FEDERAL RESERVE statistical release



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INDUSTRIAL PRODUCTION AND CAPACITY UTILIZATION

Industrial production rose 0.2 percent in July, its seventh consecutive monthly increase. At 140.7 percent of its 1992 average, industrial production in July was 2.9 percent above its December 2001 trough. After having posted gains of 0.6 percent in both May and June, manufacturing output edged up 0.1 percent in July. Mining output declined 1.2 percent, a drop that reversed its June increase, and utilities production surged 2.3 percent. The rate of capacity utilization for total industry was 76.1 percent, a rate 5.8 percentage points below its 1967–2001 average.

Market Groups

The output of consumer goods rose 0.3 percent in July; a strong gain in the production of durables more than offset a decline in nondurables. A sizable increase for a second month in the output of automotive products was the principal contributor to the 2.5 percent rise in the index for consumer durables. Gains also were posted among appliance manufacturers. Monthly output changes for this industry have been volatile recently, but output has trended upward, on (over)

INDUSTRIAL PRODUCTION AND CAPACITY UTILIZATION: SUMMARY

Seasonally adjusted

		Index,	1992=100			Perce	ent change		
Industrial Production	2002 Apr. ^r	May ^r	June ^r	July ^p	2002 Apr. ^r	May ^r	June ^r	July ^p	July 01 to July 02
Total index Previous estimates	138.8 138.9	139.5 139.5	140.4 140.6	140.7	.1 .2	.5 .4	.7 .8	.2	.2
<u>Major market groups:</u> Products, total Consumer goods Business equipment Construction supplies Materials	127.0 121.4 162.9 138.3 158.8	127.2 121.3 163.4 138.8 160.6	128.0 122.3 163.7 139.1 161.9	128.1 122.7 163.6 139.0 162.3	3 3 4 -1.0 .9	.1 .0 .3 .4 1.2	.6 .9 .2 .2 .8	.1 .3 1 1 .2	-1.6 .5 -7.1 1.2 3.2
<u>Major industry groups:</u> Manufacturing Durable Nondurable Mining Utilities	143.4 177.2 110.5 95.3 123.9	144.2 178.4 111.1 96.5 122.7	145.1 179.7 111.6 97.7 124.2	145.2 180.6 111.1 96.5 127.0	.0 .3 3 1 1.7	.6 .7 .5 1.3 -1.0	.6 .7 .5 1.2 1.2	.1 .5 5 -1.2 2.3	.0 .4 -5.3 7.5
				Percent of	capacity				Capacity growth
Capacity Utilization	Average 1967–01	1982 Low	1988–89 High	2001 July	2002 Apr. ^r	May ^r	June ^r	July ^p	July 01 to July 02
Total industry Previous estimates	81.9	71.1	85.4	76.7	75.3 75.3	75.6 75.6	76.0 76.1	76.1	1.0
Manufacturing Advanced processing Primary processing Mining Utilities	80.9 80.3 82.0 87.6 87.6	69.0 71.0 65.7 80.3 75.9	85.7 84.2 88.3 88.0 92.6	75.1 75.1 74.9 90.9 86.0	73.6 72.5 75.4 84.4 87.0	74.0 72.5 76.3 85.5 85.8	74.4 73.0 76.6 86.5 86.6	74.4 72.9 76.7 85.5 88.3	.9 .6 1.5 .7 4.7

balance, since the end of last year. In contrast, the production of home electronics fell further in July. Output of these goods weakened in the second quarter after rapid increases in the previous two quarters. Consumer nondurables fell 0.3 percent despite a 1.8 percent rise in the output of consumer energy products. Declines among non-energy nondurables, including foods, paper, and chemical products, were widespread. The jump in the output of energy products reflected a pickup in the output of gasoline and a sharp rise in electricity use, which resulted from the unseasonably hot weather.

The index for business equipment edged down in July after having increased in the two previous months. The production of transit equipment moved up, as stronger output of business autos and trucks more than compensated for continued declines in commercial aircraft and related equipment. Nonetheless, the index for transit equipment in July remained nearly 16 percent below its July 2001 level. The output of information processing equipment declined in July, and revised data now indicate that production in this group contracted in the second quarter. The renewed weakness in this sector largely reflects lower output of computers and communications equipment. After a cumulative gain of about 2-1/4 percent over the May and June period, the output of industrial and other equipment fell 0.6 percent in July. Swings in the production of farm machinery and construction equipment have dominated the recent monthly changes in this group. The output of defense and space equipment, which has been on an upswing since last fall, was little changed in July.

The output of construction supplies, which posted sizable gains during the first half of this year, decreased 0.1 percent in July. The production of business supplies was unchanged in July. Declines in the output of job printing, paper business supplies, and other general business supplies were entirely offset by a weather-related increase in the production of commercial energy products.

The production of industrial materials rose 0.2 percent in July, its seventh consecutive monthly increase. Gains in motor vehicle parts and related supplies, steel, and semiconductors have been the key contributors to the rise in the index for durable materials. The output of nondurable materials declined in June and July, with weakness in paper, textiles, and chemicals. The output of energy materials moved up 0.6 percent as a jump in electricity generation more than offset declines in coal, crude oil, and natural gas extraction.

Industry Groups

Manufacturing output rose 0.1 percent in July and was unchanged from its level of July 2001. The output of motor vehicles and parts rose 4.2 percent in July after a 2.8 percent increase in June. However, excluding motor vehicles, manufacturing output declined 0.3 percent in July. An increase of 0.5 percent in the production of durables in July reflected the strong output of motor vehicles and related parts and materials. The rise in durables is the seventh consecutive monthly increase. The production of iron and steel, which continued to trend upward, rose to a level 4.1 percent above its July 2001 level. The output of semiconductors and related equipment also continued its upward trend; it has risen about 25 percent over the same twelve-month period, although recent monthly gains have been more moderate than those posted earlier this year. Elsewhere among durables, the gains in the output of industrial machinery and computer equipment slowed in the second quarter, and output fell in July. The production of aerospace and miscellaneous transportation equipment fell further. The output of nondurables reversed its June increase and was little changed from a year ago.

The factory operating rate remained at 74.4 percent in July, a rate nearly 6.5 percentage points below its 1967–2001 average. The utilization rates both for primary processing and for advanced processing were essentially unchanged. The utilization rate for the selected high-technology industries fell 0.5 percentage point to return to its April 2002 rate of 63.8 percent. The operating rate for motor vehicles and parts, at 84.7 percent, is the highest it has been since June 2000. The operating rate at mines fell to 85.5 percent, and the rate at utilities rose to 88.3 percent.

Revision of Industrial Production and Capacity Utilization

On November 26, the Federal Reserve Board will publish a revision to the index of industrial production (IP), the related measures of capacity and capacity utilization, and the data on industrial use of electric power. The revised estimates will be classified according to the 2002 North American Industrial Classification System (NAICS); previously, the estimates from 1987 forward were classified according to the 1987 Standard Industrial Classification system (SIC). NAICS changes the SIC system's industry composition of manufacturing. To preserve the continuity of the production, capacity, and utilization rate measures featured in the Federal Reserve's G.17 statistical release, portions of SIC 27 (printing and publishing) and SIC 24 (lumber and products) that are not classified in manufacturing under NAICS will continue to be included in the overall IP index and capacity utilization.

The revised 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. Data going back to at least 1972 will be restated using NAICS. The monthly indicators used in current IP will be incorporated into the revised IP indexes as far back as the data will allow.

The updated measures will reflect the incorporation of newly available, more comprehensive source data typical of annual revisions. The updating of source data for IP in the 2002 annual revision will include annual data from the 2000 Annual Survey of Manufactures of the Bureau of the Census and from selected editions of its 2000 and 2001 Current Industrial Reports. Annual data from the U.S. Geological Survey regarding metallic and nonmetallic minerals (except fuels) for 2000 and 2001 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 revisions to seasonal factors.

Capacity and capacity utilization will be revised to incorporate preliminary data from the 2001 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 2000 Annual Survey of Manufactures.

Once the revision is published, it will be made available on the Board's web site, www.federalreserve.gov/releases/G17. 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)

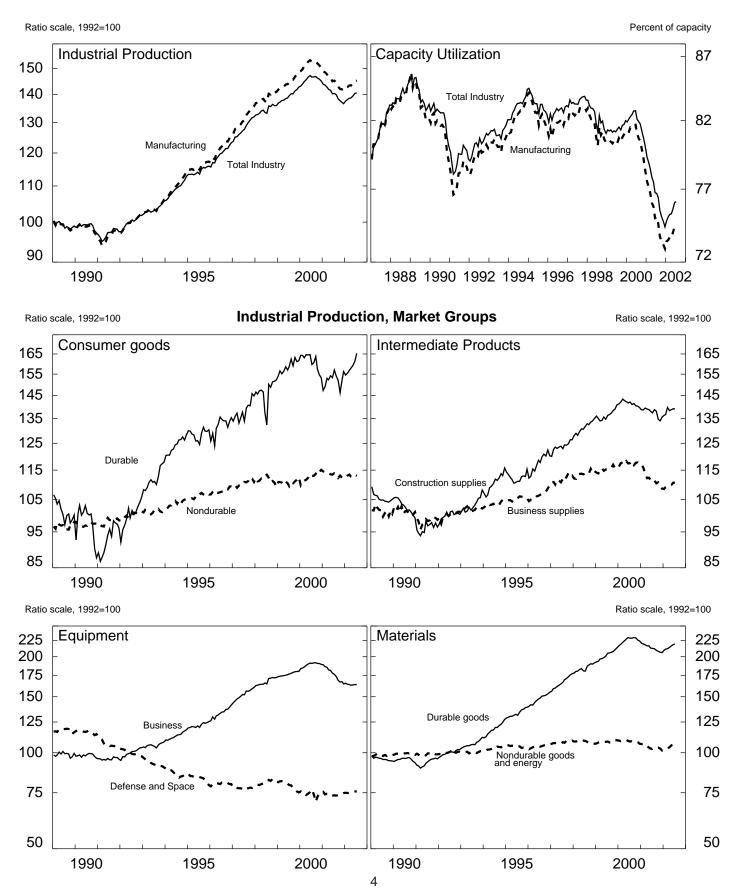


Table 1A INDUSTRIAL PRODUCTION: MARKET GROUPS

Item IP 2002 Rev. Mar. Apr. M		2001		C	easonall	v Adiueta	24	Index, 19	992=100		season	ally adius	sted	
Total index 100.00 138.1 138.6 138.6 138.6 138.6 138.6 137.1 138.8 137.9 130.0 143.5 137.9 Products 46.44 122.4 122.6 127.2 122.0 122.1 122.0 122.1 <th12.1< th=""> 122.1 122.1</th12.1<>	Itom	IP						luiun						luk n
Products, total Final products 66.8.9 (40.44) 126.9 127.4 127.3 128.0 128.0 128.1 128.0 128.1 128.0 128.1														July ^p
Consumer goods Dubble 90.46 12.1 12.7 12.1 12.1 12.7 12.8 12.2 12.8 12.	Products, total	61.89	126.9	127.4	127.0	127.2	128.0	128.1	126.0	126.7	126.3	125.9	130.4	136.0 124.5
Durable 6.50 155.4 156.8 157.9 158.1 156.5 156.4 156.5 156.7 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>124.2</td></t<>														124.2
Nonenergy Foods and tobacco 20.57 112.3 112.7 111.6 111.5 112.4 111.7 110.1 110.2 110.7 110.4 109.7 110.6 114.5 112.3 Chemical products 5.05 147.6 146.7 147.7 74.8 74.9 75.9 74.9 75.9 74.9 75.9 74.9 75.9 74.9 75.9 74.9 75.9 75.7 75.7 75.7	Durable Automotive products Autos and trucks Autos Trucks Auto parts and allied goods Other durable goods Appliances and air cond. Home electronics Carpeting and furniture	6.50 3.49 2.32 .69 1.63 1.17 3.01 .79 .51 .28 .81 1.41	155.4 158.1 173.4 110.5 240.6 134.0 151.1 304.8 145.8 628.8 118.8 108.7	156.8 159.6 173.7 102.5 249.7 137.4 152.2 308.6 149.5 620.6 118.3 110.0	157.9 162.4 179.0 104.1 258.9 136.2 151.3 299.9 145.1 605.6 119.4 109.8	159.1 162.8 178.2 102.3 259.1 138.4 153.5 313.5 154.6 606.8 119.3 110.4	161.3 168.6 186.1 104.5 272.9 141.0 151.3 295.0 141.4 607.7 118.1 111.5	165.3 175.6 197.4 107.2 293.3 140.9 151.7 295.9 142.7 601.6 118.2 112.0	161.6 165.9 187.1 115.9 263.1 132.2 155.1 324.8 158.8 636.2 117.1 111.6	164.3 168.1 186.3 107.7 269.9 139.3 3158.3 316.0 157.8 592.7 118.0 118.1	168.1 174.5 196.2 113.1 284.6 140.1 158.9 297.3 149.9 545.0 123.6 120.2	165.6 174.1 196.6 111.7 286.9 138.2 154.0 292.5 149.6 518.2 117.1 116.9	168.5 180.3 202.7 115.4 295.5 144.6 152.8 137.6 538.0 125.4 113.5	116.7 134.0 125.9 118.9 69.5 171.4 138.4 142.7 267.7 127.4 559.2 119.1 103.3
Business equipment Information processing & related Computer and office 13.06 164.0 63.4 63.7 63.6 162.0 162.2 163.2 <th163.2< th=""> 163.2 163.2<</th163.2<>	Nonenergy Foods and tobacco Clothing Chemical products Paper products Energy products Fuels	20.57 11.18 1.30 5.05 3.04 3.39 1.17	112.3 109.7 74.9 147.6 98.1 118.3 116.5	112.7 110.4 75.7 146.7 98.5 118.4 115.4	111.6 109.9 74.6 144.7 96.7 120.8 117.7	111.5 109.5 74.6 144.1 97.7 119.8 115.6	112.4 110.6 74.7 144.5 99.0 119.8 114.1	111.7 109.9 75.8 143.5 97.6 122.0 115.6	110.1 106.1 73.0 148.6 97.0 138.0 111.1	110.5 107.2 74.4 146.2 97.7 132.6 110.1	109.7 107.3 74.0 142.4 96.9 110.7 117.4	110.6 108.4 75.0 143.5 96.8 100.2 117.9	114.9 115.4 77.9 143.1 97.8 105.1 117.3	112.1 111.3 109.8 75.4 141.9 97.9 117.7 118.0 117.0
Construction supplies 6.56 136.8 139.7 138.8 139.1 139.0 128.8 134.6 138.9 140.5 147.6 147.5 147.6 147.5 147.6 147.5 147.6 147.5 147.6 147.5 147.6 147.5 147.6 147.5 </td <td>Business equipment Information processing & related Computer and office Industrial Transit Autos and trucks Other Defense and space equipment Oil and gas well drilling</td> <td>13.06 5.04 1.10 3.68 2.93 1.36 1.40 2.01 .72</td> <td>164.0 267.9 998.7 113.5 116.8 155.7 130.5 74.9 105.3</td> <td>163.5 269.1 1020.7 113.6 114.1 154.6 131.2 74.9 104.5</td> <td>162.9 266.6 1012.6 113.3 113.8 158.6 132.5 75.3 102.0</td> <td>163.4 266.6 1001.1 116.0 111.8 159.2 132.5 75.6 101.4</td> <td>163.7 268.2 995.0 115.7 110.5 158.9 136.0 75.7 104.4</td> <td>163.6 266.1 995.7 115.8 112.7 169.1 133.2 75.7 104.3</td> <td>162.0 253.8 914.0 113.6 121.0 166.6 130.5 75.0 105.4</td> <td>162.0 257.0 930.7 113.7 118.3 165.1 130.6 75.5 102.7</td> <td>163.2 258.2 954.6 113.4 120.2 175.4 133.8 74.9 101.2</td> <td>163.9 262.3 969.8 115.0 117.9 175.2 132.6 74.8 102.2</td> <td>167.5 272.0 968.5 117.1 116.9 175.5 138.1 75.4 103.7</td> <td>135.5 155.1 273.5 993.5 112.5 86.2 106.7 129.6 74.2 105.1 75.1</td>	Business equipment Information processing & related Computer and office Industrial Transit Autos and trucks Other Defense and space equipment Oil and gas well drilling	13.06 5.04 1.10 3.68 2.93 1.36 1.40 2.01 .72	164.0 267.9 998.7 113.5 116.8 155.7 130.5 74.9 105.3	163.5 269.1 1020.7 113.6 114.1 154.6 131.2 74.9 104.5	162.9 266.6 1012.6 113.3 113.8 158.6 132.5 75.3 102.0	163.4 266.6 1001.1 116.0 111.8 159.2 132.5 75.6 101.4	163.7 268.2 995.0 115.7 110.5 158.9 136.0 75.7 104.4	163.6 266.1 995.7 115.8 112.7 169.1 133.2 75.7 104.3	162.0 253.8 914.0 113.6 121.0 166.6 130.5 75.0 105.4	162.0 257.0 930.7 113.7 118.3 165.1 130.6 75.5 102.7	163.2 258.2 954.6 113.4 120.2 175.4 133.8 74.9 101.2	163.9 262.3 969.8 115.0 117.9 175.2 132.6 74.8 102.2	167.5 272.0 968.5 117.1 116.9 175.5 138.1 75.4 103.7	135.5 155.1 273.5 993.5 112.5 86.2 106.7 129.6 74.2 105.1 75.1
Durable Consumer parts 22.35 211.6 212.1 214.2 216.4 218.5 217.6 212.0 213.6 225.8 20 Semiconductors, printed circuit boards, and oth. elec. comps. Other 8.09 439.7 440.8 444.9 453.3 456.6 456.0 424.4 468.3 117.7 173.2 13 Other Basic metals 2.69 273.21 2813.7 292.7.7 2969.2 3019.2 2479.2 3167.3 2416.4 257.9 3336.2 266 Paper 9.60 121.5 121.8 122.7 123.6 124.9 124.9 14.2 105.4 105.5 113.9 110.5 110.5 113.9 113.1 108.1 110.5 110.5 113.9 117.5 113.4 108.1 110.5 105.8 106.4 102.4 102.4 102.4 102.4 108.1 110.8 106.8 107.7 107.6 106.4 102.8 108.0 107.7 107.6 106.4 102.2 108.0 107.7	Construction supplies	6.56	136.8	139.7	138.3	138.8	139.1	139.0	128.8	134.6	138.9	140.5	147.5	124.8 143.4 113.8
Consumer parts 4.65 162.9 163.4 165.8 166.2 168.5 171.8 161.6 169.3 173.6 171.7 173.2 17 Equipment parts 8.09 439.7 440.8 444.9 453.3 456.6 456.0 424.4 468.3 418.6 428.9 479.0 42 boards, and oth. elec. comps. 9.60 121.5 121.8 122.7 123.6 124.9	Materials	38.11	157.1	157.4	158.8	160.6	161.9	162.3	155.7	159.8	157.7	158.7	166.2	155.6
boards, and oth. elec. comps. Other 2.97 2690.5 2732.1 2813.7 2927.7 2969.2 301.9.2 2479.2 3167.3 2416.4 2572.9 3336.2 266 Basic metals 9.60 121.5 121.8 122.7 123.6 124.9 119.0 120.4 122.7 123.2 127.7 123.2 127.7 123.2 127.7 123.2 127.7 123.2 127.7 123.2 127.7 123.2 127.7 123.2 127.7 123.2 127.7 123.2 127.7 123.2 127.7 123.2 127.7 123.2 127.7 123.2 127.7 123.2 127.7 123.2 123.2 123.7 123.2 123.7 123.2 123.7 123.2 123.7 123.2 123.7 123.2 123.7 123.2 123.7 123.2 123.7 123.2 123.7 123.2 123.7 123.2 123.5 136.4 143.5 136.4 143.5 136.4 143.5 136.4 142.0 137.	Consumer parts Equipment parts	4.65	162.9	163.4	165.8	166.2	168.5	171.8	161.6	169.3	173.6	171.7	173.2	204.1 137.3 427.3
Total excluding: 96.31 137.3 137.8 137.8 138.6 139.4 139.3 135.8 137.7 136.3 136.4 142.0 137.5 Motor vehicles and parts 93.65 136.3 136.7 136.7 137.5 138.2 138.0 134.8 136.4 134.9 135.1 140.8 135.1 140.8 135.1 140.8 135.1 140.8 135.1 140.8 135.1 140.8 135.1 140.8 135.1 140.8 135.1 140.8 135.1 140.8 135.1 140.8 135.1 140.8 135.1 140.8 135.1 140.8 135.1 140.8 135.1 136.4 134.9 135.1 136.4 134.9 135.1 140.8 135.1 136.4 134.9 135.1 140.8 135.1 136.4 134.9 135.1 136.3 136.1 137.5 135.8 137.7 136.3 136.4 134.9 135.1 136.4 134.9 135.1 136.9 137.5 135.1 140.8 137.5 135.8 137.7 133.0 132.1 132.2	boards, and oth. elec. comps. Other Basic metals Nondurable Textile Paper Chemical Other Energy Primary	9.60 2.69 7.63 .75 1.56 3.50 1.82 8.13 5.46	121.5 107.9 103.4 87.4 103.3 104.1 110.0 102.6 97.7	121.8 109.0 104.1 90.3 103.2 105.4 108.9 102.1 96.9	122.7 108.1 104.8 88.8 105.8 105.9 109.5 103.0 97.6	123.6 110.0 107.1 89.9 110.2 108.0 111.0 103.4 98.1	124.9 112.3 107.0 88.3 109.3 107.7 112.7 104.5 99.5	124.9 113.1 106.4 88.3 107.6 107.6 111.7 105.1 99.1	119.0 108.1 104.8 87.6 106.4 106.1 108.9 103.4 99.9	120.4 110.7 103.9 91.0 102.3 105.2 109.0 102.0 98.1	122.7 110.5 107.4 92.6 108.0 108.2 112.3 99.8 95.7	123.2 110.5 106.8 94.4 108.1 108.0 109.2 101.4 97.4	127.7 113.9 108.5 91.5 110.8 108.6 114.5 106.5 101.4	
semiconductors 93.38 115.4 115.7 115.8 116.3 117.1 117.3 114.9 115.5 115.7 115.6 119.4 11 Consumer goods excluding: Autos and trucks 28.14 118.3 118.8 118.2 118.2 118.8 118.5 119.4 116.3 115.3 119.4 11	Total excluding: Autos and trucks Motor vehicles and parts Computers Computers and semiconductors ²	93.65 98.45	136.3 132.2	136.7 132.6	136.7 132.8	137.5 133.5	138.2 134.4	138.0 134.7	134.8 131.3	136.4 133.0	134.9 132.1	135.1 132.2	140.8 137.5	137.0 137.1 130.2 115.9
Energy 27.07 121.5 122.1 121.4 121.5 122.7 122.9 120.9 121.7 121.8 122.0 126.1 11	semiconductors Consumer goods excluding: Autos and trucks	28.14	118.3	118.8	118.2	118.2	118.8	118.5	119.2	119.4	116.3	115.3	119.4	113.7 116.9
Business equipment excluding: 11.70 164.7 163.1 163.6 163.9 162.3 160.9 161.1 160.9 161.8 165.8 16	Autos and trucks	11.70		164.4	163.1	163.6	163.9	162.3	160.9	161.1		161.8	165.8	116.6 161.7 127.2
Materials excluding: Energy 29.98 174.7 175.3 176.9 179.2 180.5 180.8 172.4 178.6 176.7 177.4 185.7 17		29.98	174.7	175.3	176.9	179.2	180.5	180.8	172.4	178.6	176.7	177.4	185.7	170.5

