FEDERAL RESERVE statistical release

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INDUSTRIAL PRODUCTION AND CAPACITY UTILIZATION

Industrial production increased 0.4 percent in July after a gain of 0.8 percent in June. Manufacturing output increased 0.1 percent in July; excluding motor vehicles and parts, manufacturing production rose 0.7 percent. With temperatures well above normal during July, the output of utilities rose 2.0 percent. Production at mines climbed 0.8 percent.

(over)

INDUSTRIAL PRODUCTION AND CAPACITY UTILIZATION: SUMMARY
Seasonally adjusted

	2002=100				Percent change				
Industrial production	2006 Apr.[r]	May[r]	June[r]	July[p]	2006 Apr.[r]	May[r]	June[r]	July[p]	July '05 to July '06
Total index	112.1	112.2	113.1	113.5	.8	.0	.8	.4	4.9
Previous estimates	112.2	112.3	113.2		.8	.1	.8		
Major market groups									
Final Products	113.7	113.5	114.7	114.7	.6	-.2	1.1	.1	4.6
Consumer goods	106.5	106.2	107.4	107.1	-.1	-.3	1.1	-.3	1.7
Business equipment	132.5	132.1	133.2	134.7	2.4	-.3	.8	1.1	12.2
Nonindustrial supplies	111.4	111.4	112.0	112.7	.4	.0	.5	.6	4.9
Construction	114.0	113.2	113.4	114.0	.3	-.6	.1	.5	6.0
Materials	110.7	111.1	111.9	112.6	1.1	.3	.7	.6	5.0
Major industry groups									
Manufacturing (see note below)	114.3	114.1	115.1	115.2	.9	-.1	.8	.1	5.6
Previous estimates	114.2	114.3	115.2		.8	.1	.7		
Mining	100.0	100.3	101.4	102.1	1.7	.3	1.1	.8	2.4
Utilities	104.2	105.6	106.5	108.6	-1.3	1.3	.9	2.0	.5

	Percent of capacity								Capacity growth
Capacity utilization	Average 1972–2005	1994-95 high	2001-02 low	2005 July	2006 Apr.[r]	May[r]	June[r]	July[p]	July '05 to July '06
Total industry	81.0	85.0	73.9	80.2	81.8	81.7	82.3	82.4	1.9
Previous estimates					81.9	81.8	82.4		
Manufacturing (see note below)	79.8	84.5	72.0	78.6	80.9	80.6	81.1	81.0	2.5
Previous estimates					80.8	80.7	81.1		
Mining	87.3	89.0	85.6	89.1	89.7	90.2	91.2	92.1	-.9
Utilities	86.7	93.7	83.7	88.0	84.8	85.8	86.5	88.2	.2
Stage-of-process groups									
Crude	86.4	89.4	83.2	87.5	87.7	88.1	88.9	89.4	-.9
Primary and semifinished	82.1	88.1	74.6	81.6	82.5	82.7	83.3	83.7	2.4
Finished	77.9	80.5	70.8	76.8	79.9	79.3	79.8	79.5	2.2

r Revised. p Preliminary.

Note. The statistics in this release cover output, capacity, and capacity utilization in the U.S. industrial sector, which is defined by the Federal Reserve to comprise manufacturing, mining, and electric and gas utilities. Mining is defined as all industries in sector 21 of the North American Industry Classification System (NAICS); electric and gas utilities are those in NAICS sectors 2211 and 2212. Manufacturing comprises NAICS manufacturing industries (sector 31-33) plus the logging industry and the newspaper, periodical, book, and directory publishing industries. Logging and publishing are classified elsewhere in NAICS (under agriculture and information respectively), but historically they were considered to be manufacturing and were included in the industrial sector under the Standard Industrial Classification (SIC) system. In December 2002 the Federal Reserve reclassified all its industrial output data from the SIC system to NAICS.

Capacity utilization for total industry rose to 82.4 percent in July; the utilization rate was 2.2 percentage points above its level in July 2005 and 1.4 percentage points above its 1972–2005 average.

Market Groups

The output of consumer goods decreased 0.3 percent in July, as a decline in the output of consumer durable goods more than offset an increase in the production of nondurable consumer goods. Within consumer durable goods, a drop of 6.2 percent in the output of automotive products was due mostly to a decrease in the production of autos and light trucks. Assemblies of light vehicles dropped from an annual rate of 11.2 million units in June to 10.2 million units in July. The index for appliances, furniture, and carpeting decreased 0.7 percent, whereas the indexes for both home electronics and miscellaneous goods registered gains. The production of consumer nondurable goods rose 0.8 percent for a second consecutive month. In July, the index for non-energy nondurable consumer goods increased 0.6 percent, and gains in the sector were widespread. The production of consumer energy products advanced 1.6 percent but was down 0.6 percent from its year-ago level.

The production of business equipment moved up 1.1 percent in July and was up 12.2 percent from its year-ago level. Increases in the production of information processing equipment and of industrial and other equipment more than offset a drop in the output of transit equipment. The production of defense and space equipment moved up 0.7 percent. The output of construction supplies rose 0.5 percent in July and was up 6 percent from its year-ago level. The index for business supplies advanced 0.6 percent, its fifth consecutive monthly gain.

The output of materials gained 0.6 percent in July. The index for energy materials rose 1.2 percent, while the index for non-energy materials was up 0.3 percent. Continued increases in the output of equipment parts boosted the index for durable goods materials, which rose 0.4 percent. Within nondurable materials, the production of textiles edged up, and the output of paper materials and of chemical materials declined.

Industry Groups

Manufacturing production increased 0.1 percent in July. The output of nondurable manufacturers was up 0.3 percent, while the production of durable manufacturers was unchanged. Excluding motor vehicles and parts, the output of durable goods advanced 1.0 percent. Capacity utilization in manufacturing edged down to 81.0 percent, a rate 2.4 percentage points above its year-ago level and 1.2 percentage points above its 1972–2005 average.

Within durable goods manufacturing, the production of motor vehicles and parts dropped 5.4 percent. The decline more than reversed its June increase. The index for furniture and related products also registered a decline, but production for all other major categories of durables remained unchanged or increased. The index for computer and electronic products increased 0.8 percent and stood 18.6 percent above its year-ago level. The production of wood products turned up 1.1 percent after having decreased for seven consecutive months. The index for miscellaneous manufacturing moved up 1.6 percent.

Among the major categories of nondurable manufacturing, the indexes for paper and for printing and support declined, and the indexes for chemicals and for petroleum and coal products did not change. The production of food, beverage, and tobacco products; textile and product mills; apparel and leather; and plastics and rubber products all registered gains. The output of non-NAICS manufacturing industries (publishing and logging) increased 0.5 percent.

The output of utilities jumped 2.0 percent in July, and capacity utilization for this category rose to

88.2 percent. Mining output increased 0.8 percent, its fourth consecutive monthly gain. Capacity utilization in mining moved up to 92.1 percent, its highest rate in five years.

By stage of process, capacity utilization for industries in the crude stage increased 0.5 percentage point, to 89.4 percent. For industries in the primary and semifinished stages, the operating rate rose 0.4 percentage point, to 83.7 percent; for industries in the finished stage, the utilization rate decreased 0.3 percentage point, to 79.5 percent.

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Further detail is available on the Board's website (**www.federalreserve.gov/releases/G17/**).

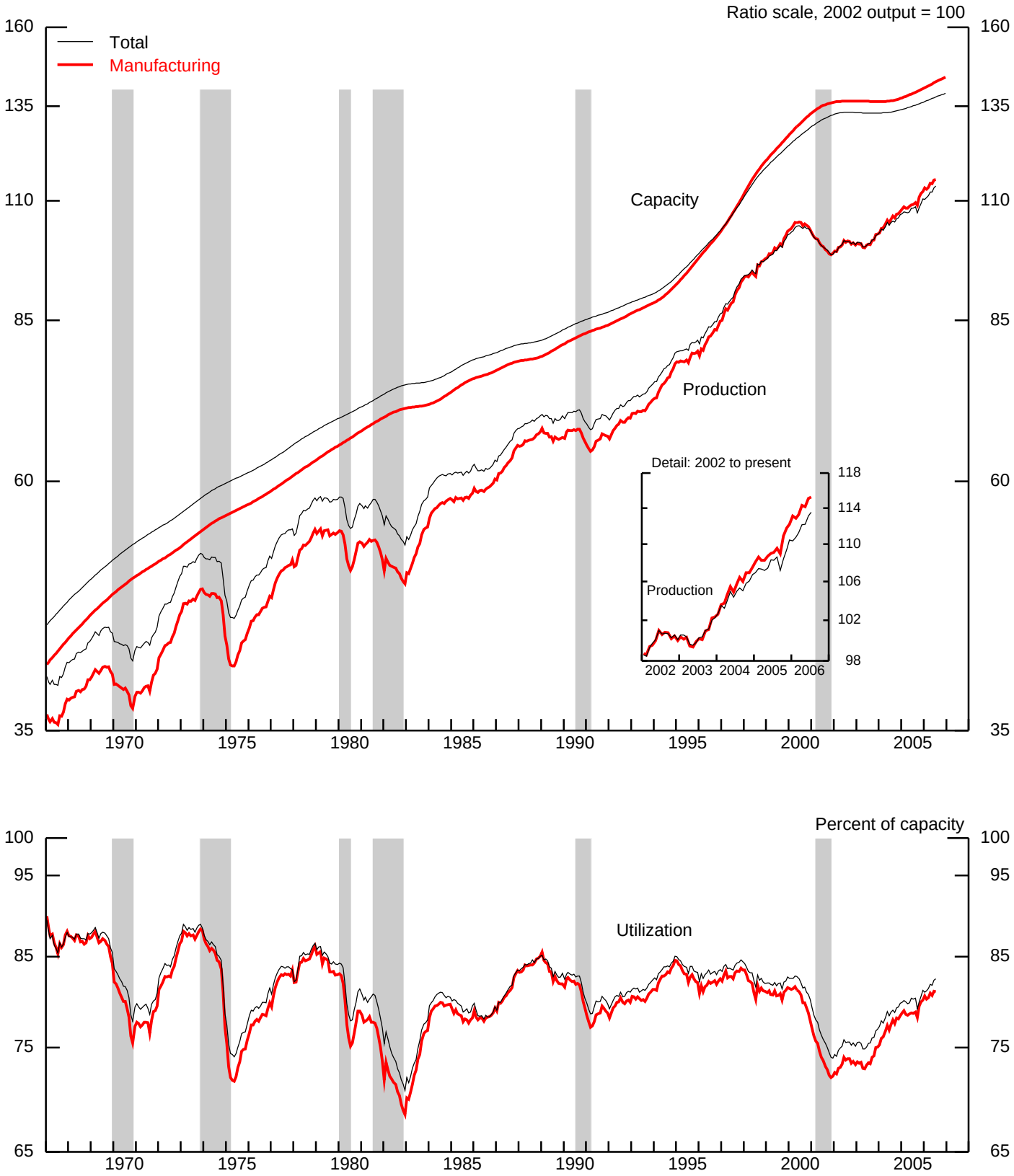
Revision of Industrial Production and Capacity Utilization

The Federal Reserve Board plans to issue an annual revision to the index of industrial production (IP) and the related measures of capacity and capacity utilization this fall; the publication date is yet to be determined. The revised IP indexes will incorporate data from the 2004 Annual Survey of Manufactures and from selected editions of the 2004 and 2005 Current Industrial Reports, all from the U.S. Census Bureau. Annual data from the U.S. Geological Survey regarding metallic and nonmetallic minerals (except fuels) for 2004 and 2005 will also be incorporated. The updating will include revisions to the monthly indicator for each industry (either product data or input data) and to seasonal factors.

Capacity and capacity utilization will be revised to incorporate preliminary data from the Census Bureau's 2005 Survey of Plant Capacity, which covers manufacturing, along with new data on capacity from the U.S. Geological Survey, the Department of Energy, and other organizations.

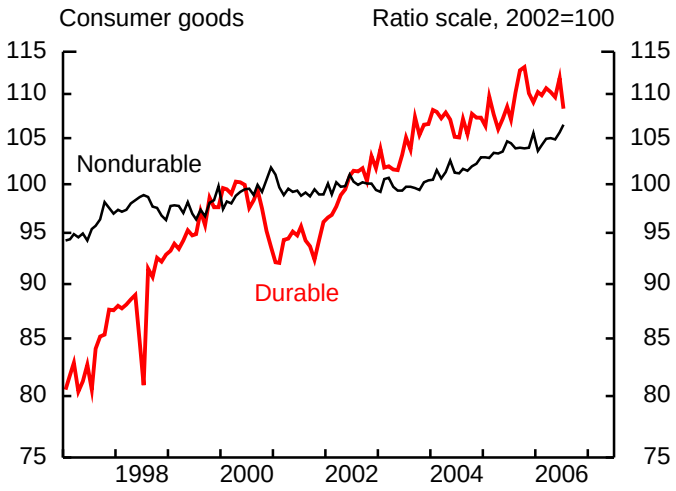
Once the revision is published, it will be available on the Board's website at www.federalreserve.gov/releases/G17. The revised data will also be available through the website of the Department of Commerce. Further information on these revisions can be obtained from the Board's Industrial Output Section (telephone number 202-452-3197).

