# **FEDERAL RESERVE statistical release**



G.17 (419)

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### INDUSTRIAL PRODUCTION AND CAPACITY UTILIZATION

Industrial production increased 0.6 percent in December after gains of 0.8 percent in November and 1.0 percent in October. For the fourth quarter as a whole, industrial production increased 3.8 percent at an annual rate. Manufacturing output rose 0.2 percent in December but was held back by a decrease of 2.8 percent in the production of motor vehicles and parts. The output of utilities climbed 2.7 percent; the output at mines advanced 2.5 percent and was spurred in part by the continued recovery of energy-related industries that were affected by the recent hurricanes. Over

(over)

# INDUSTRIAL PRODUCTION AND CAPACITY UTILIZATION: SUMMARY

Seasonally adjusted

		200	02=100			Po	ercent chang	e	
Industrial production	2005 Sept. <sup>r</sup>	Oct.r	Nov.r	Dec.p	2005 Sept. <sup>r</sup>	Oct.r	Nov.r	Dec.p	Dec. '04 to Dec. '05
industrial production	Зері.	<u> </u>	1407.	DCC.1	Зерт.	OCI.	1101.	Dec.	Dec. 03
Total index	107.2	108.2	109.1	109.8	-1.3	1.0	.8	.6	2.8
Previous estimates	106.9	108.2	109.0		-1.6	1.3	.7		
Major market groups									
Final Products	109.4	111.3	111.1	111.4	6	1.7	1	.2 .2	3.9
Consumer goods	106.4	106.0	105.3	105.5	.7	3	7	.2	1.3
Business equipment	115.1	123.5	125.1	125.7	-4.2	7.3	1.3	.5	10.1
Nonindustrial supplies	108.4	109.3	109.9	110.0	.3	.9	.6	.0	3.6
Construction	109.8	112.1	112.7	111.6	1.5	2.2	.5	9	5.2
Materials	104.5	104.8	106.7	108.0	-2.6	.3	1.8	1.2	1.4
Major industry groups									
Manufacturing (see note below)	108.9	110.9	111.4	111.6	5	1.8	.4	.2	3.8
Previous estimates	108.8	110.8	111.1		7	1.8	.3		
Mining	90.3	88.3	92.5	94.8	-9.0	-2.2	4.7	2.5	-5.6
Utilities	108.1	104.9	105.3	108.2	3	-3.0	.4	2.7	2.9
				Domaont of					Capacity
		1004.05	2001 02	Percent of	<del></del>				growth
Capacity utilization	Average 1972-2004	1994-95 high	2001-02 low	2004 Dec.	2005 Sept. <sup>r</sup>	Oct.r	Nov.r	Dec.p	Dec. '04 to Dec. '05
Capacity utilization	1972-2004	mgn	IOW	Dec.	Зері.	OCi.	NOV.	Dec.	Dec. 03
Total industry	81.0	85.0	73.9	79.7	79.1	79.8	80.3	80.7	1.7
Previous estimates	01.0	05.0	75.5	,,,,	78.9	79.8	80.2	00.7	1.,
1 Tevious estimates					/ / 0.5	75.0	00.2		
Manufacturing (see note below)	79.8	84.5	72.0	78.3	78.2	79.5	79.6	79.6	2.1
Previous estimates	75.0	01.5	72.0	70.5	78.1	79.4	79.4	75.0	2.1
Mining	87.3	89.0	85.6	89.3	80.7	78.9	82.6	84.7	5
Utilities	86.8	93.7	83.7	85.6	88.0	85.4	85.8	88.1	1
o initios	00.0	, ,	05.7	00.0		00.1	05.0	00.1	
Stage-of-process groups									
Crude	86.4	89.4	83.2	88.5	78.2	78.0	81.9	84.1	8
Primary and semifinished	82.2	88.1	74.6	81.7	81.9	82.0	82.3	82.4	2.6
Finished	77.9	80.5	70.8	75.5	76.6	78.2	78.0	78.1	1.3
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.

the twelve months of 2005, total industrial production increased 2.8 percent, to 109.8 percent of its 2002 average, while total industrial capacity rose 1.7 percent. The rate of capacity utilization in December, at 80.7 percent, stood 1.0 percentage point above its year-earlier level and was 0.3 percentage point below its 1972–2004 average.

## Market Groups

The output of consumer goods rose 0.2 percent in December and was up 1.3 percent from its year-earlier level. In December, the index for consumer nondurables climbed 0.9 percent, and both the energy and the non-energy components of the index advanced. Among non-energy nondurables, the index for foods and tobacco rose 1.1 percent, and the production of clothing increased 1.9 percent; these gains more than offset a second consecutive monthly decline in the index for paper products. The output of consumer durables fell 1.6 percent, and declines occurred in the indexes for automotive products; appliances, furniture, and carpeting; and miscellaneous goods.

The production of business equipment increased 0.5 percent and was about 10 percent above its year-earlier level. The gains in this category were largely driven by an increase of 1.7 percent in the index for information processing equipment. The indexes for transit equipment and for industrial and other equipment were little changed. The production of defense and space equipment continued to rise, and reached a level 9.7 percent higher than it was a year earlier. The index for construction supplies, which had surged over the past few months, fell back. The output of business supplies moved up 0.5 percent to stand 2.9 percent above its year-earlier level.

The production of materials increased 1.2 percent in December. The index for energy materials climbed sharply in November and December as the energy sector's recovery from the recent storms continued. In addition, relatively colder temperatures in December led to an increase in electricity generation. Within the durable materials component, a drop of 1.1 percent in the output of consumer parts partially offset gains in the production indexes for equipment parts and for other durable materials. Within the nondurable category, the output of both paper and textile materials decreased. However, the output of chemical materials continued to recover from the hurricanes and posted an increase of 2.4 percent.

### **Industry Groups**

Manufacturing production rose 0.2 percent in December, and the factory operating rate remained at 79.6 percent, which is 1.3 percentage points above its year-earlier level and 0.2 percentage point below its 1972–2004 average. The production of durable goods edged down 0.1 percent. The largest decline within this category was in the output of motor vehicles and parts, which fell 2.8 percent, although the indexes for wood products and nonmetallic mineral products also decreased more than 2 percent. The largest increase in the production of durable goods was in the computer and electronic products industry; gains also occurred in the indexes for aerospace and miscellaneous transportation equipment, primary metal, furniture and related products, and machinery. The production of nondurable goods rose 0.5 percent and included output gains of 1 percent or more for apparel and leather; food, beverage, and tobacco; and chemicals. The production of paper and products and of textile and product mills both decreased; the index for petroleum and coal products also fell back. Production in non-NAICS manufacturing (logging and publishing) decreased 0.1 percent.

The output of mines rose 2.5 percent in December after having jumped 4.7 percent in November, and the operating rate in mining moved up 2.1 percentage points, to 84.7 percent. Nevertheless, the production index for this industry stands 5.6 percent below its year-earlier level. In December, oil and gas extraction once again moved up but remained more than 6 percent below its level preceding Hurricane Katrina. Utilities output increased 2.7 percent; gains in both the electric and natural gas components contributed to the rise. The operating rate at utilities climbed to 88.1 percent.

