.28	87.6	80.5	79.2	77.3	76.4	75.1	83.3	80.0	80.7	79.8	79.7	76.9
Cotton and synthetic	221,2	.23	88.8	80.4	78.9	76.9			83.9	79.7	80.3	79.3		
Narrow fabrics	224	.03	103.4	102.0	101.1	100.8	96.3	97.1	101.8	101.8	102.1	100.7	97.9	97.7
Knit goods	225	.30	92.7	90.9	91.0	90.1	87.2	83.2	77.9	85.7	86.0	91.0	88.7	93.0
Knit garments	2253,4,7-9	.21	89.7	87.8	88.9	88.0	84.1	79.0	74.5	81.7	81.4	83.5	83.6	86.2
Fabric finishing	226	.12	62.1	61.1	60.9	61.2	61.6	61.1	59.2	62.8	60.5	64.6	66.4	62.1
Carpeting	227	.20	102.8	118.7	117.3	111.8	105.0	115.4	106.0	115.4	114.7	128.3	99.3	122.8
Yarns and miscellaneous	228,9	.34	109.3	108.4	109.2	108.1	101.9	100.2	107.8	108.2	110.4	108.5	104.5	101.9
Cotton and synthetic yarns	2281,2,4	.16	98.6	96.6	99.9	95.0	88.2	87.5	98.2	98.9	102.5	96.5	92.8	89.0
Apparel products	23	1.41	88.9	88.7	88.4	88.2	87.8	85.6	85.4	87.2	87.0	84.7	87.5	87.9
Lumber and products	24	1.82	108.3	109.1	111.4	110.9	113.9	112.5	104.3	107.0	110.7	111.9	113.3	117.5
Logging and lumber	241,2	.62	103.4	98.1	103.5	102.6	108.2	106.3	98.4	97.9	103.4	102.4	105.2	113.2
Logging	241	.20	87.6	83.1	81.8	83.8	87.5	82.7	83.3	78.7	74.9	76.7	82.9	86.7
Lumber products	243-5,9	1.20	113.0	117.3	117.8	117.5	119.1	118.0	109.5	114.2	116.8	119.3	119.9	121.9
Millwork and plywood	243	.67	120.5	124.6	124.7	124.3	126.9	125.7	116.3	118.4	121.6	123.1	128.0	129.2
Plywood	2435,6	.11	85.1	92.0	90.0	91.1	93.9	90.1	82.8	92.9	91.4	93.5	96.8	93.3
Manufactured homes	245	.18	73.5	81.9	83.2	85.2	89.3		65.5	80.6	86.9	91.4	93.6	