The IP proportion data are estimates of the industries' relative contributions to overall IP growth in the following year.
 Semiconductors include related electronic components.

Table 1B INDUSTRIAL PRODUCTION: MARKET GROUPS

Percent change

	2000 Q4	Se	easonally annual		d	Se	asonally	adjuste	ч	Not	seasona	Ily adjust	ed	July 01
Item	to 2001 Q4	2001 Q3	Q4	2002 Q1	Q2r	2002 Apr. ^r	Mayr	Juner	Julyp	2002 Apr. ^r	Mayr	Juner	Julyp	to July 02
Total index	-5.9	-4.7	-6.7	2.6	4.4	.1	.5	.7	.2	7	.1	4.0	-5.2	.2
Products, total Final products	-5.2 -5.1	-4.7 -5.5	-7.3 -7.4	1.0 .6	1.2 .5	3 3	.1 .1	.6 .7	.1 .2	3 -1.1	3 4	3.6 3.0	-4.6 -6.0	-1.6 -2.1
Consumer goods Durable Automotive products Autos and trucks Autos Trucks Auto parts and allied goods Other durable goods Other durable goods Appliances and air cond. Home electronics Carpeting and furniture Miscellaneous Nondurable Nonenergy Foods and tobacco Clothing Chemical products Paper products Fuels Utilities	-1.7 -2.3 3.7 7.0 -0.6 10.3 -2.7 -8.6 -3.5 -18.2 -5.6 -11.4 -1.5 -8 -10.8 -1.4 -5.3 -0.8 -10.7 -0.7	5 2.9 13.4 19.3 -13.5 2.1 -8.0 -5.3 -25.3 -4.4 -11.4 -1.5 -2.5	-3.6 -7.1 -6.5 -6.3 3.00 -9.8 -6.7 -8.0 -8.2 -8.2 17.8 2.3 -17.7 -2.5 -1.7 -12.8 -7.5 -12.8 -7.5 -12.8 -7.5 -13.2	$\begin{array}{c} 3.7\\ 11.2\\ 13.2\\ 16.1\\ 52.4\\ 3.5\\ 7.5\\ 8.8\\ 30.6\\ 28.6\\ 33.2\\ .0\\ 2.5\\ 1.7\\ .5\\ 4.4\\ 6.6\\ -1.1\\ -13.3\\ 10.2\\ 6.5\\ 12.2\\ \end{array}$	$\begin{array}{c} 1.8\\ 10.2\\ 15.8\\ 17.3\\ -4.2\\ 27.8\\ 12.6\\ 3.6\\ 0.3\\ -11.1\\ 2.8\\ -3.5\\ -2.5\\ -9.0\\ -2.7\\ 12.2\\ -2.1\\ 20.5\\ \end{array}$	3 .7 1.8 3.0 1.5 3.7 9 6 -2.4 5 5 5 1.4 -1.9 2.0 2.0	.0 .8 .2 4 -1.7 1.5 4.66 .2 .0 6 .3 4 4 1.0 4 4 1.0 8 4 4 1.0 4 4 5 4 4 4 4 4 4 4 4 4 5 4 4 4 4 4 4 4 4 5 4 4 5 4 4 4 4 4 5 4 4 4 5 4 4 4 4 4 5 4 4 5 4 4 5 4 4 5 4 4 5 5 4 4 5 5 4 4 4 5 5 4 4 4 5 5 4 4 4 4 4 4 4 4 4 4	.9 1.4 3.6 4.4 2.5 1.9 -1.4 -5.8 6 .2 -1.1 1.0 .7 .8 1.4 .0 2 .3 1.4 .0 2 .1.2 .1 2 .3 1.4 .0 2 .1.4 .0 .2 .1 .1 .0 .2 .1 .1 .0 .2 .1 .1 .1 .1 .1 .1 .1 .1 .1 .1 .1 .1 .1	.35 2.5 4.1 2.6 7 -1.2 .3 3 1.0 -1.0 -1.0 -1.4 6 6.4 7 -1.4 2.0	-1.9 2.3 3.8 5.5 5.5 -5.0 -5.0 -8.0 4.7 1.8 -3.2 -2.6 -2.5 9 -16.5 6 -25.9	7 -1.5 -3.2 -1.2 -1.4 -3.1 -1.4 -3.1 -1.4 -3.1 -2 -4.9 -5.3 -2.5 .8 1.1 1.3 -7 1 -9.4 -15.2	3.5 1.7 3.6 3.1 3.0 4.6 -7 -8.0 3.8 7.1 -2.0 3.9 6.5 3.8 -2 1.0 4.9 5.86	-5.8 -20.4 -30.1 -41.3 -39.8 -42.0 -4.3 -6.6 -4.0 -7.4 -7.4 -3.1 -7.4 -3.1 -4.8 -3.2 -9 -1.4 -3.1 12.0 -7.1 -1.4 -3.1 -4.8 -3.1 -9 -1.1 -1.2 -9 -1.1 -1.2 -0 -7 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0	.5 5.3 9.0 10.7 9.9 11.0 5.3 4 8.1 10.5 1.7 -4.8 .6 -4.0 -2.7 -7.9 5.2 1.1 7.3
Equipment, total Business equipment Information processing & related Computer and office Industrial Transit Autos and trucks Other Defense and space equipment Oil and gas well drilling Manufactured homes	-11.2 -12.6 -11.5 -7.3 -14.6 -13.1 -5.6 -10.6 -2 -16.0 4.6	-14.2 -16.2 -18.2 -14.2 -17.9 -13.5 -0.6 -9.8 -7 -19.4 31.9	-14.4 -14.2 -5.1 2.9 -13.3 -28.1 -15.9 -16.9 4.2 -56.6 1.7	-5.3 -4.4 1.3 33.2 -9.8 -10.0 30.4 1.3 2.8 -32.2 -38.2	-2.1 -2.2 -1.9 2.7 2.1 -12.2 14.5 6.4 3.3 -11.1 -22.3	3 4 9 8 3 2 2.5 1.0 .5 -2.4 1.1	.3 .0 -1.1 2.4 -1.7 .4 .0 .4 5 .6	.3 .6 6 -1.2 2.7 .3 2.9 6	1 8 .0 2.0 6.4 -2.1 1 .9	.5 .7 2.6 2 1.6 6.3 2.4 7 -1.5 6.7	.3 .4 1.6 1.4 -1.9 1 .9 1 .9 -1.3	2.0 2.2 3.7 1 1.8 8 4.2 4.2 .8 1.5 4.3	-6.4 -7.4 2.6 -3.9 -26.2 -39.2 -6.1 -1.6 1.3 -18.0	-7.0 -7.1 -3.3 6.6 -5.9 -15.8 7.6 -5.4 2.8 -29.0 -12.9
Intermediate products Construction supplies Business supplies	-5.4 -3.8 -6.6	-2.2 -1.5 -2.7	-7.1 -9.3 -5.5	2.2 8.7 -2.4	3.6 3.4 3.7	4 -1.0 .1	.3 .4 .2	.5 .2 .7	1 1 .0	2.3 3.2 1.6	.0 1.2 -1.0	5.3 4.9 5.5	4 -2.8 1.5	2 1.2 -1.2
Materials	-6.9	-4.8	-5.8	5.3	9.7	.9	1.2	.8	.2	-1.3	.6	4.7	-6.4	3.2
Durable Consumer parts Equipment parts Semiconductors, printed circuit	-8.6 -4.4 -11.1	-7.0 3.3 -13.0	-8.3 -9.3 -1.1	8.5 21.2 9.1	10.4 10.8 12.8	.9 1.4 .9	1.0 .3 1.9	1.0 1.3 .7	.4 2.0 1	-2.5 2.5 -10.6	.8 -1.1 2.5	5.7 .9 11.7	-9.6 -20.7 -10.8	3.2 7.3 6.1
boards, and oth. elec. comps. Other Basic metals Nondurable Textile Paper Chemical Other Energy Primary Converted fuel	-13.7 -8.1 -13.9 -6.1 -12.7 -5.0 -7.2 -1.9 -3.2 -1.0 -8.2	-20.5 -6.1 -8.0 1.4 -13.6 3.5 .5 -4.4 -2.3 -9.4	23.2 -13.7 -24.3 -2.7 -14.7 -6.3 -2 .8 -2.1 -2.0 -2.2	47.2 2.1 5.4 2.6 10.2 -10.7 9.7 -1.4 7 -3.7 5.4	42.0 8.3 10.8 6.9 16.1 12.5 4.9 6.3 4.2 10.5	3.0 .7 -1.8 .7 -1.6 2.5 .4 .6 .9 .7 1.1	4.1 .7 1.8 2.2 1.2 4.2 2.0 1.3 .4 .5 .2	1.4 1.0 2.1 -1.7 8 1.5 1.0 1.5 .3	1.7 .0 .7 -1.6 -1.6 1 9 .6 4 2.3	-23.7 1.9 2 3.3 1.7 5.6 2.9 3.0 -2.1 -2.4 -1.5	6.5 .4 .0 .6 2.0 .1 .2 -2.8 1.5 1.7 1.2	29.7 3.6 3.0 1.6 -3.1 2.5 .6 4.8 5.1 4.2 6.6	-21.3 -2.8 -2.6 -3.9 -9.9 -4.1 -2.5 -4.2 1.9 -1.5 7.6	32.8 -1.2 -2.3 3.6 -1 6.7 1.8 2.7 .6 6.9
SPECIAL AGGREGATES Total excluding: Autos and trucks Motor vehicles and parts Computers Computers and semiconductors ¹ Computers, communications eq. and semiconductors	-6.1 -6.2 -5.8 -5.4 -5.0	-5.3 -5.5 -4.6 -3.8 -3.3	-6.6 -6.5 -6.9 -7.6 -7.3	1.9 1.3 2.2 1.0 1.3	3.9 3.5 4.3 3.3 3.4	.0 .0 .1 .1	.5 .6 .5 .4	.6 .5 .7 .7 .7	1 1 .2 .1	-1.0 -1.1 7 .2 .2	.1 .1 .0 2 1	4.1 4.2 4.1 3.3 3.3	-3.5 -2.6 -5.4 -4.8 -4.8	2 5 .1 8 5
Consumer goods excluding: Autos and trucks Energy	-2.3 -1.0	-2.0 1	-3.3 -3.1	2.7 3.0	.4 .5	6 5	.0 .1	.5 .9	2 .2	-2.6 .0	8 .2	3.5 3.3	-2.1 -7.5	5 1
Business equipment excluding: Autos and trucks Computer and office equipment	-13.4 -13.2	-17.9 -16.4	-14.0 -15.7	-8.1 -7.5	-4.3 -2.8	8 3	.3 .4	.2 .3	-1.0 1	1 .6	.5 .3	2.5 2.4	-2.5 -8.2	-9.0 -8.4
Materials excluding: Energy	-7.9	-4.9	-6.9	7.0	10.5	.9	1.3	.7	.2	-1.1	.4	4.6	-8.2	3.3

Note—Percent changes shown in the first and last columns are based on seasonally adjusted data. 1. Semiconductors include related electronic components.