By stage of process, capacity utilization for industries in the crude stage of processing climbed 2.2 percentage points, to 84.1 percent, but the rate was still about 4 percentage points below its average rate in the first half of the year. Capacity utilization rates for industries in the primary and semifinished stages and for finished goods producers changed little; both rates now stand just above their respective long-run averages.

**Note:** This release no longer contains tables on electric power use by industry. The December 15, 2005, release included results from the final survey of industrial electric power use conducted by the Federal Reserve Board. The rate of response to the voluntary survey had dropped significantly since the early 1990s, and coverage in 2004 was nearly 40 percent lower than at its peak in 1993. A notice seeking comment on the termination of the electric power survey was published in the *Federal Register* on September 29, 2005; by the end of the public comment period, November 28, 2005, no comments had been received. Although the indexes of electric power use will no longer be updated, the historical indexes will remain available on the historical data webpage for the G.17.

#### **Tables**

- 1. Industrial Production: Market and Industry Group Summary; percent change
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- 14. Historical Statistics: Manufacturing Excluding Selected High-Technology Industries

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

# Revision of Industrial Production and Capacity Utilization

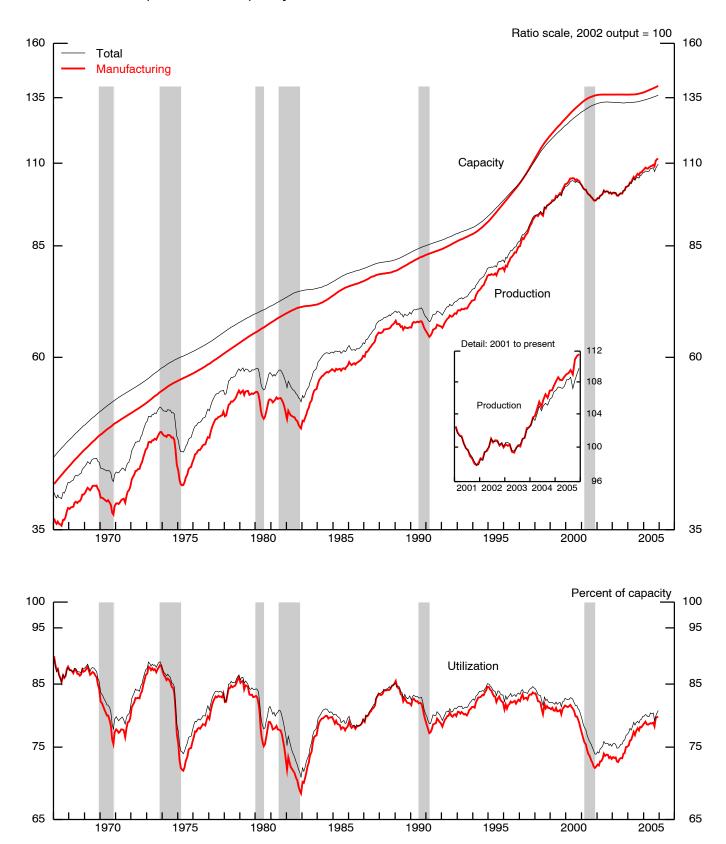
On November 7, 2005, the Federal Reserve Board issued its annual revisions to the index of industrial production (IP) and to the related measures of capacity and capacity utilization. The base year for the indexes of industrial production, capacity, and electric power use was advanced to 2002. Production indexes for twenty industries that had relied on electric power use as a monthly indicator were revised to use production-worker hours for the period 1997 to present.

The revisions to the IP index were derived principally from information contained in annual reports issued by the Census Bureau—namely, the 2003 Annual Survey of Manufactures, the revised data from the 2002 Census of Manufactures, and selected 2004 Current Industrial Reports. Annual data on minerals (except fuels) for 2003 and 2004 from the U.S. Geological Survey and updated deflators from the Bureau of Economic Analysis were also introduced. The updating also included revisions to the monthly indicator for each industry (either physical product data or production-worker hours) and revisions to seasonal factors.

Capacity and capacity utilization were revised to incorporate data from the Census Bureau's 2004 Survey of Plant Capacity, which covers manufacturing, and new data on capacity from the U.S. Geological Survey, the U.S. Department of Energy, and other organizations.

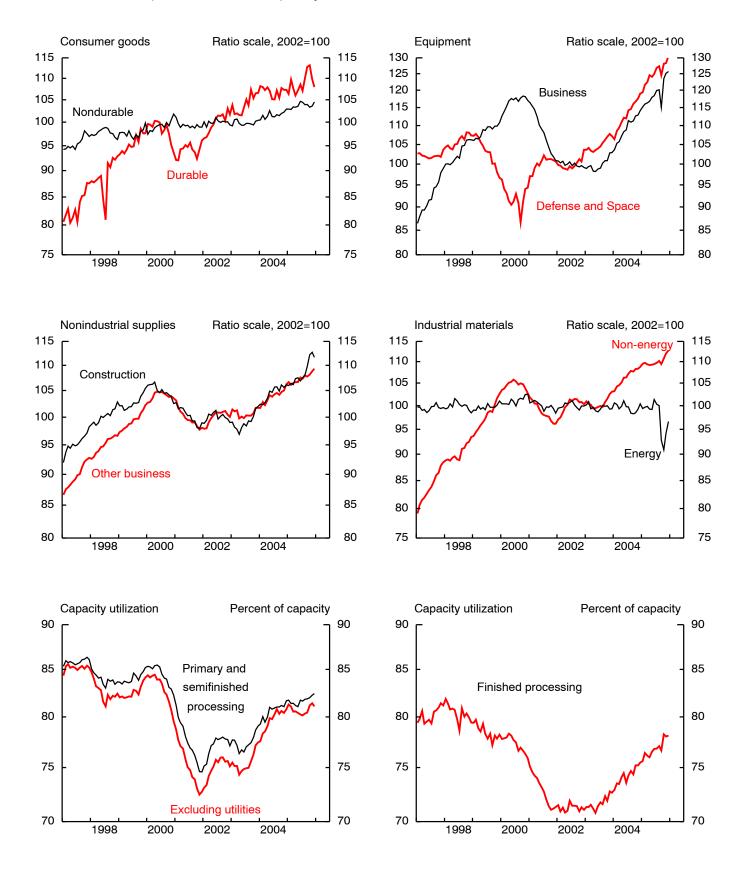
The revision is available on the Board's website at www.federalreserve.gov/releases/G17. The revised data are also available on the website of the Department of Commerce. Further information on these revisions is available from the Board's Industrial Output Section (telephone 202-452-3197).