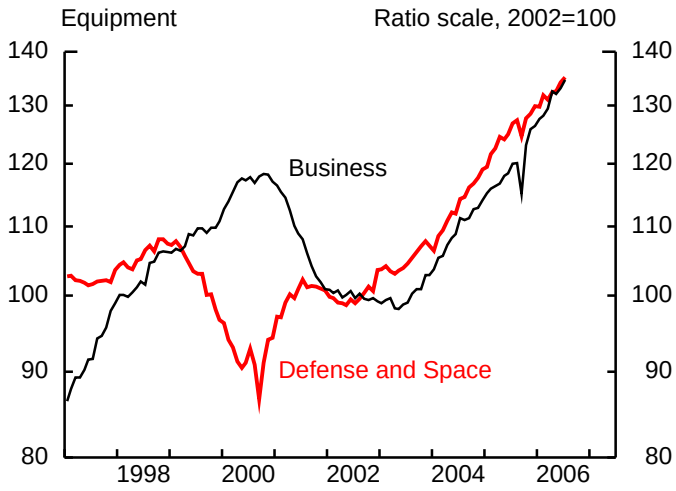
1. Industrial production, capacity, and utilization

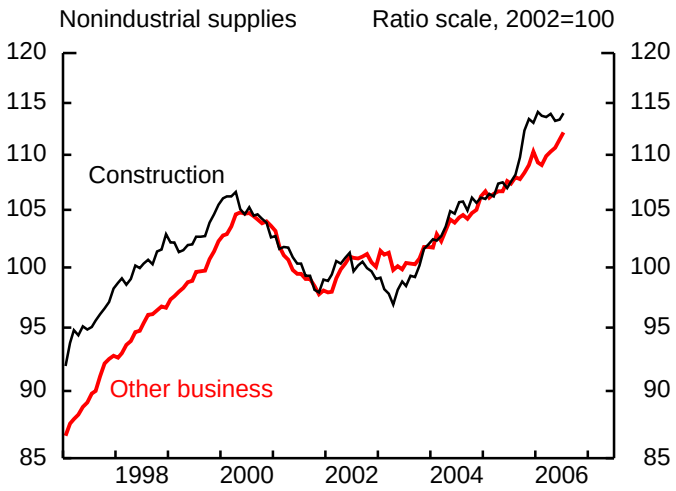


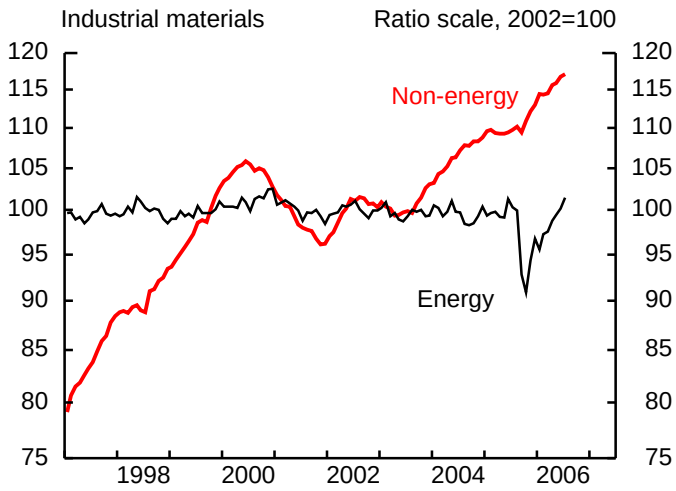
Notes: The shaded areas are periods of business recession as defined by the National Bureau of Economic Research (NBER). See note on cover page.

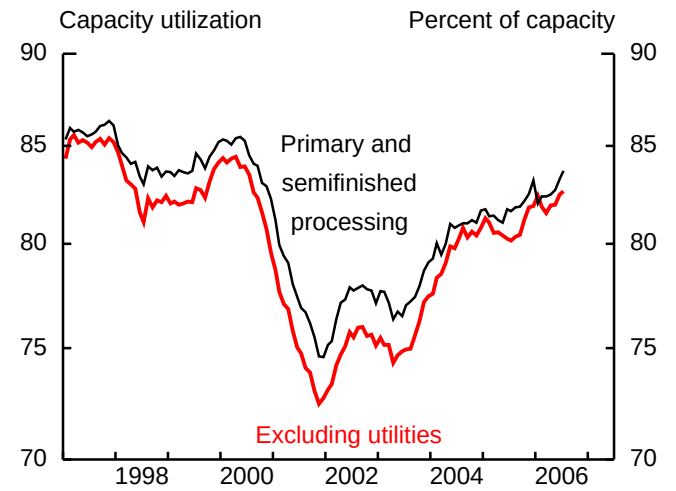
2. Industrial production and capacity utilization

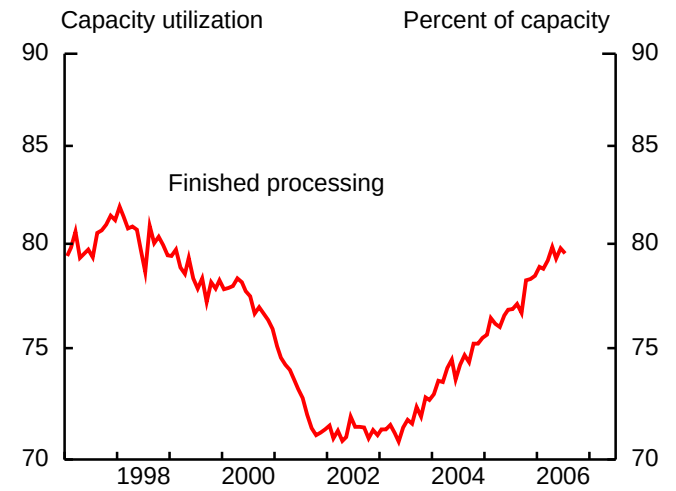




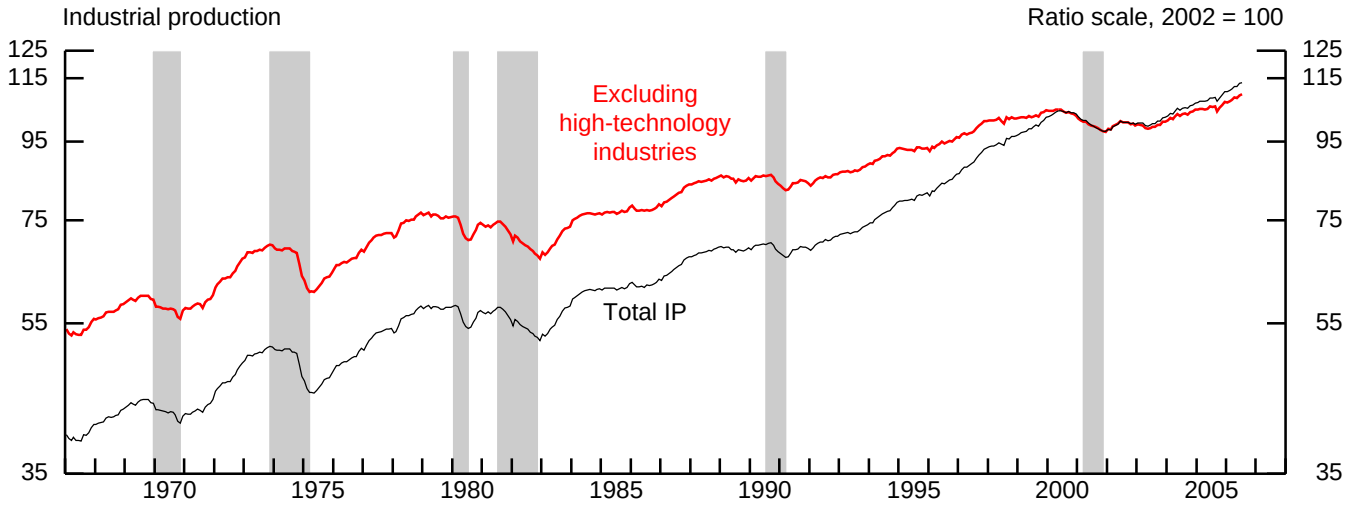


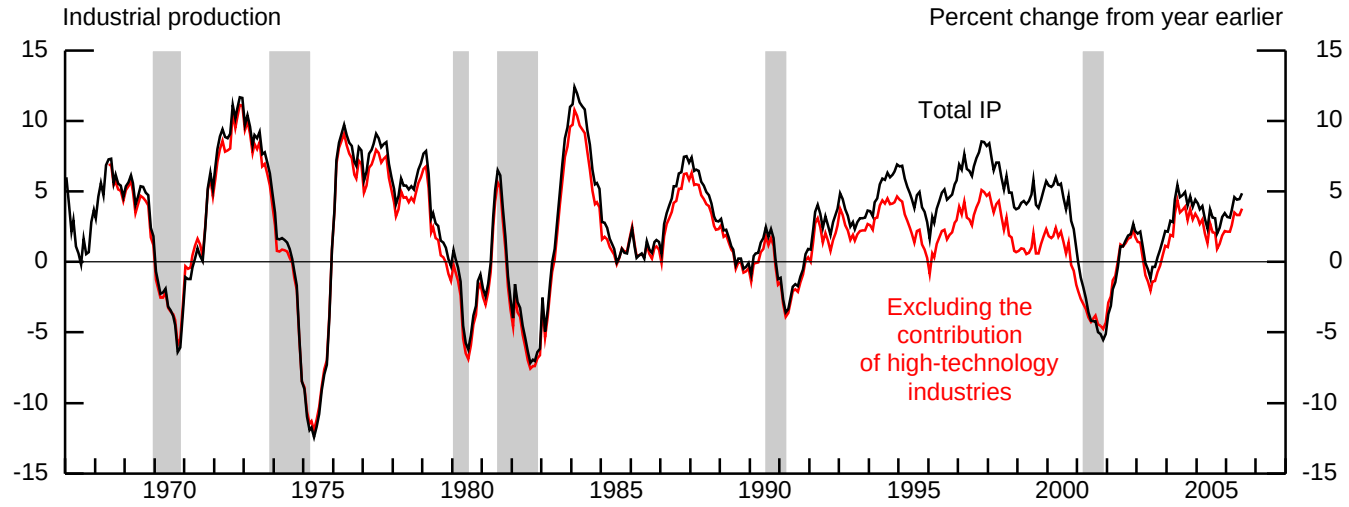


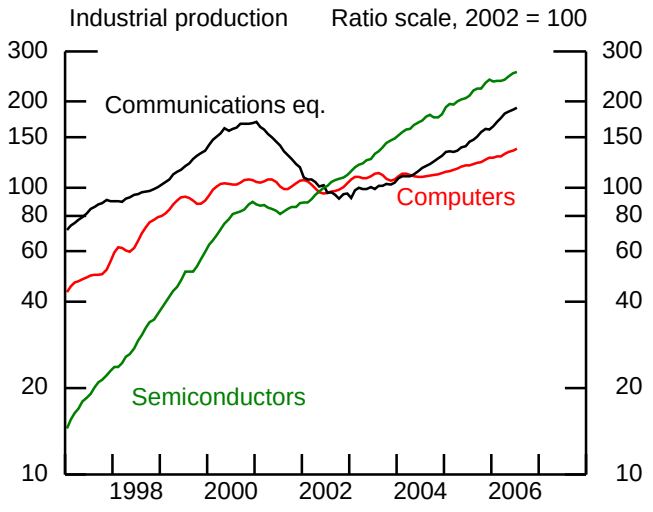


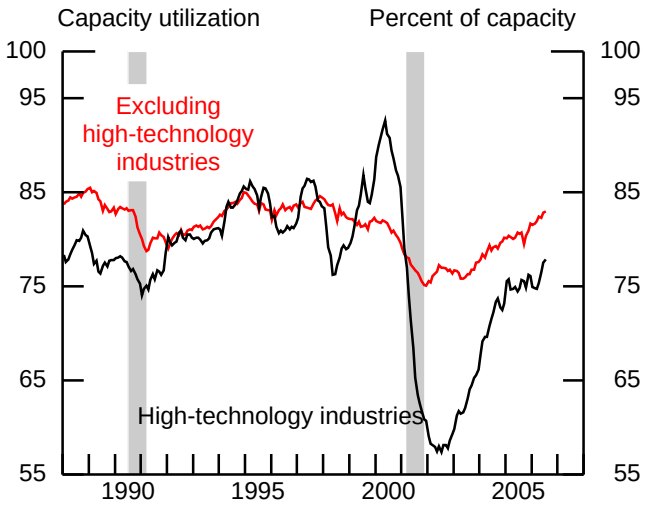


3. Industrial production and capacity utilization, high-technology industries









Notes: High-technology industries are defined as semiconductors and related electronic components (NAICS 334412-9), computers (NAICS 3341),and communications equipment (NAICS 3342).
The shaded areas are periods of business recession as defined by the NBER.