Table 2A INDUSTRIAL PRODUCTION: INDUSTRY GROUPS

							Index, 1	992=100					
	2001 IP	2002	S	easonall	y Adjuste	ed		2002	Not	seasona	ally adjus	sted	
Item SIC	Proportion ¹	Feb.	Mar.	Apr. ^r	Mayr	June ^r	July ^p	Feb.	Mar.	Apr. ^r	Mayr	June ^r	July ^p
Total index	100.00	138.1	138.6	138.8	139.5	140.4	140.7	137.1	138.9	137.9	138.0	143.5	136.0
Manufacturing	86.74	142.9	143.4	143.4	144.2	145.1	145.2	140.7	143.1	143.5	143.7	149.1	139.3
Primary processing Advanced processing	33.26 53.48	168.0 129.0	169.4 129.1	170.3 128.7	172.6 128.9	173.5 129.7	174.1 129.6	164.9 127.3	171.1 127.9	170.4 128.8	170.8 129.0	178.9 133.0	165.6 125.0
DurableLumber and products24Furniture and fixtures25Stone, clay, and glass products32	46.81 2.15 1.57 2.66	176.0 111.0 135.0 127.8	176.6 112.9 134.8 127.7	177.2 111.6 134.8 129.6	178.4 112.0 135.0 128.2	179.7 112.1 134.4 128.0	180.6 111.9 133.3 128.3	173.9 108.8 130.2 121.3	179.3 111.6 130.1 123.0	178.0 112.6 132.7 130.8	178.5 112.2 133.4 129.2	185.7 117.4 139.7 133.2	167.3 111.0 133.5 131.1
Primary metals 33 Iron and steel 331,2 Raw steel 333–6,9 Fabricated metal products 34 Industrial machinery	2.93 1.51 .06 1.42 5.85	111.8 110.6 101.3 113.5 127.7	113.1 110.2 101.2 116.8 127.9	112.1 110.7 101.2 114.1 128.2	114.9 116.5 100.9 113.4 129.6	118.4 121.4 108.4 115.4 130.0	119.7 123.7 111.3 115.4 130.8	112.0 110.4 105.0 114.1 124.8	115.0 112.9 102.7 117.8 126.3	115.6 114.6 106.2 117.2 126.4	116.0 118.5 103.8 113.5 128.2	120.1 124.6 109.9 115.4 133.1	116.3 121.8 108.1 110.4 129.2
and equipment 35 Computer and office equip. 357 Electrical machinery 36 Semiconductors and related	7.69 1.55 7.82	205.3 1155.8 500.8	207.1 1185.5 503.1	206.8 1177.6 507.9	209.2 1165.2 519.3	209.8 1158.6 518.7	208.5 1158.8 519.4	205.8 1070.4 481.3	209.9 1084.7 532.7	210.8 1095.4 476.2	211.3 1103.5 487.4	213.3 1096.7 548.1	203.4 1146.0 485.9
electronic components 3672–9	3.54	1884.6	1904.0	1949.0	2023.1	2047.5	2070.8	1761.8	2169.6	1712.3	1813.0	2270.0	1829.4
Transportation equipment37Motor vehicles and parts371Autos and light trucks372–6,9Aerospace and misc.372–6,9Instruments38Miscellaneous39	10.44 6.35 3.42 4.10 4.51 1.18	128.9 174.5 166.9 86.4 112.4 114.6	128.2 174.9 166.2 84.7 112.8 116.4	129.6 179.3 171.1 83.3 112.2 115.8	128.8 178.8 170.3 82.2 112.2 117.8	130.9 183.8 177.6 81.6 113.1 119.7	133.8 191.6 188.2 80.1 112.8 119.7	131.5 180.0 179.6 86.4 108.9 112.6	133.4 185.1 177.9 85.3 110.5 116.2	136.6 193.8 187.3 83.4 110.3 116.1	134.9 192.2 187.7 81.7 111.1 117.1	136.3 195.4 193.7 81.5 115.4 119.5	100.5 123.7 114.0 78.4 115.8 114.9
NondurableFoods20Tobacco products21Textile mill products22Apparel products23Paper and products26	39.93 9.66 2.11 1.17 1.46 3.29	110.5 113.7 95.0 85.1 88.4 103.5	110.9 114.4 95.3 87.2 89.5 104.5	110.5 114.0 94.4 86.7 88.3 105.3	111.1 113.5 94.4 87.3 88.7 108.7	111.6 114.6 95.1 86.1 89.2 109.0	111.1 113.6 95.8 86.0 90.7 107.3	108.4 107.7 100.9 84.1 86.8 106.1	108.5 108.7 101.6 87.3 88.5 103.9	110.1 111.5 91.7 91.6 87.8 108.0	110.1 112.1 94.0 89.6 89.0 106.2	113.9 117.7 104.2 91.5 91.3 110.0	110.8 115.8 85.3 84.5 89.4 106.0
Printing and publishing27Chemicals and products28Petroleum products29Rubber and plastics products30Leather and products31	6.62 9.75 1.92 3.78 .16	96.0 122.9 117.2 136.6 60.1	95.4 122.8 116.7 139.1 60.0	94.9 122.2 116.9 139.2 59.5	95.2 123.2 115.7 140.4 59.0	96.4 123.1 114.8 141.5 58.7	95.3 122.7 115.9 141.4 60.0	90.8 123.9 109.4 136.0 59.8	90.3 122.7 110.2 138.1 60.2	93.9 123.0 116.2 139.1 59.7	92.8 123.0 118.3 139.1 59.6	97.1 123.6 119.9 142.7 60.4	98.8 121.1 121.4 136.3 56.6
Mining10Metal mining12Coal mining12Oil and gas extraction13Stone and earth minerals14	6.19 .22 .69 4.61 .67	96.6 78.2 107.0 91.2 132.5	95.4 80.0 99.0 90.6 132.2	95.3 75.3 101.8 90.3 132.5	96.5 79.9 101.7 91.6 133.7	97.7 79.3 103.3 92.7 135.5	96.5 79.4 101.6 91.5 134.2	94.3 79.5 108.9 91.7 97.5	94.4 79.4 102.3 91.2 110.6	95.7 74.9 101.8 90.5 133.2	98.2 79.6 99.3 92.0 147.4	100.2 81.4 103.4 92.6 156.5	97.6 77.9 94.8 91.2 153.7
Utilities Electric 491,3pt Gas 492,3pt	7.07 5.60 1.47	120.3 121.9 113.7	121.8 124.6 111.4	123.9 126.6 113.9	122.7 124.4 116.0	124.2 127.5 111.4	127.0 130.9 112.1	132.3 118.1 181.7	129.3 116.9 172.4	112.5 112.0 112.9	108.7 116.5 78.4	118.6 133.5 61.0	130.9 149.7 58.0
SPECIAL AGGREGATES													
Computers, communications eq. and semiconductors ²	6.62	1065.5	1077.4	1088.0	1107.9	1116.2	1117.6	1003.8	1136.4	992.8	1025.1	1172.7	1034.7
Manufacturing excluding: Motor vehicles and parts Computer and office equipment Computers and semiconductors ² Computers, communications eq. and	80.39 85.19 81.65	140.9 135.9 119.0	141.5 136.4 119.3	141.2 136.4 119.2	142.1 137.3 119.8	142.7 138.1 120.5	142.3 138.2 120.6	138.2 134.0 117.5	140.4 136.3 118.5	140.3 136.7 120.1	140.6 136.9 120.0	146.2 142.1 123.6	140.7 132.5 116.0
semiconductors ²	80.12	116.4	116.7	116.6	117.2	117.9	118.0	114.9	115.9	117.5	117.4	120.9	113.5
Memo: Motor vehicle assemblies ³ Total Autos Trucks Light Heavy and medium		12.3 5.5 6.8 6.6 .2	12.1 5.2 7.0 6.7 .3	12.3 5.2 7.1 6.9 .3	12.1 5.0 7.0 6.8 .3	12.7 5.3 7.4 7.2 .2	13.2 5.4 7.8 7.5 .3	12.1 5.3 6.8 6.6 .2	12.6 5.3 7.3 7.0 .3	13.8 5.8 8.0 7.7 .3	14.3 5.9 8.4 8.0 .3	12.7 5.4 7.4 7.1 .2	8.7 3.8 5.0 4.8 .2

The IP proportion data are estimates of the industries' relative contributions to overall IP growth in the following year.
 Semiconductors include related electronic components.
 Millions of units at an annual rate. 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 2B INDUSTRIAL PRODUCTION: INDUSTRY GROUPS

Percent change

		2000 Q4		easonally annua	/ adjuste l rate	d		asonally	/ adjusted	d	Not	seasona	lly adjust	ted	July 01
Item	SIC	to 2001 Q4	2001 Q3	Q4	2002 Q1	Q2r	2002 Apr. ^r	Mayr	June ^r	Julyp	2002 Apr. ^r	Mayr	June ^r	Julyp	to July 02
Total index		-5.9	-4.7	-6.7	2.6	4.4	.1	.5	.7	.2	7	.1	4.0	-5.2	.2
Manufacturing		-6.1	-4.9	-6.3	3.0	3.7	.0	.6	.6	.1	.3	.2	3.7	-6.6	.0
Primary processing Advanced processing		-7.2 -5.4	-4.2 -5.4	-6.1 -6.4	8.8 4	10.3 2	.6 3	1.3 .1	.6 .6	.3 1	4 .7	.3 .1	4.7 3.1	-7.5 -6.0	4.1 -2.5
Durable Lumber and products Furniture and fixtures Stone, clay, and glass products	24 25 32	-8.3 -1.2 -7.7 -3.0	-7.7 8.4 -7.7 -5.3	-9.2 -9.4 -8.0 -5.3	4.7 -1.6 4 -2.2	5.4 -1.3 .9 2.7	.3 -1.1 .0 1.5	.7 .3 .2 -1.1	.7 .2 5 1	.5 2 8 .3	7 .9 2.0 6.3	.3 3 .5 -1.2	4.0 4.6 4.8 3.1	-9.9 -5.4 -4.4 -1.6	.4 -1.8 -3.7 -1.3
Raw steel	33 31,2 –6,9 34	-13.7 -13.0 -13.3 -14.5 -6.4	-8.6 -5.2 9.4 -12.1 7	-26.4 -34.7 -41.5 -16.4 -7.1	11.2 21.8 35.9 .9 .6	11.5 27.7 11.2 -4.3 3.8	9 .4 .0 -2.3 .3	2.5 5.2 3 6 1.1	3.1 4.2 7.4 1.7 .3	1.0 1.9 2.7 .0 .6	.5 1.5 3.4 5 .1	.3 3.4 -2.2 -3.1 1.4	3.6 5.1 5.9 1.7 3.8	-3.2 -2.2 -1.6 -4.4 -2.9	.1 4.1 2.8 -4.4 3
and equipment Computer and office equip. Electrical machinery Semiconductors and related	35 357 36	-11.7 -8.2 -14.3	-14.4 -14.7 -17.5	-12.0 3.6 .3	7.0 36.1 11.7	5.8 4.9 13.4	2 7 .9	1.2 -1.1 2.2	.3 6 1	6 .0 .1	.4 1.0 -10.6	.2 .7 2.4	1.0 6 12.5	-4.7 4.5 -11.4	8 7.8 6.9
electronic components 367	72–9	-14.9	-22.2	14.4	39.0	33.9	2.4	3.8	1.2	1.1	-21.1	5.9	25.2	-19.4	25.1
Transportation equipment Motor vehicles and parts Autos and light trucks Aerospace and misc. 372 Instruments Miscellaneous	37 371 -6,9 38 39	-3.8 4 5.2 -8.9 -4.4 -8.8	-1.0 6.6 14.8 -12.0 -7.8 -7.9	-13.3 -10.1 -6.4 -18.2 -1.8 -14.5	4.8 22.7 18.2 -20.4 -1.3 8.8	4.1 16.8 15.9 -16.5 -1.7 9.2	1.1 2.5 3.0 -1.6 5 5	6 3 5 -1.4 .0 1.7	1.6 2.8 4.3 7 .7 1.6	2.2 4.2 5.9 -1.9 2 .0	2.4 4.7 5.3 -2.2 2 .0	-1.2 8 .2 -2.0 .7 .8	1.1 1.7 3.2 3 3.9 2.1	-26.3 -36.7 -41.2 -3.7 .3 -3.8	6 9.8 10.6 -17.5 -1.9 9
Nondurable Foods Tobacco products Textile mill products Apparel products Paper and products	20 21 22 23 26	-3.5 7 -1.2 -10.7 -10.7 -6.1	-1.6 6 8 -11.4 -15.4 -1.4	-2.8 1.5 -6.3 -12.9 -16.1 -9.5	1.2 2.9 10.4 12.6 5.2 -5.3	1.9 .6 .9 8.5 -1.4 13.3	3 4 9 5 -1.3 .8	.5 4 .6 .5 3.2	.5 1.0 .7 -1.4 .5 .2	5 9 .7 1 1.6 -1.5	1.5 2.6 -9.7 5.0 8 4.0	.0 .5 2.5 -2.2 1.3 -1.7	3.4 5.0 10.9 2.2 2.6 3.5	-2.7 -1.6 -18.2 -7.7 -2.1 -3.6	4 .9 2.0 -4.7 7
Printing and publishing Chemicals and products Petroleum products Rubber and plastics products Leather and products	27 28 29 30 31	-7.9 2 -1.2 -5.2 -14.8	-5.7 5.0 -7.7 9 -10.6	-7.0 4.2 1.8 -8.7 -17.4	-10.5 1.9 9.2 7.9 6.6	-2.1 3 -1.5 11.0 -6.8	5 5 .2 .1 8	.4 .8 -1.0 .9 -1.0	1.2 1 8 .8 4	-1.1 3 .9 1 2.1	4.0 .2 5.4 .7 -1.0	-1.2 .0 1.8 .0 2	4.7 .5 1.4 2.6 1.5	1.8 -2.0 1.3 -4.5 -6.4	-5.7 1.3 1.2 2.4 -3.4
Mining Metal mining Coal mining Oil and gas extraction Stone and earth minerals	10 12 13 14	-2.4 -13.4 5 -2.5 1.1	-4.1 -5.9 -10.5 -2.5 -10.6	-11.8 -29.4 -18.2 -11.0 -5.1	-9.1 -18.5 -10.1 -11.0 10.1	.7 1.9 -4.6 1.1 3.3	1 -5.8 2.9 4 .2	1.3 6.1 2 1.4 .9	1.2 7 1.7 1.2 1.4	-1.2 .1 -1.7 -1.3 9	1.5 -5.7 5 7 20.4	2.6 6.3 -2.4 1.6 10.7	2.0 2.4 4.1 .7 6.2	-2.6 -4.4 -8.3 -1.6 -1.8	-5.3 -10.6 -9.2 -5.6 2.8
Utilities Electric 491 Gas 492,3pt	1,3pt	-6.1 -4.1 -13.1	-3.0 -4.7 2.9	-7.2 -3.4 -20.2	8.3 3.2 31.1	15.3 14.0 20.1	1.7 1.6 2.3	-1.0 -1.7 1.8	1.2 2.5 -3.9	2.3 2.7 .6	-12.9 -4.2 -34.5	-3.4 4.0 -30.6	9.1 14.6 -22.1	10.4 12.2 -5.0	7.5 8.2 4.4
SPECIAL AGGREGATES															
Computers, communications eq. and semiconductors ¹	t	-15.6	-21.8	1.3	23.7	18.4	1.0	1.8	.7	.1	-12.6	3.3	14.4	-11.8	11.0
Manufacturing excluding: Motor vehicles and parts Computer and office equipment Computers and semiconductors ¹ Computers, communications eq. an	nd	-6.6 -6.1 -5.6	-5.8 -4.7 -3.8	-6.0 -6.5 -7.3	1.6 2.5 1.1	2.7 3.7 2.5	2 .0 1	.7 .6 .5	.4 .6 .6	3 .1 .0	1 .3 1.3	.3 .2 1	3.9 3.8 3.0	-3.7 -6.7 -6.1	8 1 -1.1
semiconductors ¹		-5.1	-3.2	-6.9	1.5	2.6	1	.5	.6	.1	1.4	.0	3.0	-6.2	8