# 1. Industrial production, capacity, and utilization

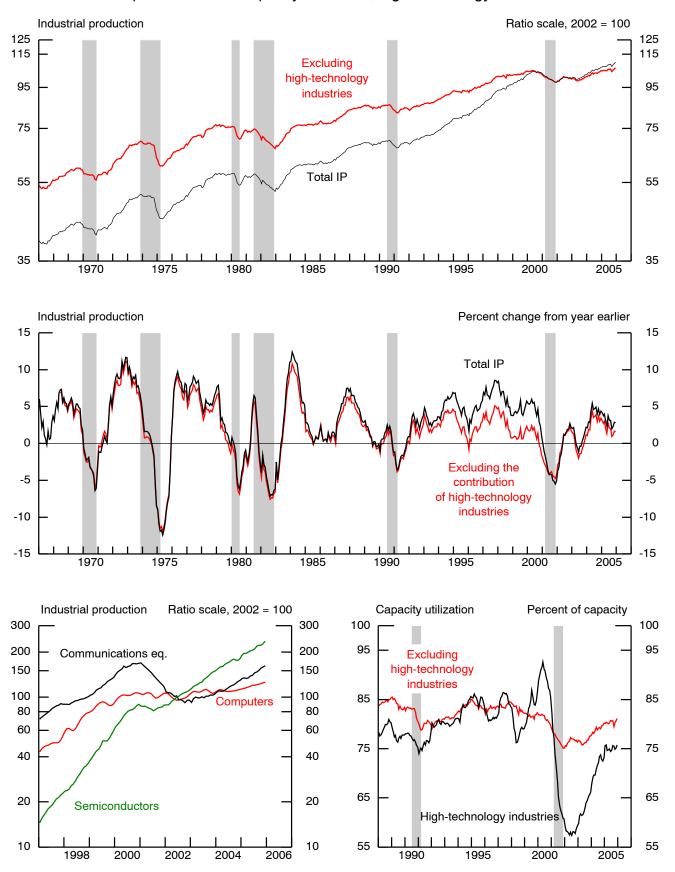


Notes: The shaded areas are periods of business recession as defined by the National Bureau of Economic Research (NBER). See note on cover page.

# 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

Tercent change, seasonany adjusted			1	rth quarte urth quart			Annua	al rate			Month	ly rate		Dec. '04
Item		2004 proportion <sup>1</sup>	2003	2004	2005	2005 Q1	Q2	Q3r	Q4p	2005 Sept. <sup>r</sup>	Oct.r	Nov.r	Dec.p	to Dec. '05
Total IP		100.00	1.5	4.3	2.7	3.8	1.6	1.4	3.8	-1.3	1.0	.8	.6	2.8
Market Groups														
Final products and nonindustrial suppli	es	57.78	1.7	4.3	4.2	4.3 2.4	3.0 1.5	3.5	6.2	3	1.5	.1 7	.2	3.8 1.3
Consumer goods Durable		30.24 8.66	1.3 4.3	2.0 1.3	1.8 2.6	1.7	-2.5	10.8	5 1.0	2.4	3 .3	-3.0	.2 -1.6	.6
Automotive products		4.70	6.5	.4	1.7	2.0	-4.2	16.7	-6.1	3.0	5	-5.3	-2.7	-1.9
Home electronics		.27	18.5	-3.7	16.6	3.5	31.8	-17.7	64.6	1	10.5	4.5	.9	24.1
Appliances, furniture, carpeting		1.41	2.2	2.4	2.9	2.2	-2.2	10.3	1.7	1.8	1	-1.4	4	2.1
Miscellaneous goods		2.28	7	3.0	2.7	.4	-2.9	3.0	11.0	1.8	1.3	.0	5	2.3
Nondurable		21.57	.1	2.3	1.4	2.7	3.1	1.0	-1.1	.1	6	.3	.9	1.6
Non-energy		17.39 9.49	.6 2.1	2.5 1.8	1.8 2.6	3.2 1.2	2.4 3.2	7 1.2	2.3 5.0	.5	.3	1 .4	.6	1.9 3.5
Foods and tobacco Clothing		.76	-9.3	-2.8	7	-6.7	-8.0	6.3	6.6	./	8	1.6	1.1 1.9	1.3
Chemical products		4.76	1.0	3.0	2	4.0	2.2	-4.4	-2.4	.4	0 1	-1.0	.0	6
Paper products		1.89	-3.5	5.9	2.6	13.9	2.7	-5.3	.2	4	1.3	-1.0	5	.3
Energy		4.18	-1.9	1.7	.0	.8	5.9	8.3	-13.6	-1.4	-4.4	1.9	2.1	.3
Business equipment		9.97	2.8	10.8	10.2	9.5	6.7	2.4	23.3	-4.2	7.3	1.3	.5	10.1
Transit		1.86	3.6	9.7	13.5	15.7	15.7	-28.2	72.8	-25.1	38.4 2.4	1.9	.1	13.5 19.8
Information processing Industrial and other		2.73 5.37	6.5 .4	14.6 9.2	19.8 4.1	17.7 3.2	12.7 .5	23.0 5.4	26.2 7.5	1.5 .6	1.3	2.1	1.7 1	19.8 4.0
Defense and space equipment		1.92	5.4	9.7	9.5	12.0	11.5	5.8	8.9	-2.2	2.8	.2	1.7	9.7
Construction supplies		4.41	1.7	4.6	5.9	.9	4.1	4.7	14.2	1.5	2.2	.5	9	5.2
Business supplies		10.78	.9	3.9	3.3	4.2	2.2	2.7	4.0	1	.3	.6	.5	2.9
Materials		42.22	1.2	4.3	.5	3.2	3	-1.5	.7	-2.6	.3	1.8	1.2	1.4
Non-energy Durable		30.19 19.01	1.7 3.8	6.0 7.6	3.1 6.7	4.1 6.8	8 1.2	1.7 7.0	7.7 12.1	7 1.5	1.3 1.0	1.1 .5	.6 .6	3.6 7.0
Consumer parts		3.67	-1.2	2.0	1.6	2.0	-3.4	6.8	1.4	1.7	1.0	-2.3	-1.1	.0
Equipment parts		6.67	11.8	14.1	15.7	20.2	10.4	13.7	18.9	1.1	1.5	1.7	1.6	16.4
Other		8.67	.0	4.9	1.9	-1.0	-4.0	1.9	11.5	1.7	.7	.8	.5	2.6
Nondurable		11.17	-1.7	3.2	-3.0	5	-4.3	-7.1	.1	-4.5	1.8	2.1	.7	-2.1
Textile		.68	-6.5	-6.4	-4.1	-6.5	-9.8	4.1	-3.8	2	.3	-1.1	5 1.2	-4.7