Table 1
INDUSTRIAL PRODUCTION: MARKET AND INDUSTRY GROUP SUMMARY

Percent change, seasonally adjusted

Item	2005 proportion[1]	Fourth quarter to fourth quarter			Annual rate				Monthly rate				July '05 to July '06
		2003	2004	2005	2005 Q3	Q4	2006 Q1	Q2[r]	2006 Apr.[r]	May[r]	June[r]	July[p]	
Total IP	100.00	1.5	4.3	3.0	1.4	5.3	5.1	6.2	.8	.0	.8	.4	4.9
MARKET GROUPS													
Final products and nonindustrial supplies	57.59	1.7	4.3	4.8	3.5	8.3	1.8	5.2	.6	-.2	.9	.2	4.7
Consumer goods	29.69	1.3	2.0	2.4	3.7	1.8	-1.1	2.9	-.1	-.3	1.1	-.3	1.7
Durable	8.35	4.3	1.3	3.1	10.8	2.8	-1.8	1.2	-.4	-.6	2.1	-3.2	1.1
Automotive products	4.55	6.5	.4	2.5	16.7	-3.1	-1.4	2.6	-.9	-.9	4.2	-6.2	-.5
Home electronics	.25	18.5	-3.7	17.2	-17.7	68.1	4.3	2.2	-.5	1.9	1.8	1.1	17.3
Appliances, furniture, carpeting	1.35	2.2	2.4	2.2	10.3	-1.2	-2.8	-2.1	-.3	.0	-1.9	-.7	-2.0
Miscellaneous goods	2.19	-.7	3.0	3.1	3.0	12.7	-2.7	.1	.6	-.4	.3	1.0	4.6
Nondurable	21.35	.1	2.3	2.1	1.0	1.4	-.8	3.6	.1	-.1	.8	.8	2.0
Non-energy	16.93	.6	2.5	2.2	-.7	3.9	1.7	3.3	1.0	-.6	.3	.6	2.6
Foods and tobacco	9.15	2.1	1.8	2.9	1.2	6.0	3.5	-.9	.8	-1.2	-.2	.7	1.9
Clothing	.68	-9.3	-2.8	-1.2	6.3	4.3	8.8	8.8	1.0	.5	.6	1.7	8.4
Chemical products	4.69	1.0	3.0	.3	-4.4	-.3	-1.6	8.4	.9	-.2	.7	.2	2.0
Paper products	1.90	-3.5	5.9	3.7	-5.3	4.6	-2.1	8.0	1.8	.0	1.6	.6	3.9
Energy	4.42	-1.9	1.7	1.6	8.3	-7.8	-10.2	5.0	-3.3	1.8	2.5	1.6	-.6
Business equipment	10.15	2.8	10.8	10.5	2.4	24.6	11.1	13.6	2.4	-.3	.8	1.1	12.2
Transit	1.99	3.6	9.7	15.0	-28.2	82.1	26.6	5.5	2.2	-.8	.5	-.3	14.2
Information processing	2.82	6.5	14.6	19.4	23.0	24.4	15.5	22.6	2.3	1.1	1.3	.9	19.5
Industrial and other	5.35	.4	9.2	4.4	5.4	8.5	3.1	12.3	2.4	-.9	.7	1.9	7.7
Defense and space equipment	2.05	5.4	9.7	9.3	5.8	8.1	6.8	6.9	1.0	.1	1.3	.7	6.5
Construction supplies	4.45	1.7	4.6	6.6	4.7	17.4	3.2	-1.0	.3	-.6	.1	.5	6.0
Business supplies	10.63	.9	3.9	3.7	2.7	6.0	.7	5.2	.4	.3	.7	.6	4.5
Materials	42.41	1.2	4.3	.7	-1.5	1.2	9.8	7.6	1.1	.3	.7	.6	5.0
Non-energy	29.43	1.7	6.0	3.3	1.7	8.3	8.8	5.9	1.0	.2	.7	.3	6.6
Durable	18.76	3.8	7.6	7.0	7.0	13.4	7.9	8.0	1.3	.2	1.0	.4	9.6
Consumer parts	3.54	-1.2	2.0	2.1	6.8	3.3	3.3	3.7	1.2	-1.7	.9	-1.7	1.7
Equipment parts	6.68	11.8	14.1	16.2	13.7	20.9	11.4	15.7	1.7	1.1	1.5	1.3	16.4
Other	8.53	.0	4.9	2.0	1.9	11.8	7.0	3.9	1.0	.4	.6	.4	7.7
Nondurable	10.67	-1.7	3.2	-3.1	-7.1	-.3	10.6	2.2	.4	.2	.3	.1	1.4
Textile	.61	-6.5	-6.4	-4.5	4.1	-5.1	2.5	-10.0	-1.3	-1.3	.3	.2	-4.0
Paper	2.30	-6.5	4.6	-.8	-4.3	5.2	5.0	-1.1	-.2	-.3	1.0	-.2	2.4
Chemical	4.42	1.6	5.3	-8.6	-15.7	-7.4	19.2	6.3	.6	1.4	-.2	-.1	-.3
Energy	12.98	-.1	-.2	-5.4	-8.6	-14.3	12.3	11.7	1.3	.6	.8	1.2	1.1
INDUSTRY GROUPS													
Manufacturing	80.78	1.7	5.1	4.2	2.0	9.1	5.3	5.1	.9	-.1	.8	.1	5.6
Manufacturing (NAICS)	76.36	2.0	5.2	4.3	2.6	9.5	5.8	5.2	.9	-.1	.8	.1	5.8
Durable manufacturing	42.89	4.0	7.1	7.8	7.0	15.2	5.3	7.6	1.1	-.1	1.0	.0	8.5
Wood products 321	1.54	4.0	3.0	7.4	1.3	34.0	-12.9	-11.2	-.1	-1.0	-1.4	1.1	1.1
Nonmetallic mineral products 327	2.28	2.2	5.1	2.9	1.4	14.5	9.1	-4.8	.1	-1.5	-.1	.1	4.4
Primary metal 331	2.44	1.0	3.9	-1.7	1.8	21.8	9.5	9.8	1.7	2.7	.3	.0	14.8
Fabricated metal products 332	5.76	-.7	5.2	4.0	3.4	9.2	6.3	6.5	1.0	-.7	.9	.5	6.8
Machinery 333	5.33	1.0	11.5	6.3	3.1	17.8	-1.7	7.4	2.5	-2.2	.4	2.1	6.6
Computer and electronic products 334	7.87	15.7	16.1	23.0	22.3	27.0	11.0	17.6	1.5	1.7	1.8	.8	18.6
Electrical equip., appliances, and components 335	2.10	-.7	5.2	7.0	12.4	12.6	9.8	12.9	1.8	.9	-.1	1.3	11.6
Motor vehicles and parts 3361–3	7.09	4.7	2.6	2.3	13.5	-2.3	-.2	1.9	-.3	-1.3	3.0	-5.4	-.8
Aerospace and miscellaneous transportation equipment 3364–9	3.66	-.4	5.3	12.0	-15.3	44.0	19.6	11.7	2.3	.3	.8	1.6	14.6
Furniture and related products 337	1.63	.3	2.2	-2.0	2.1	-2.2	-.5	6.1	.1	1.0	.0	-.8	1.0
Miscellaneous 339	3.18	.6	3.9	4.8	7.0	4.1	1.7	6.4	.7	.5	.7	1.6	6.6
Nondurable manufacturing	33.47	-.4	2.8	.0	-2.8	2.4	6.4	2.1	.5	-.2	.5	.3	2.4
Food, beverage, and tobacco products 311,2	10.67	1.7	1.7	3.4	1.7	6.2	5.1	-.4	.9	-1.3	-.1	.6	2.5
Textile and product mills 313,4	1.09	-4.2	-3.9	-.3	9.3	-2.6	-3.5	-9.2	-.7	-.9	.0	.3	-3.7
Apparel and leather 315,6	.73	-9.4	-2.2	-.4	7.7	5.6	7.8	7.3	.9	.5	.4	1.7	8.1
Paper 322	2.68	-6.0	4.5	-.7	-4.7	8.6	1.5	-4.1	.0	.0	1.4	-.3	1.8
Printing and support 323	2.01	-3.0	1.5	1.7	4.1	2.8	10.3	6.8	1.1	-.4	.5	-.5	4.3
Petroleum and coal products 324	2.51	.3	6.2	-6.0	-14.2	-11.4	16.8	-4.3	-2.4	3.6	1.9	.0	-.5
Chemical 325	10.19	.7	4.2	-3.5	-9.9	-2.4	8.1	7.4	.7	.4	.4	.0	1.3
Plastics and rubber products 326	3.59	-.2	3.2	3.9	5.4	10.7	3.1	4.5	1.5	-1.3	.7	1.1	7.2
Other manufacturing (non-NAICS) 1133,5111	4.42	-3.0	3.7	1.9	-6.9	3.3	-2.5	4.4	1.2	-.1	.9	.5	2.1
Mining 21	9.75	.5	-.4	-6.8	-14.9	-15.0	26.3	10.2	1.7	.3	1.1	.8	2.4
Utilities 2211,2	9.47	.7	1.2	2.9	13.8	-5.7	-14.3	11.5	-1.3	1.3	.9	2.0	.5
Electric 2211	7.73	1.9	2.0	3.8	17.8	-4.1	-11.9	8.7	-.6	1.2	1.0	2.3	1.6
Natural gas 2212	1.73	-5.5	-2.9	-1.6	-3.7	-13.9	-24.4	26.0	-4.3	1.7	.7	.6	-4.9

r Revised. p Preliminary.

NOTE. Under the industry groups, the figures to the right of the series descriptions are 2002 North American Industry Classification System (NAICS) codes. The abbreviation pt denotes part of a NAICS code. Additional industry detail is available on the Board's web site (www.federalreserve.gov/releases/G17). Under market groups, in the products category, miscellaneous consumer nondurables, oil and gas drilling, and manufactured homes are not shown separately; in the nondurable materials category, containers and miscellaneous nondurable materials are not shown separately.

1. The proportion data are estimates of the relative contribution of each series to the growth of total industrial production in the following year.

Table 2
INDUSTRIAL PRODUCTION: SPECIAL AGGREGATES AND SELECTED DETAIL
Percent change, seasonally adjusted

Item		2005 proportion	Fourth quarter to fourth quarter			Annual rate				Monthly rate				July '05 to July '06
			2003	2004	2005	2005 Q3	2005 Q4	2006 Q1	2006 Q2[r]	2006 Apr.[r]	2006 May[r]	2006 June[r]	2006 July[p]	
Total industry		100.00	1.5	4.3	3.0	1.4	5.3	5.1	6.2	.8	.0	.8	.4	4.9
Energy		20.38	.5	.7	-2.5	-2.8	-10.5	4.1	10.1	.0	1.0	1.1	1.2	1.2
Consumer products		4.42	-1.9	1.7	1.6	8.3	-7.8	-10.2	5.0	-3.3	1.8	2.5	1.6	-.6
Commercial products		2.49	5.1	2.4	2.9	5.2	1.4	-10.6	6.1	-1.8	1.5	.6	1.2	1.4
Oil and gas well drilling	213111	.49	21.2	8.3	11.8	19.9	7.5	17.1	32.0	3.0	.9	1.2	-.9	15.1
Converted fuel		3.81	.6	1.6	-2.2	1.5	-14.9	-6.5	20.1	.7	2.1	.1	1.5	-.6
Primary materials		9.17	-.4	-1.0	-6.8	-12.6	-14.1	21.1	8.5	1.6	.1	1.0	1.2	1.8
Non-energy		79.62	1.7	5.1	4.4	2.5	9.5	5.4	5.3	1.0	-.2	.8	.1	5.7
Selected high-technology industries		4.80	21.1	18.4	25.7	27.0	27.1	15.2	21.8	1.7	2.2	2.0	1.2	22.4
Computers and peripheral equipment	3341	.79	5.8	4.6	12.0	8.8	14.5	10.6	15.9	1.7	1.6	1.4	1.2	14.0
Communications equipment	3342	1.21	9.9	22.3	25.4	33.3	33.1	30.5	39.5	3.6	1.3	1.7	1.4	30.8
Semiconductors and related electronic components	334412–9	2.79	34.1	21.4	29.9	30.0	28.1	10.0	15.8	.8	2.9	2.4	1.1	21.0
Excluding selected high-technology industries		74.83	.5	4.2	3.0	1.0	8.3	4.7	4.2	.9	-.4	.7	.1	4.7
Motor vehicles and parts	**3361–3**	7.09	4.7	2.6	2.3	13.5	-2.3	-.2	1.9	-.3	-1.3	3.0	-5.4	-.8
Motor vehicles	3361	3.53	10.4	1.6	-.2	21.1	-13.0	.8	2.8	-1.0	-1.9	5.2	-9.5	-4.5
Motor vehicle parts	3363	3.09	-1.5	2.2	3.3	7.8	2.0	1.0	6.5	1.2	-.7	1.1	-1.7	2.2
Excluding motor vehicles and parts		67.74	.0	4.4	3.1	-.3	9.5	5.3	4.5	1.0	-.3	.5	.6	5.2
Consumer goods		21.02	.7	2.3	2.3	.0	4.8	.9	2.5	.8	-.6	.2	.5	2.5
Business equipment		8.01	.5	9.0	9.6	-1.8	27.5	8.4	12.7	2.5	-.4	.8	1.6	11.4
Construction supplies		4.41	1.7	4.6	6.5	4.6	17.3	3.1	-1.2	.3	-.6	.1	.5	5.9
Business supplies		7.75	-1.6	3.3	2.7	.4	6.4	3.7	4.1	1.0	-.2	.7	.4	4.5
Materials		24.41	-.8	4.7	.6	-1.6	6.9	9.7	4.7	.9	.1	.5	.5	5.7
Measures excluding selected high-technology industries														
Total industry		95.20	.5	3.6	1.9	.1	4.2	4.6	5.4	.7	-.1	.8	.3	4.0
Manufacturing[1]		75.99	.4	4.2	2.8	.5	8.0	4.7	4.1	.8	-.3	.7	.1	4.6
Durable		38.29	1.7	5.6	5.5	4.5	13.6	4.0	5.8	1.1	-.4	.9	-.2	6.7
Measures excluding motor vehicles and parts														
Total industry		92.91	1.3	4.5	3.1	.5	5.9	5.5	6.5	.9	.1	.7	.8	5.3
Manufacturing[1]		73.69	1.4	5.4	4.4	1.0	10.3	5.9	5.5	1.0	.0	.6	.7	6.2
Durable		36.00	3.8	8.0	8.8	5.7	18.8	6.4	8.6	1.4	.2	.7	1.0	10.2
Measures excluding selected high-technology industries and motor vehicles and parts														
Total industry		88.11	.1	3.6	1.8	-.9	4.7	5.0	5.7	.8	.0	.6	.8	4.3
Manufacturing[1]		68.90	.0	4.4	2.9	-.7	9.1	5.2	4.3	1.0	-.2	.5	.6	5.1
Stage-of-process components of non-energy materials, measures of the input to														
Finished processors		13.13	3.6	7.9	8.3	8.1	12.0	7.8	8.3	1.1	.0	1.2	.2	9.0
Primary and semifinished processors		16.30	.2	4.3	-.7	-3.3	5.3	9.8	4.0	.9	.4	.4	.3	4.7

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1. Refer to note on cover page.