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	2001 Proportion	1967- 2001 Ave.	1978- 1980 High	1982 Low	1988- 1989 High	1990- 1991 Low	1994- 1995 High	2001 July	2002 Feb.	Mar.	Apr. ^r	May ^r	June ^r	Julyp
Total industry	100.00	81.9	87.3	71.1	85.4	78.1	84.5	76.7	75.0	75.2	75.3	75.6	76.0	76.1
Manufacturing	87.62	80.9	86.9	69.0	85.7	76.6	84.1	75.1	73.5	73.7	73.6	74.0	74.4	74.4
Primary processing Advanced processing	33.80 53.82	82.0 80.3	88.6 86.3	65.7 71.0	88.3 84.2	76.7 76.6	88.8 81.3	74.9 75.1	74.6 72.7	75.1 72.8	75.4 72.5	76.3 72.5	76.6 73.0	76.7 72.9
Durable24Lumber and products24Furniture and fixtures25Stone, clay, and glass products32	49.11 2.14 1.57 2.47	79.4 82.4 81.2 78.9	87.7 87.9 85.5 88.0	63.9 60.8 68.9 64.3	84.6 93.6 86.6 83.5	73.1 75.5 72.5 69.7	83.7 88.3 84.3 82.2	72.8 76.6 74.4 79.8	70.6 74.4 72.5 77.7	70.7 75.6 72.4 77.5	70.8 74.7 72.4 78.6	71.2 74.9 72.5 77.6	71.6 74.9 72.1 77.4	71.9 74.8 71.5 77.5
Primary metals33Iron and steel331,2Raw steel333-6,9Nonferrous333-6,9Primary copper3331Primary aluminum3334	2.88 1.50 .06 1.37 .03 .10	81.6 81.3 81.1 82.1 75.5 87.6	94.2 95.8 95.8 91.1 81.5 97.6	45.1 37.0 35.2 60.1 42.1 58.6	92.7 95.2 92.7 89.3 86.3 100.4	73.7 71.8 71.5 74.2 73.5 97.3	95.4 98.8 98.3 92.2 101.1 83.7	79.3 80.8 81.1 77.7 68.8 59.4	74.8 76.6 77.8 72.8 64.8 59.9	75.9 76.8 78.4 74.9 66.0 60.5	75.6 77.7 79.0 73.2 69.6 60.9	77.7 82.3 79.5 72.8 68.6 62.1	80.5 86.5 86.2 74.1 67.7 63.9	81.7 88.9 89.4 74.1
Fabricated metal products 34 Industrial machinery	6.06	77.8	83.9	63.7	82.0	71.9	85.2	72.8	70.8	70.9	71.0	71.8	71.9	72.3
and equipment 35 Computer and office equip. 357 Electrical machinery 36 Semiconductors and related	8.29 2.05 9.17	81.0 80.7 81.1	93.2 92.6 89.4	64.0 65.5 71.6	85.4 86.9 84.0	72.3 66.9 75.0	87.2 85.3 90.6	70.5 64.5 65.4	68.4 66.8 65.7	68.9 68.1 65.7	68.7 67.1 66.0	69.5 65.9 67.1	69.6 64.9 66.6	69.2 64.4 66.2
electronic components 3672–9	4.55	79.6	91.6	75.7	81.1	75.6	91.0	59.9	65.3	65.4	66.2	67.9	67.9	67.8
Transportation equipment37Motor vehicles and parts371Autos and light trucks1372-6,9Instruments38Miscellaneous39	10.77 6.47 3.31 4.29 4.57 1.19	76.0 77.0 75.1 81.1 76.0	84.8 95.0 94.6 81.9 92.7 79.4	57.2 45.5 40.6 66.6 78.4 65.4	85.8 89.1 92.3 87.3 81.4 79.0	68.5 55.9 53.3 79.2 77.2 71.7	76.8 85.1 86.4 69.0 78.3 80.7	76.1 79.0 85.3 71.8 74.1 76.4	72.4 77.8 81.8 63.9 72.5 72.3	71.9 77.9 81.2 62.7 72.9 73.4	72.7 79.7 83.3 61.8 72.5 72.9	72.1 79.3 82.7 61.0 72.5 74.1	73.2 81.4 85.9 60.6 73.1 75.2	74.8 84.7 90.7 59.5 73.0 75.0
NondurableFoods20Textile mill products22Apparel products23Paper and products26Pulp and paper261–3Printing and publishing27	38.51 9.11 1.20 1.60 3.19 1.11 6.61	83.0 82.6 85.2 80.6 88.3 92.0 84.9	87.5 84.6 91.2 87.5 96.1 98.3 93.9	76.4 79.1 72.3 77.5 80.6 82.0 82.0	87.3 85.4 90.4 85.1 93.5 98.0 91.7	80.7 82.7 77.7 75.5 85.0 89.9 79.6	84.6 84.0 92.5 85.9 92.0 97.4 82.2	78.0 79.2 72.2 70.6 77.9 83.0 74.4	77.3 79.4 74.4 66.6 74.4 79.0 70.9	77.6 79.8 76.4 67.4 75.2 79.9 70.5	77.3 79.4 76.3 66.7 75.8 80.9 70.3	77.7 79.1 76.9 67.0 78.3 84.3 70.6	78.0 79.8 76.1 67.4 78.5 84.0 71.6	77.6 79.0 76.2 68.6 77.4 71.0
Chemicals and products28Plastics materials2821Synthetic fibers2823,4Petroleum products29Rubber and plastics products30Leather and products31	9.60 .79 .24 1.63 3.64 .17	79.2 86.1 84.4 87.5 84.5 80.6	84.6 90.9 98.6 90.0 91.2 92.1	69.9 63.4 64.4 66.8 72.7 75.8	86.2 97.0 99.7 88.5 89.6 83.3	79.3 74.8 77.6 85.1 77.4 76.1	79.9 103.0 90.4 92.9 91.4 85.5	76.5 76.9 74.2 93.6 78.9 68.7	77.4 78.2 79.9 95.4 77.4 69.5	77.2 80.3 82.5 94.9 78.8 69.7	76.7 80.4 80.3 95.0 78.8 69.4	77.1 85.2 82.2 94.0 79.4 69.0	76.9 78.8 93.3 80.0 68.9	76.5 94.1 79.9 70.5
Mining10Metal mining10Coal mining12Oil and gas extraction13Oil and gas well drilling138Stone and earth minerals14	6.14 .22 .60 4.75 .70 .57	87.6 79.4 86.7 88.7 74.2 84.7	96.0 87.9 99.4 97.3 104.3 92.7	80.3 44.4 76.6 82.3 50.9 63.3	88.0 89.4 91.5 88.2 69.3 89.0	87.0 79.9 83.4 88.7 60.0 79.4	89.3 90.0 88.4 90.1 76.9 90.4	90.9 76.8 86.7 92.5 82.1 85.9	85.6 68.6 82.5 86.2 56.6 86.9	84.5 70.3 76.3 85.6 56.0 86.6	84.4 66.4 78.5 85.2 54.6 86.8	85.5 70.6 78.4 86.4 54.2 87.6	86.5 70.2 79.8 87.4 55.8 88.7	85.5 70.5 78.4 86.3 55.7 87.8
Utilities Electric 491,3pt Gas 492,3pt	6.24 4.71 1.53	87.6 89.7 81.8	89.1 88.2 93.7	75.9 78.9 69.1	92.6 95.0 85.0	83.4 87.1 67.1	92.5 96.1 87.6	86.0 88.5 79.1	84.9 85.9 83.8	85.8 87.4 82.1	87.0 88.4 83.9	85.8 86.6 85.4	86.6 88.4 82.0	88.3 90.4 82.5
SPECIAL AGGREGATES														
Computers, communications eq. and semiconductors ² Manufacturing ex. computers, communications eq., and semiconductors ²	8.52 79.10	80.0 81.0	90.9 87.0	77.3 68.0	81.9 86.1	72.4 76.8	88.2 83.8	62.0 76.6	63.4 74.8	63.7 75.1	63.8 75.0	64.4 75.4	64.3 75.8	63.8 75.9
1. Series begins in 1977.	19.10	01.0	07.0	00.0	00.1	10.0	03.0	10.0	14.0	73.1	13.0	10.4	10.0	13.9

Series begins in 1977.
 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

			nnual rat			change	tor to f	ourth qu	artor	-			acity ind t of 1992			
		1967-	1967-	1975-	<u> </u>	nin qua		Junniqu	เสเเซเ			Feicel	101 1992			
Item	SIC	2002 Ave.	1975 Ave.	2002 Ave.	1998	1999	2000	2001	2002 ^p	2001 July	2002 Feb.	Mar.	Apr.	May	June	July
Total industry		3.1	3.8	2.9	6.4	3.9	4.0	1.7	1.0	183.0	184.1	184.2	184.4	184.5	184.7	184.8
Manufacturing		3.4	4.0	3.3	7.2	4.5	4.7	1.6	1.0	193.5	194.4	194.6	194.8	194.9	195.1	195.
Primary processing Advanced processing		3.8 3.2	4.4 3.7	3.7 3.0	9.8 5.5	5.0 4.2	7.8 2.9	2.7 .9	1.6 .6	223.6 176.8	225.3 177.4	225.6 177.5	225.9 177.6	226.2 177.7	226.6 177.8	226. 177.
Durable Lumber and products Furniture and fixtures Stone, clay, and glass produ	24 25 ucts 32	4.2 1.9 3.3 1.6	3.7 2.9 4.5 2.5	4.3 1.6 2.8 1.3	10.4 4.1 9.2 3.8	6.6 .5 4.5 2.9	8.1 2.1 3.1 2.6	3.0 1.0 .5 1.9	1.6 .6 .2 1.6	247.2 148.7 186.2 163.0	249.4 149.3 186.2 164.5	249.7 149.4 186.2 164.8	250.1 149.5 186.2 165.0	250.4 149.6 186.2 165.2	250.8 149.6 186.3 165.4	251. 149. 186. 165.
Primary metals Iron and steel Raw steel Nonferrous Primary copper Primary aluminum	33 331,2 333–6,9 3331 3334	.4 4 -1.0 1.7 .1 1.1	1.7 .7 3.8 1.8 5.2	1 8 -1.4 1.1 4 2	3.4 2.8 2.5 4.4 8.3 .0	3.0 1.9 1.7 4.4 -1.2 1.3	.3 1 8 1.0 -7.5 .2	6 -1.5 -2.8 .5 -5.3 .4	-4.4 -8.1 -9.5 2 -5.0 .5	150.6 147.0 133.5 155.5 131.6 106.2	149.4 144.4 130.1 155.9 127.7 106.6	148.9 143.5 129.1 155.9 127.2 106.6	148.4 142.5 128.1 155.9 126.7 106.6	147.8 141.5 127.0 155.9 126.1 106.7	147.2 140.3 125.8 155.8 125.6 106.7	146. 139. 124. 155. 125. 106.
Fabricated metal products Industrial machinery	34	2.0	3.1	1.7	7.0	2.0	2.8	.7	.6	180.2	180.4	180.4	180.5	180.6	180.7	180.
and equipment Computer and office equip. Electrical machinery	35 357 36	5.7 21.6 10.0	4.7 12.0 5.9	6.0 25.0 11.4	9.9 24.6 27.7	11.4 46.1 16.3	8.5 37.6 30.8	2.6 9.6 9.9	.7 9.7 6.8	298.3 1666.8 742.8	300.4 1729.8 761.9	300.6 1742.0 765.6	300.9 1755.2 769.7	301.1 1769.2 774.3	301.3 1784.2 779.1	301. 1799. 784.
Semiconductors and related electronic components	3672–9	21.4	13.1	24.2	56.0	27.6	54.3	16.8	13.7	2764.2	2886.8	2913.3	2943.9	2977.8	3014.5	3052.
Transportation equipment Motor vehicles and parts Autos and light trucks ¹	37 371	2.7 3.5	3.0 4.4	2.6 3.2	5.4 6.3 6.0	2.3 3.2 2.9	1.8 2.3 2.7	1.5 2.6 3.8	1.1 2.4 4.2	176.7 221.1 199.5	178.1 224.2 204.0	178.2 224.6 204.7	178.4 225.0 205.4	178.6 225.4 206.0	178.7 225.9 206.7	178. 226. 207.
Aerospace and misc. Instruments Miscellaneous	372–6,9 38 39	1.5 4.3 2.1	1.1 7.6 4.4	1.7 3.3 1.3	4.0 6.9 2.4	1.1 2.7 2.9	1.1 1.1 .7	2 .1 .2	6 5 1.4	135.2 155.1 158.1	135.1 154.9 158.4	135.0 154.8 158.6	134.9 154.8 158.8	134.8 154.7 159.0	134.7 154.6 159.2	134. 154. 159.
Nondurable Foods Textile mill products Apparel products Paper and products Pulp and paper Printing and publishing	20 22 23 26 261–3 27	2.5 2.2 1.4 1.0 2.6 2.1 2.4	4.3 3.0 4.4 2.3 3.9 2.9 3.0	1.9 2.0 .4 2.2 1.9 2.3	3.2 2.4 -1.1 2.3 2.7 .3 3.2	1.7 2.7 -1.1 1 1.5 1.2 2.4	.4 .6 -2.2 2 1.0 1.0 4	2 .4 -3.3 -2.1 .6 .6 6	.2 .9 -3.2 -1.2 6 -1.1 -1.9	143.0 142.8 116.7 134.7 138.8 125.5 136.0	142.9 143.2 114.4 132.8 139.0 125.7 135.5	142.9 143.4 114.0 132.7 139.0 125.6 135.3	143.0 143.5 113.7 132.5 138.9 125.5 135.0	143.0 143.6 113.4 132.4 138.8 125.4 134.8	143.0 143.7 113.1 132.3 138.7 125.2 134.6	143. 143. 112. 132. 138. 125. 134.
Chemicals and products Plastics materials Synthetic fibers Petroleum products Rubber and plastics product Leather and products	28 2821 2823,4 29 s 30 31	3.5 5.8 3.0 1.4 5.1 -3.4	6.8 12.7 9.7 4.2 8.4 -1.5	2.5 3.7 .9 .6 4.1 -4.0	5.3 5.5 3.8 2.2 5.3 -3.8	2.1 3.2 3 1.6 4.0 -2.6	.7 1.8 -4.9 .5 3.3 -4.8	.4 1.3 -7.3 .7 1.9 -7.3	2.1 .8 2.1 .6 .8 -4.5	158.4 152.8 114.4 122.4 174.9 90.3	158.9 153.8 110.5 122.9 176.4 86.5	159.1 153.9 110.6 122.9 176.5 86.1	159.4 154.0 110.8 123.0 176.6 85.8	159.7 154.1 111.0 123.0 176.7 85.5	160.0 154.2 111.4 123.1 176.8 85.3	160. 154. 111. 123. 176. 85.
Mining Metal mining Coal mining Oil and gas extraction Oil and gas well drilling Stone and earth minerals	10 12 13 138 14	.0 .9 2.1 6 .7 1.4	1 .5 2.4 -1.0 .8 2.6	.1 1.0 2.0 5 .7 1.0	6 1 .4 -1.8 -1.1 3.0	-2.4 -1.1 .4 -3.4 -1.7 1.7	-1.9 -2.4 1.3 -2.2 .9 .5	.6 -2.8 1.2 .8 7.2 .7	.4 -2.7 2 .8 1.7 .5	112.2 115.7 129.0 104.8 179.1 152.0	112.9 114.0 129.7 105.8 186.2 152.5	112.9 113.8 129.7 105.9 186.6 152.5	112.9 113.5 129.7 105.9 187.0 152.6	112.9 113.2 129.6 106.0 187.1 152.7	112.9 112.9 129.6 106.0 187.2 152.7	112. 112. 129. 106. 187. 152.
Utilities Electric Gas 492,3pt	491,3pt	2.8 3.7 .3	6.1 7.8 2.3	1.7 2.4 3	.1 .2 .6	2.4 2.4 .2	2.9 3.2 2	5.1 6.4 2	3.9 5.1 .3	137.4 136.6 135.8	141.6 141.9 135.7	142.1 142.5 135.7	142.5 143.1 135.8	143.0 143.7 135.8	143.4 144.3 135.8	143. 144. 135.
SPECIAL AGGREGATES																
Computers, communications en semiconductors ² Manufacturing ex. computers,	q. and	17.2	9.5	19.9	36.6	28.6	42.9	12.7	10.1	1623.1	1681.1	1692.7	1705.9	1720.4	1735.9	1752.
communications eq., and semiconductors ²		2.3	3.7	1.8	4.4	2.0	1.0	.3	.2	155.3	155.5	155.5	155.5	155.5	155.5	155