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	2000 IP Proportion ¹	Index, 1992 = 100											
			Seasonally adjusted						Not seasonally adjusted					
			2001 Jan.	Feb.	Mar.	Apr. ^f	May ^f	June ^f	2001 Jan.	Feb.	Mar.	Apr. ^f	May ^f	June ^f
Furniture and fixtures	25	1.61	144.1	143.8	143.2	142.5	143.5	141.8	136.1	140.2	137.7	140.0	139.8	145.0
Household furniture	251	.65	131.3	131.5	130.4	128.2	130.4	128.8	124.5	131.0	129.1	128.5	127.1	133.0
Paper and products	26	3.30	111.8	112.8	107.7	113.7	110.9	108.8	112.3	115.5	108.8	114.4	108.4	110.3
Pulp and paper	261-3	1.22	107.1	108.6	104.0	108.9	106.3	103.9	108.0	111.6	104.3	109.0	104.2	104.6
Wood pulp	261	.07	93.4	92.4	91.1	92.0	91.1	89.8	93.7	94.2	89.5	92.7	90.1	89.5
Paper	262	.68	107.8	109.9	103.3	107.5	104.9	102.4	108.5	113.0	103.6	107.4	102.3	102.5
Paperboard	263	.47	110.5	111.4	109.0	115.7	112.9	110.4	111.5	114.3	109.6	115.9	111.3	112.0
Paper products	265,7	2.08	114.8	115.4	110.0	116.8	113.7	111.8	115.0	117.9	111.5	117.7	110.9	113.8
Paperboard containers	265	.79	108.7	106.8	104.4	111.0	108.1	105.3	106.6	107.6	106.3	113.9	103.8	109.5
Converted paper products	267	1.29	118.5	121.0	113.5	120.4	117.2	116.0	120.3	124.3	114.6	119.8	115.3	116.2
Printing and publishing	27	6.58	109.6	107.7	106.2	105.6	105.2	104.8	104.3	102.9	100.8	103.9	102.0	104.9
Newspapers	271	1.57	94.1	90.0	87.4	86.8	86.5	87.6	89.7	90.2	84.0	92.8	84.7	85.6
Periodicals, books, and cards	272,3,7	2.09	116.1	112.2	112.3	112.5	110.8	110.8	113.9	111.4	111.1	111.8	110.0	108.9
Job printing	274-6,8,9	2.92	113.9	114.8	112.9	111.8	112.3	110.7	106.0	104.1	103.2	104.7	106.5	113.4
Chemicals and products	28	10.33	121.8	122.6	121.2	120.1	121.0	119.7	124.2	125.7	124.5	124.0	123.7	123.5
Industrial chemicals and synthetic materials	281,2,6	3.96	106.5	106.3	103.6	102.0	100.9	99.2	105.6	108.6	104.7	104.8	101.1	100.2
Basic chemicals	281	.97	98.9	97.7	95.9	94.0	88.4	85.9	96.9	104.1	97.7	98.1	88.7	89.4
Alkalies and chlorine	2812	.06	73.0	74.6	69.1	71.3	66.3	70.3	73.9	75.7	70.3	70.6	67.6	68.4
Inorganic pigments	2816	.08	108.3	100.2	103.2	102.0			107.0	103.5	104.9	107.7		
Inorganic chemicals, nec	2819	.72	95.8	94.9	92.9	90.2	83.2	79.7	93.8	103.1	95.3	95.2	83.8	84.1
Acids and other		.62	128.3	125.5	123.6	118.5	116.0	116.3	120.9	134.4	121.2	121.2	114.3	121.8
Synthetic materials	282	1.35	115.8	120.9	116.7	113.0	115.0	112.9	113.5	123.8	119.0	117.2	115.0	113.8
Plastics materials	2821	.97	128.0	134.7	130.0	126.5	129.0		124.9	136.9	132.1	131.9	129.0	
Synthetic fibers	2823,4	.27	94.0	94.7	95.4	90.0	93.3	85.6	92.4	99.2	97.3	92.0	91.1	87.3
Industrial organic chemicals	286	1.63	103.9	100.2	98.3	98.3			105.0	99.5	98.0	99.5		
Chemical products	283-5,9	5.91	134.8	136.4	136.1	135.8	138.1	137.3	134.0	134.6	135.5	134.6	137.1	137.8
Drugs and medicines	283	3.39	143.6	147.3	148.4	148.2	150.2	149.9	146.8	149.3	149.8	147.5	151.4	145.6
Soap and toiletries	284	1.56	130.0	129.5	127.2	125.9	129.1	127.5	124.0	122.1	121.6	120.0	121.3	131.9
Paints	285	.37	101.7	100.5	100.1	104.6	107.5	108.6	87.9	99.9	103.9	115.5	118.4	124.6
Agricultural chemicals	287	.47	95.6	95.4	92.7	89.2	90.8	89.4	96.8	95.1	93.0	92.0	92.6	88.6
Petroleum products	29	2.39	115.1	116.5	115.0	116.7	116.2	117.1	107.0	108.1	108.3	116.5	119.3	122.6
Petroleum refining and misc.	291,9	2.16	109.8	111.7	110.3	111.7	111.5	112.5	103.0	104.3	104.8	112.1	114.6	117.6
Miscellaneous petroleum products		.61	107.9	108.5	105.7	106.9	103.3	102.7	91.5	95.6	99.2	109.2	110.5	113.9
Distillate fuel oil		.35	128.3	127.6	122.4	123.1	119.6		121.3	121.8	117.3	122.8	123.0	
Residual fuel oil		.04	88.4	82.4	86.5	98.3	89.8		91.3	83.3	83.9	91.6	88.1	
Aviation fuel and kerosene		.19	108.3	113.0	112.5	113.1	119.4		111.8	109.1	109.4	111.0	115.8	
Automotive gasoline		.97	106.7	110.4	110.7	111.8	114.2		103.5	104.6	105.0	112.1	116.2	
Paving and roofing materials	295	.23	161.9	155.4	152.3	158.6	154.3	153.9	136.7	133.7	129.9	149.3	154.8	162.4
Rubber and plastics products	30	3.65	138.5	137.3	136.5	136.0	134.6	134.7	136.4	137.3	136.6	133.3	134.8	136.7
Tires	301	.31	120.7	122.2	117.5	117.1	111.9	114.0	122.7	131.5	125.0	119.3	112.1	114.9
Other rubber products	302,5,6	.61	135.8	132.9	132.1	131.8	134.5	132.8	126.4	132.3	129.6	130.3	131.7	134.9
Plastics products, nec	308	2.73	141.6	140.5	140.2	139.5	137.7	137.9	140.7	139.4	139.8	135.9	138.5	140.0
Leather and products	31	.17	67.1	69.3	67.7	65.7	63.9	62.3	64.7	67.8	67.5	64.1	64.6	64.2
Shoes	314	.04	47.0	46.2	45.5	44.9	43.0	42.1	45.9	44.4	44.4	43.2	43.4	43.9
Stone, clay, and glass products	32	2.38	135.2	134.3	134.3	133.3	133.1	131.9	127.4	128.9	129.7	134.6	133.3	136.0
Pressed and blown glass	322	.29	109.2	109.9	108.0	107.2	108.1	106.4	104.7	110.1	108.3	109.2	107.3	109.3
Glass containers	3221	.11	80.0	79.6	78.0	81.0	80.1	78.4	76.2	83.7	82.0	83.5	81.3	81.4
Cement	324	.20	141.4	137.0	137.6	148.3	138.3		90.8	102.7	121.2	151.5	152.6	
Structural clay products	325	.11	122.1	117.8	117.3	116.4	115.9	115.9	113.4	117.2	120.5	118.5	118.5	120.6
Concrete and miscellaneous	326-9	1.49	141.2	141.0	141.9	138.5	139.5	137.6	138.6	137.5	136.4	140.1	138.0	139.4