Table 3
MOTOR VEHICLE ASSEMBLIES
Millions of units, seasonally adjusted annual rate

Item	2005 average	2005 Q3	Q4	2006 Q1	Q2	2006 Apr.	May	June	July
Total	11.95	12.17	11.78	11.71	11.56	11.73	11.33	11.62	10.61
Autos	4.32	4.31	4.38	4.54	4.33	4.54	4.34	4.10	4.07
Trucks	7.63	7.86	7.40	7.18	7.23	7.19	6.99	7.51	6.55
Light	7.21	7.45	6.98	6.69	6.78	6.69	6.53	7.11	6.15
Medium and heavy	.42	.41	.42	.48	.45	.50	.46	.40	.40
Memo									
Autos and light trucks	11.53	11.76	11.36	11.23	11.10	11.23	10.87	11.21	10.22

NOTE. Seasonal factors and underlying data for auto, light truck, and medium and heavy truck production are available on the Board's web site, www.federalreserve.gov/releases/G17/mvsf.htm

Table 4
INDUSTRIAL PRODUCTION INDEXES: MARKET AND INDUSTRY GROUP SUMMARY
2002 = 100, seasonally adjusted

Item		2005 proportion	2005 Nov.	Dec.	2006 Jan.	Feb.	Mar.	Apr.[r]	May[r]	June[r]	July[p]
Total IP		100.00	109.4	110.4	110.3	110.7	111.2	112.1	112.2	113.1	113.5
MARKET GROUPS											
Final products and nonindustrial supplies		57.59	111.3	112.0	111.5	111.8	112.5	113.1	112.9	114.0	114.2
Consumer goods		29.69	105.7	106.6	105.4	105.8	106.6	106.5	106.2	107.4	107.1
Durable		8.35	110.1	109.0	110.2	109.9	110.7	110.2	109.6	111.9	108.3
Automotive products		4.55	111.7	110.1	112.3	112.0	113.6	112.5	111.4	116.1	108.9
Home electronics		.25	132.1	133.4	132.7	131.7	130.5	129.9	132.4	134.8	136.2
Appliances, furniture, carpeting		1.35	106.2	104.7	105.6	105.2	106.1	105.8	105.7	103.8	103.1
Miscellaneous goods		2.19	106.6	106.7	106.2	105.8	105.4	106.1	105.6	105.9	107.0
Nondurable		21.35	103.9	105.5	103.6	104.2	104.9	105.0	104.9	105.7	106.5
Non-energy		16.93	104.4	105.1	105.3	104.6	105.2	106.2	105.5	105.9	106.5
Foods and tobacco		9.15	105.7	106.7	107.3	106.5	106.6	107.5	106.2	106.0	106.7
Clothing		.68	86.2	86.5	87.8	87.4	88.4	89.3	89.7	90.3	91.8
Chemical products		4.69	103.8	104.1	103.1	102.9	104.7	105.6	105.3	106.1	106.3
Paper products		1.90	104.9	106.4	106.3	104.1	104.6	106.4	106.5	108.2	108.8
Energy		4.42	102.3	107.2	97.0	103.0	103.9	100.5	102.3	104.8	106.5
Business equipment		10.15	125.8	126.4	127.6	128.2	129.4	132.5	132.1	133.2	134.7
Transit		1.99	127.9	129.4	134.0	134.5	133.3	136.3	135.2	135.8	135.3
Information processing		2.82	144.9	144.8	146.6	148.9	151.3	154.9	156.6	158.6	160.0
Industrial and other		5.35	115.5	116.0	115.9	115.6	117.2	120.1	119.0	119.8	122.1
Defense and space equipment		2.05	128.6	129.9	129.7	131.8	131.1	132.4	132.5	134.2	135.1
Construction supplies		4.45	113.4	113.1	114.1	113.7	113.6	114.0	113.2	113.4	114.0
Business supplies		10.63	109.1	110.3	109.3	109.1	109.9	110.3	110.7	111.5	112.1
Materials		42.41	106.9	108.3	108.8	109.3	109.5	110.7	111.1	111.9	112.6
Non-energy		29.43	112.1	113.0	114.4	114.3	114.5	115.6	115.8	116.7	117.0
Durable		18.76	120.9	121.8	122.9	123.4	123.5	125.1	125.4	126.6	127.0
Consumer parts		3.54	102.1	102.0	103.4	103.4	104.3	105.5	103.7	104.6	102.9
Equipment parts		6.68	153.1	155.3	155.5	156.7	157.9	160.6	162.3	164.7	166.9
Other		8.53	107.2	107.7	109.2	109.5	108.7	109.7	110.1	110.7	111.2
Nondurable		10.67	98.3	99.2	101.0	100.1	100.3	100.8	100.9	101.3	101.4
Textile		.61	83.7	82.6	84.6	84.1	83.6	82.6	81.5	81.7	81.9
Paper		2.30	96.4	98.0	99.2	97.7	98.2	98.0	97.7	98.6	98.4
Chemical		4.42	98.4	99.2	101.5	100.8	101.3	101.9	103.3	103.1	103.0
Energy		12.98	94.3	96.8	95.5	97.2	97.5	98.8	99.4	100.2	101.4
INDUSTRY GROUPS											
Manufacturing		80.78	111.7	112.2	113.1	112.8	113.3	114.3	114.1	115.1	115.2
Manufacturing (NAICS)		76.36	112.4	112.8	113.8	113.6	114.1	115.1	114.9	115.8	116.0
Durable manufacturing		42.89	121.2	121.4	122.3	122.5	123.2	124.6	124.5	125.8	125.7
Wood products	321	1.54	114.0	113.4	111.5	109.4	107.7	107.6	106.5	105.0	106.1
Nonmetallic mineral products	327	2.28	111.6	109.6	112.6	112.5	112.1	112.2	110.5	110.4	110.5
Primary metal	331	2.44	103.5	104.0	106.8	106.1	104.4	106.2	109.1	109.5	109.4
Fabricated metal products	332	5.76	109.1	108.5	109.8	110.4	111.4	112.5	111.7	112.7	113.3
Machinery	333	5.33	120.2	121.8	119.7	119.1	120.7	123.7	120.9	121.3	123.9
Computer and electronic products	334	7.87	170.7	172.5	172.4	173.8	175.3	178.0	181.0	184.2	185.7
Electrical equip., appliances, and components	335	2.10	110.5	110.6	113.3	112.5	114.2	116.2	117.2	117.1	118.7
Motor vehicles and parts	3361–3	7.09	110.9	109.5	112.3	111.3	112.9	112.6	111.1	114.4	108.3
Aerospace and miscellaneous transportation equipment	3364–9	3.66	116.4	118.4	119.6	122.3	121.0	123.8	124.1	125.1	127.2
Furniture and related products	337	1.63	100.2	99.4	99.3	99.7	100.6	100.7	101.7	101.7	100.9
Miscellaneous	339	3.18	112.2	111.7	112.0	113.0	113.0	113.8	114.3	115.2	117.0
Nondurable manufacturing		33.47	102.0	102.7	103.7	103.1	103.4	103.9	103.7	104.2	104.6
Food, beverage, and tobacco products	311,2	10.67	105.8	106.9	107.8	107.1	107.3	108.2	106.8	106.7	107.4
Textile and product mills	313,4	1.09	91.6	89.7	91.5	90.9	89.7	89.1	88.3	88.3	88.5
Apparel and leather	315,6	.73	87.5	87.7	88.9	88.5	89.2	90.0	90.5	90.9	92.4
Paper	322	2.68	97.2	99.3	100.8	98.3	97.4	97.3	97.3	98.7	98.3
Printing and support	323	2.01	98.3	98.4	100.2	100.7	101.4	102.5	102.1	102.6	102.1
Petroleum and coal products	324	2.51	101.9	101.7	105.0	103.9	101.9	99.4	103.0	105.0	105.0
Chemical	325	10.19	101.3	101.9	102.5	102.2	103.3	104.1	104.5	105.0	105.0
Plastics and rubber products	326	3.59	107.4	108.4	108.0	108.0	108.4	110.0	108.6	109.4	110.6
Other manufacturing (non-NAICS)	**1133,5111**	4.42	101.1	102.3	102.0	100.3	100.6	101.8	101.7	102.7	103.1
Mining	**21**	9.75	93.1	95.5	97.7	98.4	98.2	100.0	100.3	101.4	102.1
Utilities	**2211,2**	9.47	104.8	109.2	98.3	103.9	105.6	104.2	105.6	106.5	108.6
Electric	2211	7.73	107.3	110.0	102.4	106.9	107.2	106.5	107.8	108.9	111.4
Natural gas	2212	1.73	93.0	104.3	80.2	89.9	97.4	93.2	94.8	95.4	96.0

r Revised. p Preliminary.
NOTE. Refer to notes on table 1.

Table 5
INDUSTRIAL PRODUCTION INDEXES: SPECIAL AGGREGATES
2002 = 100, seasonally adjusted

Item		2005 proportion	2005 Nov.	Dec.	2006 Jan.	Feb.	Mar.	Apr.r	Mayr	Juner	Julyp
Total industry		100.00	109.4	110.4	110.3	110.7	111.2	112.1	112.2	113.1	113.5
Energy		20.38	99.0	101.9	98.3	100.8	101.6	101.6	102.7	103.8	105.1
Consumer products		4.42	102.3	107.2	97.0	103.0	103.9	100.5	102.3	104.8	106.5
Commercial products		2.49	111.5	114.2	107.4	108.5	111.4	109.4	111.1	111.7	113.1
Oil and gas well drilling	213111	.49	147.9	146.4	149.0	154.0	158.5	163.2	164.8	166.7	165.2
Converted fuel		3.81	99.8	101.8	94.6	99.6	100.8	101.5	103.6	103.7	105.3
Primary materials		9.17	91.9	94.5	95.5	95.9	95.9	97.4	97.5	98.5	99.6
Non-energy		79.62	111.9	112.5	113.4	113.1	113.6	114.7	114.5	115.3	115.5
Selected high-technology industries		4.80	188.0	191.1	191.3	193.6	195.6	198.9	203.4	207.5	209.9
Computers and peripheral equipment	3341	.79	125.4	127.2	127.8	128.5	129.0	131.2	133.3	135.2	136.8
Communications equipment	3342	1.21	160.6	159.8	164.3	169.6	175.6	181.9	184.3	187.4	190.0
Semiconductors and related electronic components	334412–9	2.79	232.2	238.3	235.6	236.7	236.8	238.6	245.5	251.4	254.0
Excluding selected high-technology industries		74.83	107.9	108.3	109.2	108.9	109.2	110.3	109.9	110.6	110.7
Motor vehicles and parts	**3361–3**	7.09	110.9	109.5	112.3	111.3	112.9	112.6	111.1	114.4	108.3
Motor vehicles	3361	3.53	113.4	108.9	114.7	114.9	117.1	115.9	113.7	119.5	108.2
Motor vehicle parts	3363	3.09	104.3	104.3	105.5	104.5	105.8	107.1	106.3	107.5	105.6
Excluding motor vehicles and parts		67.74	107.5	108.1	108.9	108.6	108.9	110.0	109.7	110.2	110.9
Consumer goods		21.02	104.6	105.2	105.3	104.6	105.1	106.0	105.4	105.6	106.2
Business equipment		8.01	120.8	121.6	121.9	122.2	123.1	126.1	125.6	126.6	128.6
Construction supplies		4.41	113.1	112.8	113.8	113.5	113.3	113.6	112.9	113.0	113.6
Business supplies		7.75	104.4	105.1	105.8	105.1	105.3	106.4	106.2	106.9	107.3
Materials		24.41	104.4	105.2	106.7	106.7	106.8	107.8	107.8	108.4	108.9
Measures excluding selected high-technology industries											
Total industry		95.20	106.0	107.0	106.9	107.2	107.7	108.5	108.4	109.2	109.6
Manufacturing[1]		75.99	107.7	108.0	109.0	108.6	109.0	109.9	109.6	110.4	110.5
Durable		38.29	113.8	113.7	114.7	114.7	115.2	116.4	116.0	117.0	116.8
Measures excluding motor vehicles and parts											
Total industry		92.91	109.3	110.5	110.2	110.7	111.1	112.1	112.2	113.0	113.9
Manufacturing[1]		73.69	111.8	112.4	113.2	113.0	113.3	114.4	114.4	115.1	115.9
Durable		36.00	123.3	123.7	124.3	124.7	125.2	126.9	127.1	128.0	129.2
Measures excluding selected high-technology industries and motor vehicles and parts											
Total industry		88.11	105.6	106.7	106.4	106.9	107.2	108.1	108.1	108.8	109.6
Manufacturing[1]		68.90	107.4	107.9	108.6	108.3	108.6	109.6	109.4	110.0	110.6
Stage-of-process components of non-energy materials, measures of the input to											
Finished processors		13.13	122.6	123.8	124.7	124.8	125.7	127.1	127.1	128.6	128.9
Primary and semifinished processors		16.30	103.9	104.6	106.3	106.1	105.8	106.7	107.1	107.5	107.9

r Revised. p Preliminary.
1. Refer to note on cover page.