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

Seasonally adj Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
Industrial Production, Percent Change ¹	Jan.	160.	war.		<u>Iviay</u>	June	July	Aug.	<u> </u>	001.	1107.						Annual
1990 1991 1992 1993 1994	5 5 .0 .3 .2	.5 8 .5 .4 .3	.5 9 .9 .2 .8	6 .3 .7 .3 .6	.4 .8 .3 4 .7	.0 1.2 1 .2 .5	.0 .1 .9 .2 .3	.2 .1 3 2 .4	.1 1.0 .4 1.0 .2	6 1 .5 .4 .8	-1.3 1 .6 .5 .6	6 6 .0 .8 1.1	2.0 -8.3 .6 3.6 5.7	.6 1.5 6.6 1.5 7.6	1.0 6.2 3.3 1.8 5.2	-5.8 1.1 4.4 6.5 7.5	2 -2.0 3.1 3.4 5.5
1995 1996 1997 1998 1999	.5 3 .4 .6 .7	.0 1.2 1.1 .1 .2	.1 1 .3 .4	2 1.0 .6 .5 .1	.3 .7 .3 .3	.4 .7 .5 6 .2	5 .2 .5 2 .6	1.3 .6 1.0 1.9 .5	.4 .5 .7 2 .0	1 .0 .7 .6 .8	.3 1.0 .6 4 .4	.2 .6 .2 .0 .7	5.9 2.9 7.7 4.5 3.6	.8 8.4 6.0 3.2 3.3	3.6 6.3 7.7 2.8 4.7	3.6 5.8 8.2 3.5 5.8	4.8 4.6 6.9 5.1 3.7
2000 2001 2002	.2 8 .6	.6 3 .4	.6 4 .3	.5 6 .1	.7 3 .5	.4 9 .7	4 .1 .2	.1 3	.1 -1.1	4 6	3 3	4 4	5.8 -6.1 2.6	7.0 -5.9 4.4	.6 -4.7	-2.6 -6.7	4.5 -3.9
Industrial Production 1990 1991 1992 1993 1994	98.6 96.7 97.5 102.2 105.9	99.1 95.9 98.0 102.6 106.3	99.6 95.0 98.9 102.8 107.2	99.0 95.4 99.6 103.1 107.8	99.4 96.1 99.9 102.7 108.5	99.3 97.2 99.7 102.9 109.1	99.3 97.3 100.6 103.2 109.4	99.5 97.4 100.3 103.0 109.9	99.6 98.4 100.7 104.0 110.1	99.1 98.3 101.2 104.4 111.0	97.7 98.1 101.8 104.9 111.7	97.2 97.5 101.8 105.7 112.9	99.1 95.9 98.1 102.5 106.5	99.2 96.2 99.7 102.9 108.4	99.5 97.7 100.5 103.4 109.8	98.0 98.0 101.6 105.0 111.8	98.9 97.0 100.0 103.4 109.1
1995 1996 1997 1998 1999	113.4 115.6 123.7 132.7 136.9	113.4 117.1 125.1 132.8 137.2	113.5 116.9 125.3 133.3 137.8	113.3 118.1 126.1 134.0 137.9	113.6 118.9 126.5 134.4 138.5	114.1 119.8 127.2 133.6 138.8	113.5 120.0 127.8 133.3 139.6	115.0 120.7 129.1 135.9 140.2	115.5 121.4 130.0 135.6 140.3	115.4 121.4 130.9 136.4 141.3	115.8 122.6 131.7 135.9 141.9	116.0 123.3 132.0 136.0 142.9	113.4 116.5 124.7 133.0 137.3	113.7 118.9 126.6 134.0 138.4	114.7 120.7 129.0 134.9 140.0	115.7 122.4 131.5 136.1 142.0	114.4 119.6 127.9 134.5 139.4
2000 2001 2002	143.2 143.9 137.6	144.0 143.5 138.1	144.9 142.9 138.6	145.6 142.0 138.8	146.6 141.6 139.5	147.2 140.3 140.4	146.5 140.4 140.7	146.7 140.0	146.8 138.5	146.3 137.7	145.8 137.2	145.1 136.7	144.0 143.5 138.1	146.5 141.3 139.6	146.7 139.6	145.7 137.2	145.7 140.1
Capacity 1990 1991 1992 1993 1994	119.2 121.4 123.4 126.1 129.1	119.3 121.6 123.6 126.3 129.4	119.5 121.7 123.8 126.5 129.8	119.7 121.9 124.1 126.7 130.1	119.9 122.1 124.3 127.0 130.5	120.1 122.2 124.5 127.2 130.9	120.2 122.4 124.7 127.4 131.4	120.4 122.6 124.9 127.7 131.8	120.6 122.7 125.2 127.9 132.2	120.8 122.9 125.4 128.2 132.7	121.0 123.0 125.6 128.5 133.2	121.2 123.2 125.8 128.8 133.7	119.3 121.6 123.6 126.3 129.4	119.9 122.1 124.3 127.0 130.5	120.4 122.6 124.9 127.7 131.8	121.0 123.0 125.6 128.5 133.2	120.2 122.3 124.6 127.3 131.2
1995 1996 1997 1998 1999	134.2 141.2 149.0 158.9 168.4	134.8 141.9 149.7 159.8 168.9	135.3 142.5 150.4 160.7 169.5	135.8 143.1 151.2 161.6 170.0	136.4 143.8 151.9 162.5 170.5	137.0 144.4 152.7 163.3 171.0	137.6 145.0 153.5 164.2 171.5	138.2 145.7 154.4 164.9 172.0	138.8 146.3 155.2 165.7 172.5	139.4 147.0 156.1 166.4 173.1	140.0 147.6 157.0 167.1 173.6	140.6 148.3 157.9 167.8 174.2	134.8 141.9 149.7 159.8 168.9	136.4 143.8 151.9 162.5 170.5	138.2 145.7 154.4 164.9 172.0	140.0 147.6 157.0 167.1 173.6	137.3 144.7 153.3 163.6 171.3
2000 2001 2002	174.8 181.5 183.9	175.4 181.8 184.1	176.0 182.2 184.2	176.6 182.4 184.4	177.2 182.6 184.5	177.9 182.8 184.7	178.5 183.0 184.8	179.0 183.2	179.6 183.3	180.1 183.5	180.6 183.6	181.1 183.8	175.4 181.8 184.1	177.2 182.6 184.5	179.0 183.2	180.6 183.6	178.1 182.8
Utilization 1990 1991 1992 1993 1994	82.7 79.6 79.0 81.1 82.1	83.0 78.9 79.3 81.3 82.1	83.3 78.1 79.8 81.2 82.6	82.7 78.2 80.3 81.4 82.8	82.9 78.7 80.3 80.9 83.1	82.7 79.6 80.1 80.9 83.3	82.6 79.5 80.7 81.0 83.3	82.6 79.5 80.3 80.6 83.4	82.6 80.2 80.4 81.3 83.3	82.0 80.0 80.7 81.4 83.6	80.8 79.8 81.0 81.6 83.8	80.2 79.2 80.9 82.1 84.4	83.0 78.9 79.4 81.2 82.3	82.8 78.8 80.2 81.1 83.1	82.6 79.7 80.5 81.0 83.3	81.0 79.6 80.9 81.7 84.0	82.3 79.3 80.2 81.2 83.2
1995 1996 1997 1998 1999	84.5 81.9 83.1 83.6 81.3	84.2 82.5 83.6 83.1 81.2	83.9 82.0 83.3 82.9 81.3	83.4 82.5 83.4 82.9 81.1	83.3 82.7 83.3 82.7 81.2	83.3 82.9 83.3 81.8 81.2	82.5 82.7 83.2 81.2 81.4	83.2 82.9 83.6 82.4 81.5	83.2 83.0 83.7 81.8 81.3	82.8 82.6 83.8 82.0 81.7	82.7 83.0 83.9 81.3 81.7	82.5 83.1 83.6 81.1 82.0	84.2 82.1 83.3 83.2 81.3	83.3 82.7 83.3 82.5 81.2	83.0 82.9 83.5 81.8 81.4	82.7 82.9 83.8 81.5 81.8	83.3 82.7 83.5 82.2 81.4
2000 2001 2002	81.9 79.3 74.8	82.1 78.9 75.0	82.3 78.5 75.2	82.5 77.8 75.3	82.7 77.5 75.6	82.8 76.7 76.0	82.1 76.7 76.1	81.9 76.4	81.7 75.5	81.2 75.0	80.7 74.7	80.2 74.4	82.1 78.9 75.0	82.6 77.4 75.6	81.9 76.2	80.7 74.7	81.8 76.8

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 Change ¹																<u> </u>	- / in roat
1990 1991 1992 1993 1994	2 9 .1 .7 .1	.9 7 .7 .2 .4	.3 -1.1 1.0 .2 1.1	8 .3 .6 .5	.4 .7 .3 .8	1 1.4 .0 .3	.0 .2 .9 .2	.3 .2 3 .6	1 1.1 .3 1.1 .3	6 1 .5 .4	-1.3 2 .6 .5	6 5 1 .9 1.1	2.9 -9.7 2.0 4.2 5.9	1 1.2 7.4 2.1 9.4	.8 7.8 4.1 1.3 6.0	-6.3 1.7 3.7 6.9 9.0	5 -2.4 4.0 3.7 6.1
1995 1996 1997 1998 1999	.6 3 .4 .9 .6	1 1.2 1.2 .0 .4	.2 2 .3 .2 .2	3 1.2 .5 .7	.1 .8 .4 .2 .6	.5 .9 .7 7	7 .6 .4 2 .4	1.2 .6 1.3 2.3 .8	.7 .6 .6 2 .0	.0 .0 .6 .8	.1 1.0 .7 2 .6	.1 .7 .3 .2	6.4 2.4 8.8 6.0 3.9	.4 9.2 6.8 3.0 3.6	3.0 8.4 8.9 3.2 4.8	4.2 6.2 8.7 5.2 6.9	5.3 4.9 7.9 5.9 4.2
2000 2001 2002	.3 8 .7	.5 3 .2	.9 4 .4	.3 8 .0	.7 2 .6	.5 -1.0 .6	4 .2 .1	1 5	.1 -1.1	5 5	5 1	7 3	6.3 -7.1 3.0	7.1 -6.2 3.7	.4 -4.9	-4.0 -6.3	4.8 -4.4
Industrial Production 1990 1991 1992 1993 1994	98.1 95.8 97.2 102.5 106.2	99.0 95.1 97.8 102.7 106.6	99.3 94.1 98.8 102.9 107.7	98.6 94.4 99.4 103.4 108.6	99.0 95.0 99.8 103.1 109.4	98.9 96.3 99.9 103.1 109.7	98.8 96.6 100.8 103.3 110.3	99.1 96.8 100.5 103.0 110.9	99.0 97.8 100.8 104.2 111.3	98.4 97.8 101.3 104.6 112.2	97.2 97.6 101.9 105.2 113.1	96.6 97.1 101.8 106.1 114.3	98.8 95.0 97.9 102.7 106.8	98.8 95.2 99.7 103.2 109.2	99.0 97.0 100.7 103.5 110.8	97.4 97.5 101.6 105.3 113.2	98.5 96.2 100.0 103.7 110.0
1995 1996 1997 1998 1999	115.0 117.0 126.3 136.9 141.8	114.9 118.4 127.8 137.0 142.4	115.1 118.1 128.2 137.3 142.7	114.8 119.5 128.9 138.2 143.0	115.0 120.4 129.4 138.5 143.8	115.5 121.5 130.4 137.6 143.9	114.7 122.2 130.9 137.2 144.4	116.1 122.9 132.6 140.3 145.6	117.0 123.7 133.5 140.0 145.7	117.0 123.7 134.3 141.1 146.8	117.2 124.9 135.3 140.8 147.7	117.3 125.8 135.7 141.0 148.6	115.0 117.9 127.4 137.1 142.3	115.1 120.5 129.6 138.1 143.6	116.0 122.9 132.3 139.2 145.2	117.2 124.8 135.1 141.0 147.7	115.8 121.5 131.1 138.8 144.7
2000 2001 2002	149.0 148.9 142.6	149.8 148.4 142.9	151.1 147.9 143.4	151.6 146.7 143.4	152.6 146.4 144.2	153.3 145.0 145.1	152.7 145.2 145.2	152.6 144.5	152.8 142.9	152.0 142.1	151.2 142.0	150.1 141.6	149.9 148.4 142.9	152.5 146.0 144.3	152.7 144.2	151.1 141.9	151.6 144.8
Capacity 1990 1991 1992 1993 1994	119.9 122.4 124.6 127.5 131.0	120.1 122.6 124.8 127.8 131.3	120.3 122.8 125.0 128.0 131.7	120.5 123.0 125.3 128.3 132.1	120.7 123.1 125.5 128.5 132.6	120.9 123.3 125.8 128.8 133.0	121.1 123.5 126.0 129.1 133.5	121.3 123.7 126.2 129.3 134.0	121.5 123.8 126.5 129.6 134.5	121.7 124.0 126.7 129.9 135.0	122.0 124.2 127.0 130.3 135.6	122.2 124.3 127.2 130.6 136.1	120.1 122.6 124.8 127.8 131.3	120.7 123.1 125.5 128.5 132.6	121.3 123.7 126.2 129.3 134.0	122.0 124.2 127.0 130.3 135.6	121.0 123.4 125.9 129.0 133.4
1995 1996 1997 1998 1999	136.7 144.7 153.7 165.1 176.1	137.3 145.5 154.5 166.2 176.8	137.9 146.2 155.3 167.2 177.4	138.5 147.0 156.2 168.3 178.0	139.2 147.7 157.1 169.3 178.6	139.8 148.5 158.0 170.3 179.2	140.5 149.2 158.9 171.2 179.8	141.2 149.9 159.9 172.2 180.4	141.9 150.7 160.9 173.0 181.1	142.6 151.4 161.9 173.9 181.7	143.3 152.2 162.9 174.6 182.4	144.0 153.0 164.0 175.4 183.1	137.3 145.5 154.5 166.2 176.8	139.2 147.7 157.1 169.3 178.6	141.2 149.9 159.9 172.1 180.4	143.3 152.2 162.9 174.6 182.4	140.2 148.8 158.6 170.6 179.5
2000 2001 2002	183.8 192.0 194.3	184.6 192.4 194.4	185.4 192.7 194.6	186.1 193.0 194.8	186.9 193.2 194.9	187.7 193.4 195.1	188.4 193.5 195.3	189.1 193.6	189.8 193.8	190.4 193.9	191.0 194.0	191.5 194.2	184.6 192.3 194.4	186.9 193.2 194.9	189.1 193.6	191.0 194.0	187.9 193.3
Utilization 1990 1991 1992 1993 1994	81.8 78.2 78.0 80.4 81.1	82.5 77.5 78.4 80.4 81.1	82.6 76.6 79.0 80.4 81.8	81.8 76.8 79.4 80.6 82.2	82.0 77.1 79.5 80.2 82.5	81.8 78.1 79.4 80.0 82.5	81.6 78.2 80.0 80.1 82.6	81.7 78.2 79.6 79.7 82.8	81.5 79.0 79.7 80.4 82.7	80.9 78.9 79.9 80.5 83.1	79.7 78.6 80.2 80.7 83.4	79.0 78.1 80.0 81.2 84.0	82.3 77.5 78.5 80.4 81.3	81.9 77.3 79.4 80.3 82.4	81.6 78.5 79.8 80.0 82.7	79.9 78.5 80.0 80.8 83.5	81.4 77.9 79.4 80.4 82.5
1995 1996 1997 1998 1999	84.1 80.9 82.1 83.0 80.5	83.7 81.4 82.7 82.4 80.6	83.5 80.8 82.5 82.1 80.4	82.9 81.3 82.5 82.2 80.3	82.6 81.5 82.4 81.8 80.5	82.6 81.8 82.5 80.8 80.3	81.7 81.9 82.4 80.1 80.3	82.3 82.0 83.0 81.5 80.7	82.5 82.1 83.0 80.9 80.5	82.1 81.7 83.0 81.2 80.8	81.8 82.1 83.0 80.6 81.0	81.5 82.2 82.7 80.4 81.1	83.8 81.0 82.5 82.5 80.5	82.7 81.6 82.5 81.6 80.4	82.1 82.0 82.8 80.9 80.5	81.8 82.0 82.9 80.7 81.0	82.6 81.6 82.7 81.4 80.6
2000 2001 2002	81.0 77.6 73.4	81.1 77.2 73.5	81.5 76.7 73.7	81.4 76.0 73.6	81.6 75.8 74.0	81.7 75.0 74.4	81.0 75.1 74.4	80.7 74.6	80.5 73.7	79.8 73.3	79.2 73.2	78.4 72.9	81.2 77.2 73.5	81.6 75.6 74.0	80.7 74.5	79.1 73.1	80.7 75.1