Paper Chemical		2.41 4.66	-6.5 1.6	4.6 5.3	-1.7 -7.7	2.3 -5.4	-6.0 -5.3	-4.3 -15.7	1.6 -3.8	2 -11.0	1.4 2.7	6 6.0	-1.3 2.4	-3.2 -4.8
Energy		12.04	1	2	-5.5	1.0	1.1	-8.6	-14.8	-7.2	-2.1	3.6	2.4	-4.6
										,				
INDUSTRY GROUPS Manufacturing		81.95	1.7	5.1	3.9	4.5	1.3	2.0	7.9	5	1.8	.4	.2	3.8
Manufacturing (NAICS)		77.47	2.0	5.2	4.1	4.2	1.2	2.6	8.5	5	1.9	.5	.2	4.1
Durable manufacturing		43.11	4.0	7.1	7.4	6.8	2.6	7.0	13.5	.1	2.8	1	1	6.8
Wood products	321	1.59	4.0	3.0	5.7	3.4	-5.2	1.3	25.6	3.0	3.7	1.7	-2.3	4.8
Nonmetallic mineral products	327	2.28	2.2	5.1	2.1	-3.6	.2	1.4	11.0	1.2	1.8	1.0	-2.2	.2
Primary metal	331	2.57	1.0	3.9	-2.2	-9.0	-17.2	1.8	19.3	3.7	.3	.7	1.1	5
Fabricated metal products  Machinery	332 333	5.75 5.36	7 1.0	5.2 11.5	4.5 5.7	2.0	1.5 1.8	3.4	11.4 15.2	1.7	2.2	.5 .4	4 .5	4.5 6.3
Computer and electronic products	334	7.75	15.7	16.1	23.0	27.0	16.2	22.3	26.7	1.3	1.8	2.6	2.4	24.1
Electrical equip., appliances,		,,,,												
and components	335	2.10	7	5.2	6.9	1.6	1.9	12.4	12.3	1.5	2.4	-1.2	.0	6.4
Motor vehicles and parts	3361-3	7.30	4.7	2.6	1.5	3.5	-4.4	13.5	-5.4	2.8	2	-4.9	-2.8	-2.4
Aerospace and miscellaneous	3364-9	2.19	1	5.3	11.4	10.7	16.2	-15.3	41.4	15.7	20.5	1.6	1.2	12.0
transportation equipment Furniture and related products	3304-9	3.48 1.72	4 .3	2.2	11.4 -1.6	10.7 .1	16.2 -7.7	-15.3 2.1	41.4 5	-15.7 1.5	20.5 -1.3	1.6 4	1.3	-1.7
Miscellaneous	339	3.22	.6	3.9	4.1	6.5	1.7	7.0	1.2	.2	.9	-1.2	-1.6	2.1
Nondurable manufacturing		34.36	4	2.8	1	.9	4	-2.8	2.1	-1.4	.6	1.3	.5	.6
Food, beverage, and tobacco products	311,2	11.02	1.7	1.7	3.2	2.6	3.1	1.7	5.5	.7	.5	.5	1.2	4.1
Textile and product mills	313,4	1.17	-4.2	-3.9	1.2	.3	-7.6	9.3	3.5	.7	.7	.1	9	2.1
Apparel and leather Paper	315,6 322	.81 2.82	-9.4 -6.0	-2.2 4.5	.0 -1.6	-7.1 2.7	-7.1 -8.4	7.7 -4.7	7.7 4.8	.9 .3	7 2.4	1.7 -1.2	1.9 -1.3	2.1 -2.7
Printing and support	323	2.82	-3.0	1.5	1.8	1.7	-0.4	4.1	3.3	.7	.4	-1.2	-1.3	1.0
Petroleum and coal products	324	2.25	.3	6.2	-6.8	.4	2.2	-14.2	-14.2	-5.5	-3.0	5.8	9	-6.6
Chemical	325	10.54	.7	4.2	-3.4	9	4	-9.9	-2.0	-5.1	1.6	2.1	1.0	-2.2
Plastics and rubber products	326	3.64	2	3.2	4.0	1.7	-1.8	5.4	11.2	2.3	2	1.4	.4	4.7
Other manufacturing (non-NAICS)	1133,5111	4.48 8.53	-3.0 .5	3.7	.8 -7.6	10.0	1.8 1	-6.9 -14.9	8 -17.6	6 -9.0	1.1 -2.2	-1.3 4.7	1 2.5	-1.1 -5.6
Mining Utilities	21 2211,2	9.52	.5	4 1.2	-/.6 2.4	-1.9	6.4	13.8	-17.5 -7.5	-9.0	-2.2	4.7	2.5	-5.6 2.9
Electric	2211	7.92	1.9	2.0	3.6	-3.0	5.9	17.8	-4.7	.4	-2.5	.1	2.4	4.1
Natural gas	2212	1.61	-5.5	-2.9	-3.4	3.5	9.3	-3.7	-20.2	-3.9	-5.4	2.0	4.3	-2.7
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Revised. p Preliminary.