Table 6
DIFFUSION INDEXES OF INDUSTRIAL PRODUCTION
Percent

Item	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
One month earlier												
2004	61.0	62.7	53.0	66.7	58.7	46.3	66.0	56.0	47.0	61.0	53.7	58.7
2005	54.7	47.3	49.7	52.7	54.0	56.7	54.3	52.0	55.3	60.0	59.3	55.8
2006	65.5	52.2	58.0	59.7	54.7	61.7						
Three months earlier												
2004	66.0	61.3	65.0	68.3	66.7	62.3	57.7	56.3	56.3	57.7	56.7	64.3
2005	58.3	59.0	52.0	47.3	51.8	57.0	57.0	55.0	54.3	57.7	58.5	60.7
2006	67.0	62.3	67.0	60.7	59.0	59.3						
Six months earlier												
2004	68.3	73.3	68.0	77.0	72.0	65.3	67.3	67.0	62.0	61.3	58.7	64.0
2005	62.0	60.0	60.7	52.3	52.7	55.0	57.0	53.3	56.3	60.0	60.0	56.0
2006	64.0	62.0	67.3	68.0	68.3	65.7						

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 7
CAPACITY UTILIZATION
Percent of capacity, seasonally adjusted

Item		2005 proportion	1972-2005 ave.	1988-89 high	1994-95 high	2001-02 low	2005 Q3	2006 Q4	2006 Q1	2006 Q2[r]	2006 Apr.[r]	2006 May[r]	2006 June[r]	2006 July[p]
Total industry		100.00	81.0	85.1	85.0	73.9	79.8	80.5	81.1	81.9	81.8	81.7	82.3	82.4
Manufacturing		82.87	79.8	85.5	84.5	72.0	78.5	79.8	80.3	80.8	80.9	80.6	81.1	81.0
Manufacturing (NAICS)		78.75	79.5	85.5	84.6	71.5	78.1	79.4	80.1	80.5	80.6	80.3	80.7	80.7
Durable manufacturing		45.07	78.1	84.6	84.1	68.4	77.1	79.1	79.3	80.0	80.0	79.7	80.3	80.0
Wood products	321	1.51	80.2	88.5	88.2	71.0	80.9	87.1	84.1	81.4	82.4	81.5	80.3	81.1
Nonmetallic mineral products	327	2.24	79.4	85.2	84.3	75.7	80.8	83.2	84.6	83.0	84.1	82.6	82.3	82.2
Primary metal	331	2.43	80.5	94.9	94.8	68.8	79.4	83.5	85.6	87.9	86.1	88.6	89.0	89.1
Fabricated metal products	332	6.20	77.1	81.7	85.1	68.9	74.7	76.1	77.0	77.9	78.1	77.5	78.0	78.3
Machinery	333	5.40	78.8	85.3	87.5	63.4	80.1	83.5	83.0	84.2	85.5	83.5	83.7	85.4
Computer and electronic products	334	8.66	78.6	81.5	83.7	59.7	76.5	78.2	77.5	78.6	77.9	78.6	79.3	79.4
Electrical equip., appliances, and components	335	2.03	83.3	89.0	93.0	71.7	84.9	87.7	89.8	92.2	91.8	92.5	92.2	93.3
Motor vehicles and parts	3361–3	7.19	77.6	89.3	88.9	70.1	80.9	79.6	78.9	78.8	78.8	77.6	79.8	75.4
Aerospace and miscellaneous transportation equipment	3364–9	4.30	72.5	87.3	68.7	62.7	65.8	71.7	74.6	76.2	76.0	76.1	76.6	77.6
Furniture and related products	337	1.79	78.5	82.2	83.4	69.5	73.8	73.3	73.2	74.4	73.9	74.7	74.7	74.1
Miscellaneous	339	3.32	76.6	82.4	81.3	70.5	78.2	78.4	78.1	78.5	78.3	78.4	78.7	79.6
Nondurable manufacturing		33.67	81.7	86.9	85.3	75.6	79.5	80.0	81.2	81.3	81.4	81.2	81.4	81.6
Food, beverage, and tobacco products	311,2	10.72	81.8	85.9	84.1	76.7	80.7	81.9	82.7	82.1	83.0	81.8	81.5	81.9
Textile and product mills	313,4	1.17	82.6	91.5	91.2	70.1	77.2	77.2	77.0	75.7	76.0	75.4	75.6	76.0
Apparel and leather	315,6	.79	79.2	84.2	88.2	60.4	77.3	80.3	83.3	85.3	84.7	85.3	85.8	87.3
Paper	322	2.59	87.7	93.6	91.5	79.5	83.2	85.0	85.5	84.7	84.3	84.3	85.6	85.3
Printing and support	323	2.15	83.8	91.9	86.3	72.1	76.5	77.3	79.3	80.6	80.7	80.4	80.8	80.4
Petroleum and coal products	324	2.06	86.0	89.0	90.6	84.1	90.1	87.3	90.6	89.5	86.9	90.0	91.7	91.7
Chemical	325	10.85	78.2	85.0	81.1	71.4	74.7	74.1	75.3	76.4	76.2	76.4	76.6	76.5
Plastics and rubber products	326	3.36	83.6	89.5	92.4	75.0	86.6	89.0	89.6	89.9	90.7	89.3	89.7	90.4
Other manufacturing (non-NAICS)	**1133,5111**	4.12	84.8	91.0	83.2	81.2	85.5	86.1	85.5	86.4	86.2	86.1	86.9	87.3
Mining	**21**	8.32	87.3	86.1	89.0	85.6	86.1	82.7	87.9	90.4	89.7	90.2	91.2	92.1
Utilities	**2211,2**	8.82	86.7	92.7	93.7	83.7	88.1	86.9	83.5	85.7	84.8	85.8	86.5	88.2
Selected high-technology industries		5.51	78.1	80.9	86.1	57.4	75.3	75.7	74.8	76.4	75.4	76.5	77.5	77.9
Computers and peripheral equipment	3341	.87	78.3	80.2	84.2	64.7	79.0	80.4	81.0	82.3	81.7	82.4	82.9	83.3
Communications equipment	3342	1.53	75.8	80.7	85.9	41.1	68.9	74.2	78.9	84.4	83.7	84.3	85.2	85.8
Semiconductors and related electronic components	334412–9	3.10	80.5	82.7	91.1	58.6	77.3	75.2	71.6	71.8	70.4	71.9	73.0	73.3
Measures excluding selected high-technology industries														
Total industry		94.49	81.1	85.5	85.0	75.0	80.2	81.0	81.7	82.5	82.4	82.3	82.8	83.0
Manufacturing[1]		77.35	79.9	86.0	84.4	73.1	78.9	80.3	81.0	81.5	81.5	81.2	81.6	81.6
STAGE-OF-PROCESS GROUPS														
Crude		11.50	86.4	88.3	89.4	83.2	84.2	81.3	85.8	88.2	87.7	88.1	88.9	89.4
Primary and semifinished		47.44	82.1	86.7	88.1	74.6	81.8	82.6	82.3	82.8	82.5	82.7	83.3	83.7
Finished		41.06	77.9	82.8	80.5	70.8	76.9	78.3	78.9	79.6	79.9	79.3	79.8	79.5

r Revised. p Preliminary.
1. Refer to note on cover page.

Table 8
INDUSTRIAL CAPACITY
Percent change

Item	Average annual rate				Fourth quarter to fourth quarter				Annual rate				Monthly rate
	1972-79	1980-88	1989-94	1995-2006	2003	2004	2005	2006	2005 Q4	2006 Q1	Q2	Q3	2006 July
Total industry	3.0	1.9	2.2	3.4	-.2	.6	1.6	2.0	1.8	2.0	2.0	2.0	.2
Manufacturing[1]	3.2	2.2	2.5	3.8	-.1	.5	2.1	2.5	2.3	2.5	2.6	2.6	.2
Mining	.7	.1	-.9	-.7	-1.0	-.6	-.6	-1.4	-.2	-.7	-1.6	-1.7	-.1
Utilities	4.3	2.1	1.6	2.2	3.1	2.6	.0	.7	-.4	.2	.7	.9	.1
Selected high-technology industries	18.5	17.0	15.8	27.0	8.0	6.8	20.8	12.3	24.3	21.0	11.6	8.5	.7
Manufacturing[1] ex. selected high-technology industries	2.6	1.3	1.6	1.8	-.5	.1	.6	1.7	.7	1.1	1.8	2.0	.2
STAGE-OF-PROCESS GROUPS													
Crude	1.7	.3	-.3	-.5	-2.1	-1.1	-.9	-1.1	-.6	-.8	-1.1	-1.2	-.1
Primary and semifinished	3.1	1.4	2.6	4.2	-.1	.9	2.5	2.1	2.8	2.7	2.1	1.8	.1
Finished	3.7	3.3	2.5	3.4	.6	.8	1.2	2.8	1.3	1.9	2.9	3.2	.3

p Preliminary.
1. Refer to note on cover page.

Table 9
GROSS VALUE OF FINAL PRODUCTS AND NONINDUSTRIAL SUPPLIES
Billions of 2000 dollars at annual rate, seasonally adjusted

Item	2000	2005	2005 Q2	Q3	Q4	2006 Q1	Q2[r]	2006 Apr.[r]	May[r]	June[r]	July[p]
Final products and nonindustrial supplies	2,815.1	2,990.6	2,967.7	2,988.2	3,039.9	3,063.4	3,091.4	3,080.9	3,081.5	3,111.7	3,110.9
Final products	2,114.0	2,264.1	2,244.5	2,262.4	2,299.7	2,321.2	2,342.9	2,334.3	2,333.5	2,360.8	2,355.4
Consumer goods	1,480.7	1,593.2	1,583.6	1,597.5	1,600.9	1,605.9	1,611.3	1,601.5	1,604.7	1,627.5	1,617.0
Durable	471.7	538.1	526.3	540.7	544.8	543.0	543.0	542.1	537.7	549.3	529.1
Automotive products	279.5	339.9	330.3	343.2	341.1	340.8	341.5	340.1	336.0	348.5	327.1
Other durable goods	192.1	198.5	196.3	197.9	203.9	202.4	201.8	202.2	201.9	201.2	202.1
Nondurable	1,009.1	1,056.7	1,057.7	1,058.7	1,058.4	1,064.6	1,069.6	1,061.3	1,067.8	1,079.8	1,086.4
Equipment, total	633.2	675.0	664.4	668.2	705.3	723.3	741.1	742.8	738.2	742.2	748.4
Business and defense	616.9	658.0	648.9	651.8	684.9	705.4	723.2	725.2	720.3	724.3	730.9
Business	558.7	578.7	570.2	571.8	604.4	623.9	640.9	643.4	638.3	641.1	647.4
Defense and space	58.1	78.3	77.6	78.7	80.0	81.2	82.4	82.1	82.0	83.0	83.5
Nonindustrial supplies	701.2	726.8	723.5	726.2	740.4	742.6	748.9	747.0	748.4	751.4	755.8
Construction supplies	198.0	205.9	203.2	205.7	214.1	215.0	214.5	215.4	214.0	214.2	215.5
Business supplies	503.2	520.8	520.3	520.4	526.0	527.3	534.1	531.3	534.1	537.0	540.2
Commercial energy products	136.0	151.5	153.0	151.9	152.0	149.3	151.1	149.5	151.6	152.1	153.7

r Revised. p Preliminary.

Table 10
GROSS-VALUE-WEIGHTED INDUSTRIAL PRODUCTION: STAGE-OF-PROCESS GROUPS
Percent change, seasonally adjusted

Item	2005 gross value[1]	Fourth quarter to fourth quarter			Annual rate				Monthly rate				July '05 to July '06
		2003	2004	2005	2005 Q3	Q4	2006 Q1	Q2[r]	2006 Apr.[r]	May[r]	June[r]	July[p]	
Finished	1932.2	3.0	4.8	5.4	4.1	9.9	5.5	5.3	.9	-.7	.9	-.4	5.3
Semifinished	1747.0	1.6	5.0	6.3	8.3	9.2	.2	4.5	.6	-.3	.9	.8	5.5
Primary	945.8	-.2	2.8	-2.4	-4.5	-1.5	6.0	3.8	-.8	2.3	.9	.2	2.7
Crude	391.7	-1.6	3.7	-10.2	-20.9	-14.3	26.1	9.9	1.6	.6	.4	.3	.2

r Revised. p Preliminary.
1. Billions of 2000 dollars.