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

Index. 1992 = 1002001 Seasonally adjusted Not seasonally adjusted ΪP 2002 2002 Proportion SIC Feb Apr.^r <u>June^r</u> Item Jan Feb Mar Apr.^r Mayr June Jan Mar Mayr 78.2 80.0 Metal mining 10 .22 75.2 75.3 79.9 79.3 74.0 79.5 79.4 74.9 79.6 81.4 Iron ore 101 .03 84.3 77.4 83.9 85.5 98.8 77.9 75.1 78.5 83.8 102.2 73.7 79.3 75.8 73.4 79.6 77.3 Nonferrous ores 102-4,8,9 .19 78.4 73.6 76.7 80.3 73.4 75.7 Copper 102 .06 63.3 65.4 66.1 65.7 63.4 67.6 68.7 65.9 Coal mining 12 .69 104.5 107.0 99.0 101.8 101.7 103.3 103.7 108.9 102.3 101.8 99.3 103.4 92.0 90.5 Oil and gas extraction 13 4.61 91.2 90.6 90.3 91.6 92.7 91.9 91.7 91.2 92.0 92.6 Crude oil and natural gas 131 3.63 89.6 88.9 88.4 88.3 89.9 90.8 89.8 89.6 89.3 88.6 90.3 90.8 Crude oil, total 1.82 79.7 79.2 78.8 78.5 79.0 79.9 79.6 79.6 79.3 78.9 79.1 79.3 101.8 Natural gas 1.81 103.4 102.3 101.7 105.1 105.8 104.0 103.4 103.2 102.2 105.7 106.7 Natural gas liquids 132 .27 111.4 112.4 111.1 112.7 114.0114.0 107.5 111.4 112.1 114.1 115.1 114.8 .72 Oil and gas well drilling 138 107.3 105.3 104.5 102.0 101.4 104.4 107.1 105.4 102.7 101.2 102.2 103.7 Stone and earth minerals .67 133.7 132.5 132.2 132.5 133.7 135.5 96.7 97.5 110.6 133.2 147.4 156.5 14 113.5 20 9.66 113.7 114.4 114.0 113.5 114.6 108.4 107.7 108.7 111.5 112.1 117.7 Foods 201 127.2 Meat products 1.67 126.0 125.5 127.5 125.9 128.2 125.9 125.7 124.3 127.9 127.2 132.1 Beef .52 .34 117.8 114.1 117.1 117.0 121.6 113.3 109.9 114.6 117.2 128.4 115.2 116.9 Pork 113.0 112.9 110.4 111.9 114.9 113.5 118.9 115.3 115.0 112.8 116.8 110.2 Poultry .80 144.5 147.1 147.8 146.2 145.0 145.6 143.2 146.7 145.8 148.8 148.6 151.5 Miscellaneous meats .01 63.6 63.6 63.7 65.1 67.4 63.9 65.1 65.3 61.9 60.6 62.1 72.5 Dairy products 202 .96 102.8 104.2 103.9 106.1 104.6 105.6 100.4 107.2 109.8 113.3 112.3 112.2 .01 104.3 107.4 127.3 Butter 2021 113.3 113.4 113.0 117.4 130.0 131.6 126.7 116.8 100.4 2022 .25 122.1 123.4 119.5 123.2 121.1 120.0 120.6 123.9 125.0 125.2 122.5 Cheese 124.4 Concentrated milk 2023 .21 109.5 115.1 123.5 128.5 126.4 143.1 140.0 139.6 120.1 127.1 110.9 132.4 2024 .11 92.9 90.8 86.3 84.8 81.3 86.5 91.7 Frozen desserts 84.5 72.5 96.0 92.6 106.1 Milk and misc. dairy products 2026 .37 91.8 92.3 92.5 93.0 93.3 92.9 92.0 94.4 95.8 97.3 97.7 95.3 Canned and frozen food 203 1.23 102.5 103.0 102.4 102.3 101.5 101.0 92.9 91.1 93.2 94.7 95.5 100.7 Grain mill products 204 1.03 111.1 109.7 108.9 110.5 110.0 111.3 107.9 105.4 105.4 107.7 108.0 109.6 Bakery products 205 1.29 121.3 121.9 121.1 121.3 121.6 121.8 113.0 109.5 110.5 116.0 118.4 127.4 Sugar and confectionery 206 .62 107.0 109.2 110.9 110.7 106.3 113.3 108.9 106.6 104.6 101.9 95.6 104.2 207 147.3 141.1 Fats and oils .18 141.9 143.9 144.0 143.9 145.3 141.0 148.2 145.1 142.6 141.2 115.1 Beverages 208 1.80 114.3 117.2 114.0 113.5 115.1 106.6 105.2 110.3 112.9 114.8 123.4 2082,3 94.5 Beer and ale .54 96.3 102.5 94.4 93.0 93.1 103.0 100.5 128.4 1.04 130.4 129.5 127.6 124.6 135.3 Soft drinks 2086.7 128.3 127.5118.8 112.7 114.4 120.8 111.2 Coffee and miscellaneous .88 111.9 111.8 101.3 103.3 108.4 209 111.0 112.2 111.1 103.1 99.1 115.3 .12 95.0 Roasted coffee 2095 102.3 104.0 104.3 104.2 109.3 119.1 89.1 2.11 93.1 95.0 95.3 94.4 94.4 95.1 93.2 100.9 101.6 91.7 94.0 104.2 **Tobacco products** 21 Textile mill products 22 1.17 82.5 85.1 87.2 86.7 87.3 86.1 78.1 84.1 87.3 91.6 89.6 91.5 221-4 .28 72.4 75.1 78.1 76.6 77.3 72.2 67.8 74.6 78.9 80.4 81.7 76.0 Fabrics Cotton and synthetic 221.2 .23 75.1 78.5 82.3 80.5 69.5 77.6 83.0 84.8 .03 79.7 76.0 78.5 83.6 82.9 79.4 79.9 Narrow fabrics 224 81.4 82.6 81.5 80.5 77.4 .24 Knit goods 225 68.4 69.9 70.2 70.9 70.0 69.1 57.9 65.6 67.7 72.6 72.3 78.3 Knit garments 2253,4,7-9 .16 66.8 68.1 67.9 69.1 67.6 66.1 56.0 62.7 64.0 66.5 68.5 73.4 69.2 72.0 79.6 Fabric finishing 226 .10 67.1 71.7 71.5 72.0 71.1 63.9 71.3 77.4 73.1 Carpeting 227 .19 99.8 104.6 106.6 108.7 109.3 109.1 101.9 104.8 108.3 124.3 101.8 118.2 Yarns and miscellaneous 228,9 .37 106.5 109.0 109.8 111.6 113.7 104.5 109.0 112.8 112.5 114.7 116.6 111.9 Cotton and synthetic yarns 2281,2,4 .17 103.9 109.4 115.4 109.3 110.5 117.1 101.8 112.6 117.8 114.6 118.3 121.9 Apparel products 23 1.46 89.4 88.4 89.5 88.3 88.7 89.2 85.6 86.8 88.5 87.8 89.0 91.3 Lumber and products 24 2.15 112.9 112.9 111.6 107.3 108.8 111.0 112.0 112.1 111.6 112.6 112.2 117 4 .74 101.5 88.2 Logging and lumber 241.2 106.2 105.6 103.9 103.1 104.2 100.7 101.0 104.0 102.4 101.4 110.4 241 86.0 83.3 84.8 82.6 85.4 75.1 73.9 78.5 87.8 Logging 82.6 82.8 Lumber products Millwork and plywood 243 - 5.91.41 118.6 118.5 119.0 118.0 119.0 118.7 113.0 115.3 117.9 120.5 120.5 123.5 131.3 .80 243 128.1 128.0 120.9 126.0 127.4 130.0 124.6 126.4 129.0127.3119.887.0 91.6 .14 91.4 94.2 95.0 2435.6 91.2 93.0 84.5 93.0 95.2 94.1 94.8 Plywood Manufactured homes 89.1 81.5 85.4 89.0 245 .19 93.1 82.4 80.5 83.4

Table 6 INDUSTRIAL PRODUCTION: INDUSTRY SUBTOTALS AND INDIVIDUAL SERIES

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

		2001		S	easonall	v adjuste		ndex, 19	992 = 100		seasona	ally adjus	ted	
ltem	SIC	IP Proportion ¹	2002 Jan.	Feb.	Mar.	Apr. ^r	Mayr	June ^r	2002 Jan.	Feb.	Mar.	Apr. ^r	Mayr	June ^r
Furniture and fixtures Household furniture	25 251	1.57 .62	133.6 123.3	135.0 123.7	134.8 122.3	134.8 123.0	135.0 122.7	134.4 121.0	126.1 116.5	130.2 121.3	130.1 121.2	132.7 122.9	133.4 122.4	139.7 127.7
Paper and products Pulp and paper Wood pulp Paper Paperboard Paper products Paperboard containers Converted paper products	26 261–3 261 262 263 265,7 265 267	3.29 1.21 .05 .73 .42 2.09 .69 1.40	105.1 101.2 87.7 101.6 103.7 107.6 100.4 111.9	103.5 99.3 87.5 98.5 103.6 106.1 102.7 108.3	104.5 100.4 90.0 97.1 109.0 107.0 100.6 110.8	105.3 101.5 87.8 100.6 106.2 107.8 101.5 111.5	108.7 105.7 91.2 102.7 114.4 110.6 103.6 114.7	109.0 105.1 92.7 114.4 111.4 108.2 113.4	106.0 102.2 88.0 102.8 104.3 108.5 99.0 113.8	106.1 102.1 89.2 101.6 106.1 108.6 102.8 112.0	103.9 99.5 87.2 96.7 107.4 106.7 100.9 110.1	108.0 103.5 89.7 101.6 110.2 110.9 107.7 112.8	106.2 103.6 90.4 100.0 112.9 108.0 99.5 112.7	110.0 105.5 92.5 115.0 112.8 109.7 114.7
Printing and publishing Newspapers Periodicals, books, and cards Job printing	271 272,3,7 274–6,8,9	6.62 1.44 2.18 3.00	96.6 80.0 98.2 105.1	96.0 79.9 96.5 105.0	95.4 79.4 96.5 103.8	94.9 79.4 94.2 104.3	95.2 79.8 94.6 104.6	96.4 79.6 97.1 105.5	91.6 76.5 96.8 96.7	90.8 80.1 94.6 94.1	90.3 76.4 96.0 94.1	93.9 84.8 94.4 98.6	92.8 78.2 93.8 100.7	97.1 77.9 95.5 109.8
Chemicals and products Industrial chemicals and	28	9.75	123.0	122.9	122.8	122.2	123.2	123.1	122.3	123.9	122.7	123.0	123.0	123.6
synthetic materials Basic chemicals Alkalies and chlorine Inorganic pigments Inorganic chemicals, nec Acids and other	281,2,6 281 2812 2816 2819	3.25 1.03 .06 .07 .80 .72	101.8 109.7 66.6 84.4 118.1 150.6	103.5 109.3 67.5 85.7 117.5 148.7	104.4 108.3 69.8 92.3 115.2 149.0	104.6 108.2 72.2 88.7 115.3 149.8	107.4 112.1 71.7 102.8 119.4 151.1	106.3 109.6 73.9 90.7 117.0 153.1	100.7 107.3 67.6 85.6 115.1 144.4	105.8 116.1 70.5 86.7 126.4 160.7	104.7 109.1 71.2 90.7 116.4 145.9	107.5 111.8 71.8 95.4 119.5 151.1	106.5 107.6 73.0 97.1 113.4 145.5	106.3 108.4 71.8 92.4 115.2 155.6
Synthetic materials Plastics materials Synthetic fibers Industrial organic chemicals	282 2821 2823,4 286	1.15 .79 .24 1.07	106.8 115.7 87.0 91.3	110.9 120.3 88.4 92.5	113.9 123.6 91.3 93.1	113.9 123.8 88.9 93.8	118.2 131.3 91.2 94.4	116.4 87.8 94.9	105.1 113.6 84.5 92.0	113.4 121.7 93.2 91.3	115.1 124.2 93.1 92.4	118.3 129.3 91.8 94.7	119.1 131.7 92.3 94.9	117.7 90.1 94.8
Chemical products Drugs and medicines Soap and toiletries Paints Agricultural chemicals	283–5,9 283 284 285 287	6.04 3.62 1.43 .36 .46	142.2 163.7 122.3 109.7 91.9	141.1 161.5 121.3 110.9 89.3	140.1 160.4 120.8 110.9 90.3	138.9 157.3 120.9 112.0 90.1	138.8 156.1 121.5 113.1 89.0	139.2 156.2 122.4 114.3 90.4	141.6 168.4 115.9 94.0 92.6	141.2 166.0 116.1 109.0 88.9	139.6 162.8 114.9 114.1 90.4	137.9 156.6 115.7 123.3 93.1	138.9 158.5 115.1 125.1 90.9	140.2 151.2 127.9 131.7 90.0
Petroleum products Petroleum refining and misc. Miscellaneous petroleum prod Distillate fuel oil Residual fuel oil Aviation fuel and kerosene Automotive gasoline Paving and roofing materials	29 291,9 ducts 295	1.92 1.70 .32 .30 .04 .19 .85 .22	114.8 111.1 101.9 123.1 67.6 104.4 115.2 148.7	117.2 113.4 113.7 121.0 69.5 109.0 114.7 152.0	116.7 112.9 112.5 116.8 70.1 111.9 114.6 151.5	116.9 113.5 110.6 123.7 70.9 107.4 115.5 147.5	115.7 112.2 112.1 122.9 65.5 107.1 112.8 148.0	114.8 111.3 112.6 146.5	107.1 104.9 86.7 117.8 69.6 108.0 109.8 126.1	109.4 106.8 101.1 117.4 68.6 104.7 108.7 131.4	110.2 107.7 106.9 112.5 68.0 108.0 108.9 131.7	116.2 113.4 112.6 122.3 67.3 106.1 115.5 140.3	118.3 114.8 118.8 124.8 65.2 104.9 115.4 149.8	119.9 115.8 124.6 157.3
Rubber and plastics produc Tires Other rubber products Plastics products, nec	ts 30 301 302,5,6 308	3.78 .29 .61 2.89	134.7 113.9 124.5 139.9	136.6 116.9 125.7 141.8	139.1 126.5 125.6 144.1	139.2 115.6 129.4 144.7	140.4 120.4 127.8 146.1	141.5 120.8 125.9 148.0	132.0 116.1 114.0 138.4	136.0 125.8 123.0 140.5	138.1 128.8 122.5 143.1	139.1 123.2 127.3 144.0	139.1 119.7 127.3 144.5	142.7 121.0 131.7 148.2
Leather and products Shoes	31 314	.16 .04	60.3 50.9	60.1 50.6	60.0 50.7	59.5 50.5	59.0 48.8	58.7 50.5	57.9 49.3	59.8 49.4	60.2 50.3	59.7 50.3	59.6 49.2	60.4 52.0
Stone, clay, and glass produ Pressed and blown glass Glass containers Cement Structural clay products Concrete and miscellaneous	ucts 32 322 3221 324 325 326–9	2.66 .32 .12 .23 .12 1.60	127.7 111.2 80.7 147.7 108.0 124.9	127.8 109.7 78.6 142.3 110.8 126.0	127.7 107.1 76.6 131.8 111.5 128.1	129.6 107.6 78.7 138.0 115.7 129.0	128.2 108.4 81.1 132.6 117.9 126.7	128.0 106.6 79.0 118.1 126.3	119.3 106.8 76.7 96.5 100.2 121.2	121.3 110.2 82.2 109.1 110.6 120.3	123.0 107.6 80.1 115.0 114.4 122.7	130.8 109.4 81.3 144.2 117.7 129.8	129.2 108.4 82.4 147.3 120.5 125.9	133.2 110.5 81.7 122.7 129.7