NOTE. Under 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			rth quart urth quar			Annua	ıl rate		•	Month	ly rate	-	Dec. '04
nein	2004 proportion	2003	2004	2005	2005 Q1	Q2	Q3r	Q4p	2005 Sept. <sup>r</sup>	Oct.r	Nov.r	Dec.p	to Dec. '05
Total industry	100.00	1.5	4.3	2.7	3.8	1.6	1.4	3.8	-1.3	1.0	.8	.6	2.8
Energy	19.02	.5	.7	-3.2	.9	2.9	-2.8	-13.0	-5.0	-2.6	2.8	2.3	-2.1
Consumer products	4.18	-1.9	1.7	.0	.8	5.9	8.3	-13.6	-1.4	-4.4	1.9	2.1	.3
Commercial products	2.44	5.1	2.4	.7	-1.8	6.9	5.2	-6.9	7	-3.1	1.3	2.1	.6
Oil and gas well drilling Converted fuel	.35 3.75	21.2	8.3 1.6	11.8	19.1 1	1.8 6.1	19.9 1.5	7.5 -7.0	2 -4.0	2.3	9 1.9	-1.0 1.6	8.7
Primary materials	8.29	4	-1.0	.0 -7.9	1.5	-1.0	-12.6	-18.0	-8.5	-2.7	4.4	3.1	.5 -5.4
Non-energy	80.98	1.7	5.1	4.1	4.5	1.3	2.5	8.4	4	1.9	.3	.2	4.0
Selected high-technology industries	4.93	21.1	18.4	24.9	32.8	16.4	27.0	24.0	1.6	.9	2.3	2.7	26.1
Computer and peripheral equipment 3341		5.8	4.6	11.3	10.9	14.0	8.8	11.7	.9	.8	1.0	1.1	11.7
Communications equipment 3342		9.9	22.3	25.6	24.4	12.1	33.3	33.9	2.7	3.4	1.7	1.8	25.2
Semiconductors and related electronic components 334412-9	2.87	34.1	21.4	28.7	43.8	18.9	30.0	23.5	1.4	1	2.9	3.5	30.8
Excluding selected high-technology industries	76.06	.5	4.2	2.8	2.8	.3	1.0	7.4	5	2.0	.2	.0	2.6
Motor vehicles and parts 3361-3	7.30	4.7	2.6	1.5	3.5	-4.4	13.5	-5.4	2.8	2	-4.9	-2.8	-2.4
Motor vehicles 3361		10.4	1.6	3	.8	-6.4	21.1	-13.4	3.6	-1.0	-8.1	-4.1	-5.5
Motor vehicle parts 3363	3.20	-1.5	2.2	2.6	4.7	9	7.8	9	1.3	.5	-2.1	-1.6	1
Excluding motor vehicles and parts	68.76	.0	4.4	2.9	2.7	.8	3	8.8	9	2.2	.7	.3	3.2
Consumer goods	21.66	.7	2.3 9.0	1.9 9.3	2.9 7.3	1.5 7.4	.0 -1.8	3.4	.6	.5 9.0	2 1.9	.4	2.0 9.7
Business equipment Construction supplies	7.81 4.38	.5 1.7	4.6	5.7	.8	3.9	-1.8 4.6	26.0 14.0	-6.0 1.5	2.1	1.9	.5 9	5.1
Business supplies	7.94	-1.6	3.3	2.8	4.2	2	.4	6.7	1	1.5	.3	2	2.3
Materials	24.99	8	4.7	.7	.2	-2.8	-1.6	7.1	-1.2	1.5	1.3	.6	1.4
Measures excluding selected high-technology industries													
Total industry	95.07	.5	3.6	1.5	2.4	.8	.1	2.8	-1.5	1.0	.7	.5	1.7
Manufacturing <sup>1</sup>	77.02	.4	4.2	2.6	2.8	.3	.5	6.9	7	1.9	.3	.0	2.4
Durable	38.39	1.7	5.6	5.1	3.5	.7	4.5	12.1	1	3.0	4	4	4.4
Measures excluding motor vehicles and parts Total industry	92.70	1.3	4.5	2.8	3.9	2.1	.5	4.6	-1.6	1.1	1.2	.9	3.2
Manufacturing <sup>1</sup>	74.65	1.3	5.4	4.1	4.6	1.8	1.0	9.3	-1.0 9	2.0	.9	.4	4.4
Durable	36.02	3.8	8.0	8.5	7.4	3.9	5.7	17.5	4	3.4	.9	.4	8.6
Measures excluding selected high-technology industries and motor vehicles and parts	0												
Total industry Manufacturing <sup>1</sup>	87.78 69.73	.0	3.6 4.4	1.5 2.7	2.3 2.7	1.3	9 7	3.5 8.3	-1.8 -1.1	1.1 2.1	1.2	.8	2.0 2.9
Stage-of-process components of non-energy materials, measures of the input to Finished processors	13.44	3.6	7.9	7.8	10.6	2.7	8.1	9.9	.9	1.3	.1	.3	7.4
Primary and semifinished processors	16.75	.2	4.3	6	9	-3.7	-3.3	5.9	-2.0	1.3	1.9	.9	.6
Times, and commission processors	10.75	.2	7.0	.0	.,	5.7	3.3	3.7	2.0	1.0	1.7	.,	.0