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	2000 IP Proportion ¹	Index, 1992 = 100											
			Seasonally adjusted						Not seasonally adjusted					
			2001 Jan.	Feb.	Mar.	Apr. ^f	May ^f	June ^f	2001 Jan.	Feb.	Mar.	Apr. ^f	May ^f	June ^f
Instruments	38	4.54	125.0	123.3	122.6	123.1	121.5	120.1	121.7	120.6	120.6	119.5	119.7	122.2
Scientific and medical	381-4	3.94	130.0	128.4	127.9	128.6	126.6	125.6	126.3	125.4	125.5	124.6	124.7	127.9
Medical instruments	384	1.68	151.1	146.1	145.2	146.8	146.1	142.7	141.1	137.1	137.4	139.4	141.0	148.5
Misc. manufactures	39	1.31	130.4	127.6	127.6	128.4	126.3	127.6	126.4	125.4	127.6	125.4	125.8	128.3
Consumer goods	391,3,4,6	.55	119.2	118.1	117.3	117.7	116.8	118.6	114.8	116.2	118.5	115.5	116.7	118.3
Business supplies	395,9	.77	141.6	137.3	137.9	139.1	136.0	136.9	137.8	134.7	136.9	135.4	135.1	138.4
Electric utilities	491,3pt	4.45	126.7	123.9	125.5	127.2	123.5	124.4	132.2	120.6	118.4	111.3	114.3	129.7
Generation		1.48	123.4	120.9	122.2	123.7	120.0	120.9	126.8	121.4	117.5	111.1	115.0	129.8
Fossil fuel		.76	132.5	128.5	130.2	132.2			132.3	120.5	118.4	114.5		
Hydro and nuclear		.72	114.5	113.4	114.4	115.4			121.4	122.2	116.6	107.8		
Sales		2.97	128.6	125.8	127.4	129.2	125.5	126.4	135.3	120.5	119.1	111.6	114.1	129.8
Residential		1.28	133.5	129.0	130.7	136.4			153.6	129.2	121.6	107.3		
Nonresidential		1.69	124.9	123.3	124.8	123.8	121.3	122.2	121.7	114.1	117.4	114.8	118.5	127.8
Commercial and other		1.11	135.0	133.0	135.2	133.8			132.5	121.4	125.0	121.3		
Industrial		.58	109.5	108.5	109.0	108.7			105.4	103.2	106.1	105.4		
Gas utilities	492,3pt	1.46	113.7	112.9	109.7	101.2	104.2	105.7	222.4	180.3	161.0	104.3	71.3	56.9
Residential		.82	103.4	105.7	103.0	90.8	95.0	96.9	233.4	187.1	163.1	95.9	55.8	38.2
Commercial and other		.29	131.5	123.1	118.9	115.9	116.2	117.5	240.5	195.0	172.6	116.8	82.8	65.7
Gas transmission		.27	121.3	118.7	113.7	111.1	113.0	114.0	170.6	142.8	137.0	107.8	94.6	91.2