Table 11
HISTORICAL STATISTICS FOR INDUSTRIAL PRODUCTION, CAPACITY, AND UTILIZATION: Total Industry
Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
IP (*percent change*)[1]																	
1984	2.1	.5	.5	.6	.5	.4	.3	.1	-.2	-.1	.4	.1	12.4	6.4	2.9	.4	9.0
1985	-.3	.4	.2	-.2	.1	.0	-.6	.5	.4	-.4	.3	1.0	1.1	.6	-.6	2.5	1.3
1986	.5	-.8	-.6	.0	.2	-.3	.6	-.2	.2	.4	.5	.9	2.3	-2.4	1.7	4.5	1.0
1987	-.3	1.2	.2	.6	.7	.5	.6	.7	.3	1.5	.5	.5	5.4	7.0	7.1	9.9	5.1
1988	.1	.3	.3	.5	.0	.2	.2	.5	-.3	.6	.2	.4	3.4	3.2	2.1	3.3	5.0
1989	.3	-.5	.3	-.1	-.7	.0	-.9	.9	-.3	-.1	.3	.7	1.5	-1.9	-2.5	1.8	.9
1990	-.6	.9	.5	.0	.1	.3	-.1	.3	.2	-.7	-1.2	-.7	2.9	2.9	1.3	-5.9	.9
1991	-.5	-.7	-.5	.2	1.0	1.0	.0	.2	.9	-.2	-.1	-.3	-7.6	2.7	5.7	1.0	-1.5
1992	-.5	.7	.7	.7	.4	.0	.8	-.5	.2	.7	.4	.1	-.3	6.9	2.8	3.9	2.9
1993	.5	.3	.0	.3	-.4	.3	.3	.0	.5	.7	.4	.5	3.7	1.0	2.4	6.1	3.3
1994	.5	.0	1.0	.5	.6	.7	.2	.5	.2	.9	.6	1.1	5.3	7.5	5.3	7.9	5.4
1995	.3	.0	.2	.0	.2	.3	-.4	1.4	.4	-.2	.3	.4	5.3	1.1	3.7	3.5	4.8
1996	-.8	1.5	-.2	.9	.7	.8	-.2	.7	.6	.0	1.0	.7	1.8	8.4	5.1	6.2	4.2
1997	.2	1.2	.8	-.1	.6	.5	.5	1.2	.9	.7	.9	.4	8.5	5.7	8.9	10.6	7.3
1998	.4	.1	.1	.5	.6	-.5	-.3	2.2	-.2	.7	-.1	.3	4.4	3.1	3.6	5.6	5.9
1999	.5	.5	.2	.2	.8	-.1	.7	.5	-.4	1.3	.6	.9	4.1	4.2	4.3	7.7	4.5
2000	.2	.4	.4	.7	.3	.1	-.3	-.3	.4	-.3	.0	-.4	5.4	5.2	-.9	-1.3	4.3
2001	-.8	-.7	-.3	-.1	-.8	-.5	-.4	-.3	-.4	-.5	-.4	.0	-6.6	-4.9	-5.1	-4.5	-3.5
2002	.6	-.1	.9	.4	.4	.9	-.3	.1	.0	-.4	.3	-.5	2.9	6.1	1.7	-1.6	.1
2003	.5	.0	-.2	-.8	-.1	.3	.5	.1	.7	.1	.9	.2	.8	-3.3	3.6	5.1	.6
2004	.4	.8	-.3	.8	.9	-.6	.6	.3	-.2	.7	.2	.7	5.3	5.2	2.6	4.2	4.1
2005	.2	.4	.0	-.1	.2	.8	.0	.3	-1.3	1.1	.9	1.0	3.8	1.6	1.4	5.3	3.3
2006	-.1	.4	.5	.8	.0	.8	.4						5.1	6.2			
IP (*2002=100*)																	
2004	102.7	103.5	103.2	104.0	105.0	104.4	105.0	105.3	105.1	105.8	106.0	106.7	103.1	104.4	105.1	106.2	104.7
2005	106.9	107.4	107.3	107.2	107.4	108.3	108.3	108.6	107.2	108.4	109.4	110.4	107.2	107.6	108.0	109.4	108.2
2006	110.3	110.7	111.2	112.1	112.2	113.1	113.5						110.8	112.5			
Capacity (*percent of 2002 output*)																	
2004	133.0	133.0	133.0	133.1	133.1	133.2	133.3	133.4	133.5	133.6	133.7	133.9	133.0	133.1	133.4	133.7	133.3
2005	134.0	134.2	134.3	134.5	134.7	134.9	135.1	135.3	135.5	135.7	135.9	136.1	134.2	134.7	135.3	135.9	135.0
2006	136.3	136.6	136.8	137.0	137.2	137.5	137.7						136.6	137.2			
Utilization (*percent*)																	
1984	79.5	79.7	80.0	80.4	80.7	80.8	80.9	80.9	80.6	80.3	80.5	80.3	79.7	80.7	80.8	80.4	80.4
1985	79.9	80.1	80.0	79.7	79.6	79.4	78.7	78.9	79.1	78.6	78.8	79.4	80.0	79.6	78.9	78.9	79.4
1986	79.7	79.0	78.4	78.3	78.4	78.0	78.4	78.2	78.3	78.5	78.7	79.3	79.0	78.2	78.3	78.9	78.6
1987	79.0	79.8	79.8	80.1	80.6	80.8	81.2	81.6	81.7	82.8	83.1	83.4	79.6	80.5	81.5	83.1	81.2
1988	83.4	83.6	83.7	84.1	84.0	84.2	84.3	84.6	84.3	84.7	84.8	85.0	83.6	84.1	84.4	84.8	84.2
1989	85.1	84.6	84.7	84.5	83.8	83.6	82.7	83.3	82.8	82.6	82.7	83.1	84.8	84.0	82.9	82.8	83.6
1990	82.4	82.9	83.2	83.0	82.9	82.9	82.7	82.8	82.8	82.0	80.9	80.2	82.8	82.9	82.7	81.1	82.4
1991	79.7	79.1	78.6	78.6	79.3	80.0	79.9	79.9	80.5	80.2	80.0	79.7	79.1	79.3	80.1	80.0	79.6
1992	79.1	79.5	80.0	80.4	80.6	80.5	81.0	80.4	80.5	80.9	81.0	81.0	79.6	80.5	80.6	81.0	80.4
1993	81.2	81.4	81.3	81.4	81.0	81.1	81.2	81.1	81.4	81.8	82.0	82.3	81.3	81.1	81.2	82.0	81.4
1994	82.5	82.3	83.0	83.2	83.5	83.8	83.8	83.9	83.8	84.2	84.5	85.0	82.6	83.5	83.8	84.6	83.6
1995	85.0	84.7	84.5	84.1	83.9	83.8	83.1	83.9	83.8	83.3	83.2	83.2	84.7	83.9	83.6	83.2	83.9
1996	82.1	83.0	82.5	82.9	83.1	83.5	83.0	83.2	83.3	82.9	83.3	83.5	82.5	83.2	83.1	83.3	83.0
1997	83.3	83.9	84.1	83.6	83.6	83.5	83.5	84.0	84.3	84.3	84.6	84.4	83.7	83.6	83.9	84.4	83.9
1998	84.2	83.7	83.3	83.1	83.1	82.2	81.5	82.8	82.3	82.5	82.1	81.9	83.7	82.8	82.2	82.2	82.7
1999	82.0	82.0	81.8	81.7	82.0	81.7	81.9	82.0	81.3	82.1	82.2	82.6	81.9	81.8	81.7	82.3	81.9
2000	82.5	82.5	82.5	82.7	82.7	82.5	82.0	81.4	81.5	80.9	80.7	80.1	82.5	82.6	81.6	80.6	81.8
2001	79.2	78.4	77.9	77.6	76.9	76.3	75.9	75.4	75.0	74.5	74.0	73.9	78.5	76.9	75.4	74.2	76.3
2002	74.3	74.1	74.7	74.9	75.2	75.8	75.6	75.6	75.6	75.3	75.5	75.2	74.4	75.3	75.6	75.3	75.1
2003	75.5	75.6	75.4	74.9	74.9	75.1	75.4	75.5	76.0	76.1	76.8	76.9	75.5	74.9	75.6	76.6	75.7
2004	77.2	77.8	77.6	78.1	78.8	78.4	78.8	79.0	78.7	79.2	79.3	79.7	77.5	78.4	78.8	79.4	78.6
2005	79.8	80.0	79.9	79.7	79.8	80.3	80.2	80.3	79.1	79.9	80.5	81.1	79.9	79.9	79.8	80.5	80.0
2006	80.9	81.1	81.3	81.8	81.7	82.3	82.4						81.1	81.9			

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

Table 12
HISTORICAL STATISTICS FOR INDUSTRIAL PRODUCTION, CAPACITY, AND UTILIZATION: Manufacturing[1]
Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
IP (*percent change*)[2]																	
1984	1.9	1.1	.5	.5	.2	.4	.5	.2	-.2	.4	.3	.3	12.8	6.3	3.7	2.8	9.9
1985	-.4	-.3	.8	-.3	.1	.1	-.6	.6	.1	-.3	.6	.4	.1	1.1	.1	2.3	1.8
1986	1.2	-.7	-.3	.4	.2	-.4	.5	.3	.2	.3	.5	.9	4.4	-.1	2.5	4.9	2.2
1987	-.3	1.4	.1	.5	.7	.4	.7	.5	.6	1.6	.6	.6	6.0	6.7	6.9	11.3	5.5
1988	-.2	.1	.3	.8	-.1	.1	.1	.1	.3	.7	.3	.4	2.4	4.1	1.4	5.0	5.2
1989	.8	-1.0	-.1	.1	-.8	.1	-1.1	.9	-.3	-.2	.2	.2	1.7	-3.4	-3.0	.5	.8
1990	-.2	1.4	.4	-.1	.0	.2	-.2	.3	.0	-.8	-1.1	-.8	4.4	2.7	.6	-6.5	.7
1991	-.8	-.7	-.6	.3	.7	1.1	.3	.3	1.0	-.2	-.2	-.1	-9.1	2.2	7.4	1.8	-2.0
1992	-.5	.9	.9	.5	.7	.3	.8	-.4	.0	.6	.4	-.1	.7	7.9	3.9	2.7	3.7
1993	1.0	.1	-.1	.5	-.1	-.1	.3	-.1	.6	.8	.4	.6	4.6	1.5	1.6	6.9	3.5
1994	.3	.1	1.3	.8	.7	.3	.5	.7	.3	1.0	.8	1.1	5.2	9.5	6.2	9.6	6.0
1995	.4	-.1	.3	-.1	.0	.4	-.6	1.2	.9	-.1	.1	.4	5.7	.6	3.0	4.4	5.3
1996	-1.0	1.5	-.3	1.2	.7	1.0	.2	.7	.7	.0	1.0	.9	.8	9.5	7.5	6.5	4.6
1997	.2	1.4	1.2	-.3	.8	.7	.3	1.5	.9	.7	1.2	.5	10.1	6.8	9.9	11.4	8.5
1998	.7	.1	-.1	.6	.5	-.6	-.4	2.6	-.3	1.0	.1	.5	6.0	2.5	3.9	7.8	6.7
1999	.3	.8	-.1	.4	1.0	-.2	.5	.7	-.4	1.5	.7	.8	4.6	4.8	4.0	9.3	5.2
2000	.3	.3	.6	.7	.0	.2	-.1	-.7	.4	-.3	-.3	-.7	6.1	5.0	-1.2	-2.9	4.6
2001	-.8	-.7	-.4	-.1	-.8	-.6	-.2	-.7	-.3	-.6	-.2	.3	-7.5	-5.1	-5.6	-4.2	-4.2
2002	.5	-.1	.8	.1	.5	1.0	-.4	.3	.0	-.6	.3	-.5	3.5	5.3	2.2	-2.1	.1
2003	.4	-.2	.2	-.9	-.1	.6	.3	-.1	.9	.1	1.1	.1	.3	-2.7	3.3	6.1	.5
2004	.3	.9	.2	.8	.8	-.6	.8	.7	-.4	.8	.0	.5	5.7	6.6	4.1	4.0	4.8
2005	.5	.5	-.3	.0	.4	.3	.1	.4	-.5	1.8	.8	.4	4.5	1.3	2.0	9.1	4.0
2006	.8	-.3	.4	.9	-.1	.8	.1						5.3	5.1			
IP (*2002=100*)																	
2004	102.6	103.6	103.7	104.6	105.5	104.9	105.7	106.4	106.0	106.9	106.9	107.5	103.3	105.0	106.1	107.1	105.4
2005	108.1	108.6	108.2	108.3	108.7	109.0	109.1	109.5	108.9	110.9	111.7	112.2	108.3	108.6	109.2	111.6	109.6
2006	113.1	112.8	113.3	114.3	114.1	115.1	115.2						113.1	114.5			
Capacity (*percent of 2002 output*)																	
2004	136.3	136.3	136.3	136.4	136.4	136.5	136.5	136.6	136.7	136.9	137.0	137.2	136.3	136.4	136.6	137.0	136.6
2005	137.4	137.6	137.8	138.1	138.3	138.6	138.8	139.1	139.3	139.6	139.9	140.1	137.6	138.3	139.1	139.9	138.7
2006	140.4	140.7	141.0	141.3	141.6	141.9	142.2						140.7	141.6			
Utilization (*percent*)																	
1984	78.1	78.9	79.1	79.4	79.5	79.6	79.8	79.8	79.4	79.5	79.6	79.6	78.7	79.5	79.7	79.6	79.4
1985	79.1	78.6	79.0	78.6	78.5	78.4	77.7	78.0	77.9	77.6	77.9	78.1	78.9	78.5	77.9	77.9	78.3
1986	78.9	78.2	77.9	78.1	78.2	77.8	78.1	78.2	78.3	78.4	78.7	79.2	78.4	78.0	78.2	78.8	78.3
1987	78.9	79.8	79.7	79.9	80.4	80.5	80.9	81.1	81.5	82.6	83.0	83.4	79.5	80.3	81.2	83.0	81.0
1988	83.2	83.2	83.4	84.0	83.9	84.0	84.0	84.0	84.2	84.7	84.8	85.0	83.3	84.0	84.1	84.8	84.0
1989	85.5	84.5	84.3	84.2	83.3	83.2	82.1	82.7	82.2	81.9	81.9	81.8	84.8	83.6	82.4	81.9	83.1
1990	81.5	82.4	82.6	82.3	82.1	82.2	81.8	81.9	81.7	81.0	79.9	79.2	82.2	82.2	81.8	80.0	81.6
1991	78.4	77.7	77.1	77.3	77.7	78.5	78.6	78.7	79.4	79.1	78.9	78.7	77.7	77.8	78.9	78.9	78.3
1992	78.1	78.6	79.2	79.4	79.8	79.8	80.3	79.8	79.7	80.0	80.1	79.8	78.6	79.7	79.9	79.9	79.6
1993	80.5	80.4	80.2	80.4	80.2	80.0	80.1	79.9	80.3	80.7	80.9	81.2	80.4	80.2	80.1	81.0	80.4
1994	81.3	81.1	82.0	82.4	82.8	82.8	82.9	83.2	83.1	83.6	84.0	84.5	81.4	82.6	83.1	84.0	82.8
1995	84.5	84.1	83.9	83.4	83.0	82.9	82.0	82.6	82.9	82.4	82.1	82.0	84.1	83.1	82.5	82.2	83.0
1996	80.8	81.6	81.0	81.5	81.7	82.1	81.9	82.1	82.2	81.8	82.1	82.4	81.1	81.8	82.1	82.1	81.8
1997	82.2	82.8	83.3	82.5	82.7	82.7	82.4	83.1	83.3	83.3	83.6	83.4	82.8	82.6	83.0	83.4	83.0
1998	83.4	82.9	82.2	82.1	81.9	80.9	80.1	81.7	81.0	81.4	81.1	81.1	82.8	81.7	80.9	81.2	81.7
1999	80.9	81.1	80.7	80.6	81.1	80.5	80.6	80.8	80.1	80.9	81.2	81.5	80.9	80.7	80.5	81.2	80.8
2000	81.3	81.2	81.4	81.6	81.2	81.0	80.6	79.8	79.8	79.2	78.7	77.8	81.3	81.3	80.0	78.6	80.3
2001	77.0	76.2	75.7	75.4	74.6	74.0	73.7	73.1	72.7	72.2	72.0	72.1	76.3	74.7	73.2	72.1	74.1
2002	72.5	72.3	72.9	73.0	73.3	74.0	73.7	73.9	73.9	73.4	73.6	73.3	72.6	73.4	73.8	73.4	73.3
2003	73.5	73.4	73.5	72.9	72.8	73.2	73.4	73.4	74.0	74.1	75.0	75.1	73.5	73.0	73.6	74.7	73.7
2004	75.3	76.0	76.1	76.7	77.3	76.9	77.4	77.9	77.5	78.1	78.0	78.3	75.8	77.0	77.6	78.2	77.1
2005	78.6	78.9	78.5	78.4	78.6	78.7	78.6	78.8	78.2	79.4	79.9	80.1	78.7	78.5	78.5	79.8	78.9
2006	80.5	80.2	80.3	80.9	80.6	81.1	81.0						80.3	80.8			

1. Refer to note on cover page.
2. Quarterly changes are at annual rates. Annual changes are calculated from annual averages.