Table 3 MOTOR VEHICLE ASSEMBLIES

Millions of units, seasonally adjusted annual rate

Item	2005 average	2005 Q1	Q2	Q3	Q4	2005 Sept.	Oct.	Nov.	Dec.
Total	11.95	12.12	11.75	12.15	11.76	12.47	12.42	11.65	11.20
Autos	4.32	4.39	4.22	4.31	4.38	4.36	4.40	4.44	4.30
Trucks	7.63	7.74	7.53	7.85	7.38	8.11	8.02	7.21	6.91
Light	7.20	7.29	7.10	7.43	6.96	7.71	7.58	6.81	6.48
Medium and heavy	.42	.44	.42	.41	.42	.40	.44	.40	.43
MEMO Autos and light trucks	11.52	11.68	11.33	11.74	11.33	12.07	11.98	11.25	10.78

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

r Revised. p Preliminary.

1. See note on cover page.

Table 4 INDUSTRIAL PRODUCTION INDEXES: MARKET AND INDUSTRY GROUP SUMMARY

2002 = 100, seasonally adjusted

Item		2004 proportion	2005 Apr.	May	June	July	Aug.	Sept.r	Oct.r	Nov.r	Dec.p
Total IP		100.00	107.2	107.4	108.3	108.3	108.6	107.2	108.2	109.1	109.8
Market Groups											
Final products and nonindustrial supplie	s	57.78	107.7	108.1	109.0	109.1	109.5	109.1	110.8	110.8	111.0
Consumer goods		30.24	104.1	104.6	105.8	105.2	105.6	106.4	106.0	105.3	105.5
Durable Automotivo products		8.66 4.70	106.0 107.8	107.1 109.3	108.5 111.7	107.1 109.5	110.1 114.4	112.7 117.8	113.1	109.7 111.1	107.9 108.0
Automotive products Home electronics		.27	115.2	109.3	111.7	116.1	113.6	117.8	117.3 125.4	131.1	132.2
Appliances, furniture, carpeting		1.41	102.9	104.0	105.6	105.2	106.5	108.5	108.4	106.8	106.4
Miscellaneous goods		2.28	103.0	102.5	102.5	102.3	103.1	104.9	106.3	106.3	105.8
Nondurable		21.57	103.3	103.5	104.7	104.4	103.9	103.9	103.3	103.6	104.5
Non-energy		17.39	103.3	103.9	104.0	103.8	103.2	103.7	104.1	103.9	104.5
Foods and tobacco		9.49	103.2	104.2	104.7	104.7	103.8	104.5	105.0	105.4	106.6
Clothing Chemical products		.76 4.76	85.4 105.2	83.3 105.4	82.9 105.2	84.7 104.2	85.0 103.8	85.7 104.2	85.1 104.1	86.4 103.1	88.1 103.1
Paper products		1.89	105.2	106.2	105.2	104.2	103.8	104.2	104.1	103.1	103.1
Energy		4.18	103.1	102.0	107.2	107.1	106.5	105.0	100.4	102.3	104.4
Business equipment		9.97	116.8	117.9	118.4	120.0	120.1	115.1	123.5	125.1	125.7
Transit		1.86	116.4	118.7	119.3	118.5	118.7	88.9	123.0	125.4	125.5
Information processing Industrial and other		2.73 5.37	127.4 111.3	129.2 111.7	131.0 111.6	133.9 113.4	136.1 112.5	138.1 113.1	141.4 114.6	144.4 115.3	146.8 115.3
Defense and space equipment		1.92	124.5	111.7	124.9	126.8	112.3	124.6	128.1	128.4	130.6
Defense and space equipment		1.02	124.5	124.1	124.9	120.0	12/.4	124.0	120.1	120.4	150.0
Construction supplies		4.41	107.3	107.5	106.9	107.5	108.2	109.8	112.1	112.7	111.6
Business supplies		10.78	106.7	106.7	107.6	107.4	107.9	107.8	108.1	108.8	109.3
Materials		42.22	106.5	106.5	107.3	107.2	107.4	104.5	104.8	106.7	108.0
Non-energy		30.19	100.3	100.3	107.5	107.2	110.2	104.3	110.8	112.0	112.7
Durable		19.01	114.9	115.2	115.5	115.9	117.0	118.8	120.0	120.6	121.3
Consumer parts		3.67	99.1	99.5	102.4	101.1	101.6	103.3	104.3	101.9	100.8
Equipment parts		6.67	139.7	141.0	141.7	143.4	145.7	147.2	149.4	151.9	154.3
Other		8.67	104.5	104.1	103.0	103.2	104.0	105.8	106.5	107.3	107.9
Nondurable		11.17	100.1	99.8	99.7	100.0	99.3	94.8	96.5	98.6	99.2
Textile		.68	83.5	83.6	84.4	85.3	84.5	84.3	84.6	83.7	83.3
Paper Chemical		2.41 4.66	97.5 103.7	96.4 102.6	97.2 102.9	96.1 103.3	96.0 102.1	95.7 90.8	97.1 93.3	96.6 98.9	95.3 101.2
Energy		12.04	99.2	99.2	101.3	100.3	100.0	92.8	90.8	94.1	96.6
INDUSTRY GROUPS  Manufacturing		81.95	108.3	108.7	109.0	109.1	109.5	108.9	110.9	111.4	111.6
Manufacturing (NAICS)		77.47	108.5	108.7	109.0	109.1	110.1	108.9	111.5	111.4	111.0
Durable manufacturing		43.11	114.3	115.0	115.5	115.9	117.3	117.5	120.8	120.7	120.6
Wood products	321	1.59	104.8	105.9	104.4	104.9	104.0	107.2	111.2	113.0	110.5
Nonmetallic mineral products	327	2.28	105.7	105.9	106.4	105.9	105.9	107.2	109.2	110.3	107.9
Primary metal	331	2.57	99.5	98.9	95.5	95.3	98.2	101.8	102.1	102.7	103.8
Fabricated metal products	332	5.75	105.5	105.7	105.6	106.1	106.6	106.8	109.1	109.7	109.3
Machinery	333 334	5.36	114.3	114.5	115.0	116.3	114.1	116.1	119.2	119.6	120.2 173.4
Computer and electronic products Electrical equip., appliances,	334	7.75	149.5	152.2	153.6	156.5	160.1	162.1	165.1	169.4	1/3.4
and components	335	2.10	103.5	104.4	105.1	106.3	107.2	108.8	111.5	110.2	110.2
Motor vehicles and parts	3361-3	7.30	107.9	108.8	111.4	109.2	113.1	116.3	116.1	110.5	107.4
Aerospace and miscellaneous											
transportation equipment	3364-9	3.48	109.5	110.4	110.2	110.9	111.7	94.2	113.5	115.3	116.7
Furniture and related products	337	1.72	100.0	100.3	99.9	99.8	100.2	101.7	100.4	100.0	100.9
Miscellaneous	339	3.22	108.9	109.0	109.7	109.7	111.6	111.9	112.9	111.6	109.8
Nondurable manufacturing		34.36	101.9	101.9	102.1	102.1	101.5	100.1	100.7	102.0	102.6
Food, beverage, and tobacco products	311,2	11.02	103.2	104.3	104.5	104.8	103.9	104.6	105.1	105.6	106.8
Textile and product mills	313,4	1.17	89.6	89.8	90.8	91.9	91.9	92.6	93.2	93.2	92.4
Apparel and leather	315,6	.81	85.8	83.9	83.6	85.5	85.9	86.7	86.1	87.6	89.3
Paper	322	2.82	98.2	96.8	97.8	96.6	96.2	96.5	98.8	97.6	96.3
Printing and support	323	2.11	96.5	97.0 105.5	96.5	97.9 105.6	97.2	97.9	98.3	98.8	98.2
Petroleum and coal products Chemical	324 325	2.25 10.54	106.9 104.1	105.5 103.9	107.9 103.9	105.6 103.7	104.2 102.7	98.5 97.5	95.5 99.1	101.0 101.1	100.1 102.2
Plastics and rubber products	325	3.64	104.1	103.9	103.9	103.7	102.7	106.5	106.2	101.1	102.2
Other manufacturing (non-NAICS)	1133,5111	4.48	102.5	103.2	102.0	101.0	100.9	100.4	101.5	100.2	100.0
Mining	21	8.53	100.5	99.8	100.8	99.8	99.2	90.3	88.3	92.5	94.8
Utilities	2211,2	9.52	100.3	102.9	100.8	108.1	108.4	108.1	104.9	105.3	108.2
Electric	2211,2	7.92	104.1	103.2	109.7	109.6	110.1	110.5	107.8	107.9	110.5
Natural gas	2212	1.61	98.3	101.1	101.2	100.9	100.4	96.5	91.3	93.1	97.1