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

		2001		S	easonal	l <u>y adj</u> ust		Index, 1	992 = 10		t season	all <u>y a</u> djus	sted	
Item	SIC	IP Proportion ¹	2002 Jan.	Feb.	Mar.	Apr. ^r	Mayr	June ^r	2002 Jan.	Feb.	Mar.	Apr. ^r	Mayr	June ^r
Primary metals Iron and steel Basic steel and mill products Basic iron and steel Pig iron Raw steel	33 331,2 331	2.93 1.51 1.05 .20 .11 .06	111.3 107.1 108.0 86.6 81.3 100.0	111.8 110.6 111.4 88.3 83.1 101.3	113.1 110.2 109.5 86.3 80.3 101.2	112.1 110.7 109.6 86.0 79.8 101.2	114.9 116.5 117.2 85.7 79.3 100.9	118.4 121.4 124.5 91.1 84.7 108.4	110.0 104.6 105.7 85.3 79.8 99.1	112.0 110.4 111.1 89.5 83.7 105.0	115.0 112.9 112.5 88.0 82.6 102.7	115.6 114.6 113.6 89.0 82.2 106.2	116.0 118.5 119.8 88.1 81.9 103.8	120.1 124.6 127.8 92.0 85.4 109.9
Steel mill products Consumer durable steel Equipment steel Construction steel Can and closure steel Miscellaneous steel Iron and steel foundries	332	.85 .13 .07 .12 .03 .49 .46	114.3 116.9 77.5 163.4 102.4 112.2 105.7	118.1 117.2 83.8 169.5 92.8 117.2 109.7	116.4 114.8 79.0 178.9 81.1 114.9 112.7	116.6 120.0 82.9 163.6 87.0 115.4 114.1	126.4 134.3 89.1 177.0 92.2 124.5 115.8	134.4 115.0	111.7 114.4 78.5 156.5 95.3 110.2 102.9	117.5 123.2 85.5 163.1 87.9 115.9 109.8	119.7 121.3 83.0 165.8 83.5 120.5 114.7	120.8 129.1 85.8 168.3 87.3 119.1 118.0	129.2 140.8 91.2 181.1 95.5 126.3 116.4	138.4 118.1
Nonferrous metals Primary nonferrous metals Copper Aluminum	333–6,9 333 3331 3334	1.42 .17 .03 .08	116.5 89.1 94.0 61.3	113.5 87.8 82.7 63.8	116.8 86.9 83.9 64.4	114.1 88.8 88.2 65.0	113.4 89.3 86.6 66.2	115.4 91.4 85.0 68.2	116.5 89.7 91.6 61.3	114.1 90.3 86.8 63.7	117.8 89.8 88.3 64.4	117.2 90.3 87.9 65.3	113.5 90.2 87.7 66.5	115.4 88.6 82.2 68.0
Nonferrous products Nonferrous mill products Aluminum Nonferrous foundries	335,6 335 3353–5 336	1.05 .80 .31 .25	122.2 117.8 94.8 136.6	118.1 112.4 85.0 136.8	122.2 117.0 96.9 139.5	118.6 112.2 86.3 140.1	117.8 110.9 87.6 141.0	120.8 114.5 94.2 142.3	123.8 119.5 94.7 137.8	118.8 113.0 86.4 138.3	123.5 118.5 100.0 139.8	122.1 116.8 94.4 139.9	117.7 111.2 89.2 139.7	120.6 114.3 95.7 141.7
Fabricated metal products Metal containers Hardware, tools, and cutlery Hardware and tools Structural metal products Other fabricated metal product Fasteners, stampings, etc.	34 341 342 3423,5,9 344 ts 345–9 345–7	5.85 .20 .56 .49 1.66 3.23 1.90	128.7 103.3 116.1 118.0 135.8 129.3 138.4	127.7 103.9 113.4 114.8 135.6 128.3 135.9	127.9 99.6 112.0 113.0 135.9 129.0 136.9	128.2 102.0 110.9 111.8 133.7 130.6 139.0	129.6 103.5 111.3 112.9 135.8 132.0 141.4	130.0 104.0 110.6 111.6 135.9 132.7 141.6	123.7 91.7 108.2 109.1 133.3 124.8 130.5	124.8 88.6 110.6 111.8 131.9 127.6 134.8	126.3 97.2 110.4 111.5 132.5 129.3 137.0	126.4 100.5 109.0 109.9 131.4 130.4 138.6	128.2 111.1 110.4 112.1 134.3 131.1 139.9	133.1 121.4 115.7 117.3 136.9 135.5 146.0
Industrial machinery and equipment Engines and turbines Farm Construction and allied Metalworking Special industry machinery General industrial machinery Bearings and gears Bearings Equipment 356 Computer and office equip. Service industry machines Refrig. and heating equip. Miscellaneous machinery	35 351 352 353 354 3562 3562,6,8 3562,6,8 3562,1,3-5,7,9 357 358 3585 3585 359	7.69 .49 .35 .89 .85 .57 .94 .28 .14 .66 1.55 .90 .68 1.14	204.5 125.2 123.8 140.8 102.4 113.5 102.0 88.7 83.9 108.0 1118.5 144.1 160.4 136.5	205.3 125.6 113.4 133.8 100.5 113.2 100.2 85.6 76.2 106.8 1155.8 155.5 175.8 137.3	207.1 124.7 115.1 138.7 99.9 113.8 98.3 84.8 74.2 104.4 1185.5 159.8 181.3 135.8	206.8 123.3 125.5 134.1 99.9 115.1 99.5 85.3 77.2 105.9 1177.6 155.7 177.2 137.0	209.2 126.6 123.0 144.1 102.2 112.9 100.6 86.5 78.7 107.0 1165.2 157.9 178.5 137.8	209.8 126.2 134.9 144.6 101.2 99.7 87.3 78.9 105.3 1158.6 157.9 176.8 138.1	200.0 128.0 120.8 142.2 102.9 113.5 97.6 90.3 86.1 100.8 1093.0 138.2 152.2 126.5	205.8 125.8 146.1 139.6 100.7 112.9 97.7 87.3 79.3 102.4 169.0 194.8 129.2	209.9 124.8 167.2 143.0 100.3 114.0 96.4 86.3 77.3 101.0 1084.7 178.1 207.9 129.9	210.8 121.3 180.4 140.6 99.8 114.8 97.7 87.0 79.8 1095.4 1095.4 174.1 202.8 132.8	211.3 123.6 158.8 144.9 101.1 112.7 99.6 87.6 81.3 105.0 1103.5 173.6 200.6 135.0	213.3 125.4 139.7 148.6 100.8 114.1 102.5 88.0 82.1 109.0 1096.7 173.6 199.1 144.1
Electrical machinery Major electrical and parts Electric distribution equip. Household appliances Cooking equipment Refrigerators and freezers Laundry Miscellaneous Electrical housewares Appliances, nec	36 361,2 363 3631 3632 3633 3634,5,9 3634,5,9 3634 3639	7.82 .82 .30 .49 .08 .10 .08 .22 .07 .09	494.0 120.8 122.0 135.7 132.2 182.1 150.0 111.9 89.6 115.3	500.8 116.8 118.8 139.9 150.5 172.8 152.2 117.3 103.3 116.7	503.1 113.6 117.1 143.1 154.6 172.6 157.8 120.7 101.7 126.0	507.9 116.0 119.1 139.2 145.4 163.8 150.8 120.9 112.7 116.7	519.3 117.0 118.0 149.5 165.5 171.2 173.5 125.4 121.7 122.3	518.7 117.4 119.0 138.2 147.3 156.7 145.0 122.7 113.4 122.7	456.4 116.4 117.7 131.0 135.0 174.1 152.2 104.6 63.0 113.5	481.3 111.8 116.3 149.0 162.6 200.0 176.9 114.6 71.0 133.1	532.7 111.2 115.1 145.9 160.0 177.4 166.8 120.3 82.7 138.7	476.2 114.3 117.6 139.5 147.5 182.8 175.0 107.2 74.0 123.9	487.4 116.1 116.2 141.0 176.8 187.4 164.6 103.6 73.9 120.0	548.1 120.2 120.3 133.7 144.6 162.7 147.8 112.2 88.4 124.3
Audio and video equipment Communication equipment Electronic components Semiconductors and related	365 366 367	.10 1.53 3.60	82.5 284.7 1721.0	76.3 285.2 1793.0	70.3 284.0 1808.7	65.3 281.3 1854.3	66.5 279.9 1920.3	66.9 282.4 1940.8	72.5 280.8 1517.8	81.0 280.1 1675.2	70.2 279.9 2051.7	63.7 279.2 1632.0	59.5 277.1 1725.5	69.6 281.4 2144.6
electronic components Misc. electrical supplies Storage batteries	3672–9 369 3691	3.54 .65 .13	1807.1 124.6 160.1	1884.6 122.0 151.5	1904.0 125.6 157.4	1949.0 125.3 158.6	2023.1 125.6	2047.5 124.2	1593.7 120.4 134.4	1761.8 117.9 124.7	2169.6 123.7 148.8	1712.3 124.5 149.6	1813.0 123.0	2270.0 127.3
Transportation equipment Motor vehicles and parts Autos Trucks and truck trailers Trucks and buses Consumer trucks Business trucks Motor vehicle parts Motor vehicle parts Motor vehicle parts	37 371 3714 3716	10.44 6.35 1.22 2.52 2.47 1.63 .84 2.56 .05	128.2 171.8 108.4 223.6 234.5 253.6 202.4 189.9 94.7	128.9 174.5 118.4 215.8 226.2 240.6 201.8 195.1 101.2	128.2 174.9 109.8 224.3 234.8 249.7 209.7 195.8 112.8	129.6 179.3 111.6 232.4 243.0 258.9 216.0 200.2 95.7	128.8 178.8 109.9 233.7 244.2 259.1 219.0 198.7 107.1	130.9 183.8 112.5 240.8 251.3 272.9 215.0 203.3 135.7	124.8 164.6 100.6 207.0 217.0 235.7 185.4 190.7 91.8	131.5 180.0 124.2 235.2 246.7 263.1 218.6 189.1 101.5	133.4 185.1 115.4 242.1 253.5 269.9 225.4 203.6 129.4	136.6 193.8 121.3 256.6 284.6 241.1 210.9 117.5	134.9 192.2 120.1 258.2 270.2 286.9 241.7 206.6 102.5	136.3 195.4 124.3 262.4 273.8 295.5 236.8 207.0 136.8
Aerospace and miscellaneous transportation equipment Aircraft and parts Ships and boats Railroad and miscellaneous	372–6,9 372 373 374–6,9	4.10 2.63 .42 1.05	87.4 85.1 104.6 86.6	86.4 82.5 102.9 89.1	84.7 79.3 102.1 90.6	83.3 77.1 101.7 90.8	82.2 74.4 107.1 91.1	81.6 72.8 107.7 92.5	87.7 85.2 104.1 87.1	86.4 82.2 103.2 89.8	85.3 79.4 103.9 91.7	83.4 76.6 102.7 91.9	81.7 73.9 106.5 90.5	81.5 72.5 105.9 93.2

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

								ndex, 19	992 = 10					
		2001		S	easonall	y adjuste	d			Not	seasona	ally adjus	ted	
Item	SIC	IP Proportion ¹	2002 Jan.	Feb.	Mar.	Apr. ^r	Mayr	June ^r	2002 Jan.	Feb.	Mar.	Apr. ^r	Mayr	June ^r
Instruments Scientific and medical Medical instruments	38 381–4 384	4.51 3.88 1.71	113.8 117.9 143.6	112.4 115.6 139.3	112.8 116.4 140.1	112.2 116.2 139.5	112.2 116.2 140.7	113.1 116.7 141.2	110.3 113.8 131.9	108.9 111.5 128.2	110.5 113.6 131.5	110.3 114.0 133.6	111.1 114.9 138.2	115.4 119.5 149.0
Misc. manufactures Consumer goods Business supplies	39 391,3,4,6 395,9	1.18 .51 .67	114.6 104.0 124.8	114.6 105.6 123.5	116.4 107.0 125.6	115.8 105.5 125.8	117.8 107.6 127.8	119.7 109.2 130.0	111.3 100.5 121.8	112.6 104.0 121.0	116.2 107.8 124.5	116.1 107.1 125.0	117.1 107.3 126.6	119.5 108.3 130.3
Electric utilities Generation Fossil fuel Hydro and nuclear	491,3pt	5.60 2.39 1.25 1.14	119.8 116.8 120.8 113.7	121.9 118.8 123.0 115.5	124.6 121.4 125.7 118.1	126.6 123.3 127.7 119.9	124.4 121.0	127.5 124.1	126.0 119.9 120.5 120.0	118.1 119.5 116.2 123.2	116.9 115.9 112.7 119.5	112.0 111.6 113.2 110.7	116.5 116.3	133.5 132.8
Sales Residential Nonresidential Commercial and other Industrial		3.22 1.42 1.80 1.21 .59	122.0 122.5 121.9 138.5 97.2	124.2 125.5 123.4 140.5 98.0	126.9 129.1 125.5 143.4 98.9	129.0 131.2 127.5 145.7 100.4	126.9 125.4	130.0 127.7	130.8 145.3 119.8 137.3 93.7	117.0 121.9 113.3 126.9 93.3	117.5 117.0 118.1 132.8 96.2	112.2 105.0 117.8 131.5 97.5	116.5 123.6	133.8 134.1
Gas utilities Residential Commercial and other Gas transmission	492,3pt	1.47 .80 .29 .26	101.0 92.0 122.0 101.8	113.7 106.5 132.5 114.5	111.4 103.1 130.3 112.0	113.9 106.0 135.5 113.7	116.0 108.1 137.1 115.8	111.4 103.4 111.7	191.9 203.6 225.8 143.4	181.7 192.6 209.4 140.5	172.4 180.8 196.3 135.1	112.9 106.4 131.3 111.2	78.4 62.4 96.0 95.5	61.0 40.8 87.5

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

ltom	1000	2001	2001	00	02	01	2002	Oor	2002	Mar	Ang	Mout	luna	Lulu D
Item	1992	2001	Q1	Q2	Q3	Q4	Q1	Q2 ^r	Feb.	Mar.	Apr. ^r	May ^r	June ^r	July ^p
Products, total	2091.3	2724.4	2772.1	2751.8	2726.5	2677.3	2696.0	2713.3	2694.3	2707.4	2704.2	2708.6	2727.2	2739.6
Final products	1587.4	2102.7	2138.1	2126.8	2103.9	2067.5	2080.6	2092.1	2080.4	2084.4	2085.6	2087.6	2103.2	2115.5
Consumer goods	1079.6	1302.9	1303.3	1309.1	1311.0	1302.2	1318.6	1329.8	1318.7	1324.4	1325.9	1325.6	1338.1	1346.8
Durable Automotive products	229.7 123.7	349.6 187.8	341.5 178.7	353.9 190.1	359.3 196.7	353.7 193.6	364.3 200.0	374.3 207.7	363.9 199.4	366.5 200.9	370.3 204.9	372.7 205.1	380.0 213.1	391.9 222.7
Other durable goods	106.0	160.5 953.3	164.1	162.7 955.1	159.7 952.0	157.3 948.5	161.0	162.0 956.3	161.5 955.1	162.5 958.4	161.1 956.2	163.9 953.6	160.9 959.0	161.3 956.4
Nondurable	851.9	900.0	961.0	955.1	952.0	940.0	954.7	950.5	955.1	900.4	950.2	955.0	959.0	950.4
Equipment, total	509.4	800.0	840.8	820.2	791.0	759.3	753.6	752.6	753.3	750.5	750.1	752.8	755.0	758.2
Business and defense	490.0	778.4	819.4	797.2	768.0	740.3	737.8	738.1	737.4	735.7	735.6	738.4	740.2	743.4
Business Defense and space	402.1 89.0	715.8 64.4	757.2 64.9	735.3 64.2	705.6 64.0	676.3 64.7	673.1 65.1	672.5 65.8	672.7 65.1	671.0 65.1	670.4 65.5	672.7 65.9	674.3 66.1	677.5 66.1
Intermediate preducto	504.7	622.0	634.1	625.2	622.7	610.0	615.5	621.2	614.0	623.0	618.6	621.0	624.1	624.2
Intermediate products Construction supplies	200.1	274.0	276.0	276.1	275.7	268.3	274.6	277.1	272.6	279.3	275.8	277.3	278.3	277.8
Business supplies	304.8	347.6	357.7	348.5	346.3	341.2	340.2	343.4	340.7	342.7	342.1	343.0	345.0	345.8
Commercial energy products	72.6	92.2	92.2	93.2	93.6	91.7	93.6	95.5	94.7	95.9	95.8	95.2	95.4	97.5

Table 8 DIFFUSION INDEXES OF INDUSTRIAL PRODUCTION

Percent

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
One Month Earlier												
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	38.8	52.2
2002	54.3	56.9	60.1	50.4	61.8	58.3						
Three Months Earlier												
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	33.0	39.1
2002	44.7	57.2	56.2	56.9	64.5	58.3						
Six Months Earlier												
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	34.1	35.5
2002	39.9	44.6	51.1	52.5	61.6	60.5						