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	2000	2000				2001		2001					
			Q1	Q2	Q3	Q4	Q1	Q2 ^f	Feb.	Mar.	Apr. ^f	May ^f	June ^f	July ^p
Products, total	2102.7	2878.0	2842.8	2875.0	2879.2	2860.3	2821.6	2810.2	2819.8	2826.9	2812.9	2815.9	2801.8	2809.9
Final products	1595.7	2216.7	2180.0	2209.0	2217.1	2202.4	2175.9	2174.6	2174.5	2186.0	2174.7	2180.8	2168.4	2178.9
Consumer goods	1085.2	1342.8	1338.6	1351.6	1347.1	1332.9	1321.1	1331.6	1322.8	1328.2	1325.5	1335.4	1333.9	1342.4
Durable	231.5	372.3	377.3	382.4	371.5	355.0	344.4	355.8	343.3	353.2	351.9	359.1	356.2	369.6
Automotive products	125.0	195.0	198.6	201.7	195.3	181.9	175.0	186.7	173.7	184.1	183.6	189.2	187.2	200.6
Other durable goods	106.5	177.9	179.1	181.0	176.7	175.0	171.6	169.5	172.0	170.0	169.1	170.1	169.3	167.3
Nondurable	855.5	970.6	962.0	970.1	975.3	975.8	973.5	974.0	976.1	972.9	971.4	974.8	975.8	972.8
Equipment, total	512.0	872.7	846.8	863.9	878.9	879.7	863.7	848.4	859.8	866.4	856.5	850.7	837.9	839.2
Business and defense	492.6	850.4	823.6	841.2	856.4	859.2	842.9	826.2	838.8	844.9	834.6	828.2	815.8	817.3
Business	405.0	788.7	765.5	784.1	800.3	802.2	784.5	768.1	781.4	786.7	775.7	770.6	758.0	759.4
Defense and space	88.6	65.9	66.4	65.7	65.3	66.1	66.7	66.1	65.8	66.7	66.9	65.7	65.6	65.7
Intermediate products	507.8	661.3	661.7	664.9	661.2	656.9	644.9	635.1	644.5	640.4	637.7	634.8	633.0	630.7
Construction supplies	200.0	285.4	286.9	286.6	284.9	281.3	278.7	277.4	277.4	279.3	278.0	277.7	276.5	275.8
Business supplies	308.1	375.6	374.4	377.9	375.9	375.2	365.9	357.5	366.6	360.9	359.4	356.8	356.2	354.6
Commercial energy products	75.7	95.8	93.9	97.1	96.8	95.9	94.7	93.3	94.7	94.1	93.7	93.1	93.1	92.6

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	53.6	56.5	55.4	59.4	55.1	50.7	58.2	55.8	48.6	64.5	53.3	59.8
2000	58.7	50.4	56.5	51.4	51.4	56.2	54.2	43.5	54.0	43.5	45.7	37.9
2001	46.7	41.8	41.7	44.9	40.6	33.5						
Three Months Earlier												
1999	52.9	56.9	56.5	56.5	55.8	58.0	56.2	63.4	58.0	62.0	58.3	62.7
2000	61.2	62.0	59.8	56.2	54.0	52.9	49.6	44.9	48.9	43.1	45.3	42.4
2001	38.9	36.8	37.7	39.9	39.9	34.8						
Six Months Earlier												
1999	59.1	53.3	56.2	54.3	58.0	59.8	60.1	60.1	61.6	67.4	62.7	62.7
2000	68.1	65.9	68.1	64.1	60.0	55.4	49.6	43.8	47.5	44.9	41.7	39.5
2001	40.9	38.0	35.1	33.3	32.6	33.3						

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.

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 for 2001

At 9:15 a.m. on:

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