r Revised. p Preliminary. NOTE. See notes to table 1.

Table 5 INDUSTRIAL PRODUCTION INDEXES: SPECIAL AGGREGATES

2002 = 100, seasonally adjusted

Total industry	Item		2004	2005								
Energy	Item		proportion	Apr.	May	June	July	Aug.	Sept.r	Oct.r	Nov.r	Dec.p
Consumer products	Total industry		100.00	107.2	107.4	108.3	108.3	108.6	107.2	108.2	109.1	109.8
Consumer products	Energy		19.02	102.0	101.5	104.8	103.9	103.7	98.6	96.0	98.7	101.0
Oil and gas well drilling			4.18	103.1	102.0		107.1	106.5	105.0	100.4	102.3	104.4
Converted fuel   3.75   101.9   102.1   107.2   105.9   105.3   101.1   100.4   102.3   103.9   107.1   107.2   107.9   108.9   108.4   108.8   109.0   109.2   109.7   109.2   111.3   111.6   111.9			2.44	109.1	108.4	113.7	111.5	112.4	111.6	108.1	109.6	111.8
Primary materials									146.0			146.4
Selected high-technology industries   4.93   163.1   166.2   167.9   171.6   176.7   179.6   181.3   185.4   190.4   190.4   190.4   170.5   170.5   181.3   185.4   190.4   185.8   190.0   190.2   110.0   120.0   120.1   122.1   123.1   124.4   125.8   180.4   180.5	Converted fuel		3.75							100.4		103.9
Selected high-technology industries   4.93   163.1   166.2   167.9   171.6   176.7   179.6   181.3   185.4   190.4	Primary materials		8.29	97.9	97.8	98.7	97.8	97.5	89.2	86.8	90.6	93.4
117.0   118.5   120.1   120.0   121.0   122.1   123.1   124.4   125.8	Non-energy		80.98	108.4	108.8	109.0	109.2	109.7	109.2	111.3	111.6	111.9
Computer and peripheral equipment   3344   91   117,0   118,5   120,1   120,0   121,0   122,1   123,1   124,4   125,8   Communications equipment   3342   1.15   134,9   138,3   139,7   161,9   Semiconductors and related electronic components   334412-9   2.87   200,0   203,8   205,7   209,9   218,9   221,9   221,8   228,1   236,1   226,1   226,1   236,1	Selected high-technology industries		4.93	163.1	166.2	167.9	171.6	176.7	179.6	181.3	185.4	190.4
Semiconductors and related electronic components   334412-9   2.87   200.0   203.8   205.7   209.9   218.9   221.9   221.8   228.1   236.1	Computer and peripheral equipment	3341	.91	117.0	118.5	120.1	120.0	121.0	122.1	123.1	124.4	125.8
Excluding selected high-technology industries   76.06   105.2   105.5   105.7   105.7   106.0   105.4   107.5   107.7   107.7   107.7		3342	1.15	134.9	138.3	139.7	145.3	147.2	151.2	156.3	159.1	161.9
Excluding selected high-technology industries   76.06   105.2   105.5   105.7   105.7   106.0   105.4   107.5   107.7   107.7												
Motor vehicles and parts   3361-3   7.30   107.9   108.8   111.4   109.2   113.1   116.3   116.1   110.5   107.7	electronic components	334412-9	2.87	200.0	203.8	205.7	209.9	218.9	221.9	221.8	228.1	236.1
Motor vehicles   3361   3.65   111.1   113.3   117.1   113.2   120.3   124.7   123.5   113.4   108.7			76.06	105.2	105.5	105.7	105.7	106.0	105.4	107.5	107.7	107.7
Motor vehicles   3361   3.65   111.1   113.3   117.1   113.2   120.3   124.7   123.5   113.4   108.7	Motor vehicles and parts	3361-3	7.30	107.9	108.8	111.4	109.2	113.1	116.3	116.1	110.5	107.4
Excluding motor vehicles and parts   68.76   104.9   105.2   105.1   105.4   105.3   104.3   106.6   107.4   107.7												108.7
Consumer goods   21.66   103.2   103.8   103.8   103.6   103.3   103.9   104.4   104.3   104.7	Motor vehicle parts	3363	3.20	102.1	101.9	103.6	103.3	104.4	105.8	106.3	104.1	102.4
Business equipment   7.81   112.7   113.6   113.8   115.5   115.1   108.1   117.9   120.2   120.8	Excluding motor vehicles and parts	S	68.76	104.9	105.2	105.1	105.4	105.3	104.3	106.6	107.4	107.7
Construction supplies												
Business supplies 7,94 102.8 102.9 102.5 102.7 102.9 102.9 104.4 104.7 104.5 104.5 Materials 24.99 103.1 103.0 102.8 103.0 102.9 101.7 103.3 104.6 105.2     Measures excluding selected high-technology industries   95.07												120.8
Measures excluding selected high-technology industries     95.07     104.6     104.7     105.5     105.4     105.5     104.0     105.0     105.8     106.3       Measures excluding selected high-technology industries     95.07     104.6     104.7     105.5     105.4     105.5     104.0     105.0     105.8     106.3       Manufacturing¹     77.02     105.1     105.4     105.7     105.6     105.9     105.2     107.1     107.4     107.4       Durable     38.39     108.5     109.0     109.4     109.5     110.6     110.5     113.8     113.4     112.9       Measures excluding motor vehicles and parts     704.65     108.3     108.7     108.0     108.2     108.2     106.5     107.6     109.0     109.9       Manufacturing¹     74.65     108.3     108.7     108.8     109.1     109.2     108.2     110.4     111.5     112.0       Durable     36.02     115.5     116.2     116.3     117.2     118.1     117.6     121.6     122.6     123.2       Measures excluding selected high-technology industries and motor vehicles and parts     87.78     104.3     104.4     105.0     105.1     104.9     103.0     104.2     105.4     106.2												111.3
Total industry   95.07   104.6   104.7   105.5   105.4   105.5   104.0   105.0   105.8   106.3												104.5 105.2
Total industry		nology										
Manufacturing¹ Durable     77.02 38.39     105.1 105.4 105.7 105.6 105.9 105.2 107.1 107.4 107.4 107.4 107.4 107.4 109.5 110.6 110.5 113.8 113.4 112.9       Measures excluding motor vehicles and parts     92.70 107.1 107.3 108.0 108.2 108.2 106.5 107.6 109.0 109.9 Manufacturing¹ 74.65 108.3 108.7 108.8 109.1 109.2 108.2 110.4 111.5 112.0 110.2 116.3 117.2 118.1 117.6 121.6 122.6 123.2       Measures excluding selected high-technology industries and motor vehicles and parts     87.78 104.3 104.4 105.0 105.1 104.9 103.0 104.2 105.4 106.2 107.1 107.4       Total industry Manufacturing¹     87.78 104.3 104.4 105.0 105.1 105.3 105.1 104.0 106.2 107.1 107.4       Stage-of-process components of non-energy materials, measures of the input to     13.44 116.2 116.7 118.1 118.3 119.3 120.4 122.0 122.1 122.5			95.07	104.6	104.7	105.5	105.4	105.5	104.0	105.0	105.8	106.3
Durable   38.39   108.5   109.0   109.4   109.5   110.6   110.5   113.8   113.4   112.9												
Total industry 92.70 107.1 107.3 108.0 108.2 108.2 106.5 107.6 109.0 109.9 Manufacturing 1 74.65 108.3 108.7 108.8 109.1 109.2 108.2 110.4 111.5 112.0 Durable 36.02 115.5 116.2 116.3 117.2 118.1 117.6 121.6 122.6 123.2   Measures excluding selected high-technology industries and motor vehicles and parts  Total industry 87.78 104.3 104.4 105.0 105.1 104.9 103.0 104.2 105.4 106.2 Manufacturing 1 69.73 104.8 105.1 105.1 105.3 105.1 104.0 106.2 107.1 107.4   Stage-of-process components of non-energy materials, measures of the input to Finished processors 13.44 116.2 116.7 118.1 118.3 119.3 120.4 122.0 122.1 122.5												112.9
Manufacturing¹ Durable     74.65 36.02     108.3 108.7 108.8 109.1 109.2 108.2 110.4 111.5 112.0 36.02 115.5 116.2 116.3 117.2 118.1 117.6 121.6 122.6 123.2       Measures excluding selected high-technology industries and motor vehicles and parts     87.78 104.3 104.4 105.0 105.1 104.9 103.0 104.2 105.4 106.2 Manufacturing¹       Total industry Manufacturing¹     87.78 104.8 105.1 105.1 105.1 105.3 105.1 104.9 103.0 104.2 107.1 107.4       Stage-of-process components of non-energy materials, measures of the input to Finished processors     13.44 116.2 116.7 118.1 118.3 119.3 120.4 122.0 122.1 122.5		parts	02.70	107.1	107.3	108.0	108.2	108.2	106.5	107.6	100.0	100.0
Durable 36.02 115.5 116.2 116.3 117.2 118.1 117.6 121.6 122.6 123.2  Measures excluding selected high-technology industries and motor vehicles and parts  Total industry 87.78 104.3 104.4 105.0 105.1 104.9 103.0 104.2 105.4 106.2 Manufacturing 1 69.73 104.8 105.1 105.1 105.3 105.1 104.0 106.2 107.1 107.4  Stage-of-process components of non-energy materials, measures of the input to  Finished processors 13.44 116.2 116.7 118.1 118.3 119.3 120.4 122.0 122.1 122.5												
industries and motor vehicles and parts  Total industry  Manufacturing¹  Stage-of-process components of non-energy materials, measures of the input to  Finished processors  13.44  116.2  116.7  118.1  105.0  105.1  104.9  103.0  104.2  105.4  106.2  107.1  104.0  106.2  107.1  106.2  107.1  107.4												123.2
Manufacturing¹     69.73     104.8     105.1     105.1     105.3     105.1     104.0     106.2     107.1     107.4       Stage-of-process components of non-energy materials, measures of the input to       Finished processors     13.44     116.2     116.7     118.1     118.3     119.3     120.4     122.0     122.1     122.5	industries and motor vehicles and p		0.5	1015	404	4076		1015	40.	1015	407	
Stage-of-process components of non-energy materials, measures of the input to     13.44     116.2     116.7     118.1     118.3     119.3     120.4     122.0     122.1     122.5												
Finished processors 13.44 116.2 116.7 118.1 118.3 119.3 120.4 122.0 122.1 122.5	Manufacturing <sup>1</sup>		69.73	104.8	105.1	105.1	105.3	105.1	104.0	106.2	107.1	107.4
		ergy	13.44	116.2	116.7	118.1	118.3	119.3	120.4	122.0	122.1	122.5
												105.0

Table 6 **DIFFUSION INDEXES OF INDUSTRIAL PRODUCTION** 

Percent

Item												
Item	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
One month earlier												
2003	43.0	48.0	47.3	35.7	51.3	53.0	48.0	49.7	59.7	60.0	66.7	55.3
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	59.3	60.8	
Three months earlier												
2003	46.3	39.3	42.0	36.0	38.0	46.3	55.0	54.0	58.0	61.7	70.0	62.7
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	55.7	57.0	
Six months earlier												
2003	41.3	37.3	39.0	36.7	33.0	38.3	42.7	45.3	50.0	60.7	65.7	63.7
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	58.7	57.0	

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.

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1. See note on cover page.