Table 13
HISTORICAL STATISTICS FOR INDUSTRIAL PRODUCTION, CAPACITY, AND UTILIZATION: Total Industry Excluding Selected High-Technology Industries[1]
Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
IP (*percent change*)[2]																	
1984	2.0	.3	.4	.5	.4	.2	.2	.0	-.2	-.2	.3	.1	11.4	5.0	1.6	-.3	7.9
1985	-.3	.5	.2	.0	.1	.0	-.5	.5	.5	-.4	.3	1.1	.9	1.2	-.2	2.6	1.0
1986	.6	-.8	-.7	.0	.1	-.2	.3	-.2	.2	.4	.4	.8	2.3	-2.7	.6	4.0	.9
1987	-.5	1.2	.2	.5	.6	.4	.5	.6	.2	1.4	.5	.4	4.5	6.3	6.0	9.1	4.2
1988	.0	.3	.2	.4	-.1	.2	.1	.5	-.4	.6	.2	.4	3.1	2.6	1.5	2.9	4.4
1989	.3	-.5	.4	-.1	-.7	.0	-1.1	.9	-.4	-.2	.3	.7	1.8	-2.1	-3.3	1.0	.6
1990	-.7	.8	.4	-.1	.0	.2	-.2	.3	.1	-.8	-1.2	-.8	2.2	2.4	1.0	-6.5	.3
1991	-.5	-.8	-.6	.2	1.0	1.0	.0	.1	.9	-.2	-.2	-.5	-8.1	2.2	5.4	.3	-2.0
1992	-.8	.7	.7	.6	.3	-.2	.7	-.5	.1	.6	.3	.0	-1.9	6.1	1.7	3.0	1.9
1993	.5	.3	.0	.2	-.4	.2	.3	-.1	.4	.6	.3	.5	3.0	.4	1.6	5.2	2.5
1994	.4	-.1	.8	.3	.4	.6	.1	.3	.0	.7	.4	.9	4.2	5.3	3.4	5.5	4.0
1995	.2	-.2	-.1	-.2	.0	.1	-.5	1.2	.1	-.4	.1	.2	3.0	-1.4	1.3	.5	2.4
1996	-1.0	1.4	-.4	.8	.5	.7	-.5	.4	.4	-.2	.8	.4	-.3	6.1	2.1	3.5	1.7
1997	-.1	.8	.5	-.4	.3	.3	.3	1.0	.8	.6	.7	.1	4.9	2.1	6.1	8.3	4.2
1998	.1	.0	-.1	.2	.5	-.9	-.8	2.0	-.6	.5	-.3	.1	1.6	1.0	-.3	2.3	3.1
1999	.2	.2	-.1	-.2	.6	-.4	.3	.4	-.5	1.2	.3	.6	.9	.3	1.2	5.6	1.2
2000	-.3	.0	.1	.4	-.1	.0	-.5	-.5	.3	-.5	-.2	-.5	.7	1.7	-3.0	-2.9	1.1
2001	-.8	-.6	-.3	.0	-.7	-.4	-.2	-.3	-.4	-.5	-.5	.0	-6.7	-4.0	-4.0	-4.8	-4.1
2002	.8	-.1	.9	.4	.4	.9	-.3	-.1	-.1	-.5	.2	-.6	3.4	6.2	1.3	-2.4	.3
2003	.4	-.2	-.3	-.8	-.1	.2	.4	.0	.6	.0	.9	.2	-.6	-4.3	2.6	4.4	-.3
2004	.3	.7	-.4	.8	.9	-.7	.5	.2	-.3	.8	.2	.6	4.3	4.6	1.6	3.8	3.2
2005	.0	.3	-.1	-.2	.1	.8	-.1	.1	-1.5	1.1	.8	.9	2.4	.8	.1	4.2	2.3
2006	-.1	.3	.4	.7	-.1	.8	.3						4.6	5.4			
IP (*2002=100*)																	
2004	101.2	101.9	101.6	102.4	103.3	102.6	103.1	103.3	103.0	103.8	104.0	104.6	101.6	102.7	103.1	104.1	102.9
2005	104.5	104.9	104.8	104.6	104.7	105.5	105.4	105.5	104.0	105.2	106.0	107.0	104.7	104.9	105.0	106.1	105.3
2006	106.9	107.2	107.7	108.5	108.4	109.2	109.6						107.3	108.7			
Capacity (*percent of 2002 output*)																	
2004	130.1	130.1	130.1	130.1	130.2	130.2	130.2	130.3	130.3	130.4	130.4	130.4	130.1	130.2	130.3	130.4	130.2
2005	130.5	130.5	130.6	130.6	130.7	130.7	130.8	130.8	130.9	130.9	131.0	131.0	130.5	130.7	130.8	131.0	130.7
2006	131.1	131.3	131.4	131.6	131.7	131.9	132.0						131.3	131.7			
Utilization (*percent*)																	
1984	79.2	79.4	79.7	80.1	80.3	80.4	80.5	80.4	80.1	79.9	80.1	80.0	79.5	80.3	80.4	80.0	80.0
1985	79.6	79.9	79.8	79.7	79.6	79.4	78.9	79.1	79.3	78.9	79.0	79.7	79.8	79.6	79.1	79.2	79.4
1986	80.1	79.3	78.7	78.7	78.7	78.5	78.7	78.4	78.5	78.7	79.0	79.6	79.4	78.6	78.5	79.1	78.9
1987	79.2	80.0	80.1	80.4	80.8	81.1	81.4	81.9	81.9	83.1	83.4	83.7	79.8	80.8	81.7	83.4	81.4
1988	83.7	84.0	84.1	84.4	84.3	84.5	84.5	84.9	84.5	84.9	85.0	85.3	83.9	84.4	84.6	85.1	84.5
1989	85.5	85.0	85.2	84.9	84.2	84.1	83.0	83.6	83.2	82.9	83.0	83.4	85.2	84.4	83.3	83.1	84.0
1990	82.7	83.2	83.5	83.3	83.2	83.3	83.0	83.1	83.1	82.4	81.2	80.5	83.1	83.2	83.1	81.4	82.7
1991	80.1	79.3	78.8	78.8	79.5	80.2	80.1	80.1	80.7	80.5	80.2	79.7	79.4	79.5	80.3	80.1	79.8
1992	79.0	79.5	80.0	80.5	80.6	80.4	81.0	80.5	80.5	80.9	81.1	81.0	79.5	80.5	80.6	81.0	80.4
1993	81.3	81.5	81.3	81.5	81.0	81.2	81.3	81.2	81.4	81.9	82.1	82.4	81.4	81.2	81.3	82.1	81.5
1994	82.6	82.5	83.1	83.2	83.5	83.9	83.8	83.9	83.8	84.2	84.4	85.0	82.7	83.5	83.8	84.5	83.6
1995	85.0	84.6	84.4	84.0	83.8	83.7	83.1	83.8	83.7	83.2	83.1	83.1	84.6	83.8	83.5	83.1	83.8
1996	82.1	83.1	82.6	83.1	83.3	83.7	83.1	83.3	83.5	83.1	83.5	83.7	82.6	83.4	83.3	83.4	83.2
1997	83.4	83.8	84.0	83.4	83.4	83.3	83.2	83.8	84.1	84.3	84.6	84.4	83.7	83.4	83.7	84.5	83.8
1998	84.2	83.9	83.6	83.6	83.7	82.8	81.9	83.3	82.6	82.8	82.3	82.2	83.9	83.4	82.6	82.5	83.1
1999	82.2	82.1	81.9	81.5	81.9	81.4	81.4	81.6	81.0	81.9	82.0	82.3	82.1	81.6	81.4	82.1	81.8
2000	81.9	81.8	81.8	82.0	81.8	81.7	81.2	80.7	80.9	80.4	80.2	79.7	81.8	81.9	80.9	80.1	81.2
2001	78.9	78.4	78.0	78.0	77.3	76.9	76.7	76.4	76.0	75.5	75.1	75.0	78.4	77.4	76.4	75.2	76.9
2002	75.6	75.4	76.1	76.3	76.6	77.3	77.0	77.0	76.9	76.6	76.8	76.3	75.7	76.7	77.0	76.6	76.5
2003	76.7	76.6	76.4	75.8	75.8	76.0	76.3	76.3	76.8	76.8	77.5	77.6	76.6	75.9	76.4	77.3	76.5
2004	77.8	78.4	78.1	78.7	79.3	78.8	79.2	79.3	79.0	79.6	79.7	80.2	78.1	78.9	79.2	79.8	79.0
2005	80.1	80.3	80.3	80.1	80.1	80.7	80.6	80.7	79.5	80.3	80.9	81.6	80.2	80.3	80.2	81.0	80.4
2006	81.5	81.7	81.9	82.4	82.3	82.8	83.0						81.7	82.5			

1. Selected high-technology industries are computers, communications equipment, and semiconductors and related electronic components.
2. Quarterly changes are at annual rates. Annual changes are calculated from annual averages.

Table 14
HISTORICAL STATISTICS FOR INDUSTRIAL PRODUCTION, CAPACITY, AND UTILIZATION: Manufacturing[1] Excluding Selected High-Technology Industries[2]
Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
IP (*percent change*)[3]																	
1984	1.8	.9	.4	.4	.1	.3	.4	.1	-.3	.4	.3	.3	11.4	4.4	2.0	1.9	8.4
1985	-.5	-.3	.9	-.1	.1	.1	-.4	.6	.2	-.3	.6	.4	-.2	1.8	.7	2.4	1.4
1986	1.3	-.7	-.3	.4	.1	-.2	.2	.2	.2	.3	.4	.8	4.7	-.3	1.2	4.2	2.2
1987	-.4	1.4	.1	.4	.7	.3	.5	.3	.5	1.5	.5	.5	4.8	5.8	5.5	10.4	4.6
1988	-.2	.1	.2	.7	-.2	.0	.0	.1	.3	.6	.3	.4	2.0	3.4	.6	4.7	4.4
1989	.9	-1.0	.0	.0	-.8	.1	-1.3	.9	-.3	-.3	.1	.1	2.1	-3.7	-4.0	-.4	.4
1990	-.3	1.4	.3	-.2	.0	.2	-.2	.3	-.1	-.8	-1.2	-.8	3.7	2.1	.2	-7.2	.0
1991	-.8	-.8	-.7	.3	.7	1.1	.3	.2	1.1	-.2	-.3	-.3	-9.8	1.5	7.1	1.0	-2.6
1992	-.8	.9	.9	.4	.6	.1	.7	-.5	-.1	.4	.3	-.2	-1.1	6.9	2.5	1.5	2.6
1993	1.0	.0	-.2	.5	-.1	-.2	.2	-.2	.5	.7	.3	.5	3.8	.8	.5	5.8	2.6
1994	.1	.0	1.1	.5	.6	.2	.3	.5	.0	.8	.6	.9	3.9	7.0	4.0	6.8	4.4
1995	.2	-.3	-.1	-.4	-.3	.2	-.8	.9	.5	-.4	-.1	.2	2.9	-2.4	.1	.9	2.5
1996	-1.2	1.3	-.5	1.0	.4	.8	-.1	.4	.5	-.4	.8	.6	-1.8	6.9	4.1	3.3	1.5
1997	-.2	1.0	.9	-.7	.5	.4	.1	1.3	.7	.5	.9	.2	6.0	2.6	6.7	8.8	4.9
1998	.4	-.1	-.3	.4	.4	-1.1	-.9	2.4	-.7	.7	-.1	.2	2.8	.1	-.7	4.1	3.5
1999	-.1	.5	-.5	-.1	.8	-.7	.0	.7	-.6	1.4	.4	.4	.8	.3	.4	7.1	1.4
2000	-.3	-.1	.3	.4	-.5	.0	-.3	-.9	.3	-.4	-.6	-.9	.6	.8	-3.7	-4.9	.9
2001	-.7	-.6	-.4	.1	-.8	-.4	.0	-.7	-.3	-.7	-.2	.2	-7.8	-4.1	-4.3	-4.5	-4.9
2002	.7	-.1	.9	.1	.5	1.0	-.4	.1	-.1	-.7	.1	-.6	4.2	5.3	1.7	-3.2	.3
2003	.3	-.4	.1	-.9	-.2	.5	.1	-.3	.9	.0	1.2	.0	-1.5	-3.9	2.1	5.3	-.6
2004	.1	.8	.1	.9	.7	-.7	.8	.5	-.5	.9	.0	.4	4.4	6.0	2.9	3.6	3.8
2005	.3	.4	-.4	-.1	.3	.2	.0	.2	-.7	1.8	.6	.3	2.8	.3	.5	8.0	2.8
2006	.9	-.3	.4	.8	-.3	.7	.1						4.7	4.1			
IP (*2002=100*)																	
2004	100.9	101.7	101.8	102.7	103.5	102.7	103.5	104.1	103.5	104.5	104.5	104.9	101.5	103.0	103.7	104.6	103.2
2005	105.2	105.6	105.2	105.1	105.4	105.7	105.6	105.9	105.2	107.1	107.7	108.0	105.3	105.4	105.6	107.6	106.1
2006	109.0	108.6	109.0	109.9	109.6	110.4	110.5						108.8	110.0			
Capacity (*percent of 2002 output*)																	
2004	133.0	133.0	133.0	133.0	133.0	133.0	133.0	133.0	133.1	133.1	133.1	133.2	133.0	133.0	133.0	133.1	133.0
2005	133.2	133.3	133.4	133.5	133.5	133.6	133.7	133.8	133.8	133.9	134.0	134.1	133.3	133.5	133.8	134.0	133.6
2006	134.2	134.4	134.5	134.8	135.0	135.2	135.4						134.4	135.0			
Utilization (*percent*)																	
1984	77.7	78.4	78.6	78.9	78.9	79.0	79.2	79.1	78.7	78.9	79.0	79.1	78.3	78.9	79.0	79.0	78.8
1985	78.6	78.2	78.7	78.5	78.4	78.3	77.8	78.2	78.2	77.8	78.2	78.4	78.5	78.4	78.1	78.1	78.3
1986	79.3	78.6	78.3	78.5	78.5	78.3	78.4	78.5	78.6	78.7	79.0	79.5	78.7	78.5	78.5	79.1	78.7
1987	79.1	80.1	80.0	80.2	80.7	80.8	81.2	81.4	81.7	82.9	83.3	83.7	79.7	80.6	81.4	83.3	81.3
1988	83.6	83.6	83.8	84.4	84.3	84.3	84.3	84.3	84.5	85.0	85.1	85.4	83.7	84.3	84.4	85.2	84.4
1989	86.0	85.0	84.8	84.7	83.8	83.7	82.5	83.1	82.6	82.2	82.2	82.1	85.3	84.1	82.7	82.2	83.6
1990	81.8	82.8	82.9	82.6	82.5	82.5	82.2	82.3	82.1	81.3	80.2	79.5	82.5	82.5	82.2	80.3	81.9
1991	78.7	78.0	77.3	77.4	77.9	78.6	78.8	78.8	79.6	79.3	79.0	78.7	78.0	78.0	79.1	79.0	78.5
1992	78.0	78.6	79.2	79.4	79.8	79.8	80.3	79.8	79.7	79.9	80.1	79.8	78.6	79.7	79.9	79.9	79.5
1993	80.5	80.4	80.2	80.5	80.3	80.0	80.1	79.9	80.2	80.7	80.9	81.2	80.4	80.2	80.1	81.0	80.4
1994	81.3	81.2	82.0	82.3	82.7	82.7	82.9	83.2	83.0	83.5	83.9	84.4	81.5	82.6	83.0	83.9	82.8
1995	84.4	84.0	83.7	83.2	82.8	82.8	81.9	82.5	82.7	82.2	81.9	81.8	84.0	82.9	82.3	81.9	82.8
1996	80.6	81.6	80.9	81.6	81.8	82.3	82.0	82.2	82.4	81.8	82.3	82.5	81.0	81.9	82.2	82.2	81.8
1997	82.2	82.7	83.1	82.2	82.3	82.3	82.1	82.8	83.1	83.2	83.6	83.4	82.7	82.3	82.6	83.4	82.7
1998	83.4	83.1	82.5	82.5	82.5	81.4	80.4	82.1	81.3	81.6	81.3	81.3	83.0	82.1	81.3	81.4	81.9
1999	81.0	81.2	80.6	80.3	80.8	80.1	79.9	80.2	79.6	80.6	80.8	81.0	80.9	80.4	79.9	80.8	80.5
2000	80.6	80.3	80.4	80.6	80.1	80.0	79.6	78.8	78.9	78.4	77.9	77.1	80.4	80.2	79.1	77.8	79.4
2001	76.5	76.0	75.6	75.6	75.0	74.6	74.5	74.0	73.7	73.2	73.1	73.3	76.0	75.0	74.1	73.2	74.6
2002	73.8	73.7	74.3	74.4	74.8	75.5	75.2	75.3	75.3	74.8	74.9	74.5	73.9	74.9	75.3	74.8	74.7
2003	74.7	74.4	74.5	73.9	73.8	74.2	74.3	74.1	74.8	74.8	75.7	75.8	74.6	73.9	74.4	75.4	74.6
2004	75.9	76.5	76.6	77.2	77.8	77.3	77.8	78.2	77.8	78.5	78.5	78.8	76.3	77.4	78.0	78.6	77.6
2005	78.9	79.2	78.9	78.8	79.0	79.1	79.0	79.2	78.6	80.0	80.4	80.6	79.0	78.9	78.9	80.3	79.3
2006	81.2	80.8	81.0	81.5	81.2	81.6	81.6						81.0	81.5			