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

		4000						ndex, 19	992 = 100 Not seasonally adjusted						
		1992 Billion	2002		easonall				2002			ally adjus			
	987 SIC	KWH	Jan.	Feb.	Mar.	Apr.r	Mayr	Junep	Jan.	Feb.	Mar.	Apr.r	Mayr	June ^p	
Total		933.2	95.1	95.7	94.8	94.7	94.8	92.5	92.1	92.3	92.6	94.3	94.6	94.9	
MAJOR INDUSTRY GROUPS Manufacturing		853.2	95.5	96.1	95.2	95.2	95.3	93.0	92.1	92.5	92.9	94.8	95.1	95.6	
Durable		366.0	95.6	95.9	95.3	96.4	96.4	94.6	91.5	92.6	93.4	95.7	96.5	98.0	
Nondurable		487.2	95.5	96.2	95.2	94.1	94.5	91.8	92.5	92.4	92.5	94.0	94.0	93.7	
Mining		80.1	89.1	90.4	88.6	88.5	87.1	86.1	92.2	89.6	88.5	88.1	86.5	85.5	
INDUSTRY GROUPS and SER Metal mining	<u>IES</u> 10	10.0	05.0	100.4	96.2	96.3	07 5	07.2	07.4	00.0	07.7	07.0	97.8	06.0	
Iron ore	101	18.6 7.3	95.9 91.9	100.4 100.7	96.2 91.8	96.3	97.5 100.0	97.3 107.4	97.1 93.9	98.6 96.9	97.7 95.5	97.8 99.7	97.8 102.7	96.2 104.6	
Copper ore	102	6.6	111.8	109.0	112.2	102.3	99.1	99.7	108.6	111.3	108.3	106.1	103.5	98.6	
Coal mining	12	12.7	98.7	99.0	95.7	95.2	93.8	92.5	108.9	106.0	102.9	98.1	90.7	88.6	
Oil and gas extraction	13	36.0	72.6	73.3	72.6	73.4	70.0	68.3	75.6	71.9	70.3	70.4	70.0	68.9	
Crude oil and natural gas	131	31.0	71.2	71.3	71.5	72.2	67.9	67.1	74.1	70.4	69.0	69.4	68.1	67.1	
Natural gas liquids	132	3.6	72.4	77.4	69.9	67.5	71.5	65.2	73.8	70.4	68.6	65.3	69.7	66.8	
Stone and earth minerals	14	12.8	105.0	104.3	105.0	103.2	102.6	102.3	102.0	96.1	98.2	101.9	102.3	103.6	
Crushed stone	142	3.5	186.8	191.6	191.1	184.5	171.2	176.8	169.6	160.0	166.0	180.0	173.7	182.1	
Sand and gravel	144	2.7	104.2	98.9	103.3	106.2	106.7	103.9	93.4	85.5	90.3	101.0	109.0	110.8	
Chemical and fertilizer materials	147	4.7	78.7	77.3	78.4	77.2	81.0	80.8	83.5	78.3	79.2	77.6	78.8	78.5	
Foods	20	58.8	124.1	124.5	122.7	121.6	120.6	118.7	117.7	114.5	113.5	117.0	117.4	122.2	
Meat products	201	10.4	144.2	144.1	139.9	138.6	139.9	136.1	135.5	130.3	128.2	133.0	136.5	142.7	
Dairy products Canned and frozen food	202 203	6.8 8.0	112.0 117.8	113.2 118.4	109.0 116.5	108.1 116.6	109.5 115.7	106.9 113.6	106.5 106.7	103.8 104.7	101.5 105.9	105.9 108.0	108.1 108.8	112.4 113.2	
Grain mill products	204	11.4	123.2	126.5	124.5	120.5	121.3	121.4	121.7	121.6	118.2	120.7	120.8	122.6	
Bakery products	205	3.5	133.4	133.9	131.8	131.3	128.1	125.8	124.0	120.0	120.0	125.4	124.5	131.4	
Sugar and confectionery	206	4.0	146.8	136.0	141.5	149.9	137.3	137.3	151.9	146.8	143.5	146.6	131.2	134.0	
Fats and oils Beverages	207 208	3.9 6.1	113.7 113.8	111.4 113.2	116.6 111.1	114.3 110.2	107.7 112.4	107.8 109.3	116.8	108.7 98.8	113.2 99.3	113.7 104.6	104.9 109.4	105.5 116.2	
Coffee and miscellaneous	209	4.7	116.3	118.5	116.3	114.7	109.8	108.2	105.7	103.6	103.6	104.0	106.7	114.8	
Tobacco products	21	1.5	77.4	77.0	73.6	78.7	84.2	80.6	69.8	73.8	69.2	74.7	79.6	84.3	
Textile mill products	22	31.5	87.2	85.5	88.3	87.4	82.3	80.5	73.4	80.1	81.1	83.8	85.5	88.1	
Fabrics	221–4	11.9	82.4	78.1	76.2	75.7	71.5	68.5	69.5	73.4	70.7	72.4	74.1	74.9	
Knit goods	225	4.1	81.1	83.2	80.0	81.5	79.3	76.4	68.0	76.6	75.4	78.6	80.4	84.9	
Fabric finishing Yarn and thread	226 228	2.5 8.3	69.6 91.4	76.1 88.6	72.8 95.4	76.7 96.2	79.9 84.5	76.3 84.3	63.2 74.8	73.5 85.2	71.6 88.3	78.1 89.1	81.4 91.2	82.0 92.9	
Miscellaneous textiles	220	3.3	89.5	92.6	102.7	90.2 99.4	99.5	98.7	74.8	85.5	92.4	98.8	99.9	105.7	
Annenel une durate			00.4	07.0	96.4	07.0	96.6	00.0	77.0	00.4	70.7	00.0	96.6	01.0	
Apparel products Men's outerwear	23 231,2	8.2 2.0	88.4 80.1	87.3 80.1	86.4 76.5	87.0 77.9	86.6 79.0	83.3 74.9	77.8 68.1	80.4 72.3	79.7 69.9	82.8 73.6	86.6 80.4	91.8 87.1	
Women's outerwear	233	2.5	86.0	83.3	83.6	81.3	79.3	73.8	78.3	79.2	78.8	78.5	80.8	84.1	
Lumber and products	24	19.7	121.2	120.8	122.3	120.6	123.5	122.6	116.9	120.4	121.9	124.7	125.5	126.7	
Lumber	242	7.7	100.2	102.4	100.3	99.8	102.4	101.6	99.9	104.8	103.4	105.2	105.5	103.8	
Millwork and plywood	243	5.6	140.3	143.3	147.0	146.1	148.6	150.3	135.3	143.0	146.5	151.4	151.3	155.8	
Furniture and fixtures	25	6.0	113.0	112.9	111.1	110.8	110.6	109.1	105.4	108.9	107.5	109.0	109.2	114.0	
Household furniture	251	3.2	107.8	108.0	106.7	107.1	107.5	106.0	101.5	105.4	105.3	106.6	106.8	111.4	
Paper and products	26	112.3	86.7	87.8	86.3	82.2	84.3	82.4	85.6	83.9	83.7	82.2	83.7	83.5	
Wood pulp Paper	261 262	8.8 61.5	77.2 73.2	79.4 74.1	77.1 72.6	72.2 68.1	80.1 70.2	71.6 68.6	77.5 73.4	73.6 70.9	73.2 70.2	72.0 68.2	77.7 69.6	69.6 69.7	
Paperboard	263	28.1	122.6	128.6	126.4	121.6	126.1	122.9	122.2	125.2	126.1	123.4	126.4	124.3	
Paperboard containers	265	5.0	106.5	105.1	103.1	101.7	97.5	97.6	100.8	99.1	98.2	100.2	96.8	99.6	
Converted paper products	267	8.9	119.6	117.1	117.1	114.9	116.1	116.4	112.3	111.9	114.0	113.9	116.4	118.8	
Printing and publishing	27	17.3	107.8	107.5	105.1	105.5	102.9	101.2	99.7	96.3	95.2	99.7	99.3	105.4	
Newspapers	271	3.7	103.1	105.8	102.0	101.5	99.1	96.5	97.4	93.0	91.6	94.3	96.0	101.8	
Commercial printing	275	9.2	116.8	114.4	112.6	114.6	112.0	110.2	107.7	103.5	102.7	108.3	107.7	114.5	
Chemicals and products	28	171.6	86.1	87.5	86.5	85.3	87.3	82.9	86.7	86.4	87.2	88.0	86.7	83.0	
Basic chemicals	281	78.9	71.9	73.9	71.7	70.7	72.6	67.4	74.7	74.4 38.9	76.1	74.9	72.5	64.6	
Alkalies and chlorine Inorganic chemicals, nec	2812 2819	14.9 38.3	42.5 66.5	40.1 71.0	40.6 64.1	40.3 64.6	41.5 65.6	39.6 56.1	42.1 72.2	38.9 73.6	41.8 74.2	40.5 72.5	42.3 65.7	41.0 48.4	
Acid and fertilizer materials	_010	14.0	47.3	54.1	52.0	52.8	52.4	53.1	48.8	51.5	52.5	52.3	54.6	55.0	
Nuclear materials, nondefense		24.3	75.9	79.4	70.1	70.4	72.1	57.5	83.8	84.6	85.0	82.5	71.3	45.2	

Table 9 (continued) ELECTRIC POWER USE: MANUFACTURING AND MINING

		1992 Seasonally adjusted					ndex, 19	1992 = 100							
			2002	S	easonall				Not seasonally adjusted						
198	87 SIC	KWH	Jan.	Feb.	Mar.	Apr. ^r	Mayr	June ^p	Jan.	Feb.	Mar.	Apr. ^r	Mayr	June ^p	
Chemicals and Products (cont.)														
Synthetic materials	282	29.1	97.2	98.5	98.7	96.3	99.6	97.1	94.8	96.5	94.5	98.8	99.4	101.6	
Plastics materials	2821	18.2	126.8	125.2	125.9	124.0	126.4	123.7	123.7	123.2	122.6	126.5	126.1	130.1	
Drugs and medicines	283	6.6	142.5	140.2	143.3	147.6	149.7	141.4	133.8	131.1	133.4	139.1	144.7	149.4	
Soap and toiletries	284	3.0	127.6	126.2	132.3	127.6	130.4	124.9	121.8	121.6	126.7	122.9	124.3	131.5	
Industrial organic chemicals	286	39.2	114.5	115.6	116.8	110.6	112.1	111.1	113.6	113.3	110.4	111.0	110.0	110.8	
Agricultural chemicals	287	9.7	94.6	92.3	96.0	93.2	86.9	88.5	95.2	89.5	94.2	95.2	89.4	89.4	
Petroleum products	29	47.0	102.0	104.8	103.1	103.6	102.5	102.0	101.6	100.1	99.3	102.5	103.2	103.2	
Rubber and plastics products	30	37.9	122.2	118.3	117.3	120.1	119.1	117.2	110.5	114.5	114.7	119.0	118.8	122.5	
Tires	301	4.3	113.2	104.3	107.2	107.6	105.7	104.5	100.5	100.0	102.4	106.0	106.0	110.8	
Rubber products, nec	306	3.2	110.0	111.1	110.6	114.1	112.8	110.0	100.7	108.9	107.9	112.2	112.2	115.0	
Plastics products, nec	308	28.9	126.5	122.9	120.8	124.1	123.3	121.4	114.5	118.8	118.7	123.2	122.9	126.5	
Leather and products Shoes	31 314	1.0 .3	63.3 60.6	62.0 55.2	62.7 58.9	62.5 59.8	61.3 58.4	59.4 54.1	60.4 56.2	59.6 52.1	59.7 54.2	61.2 56.8	60.4 56.4	61.4 56.9	
Stone, clay, & glass products	32	33.7	107.8	109.4	109.6	105.9	104.3	105.0	103.0	101.9	102.3	105.4	104.8	107.6	
Flat glass	321	1.5	108.9	110.1	110.9	116.0	112.4	120.4	104.2	106.8	107.4	117.9	113.8	123.0	
Pressed and blown glass	322	7.3	109.7	108.7	105.9	104.8	103.9	101.2	105.9	106.6	103.9	105.5	102.9	105.0	
Cement	324	9.6	112.8	117.4	117.0	104.2	103.4	107.5	105.4	99.9	100.9	100.1	104.8	108.1	
Structural clay products	325	1.4	110.2	111.2	110.8	107.7	103.9	105.4	105.3	105.0	104.8	108.7	105.4	106.6	
Concrete products	327	4.7	130.3	131.2	132.4	129.3	130.4	131.1	126.0	123.9	125.4	129.7	130.4	134.7	
Primary metals	33	150.8	77.9	78.4	77.6	79.0	79.4	78.0	76.8	77.1	78.4	80.2	81.1	80.4	
Basic steel and mill products	331	57.0	96.3	97.1	93.9	98.3	98.2	100.1	96.3	95.6	97.4	100.5	101.2	101.2	
Iron and steel foundries	332	9.9	97.0	100.7	103.5	104.7	106.3	104.8	93.9	100.2	104.7	107.7	106.3	107.0	
Primary nonferrous metals	333	66.2	49.7	50.3	50.6	49.4	50.2	48.8	49.4	48.3	49.5	49.3	50.9	49.1	
Aluminum	3334	60.3	27.1	27.3	26.9	26.4	27.1	25.5	26.1	26.0	26.1	26.4	27.9	26.1	
Nonferrous foundries	336	2.7	152.8	152.1	150.9	155.2	156.7	152.6	142.3	148.0	148.3	155.4	156.3	156.7	
Fabricated metal products	34	31.6	117.8	117.3	116.4	118.2	117.8	116.1	111.5	115.0	114.9	116.9	116.5	119.7	
Metal containers	341	2.9	92.0	92.7	91.0	92.3	90.7	90.1	89.5	90.2	89.0	92.7	91.7	92.5	
Hardware, tools, and cutlery	342	2.6	107.3	104.3	101.1	105.8	101.2	100.4	99.1	101.4	99.6	103.8	100.3	105.3	
Structural metal products	344	5.5	131.6	132.3	133.3	133.8	130.5	128.1	128.2	131.7	131.4	131.2	126.8	127.6	
Fasteners	345	1.7	102.5	107.6	107.2	105.9	108.5	102.1	94.2	102.8	104.1	103.6	106.6	107.1	
Metal stampings	346	6.7	138.8	134.9	136.2	139.4	142.1	143.2	127.2	132.9	136.2	138.8	140.5	149.5	
Industrialmachinery															
and equipment	35	33.2	99.9	99.1	96.4	98.4	99.6	97.6	93.5	94.2	93.0	95.3	97.9	101.3	
Engines and turbines	351	2.6	119.5	117.2	118.0	130.9	135.2	132.7	117.2	119.8	120.7	128.0	135.5	137.0	
Farm	352	2.0	63.7	65.5	65.4	66.2	66.9	66.1	63.0	66.3	66.7	67.3	66.8	67.8	
Construction and allied	353	3.9	102.9	101.6	103.2	102.1	101.7	99.2	96.7	96.6	98.2	97.6	100.3	101.7	
Metalworking	354	4.1	106.6	105.0	101.5	100.0	102.4	100.0	99.2	99.4	97.1	95.9	99.2	103.4	
Special industry	355	2.4	102.2	99.0	95.7	102.1	101.8	101.9	96.0	94.1	92.2	98.2	98.5	105.4	
General industrial	356 357	5.2 5.1	104.2 74.0	102.9 74.8	99.6 69.7	102.5 71.4	103.2 72.9	100.4 71.0	97.5 70.1	98.8 69.7	96.6 67.2	99.5 69.4	101.5 72.5	104.2 74.6	
Computer and office equip. Service industry machines	358	3.4	101.8	99.9	97.6	97.3	99.0	99.8	89.8	91.8	91.4	94.0	97.9	103.6	
	26	22.0	100.1	00.0	05.0	00.0	00 0	05.0	04.6	02 5	02.4	05 1	06 5	00.6	
Electrical machinery Electrical distribution	36 361	33.0 1.3	100.1 97.6	98.3 94.9	95.9 93.3	98.3 94.0	98.0 98.5	95.9 96.3	94.6 95.0	93.5 93.6	92.4 92.4	95.1 93.6	96.5 97.8	99.6 98.0	
Electrical industrial	361	3.9	97.6 76.8	94.9 73.9	93.3 71.3	94.0 69.0	98.5 73.6	96.3 74.8	95.0 74.4	93.6 70.1	92.4 69.9	93.6 68.3	97.8 73.7	98.0 77.5	
Household appliances	363	2.4	91.3	88.7	86.0	86.6	82.5	80.0	84.3	84.4	83.9	85.7	85.8	86.5	
Lighting and wiring products	364	3.0	133.0	129.8	128.6	129.0	130.3	126.0	121.8	126.5	125.7	127.3	126.5	130.3	
TV and radio sets	365	.8	119.9	116.8	116.9	117.3	116.3	114.7	114.0	120.5	111.8	111.8	120.5	118.8	
Communication equipment	366	3.3	101.8	97.9	95.8	100.5	99.3	95.7	94.7	92.5	91.4	95.6	94.6	98.8	
Electronic components	367	14.6	104.8	103.9	100.1	104.2	102.1	100.4	100.3	98.6	96.4	100.3	100.4	103.7	
Transportation equipment	37	39.8	106.1	108.0	110.3	112.9	111.5	107.4	99.2	104.2	107.2	109.6	110.6	113.5	
Motor vehicles and parts	371	22.8	122.1	126.1	129.3	132.3	131.6	127.0	113.9	122.6	126.5	128.8	131.0	135.3	
Aircraft and parts	372	10.7	69.8	68.7	70.2	72.3	71.6	65.6	65.3	65.1	67.0	69.3	70.3	68.4	
Ships and boats	373	2.2	86.8	89.0	88.7	92.8	88.4	89.0	89.4	89.8	89.0	91.3	87.7	90.8	
Instruments	38	13.6	97.6	98.5	94.9	99.4	97.0	92.3	92.2	90.6	90.7	95.0	94.4	96.5	
Photographic equip. & supplies	386	1.8	105.7	112.8	103.1	111.5	108.3	100.8	105.5	103.8	102.1	107.1	103.7	103.6	
Miscellaneous manufactures	39	4.5	130.5	130.4	128.9	127.0	129.6	127.1	120.2	123.6	122.4	125.9	128.9	132.6	
SUPPLEMENTARY GROUPS Total, excluding nuclear nondefens	e.	908.9	96.0	96.4	95.9	95.8	95.8	94.1	92.5	92.6	92.9	94.9	95.6	97.2	
Utility sales to industry		835.5	95.2	95.6	94.2	94.5	94.1	93.0	91.7	92.2	92.3	94.3	94.5	95.0	
Industrial generation		97.7	94.8	97.9	95.6	97.7	97.6	97.0	98.6	93.7	96.9	94.2	96.0	94.7	
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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 0.28 percent during the 1987–2001 period. The average revision to the *percent change* in total IP, without regard to sign, from the first to the fourth estimates was 0.22 percentage point during

the 1987–2001 period. In most cases (about 84 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 in November 2001 was described in an article published in the *Federal Reserve Bulletin*, vol. 88 (March 2002), pp. 173–187. 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. The Federal Reserve methodology for constructing industry-level measures of capital is detailed in "Capital Stock Estimates for Manufacturing Industries: Methods and Data" by Mike Mohr and Charles Gilbert (1996), which can be obtained at

www.federalreserve.gov/releases/g17/capital_stock_doc-latest.pdf

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. 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, March 2000, March 2001, and March 2002).

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.