1. Refer to note on cover page.
2. Selected high-technology industries are computers, communications equipment, and semiconductors and related electronic components.
3. Quarterly changes are at annual rates. Annual changes are calculated from annual averages.

EXPLANATORY NOTE

The **Industrial Production and Capacity Utilization** statistical release, which is published around the middle of the month, reports measures of output, capacity, and capacity utilization in manufacturing, mining, and the electric and gas utilities industries. More detailed descriptions of industrial production and capacity utilization are available at **www.federalreserve.gov/releases/G17** at the Board's World Wide Web site. In addition, files containing data shown in the release, more detailed series that were published in the G.17 prior to December 2000, and historical data are available at the Board's Web site. Instructions for searching for and downloading specific series are provided as well. For paid access to the data 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 also 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 the real output of the manufacturing, mining, and electric and gas utilities industries; the reference period for the index is 2002. Manufacturing consists of those industries included in the North American Industry Classification System, or NAICS, definition of manufacturing *plus* those industries-logging and newspaper, periodical, book and directory publishing-that have traditionally been considered to be manufacturing and included in the industrial sector. For the period since 1997, the total IP index has been constructed from 300 individual series based on the 2002 North American Industrial Classification System (NAICS) codes. These individual series are classified in two ways: (1) market groups, and (2) industry groups. Market groups consist of products and materials. Total products are the aggregate of final products, such as consumer goods and equipment, and nonindustrial supplies (which are inputs to nonindustrial sectors). Materials are inputs in the manufacture of products. Major industry groups include three-digit NAICS industries and aggregates of these industries—for example, durable and nondurable manufacturing, mining, and utilities. A complete description of the market and industry structures, including details regarding series classification, relative importance weights, and data sources, is available on the Board's web site (**www.federalreserve.gov/releases/G17/About.html**). Changes in output for the market and industry groups are summarized in table 1 and the levels of output (in index form) are shown in table 4. Special aggregates, that highlight the relative importance and contributions of several key industries, such as high-technology and motor vehicles, are summarized in tables 2 and 5. For a detailed description of the contents of the statistical tables, see below.

Source data. 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 and from government agencies; data of this type are used to estimate monthly IP wherever possible and appropriate. Production indexes for a few industries are derived by dividing estimated nominal output (calculated using unit production or sales and unit values) by a corresponding Fisher price index; the most notable of these fall within the high-technology grouping and include computers, communications equipment, and semiconductors. When suitable data on physical product are not available, estimates of output are based on production-worker hours by industry. Data on hours worked by production workers are collected in the monthly establishment survey conducted by the Bureau of Labor Statistics. The factors used to convert inputs into estimates of production are based on historical relationships between the inputs and the comprehensive annual data used to benchmark the IP indexes; these factors also may be influenced by technological or cyclical developments. The annual data used in benchmarking 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 United States Geological Survey of the Department of the Interior; and publications of the Department of Energy.

Aggregation Methodology and Weights. The aggregation method for the IP index is a version of the Fisher-ideal index formula. (For a detailed discussion of the aggregation method, see *Federal Reserve Bulletin* February 1997 and March 2001.) In the IP index, series that measure the output of an individual industry are combined using weights derived from their proportion in the total value-added output of all industries. The IP index, which extends back to 1919, is built as a chain-type index since 1972. The current formula for the growth in monthly IP (or any of the sub-aggregates) since 1972 is the geometric mean of the change in output (I), and, as can be seen below, is computed using the unit value added estimate for the current month (p_m) and the estimate for previous month:

$$\frac{I^A_m}{I^A_{m-1}} = \sqrt{\frac{\sum I_m p_{m-1}}{\sum I_{m-1} p_{m-1}} \times \frac{\sum I_m p_m}{\sum I_{m-1} p_m}}$$

The IP proportions (typically shown in the first column of the relevant tables in the G.17 release) are estimates of the industries' relative contributions to overall growth in the following year. For example, the relative importance weight of the motor vehicles and parts industry is about 8 percent. If output in this industry increased 10 percent in a month, then this gain would boost growth in total IP by $8/10$ percentage point (0.08 x 10% = 0.8%). To assist users with calculations, the Federal Reserve's web site provides supplemental monthly statistics that represent the exact proportionate contribution of a monthly change in a component index to the monthly change in the total index (**www.federalreserve.gov/releases/G17/ipdisk/ipweights.sa**).

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.) For the first estimate of output for a given month, about 70 percent of the source data (in value-added terms) are available; the fraction of available source data increases to about 85 percent for estimates in the second month that the estimate is published, 96 percent in the third month, and 97 percent in the fourth month. Data availability by data type is summarized in the table below:

Availability of Monthly IP Data in Publication Window
(Percent of value added in 2004)

	Month of estimate			
Type of data	1st	2nd	3rd	4th
Physical product	25	40	51	52
Production-worker hours	45	45	45	45
IP data received	70	85	96	97
IP data estimated	30	15	4	3

The physical product group includes series based on either monthly or quarterly data. As can be seen in the first line of the table, in the first month, a physical product indicator is available for about half of the series (in terms of value added) that ultimately are based on physical product data (25 percent out of total of 52 percent). Of the 25 percent, about two-thirds (17 percent of total IP) include series that are derived from weekly physical product data and for which actual monthly data may lag up to several months. On average, quarterly product data are received for the third estimate of industrial production. Specifically, quarterly data are available for the second estimate of the last month of a quarter, the third estimate of the second month of a quarter, and the fourth estimate of the first month of a quarter. About 3 percent of the source data for monthly IP—all physical product measures—are available too late for direct inclusion in the current index and are incorporated at the time of an annual historical revision.

Seasonal adjustment. Individual series are seasonally adjusted using Census X-12 ARIMA. For series based on production-worker hours, the current seasonal factors were estimated with data through April

2006; for other series, the factors were estimated with data through at least June 2005. Series are pre-adjusted for the effects of holidays or the business cycle when appropriate. For the data since 1972, all seasonally adjusted aggregate indexes are calculated by aggregating the seasonally adjusted indexes of the individual series.

Reliability. The average revision to the *level* of the total IP index, without regard to sign, between the first and the fourth estimates was 0.27 percent during the 1987–2004 period. The average revision to the *percent change* in total IP, without regard to sign, from the first to the fourth estimates was 0.21 percentage point during the 1987–2004 period. In most cases (about 86 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

Overview. The Federal Reserve Board constructs estimates of capacity and capacity utilization for industries in manufacturing, mining, and electric and gas utilities. For a given industry, the capacity utilization rate is equal to an output index (seasonally adjusted) divided by a capacity index. The Federal Reserve Board's capacity indexes attempt to capture the concept of *sustainable maximum output*—the greatest level of output a plant can maintain within the framework of a realistic work schedule, after factoring in normal downtime and assuming sufficient availability of inputs to operate the capital in place.

Coverage. Capacity indexes are constructed for 85 detailed industries (67 in manufacturing, 16 in mining, and 2 in utilities), which mostly correspond to industries at the three- and four-digit NAICS level. Estimates of capacity and utilization are available for a variety of groups, including durable and nondurable manufacturing, total manufacturing, mining, utilities, and total industry. Manufacturing consists of those industries included in the North American Industry Classification System, or NAICS, definition of manufacturing *plus* those industries—logging and newspaper, periodical, book and directory publishing—that have traditionally been considered to be manufacturing and included in the industrial sector. Also, special aggregates are available, such as high-tech industries and manufacturing excluding high-tech industries.

Source Data. The monthly rates of capacity utilization are designed to be consistent with both the monthly data on production and the periodically available data on capacity and utilization. Because there is no direct monthly information on overall industrial capacity or utilization rates, the Federal Reserve first estimates annual capacity indexes from the source data. Capacity data reported in physical units from government sources (primarily from the U.S. Geological Survey and the Department of Energy's Energy Information Administration) and trade sources are available for portions of several industries in manufacturing (*e.g.*, paper, industrial chemicals, petroleum refining, motor vehicles), as well as for electric utilities and mining; these industries represent about 21 percent of total industrial capacity. When physical product data are unavailable for manufacturing industries, capacity indexes are based on responses to the Bureau of the Census's *Survey of Plant Capacity* (SPC); these industries account for a bit less than 75 percent of total industry capacity. In the absence of utilization data for a few mining and petroleum series, capacity is based on trends through peaks in production (roughly 4 percent of total industry capacity). A detailed description of the methodology used to construct the capacity indexes is available on the Board's web site (**www.federalreserve.gov/releases/G17/cap_notes.html**).

Aggregation Methodology. Monthly capacity aggregates are calculated in three steps: (1) utilization aggregates are calculated on an annual basis through the most recent full year as capacity-weighted aggregates of individual utilization rates; (2) the annual aggregate capacity is derived from the corresponding production and utilization aggregates; (3) the monthly capacity aggregate is obtained by interpolating with a Fisher index of its constituent monthly capacity series. Utilization rates for the individual series and aggregates are calculated by dividing the pertinent monthly production index by the related capacity index.

Consistency. A major aim is that the Federal Reserve utilization rates be consistent over time so that, for example, a rate of 85 percent means about the same degree of tightness that it meant in the past. A major task for the Federal Reserve in developing reasonable and consistent time series of capacity and utilization is dealing with inconsistencies between the movements of the industrial production index and the survey-based utilization rates. The McGraw-Hill/DRI Survey, now discontinued, was the primary source of manufacturing utilization rates for many years. This was a survey of large companies that reported, on average, higher utilization rates than those reported by establishments covered by the SPC (currently the primary source of factory operating rates) for the fourteen years they overlapped. Adjustments have been made to keep the industry utilization rates currently reported by the Federal Reserve roughly in line with rates formerly reported by McGraw-Hill. As a consequence, the rates reported by the Federal Reserve tend to be higher than the rates reported in the SPC.

Perspective. Over the 1972–2005 period, the average total industry utilization rate is 81.0 percent; for manufacturing, the average factory operating rate has been 79.8 percent. 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. The highs and lows in capacity utilization shown in table 7 are specific to each series and do not all occur in the same month.

References and Release Dates

References. The annual revision published in November 2005 is described in an article published in the *Federal Reserve Bulletin*, vol. 92, pp. A39–A58. 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, March 2002, April 2003, Winter 2004, Winter 2005).

Release Schedule

At 9:15 a.m. on

2006: January 17, February 15, March 17, April 14, May 16, June 15, July 17, August 16, September 15, October 17, November 16, and December 15.