Table 7 CAPACITY UTILIZATION

Percent of capacity, seasonally adjusted

Item		2004 proportion	1972- 2004	1988- 89 high	1994- 95 high	2001- 02 low	2005 Q1	Q2	O3r	O4p	2005 Sept. <sup>r</sup>	Oct.r	Nov.r	Dec.P
			ave.							Ţ	·			
Total industry		100.00	81.0	85.1	85.0	73.9	79.9	79.9	79.8	80.2	79.1	79.8	80.3	80.7
Manufacturing		84.35	79.8	85.5	84.5	72.0	78.7	78.5	78.5	79.6	78.2	79.5	79.6	79.6
Manufacturing (NAICS)		80.13	79.6	85.5	84.6	71.5	78.3	78.1	78.1	79.3	77.8	79.1	79.4	79.3
Durable manufacturing		45.97	78.1	84.6	84.1	68.4	76.9	76.6	77.1	78.8	77.2	79.1	78.8	78.4
Wood products	321	1.58	80.1	88.5	88.2	71.0	81.7	80.6	80.9	85.7	82.3	85.4	86.8	84.9
Nonmetallic mineral products	327	2.17	79.4	85.2	84.3	75.7	81.3	81.0	80.8	82.6	81.4	82.8	83.5	81.5
Primary metal	331	2.40	80.4	94.9	94.8	68.8	83.0	79.1	79.4	83.1	82.1	82.4	82.9	83.8
Fabricated metal products	332	6.19	77.1	81.7	85.1	68.9	74.2	74.3	74.7	76.5	74.8	76.4	76.7	76.3
Machinery	333	5.56	78.7	85.3	87.5	63.4	79.0	79.4	80.1	83.0	80.5	82.6	82.9	83.4
Computer and electronic products	334	9.13	78.6	81.5	83.7	59.7	75.1	75.4	76.5	78.2	76.8	77.2	78.2	79.
Electrical equip., appliances,														
and components	335	2.09	83.2	89.0	93.0	71.7	81.7	82.3	84.9	87.7	86.1	88.3	87.3	87.4
Motor vehicles and parts	3361-3	7.32	77.5	89.3	88.9	70.1	80.7	79.1	80.9	79.0	83.1	82.6	78.3	75.9
Aerospace and miscellaneous														
transportation equipment	3364-9	4.31	72.6	87.3	68.7	62.7	66.6	68.8	65.8	71.4	58.5	70.4	71.4	72.2
Furniture and related products	337	1.82	78.7	82.2	83.4	69.5	75.1	73.5	73.8	73.7	74.6	73.7	73.4	74.0
Miscellaneous	339	3.39	76.6	82.4	81.3	70.5	77.5	77.3	78.2	77.9	78.5	79.1	78.0	76.
Nondurable manufacturing		34.17	81.7	86.9	85.3	75.6	80.1	80.1	79.5	80.0	78.7	79.2	80.2	80.
Food, beverage, and tobacco products	311,2	11.08	81.8	85.9	84.1	76.7	79.8	80.4	80.7	81.8	80.8	81.2	81.6	82.5
Textile and product mills	313,4	1.25	82.8	91.5	91.2	70.1	75.8	74.9	77.2	78.4	77.7	78.4	78.7	78.2
Apparel and leather	315,6	.93	79.3	84.2	88.2	60.4	73.5	74.0	77.3	80.7	78.5	78.6	80.6	82.8
Paper	322	2.63	87.8	93.6	91.5	79.5	86.0	84.2	83.2	84.3	83.3	85.3	84.3	83.2
Printing and support	323	2.29	84.0	91.9	86.3	72.1	75.6	75.5	76.5	77.4	76.8	77.2	77.6	77.
Petroleum and coal products	324	1.79	85.9	89.0	90.6	84.1	93.4	93.8	90.1	86.6	86.3	83.7	88.5	87.
Chemical	325	10.81	78.3	85.0	81.1	71.4	77.1	76.8	74.7	74.2	71.9	73.0	74.4	75.
Plastics and rubber products	326	3.39	83.5	89.5	92.4	75.0	85.5	85.3	86.6	89.1	88.2	88.1	89.4	89.9
Other manufacturing (non-NAICS)	1133,5111	4.22	84.7	91.0	83.2	81.2	86.8	87.1	85.5	85.2	85.1	86.1	84.9	84.7
Mining	21	6.78	87.3	86.1	89.0	85.6	89.4	89.6	86.1	82.1	80.7	78.9	82.6	84.7
Utilities	2211,2	8.87	86.8	92.7	93.7	83.7	83.9	85.2	88.1	86.4	88.0	85.4	85.8	88.1
Selected high-technology industries		5.94	78.2	80.9	86.1	57.4	75.3	74.7	75.3	75.3	75.5	74.9	75.2	75.8
Computer and peripheral equipment	3341	1.03	78.2	80.2	84.2	64.7	77.3	78.6	79.0	79.9	79.3	79.5	79.9	80.4
Communications equipment	3342	1.78	76.0	80.7	85.9	41.1	62.1	64.0	68.9	74.3	70.5	72.9	74.3	75.0
Semiconductors and related electronic components	334412-9	3.13	80.6	82.7	91.1	58.6	81.7	78.9	77.3	74.5	76.8	74.5	74.4	74.
Measures excluding selected high-techn								,	, ,	,	,	,	,	,
industries	lology													
Total industry		94.06	81.2	85.5	85.0	75.0	80.2	80.3	80.2	80.7	79.5	80.2	80.8	81.
Manufacturing <sup>1</sup>		78.41	79.9	86.0	84.4	73.1	79.0	78.9	78.9	80.1	78.6	80.0	80.2	80.1
STAGE-OF-PROCESS GROUPS														
Crude		9.99	86.4	88.3	89.4	83.2	88.5	88.0	84.2	81.3	78.2	78.0	81.9	84.
		10.00							81.8	82.2	81.9	82.0	82.3	82.4
Primary and semifinished		47.75	82.2	86.7	88.1	74.6	81.5	81.3	81.8	02.2	01.9	02.0	04.3	02.5

Table 8 INDUSTRIAL CAPACITY

Percent change

		Average a	nnual rate		Fourt	h quarter	to fourth	quarter		Annual	rate		Monthly rate
Item	1972-	1980-	1989-	1995-					2005				2005
	79	88	94	2005	2002	2003	2004	2005p	Q1	Q2	Q3	Q4	Dec.
Total industry	3.0	1.9	2.2	3.5	.7	2	.6	1.6	1.3	1.6	1.7	1.8	.1
Manufacturing <sup>1</sup>	3.2	2.2	2.5	4.0	.4	1	.5	2.1	1.7	2.0	2.2	2.3	.2
Mining Utilities	.7 4.3	.1 2.1	9 1.6	6 2.3	-1.3 4.5	-1.0 3.1	6 2.6	6 .0	-1.0 .7	7 .0	4 4	2 4	.0 .0
Selected high-technology industries	18.5	17.0	15.8	28.5	9.5	8.0	6.8	20.8	16.0	20.2	23.0	24.3	1.9
Manufacturing <sup>1</sup> ex. selected high-technology industries	2.6	1.3	1.6	1.8	2	5	.1	.6	.5	.6	.7	.7	.1
STAGE-OF-PROCESS GROUPS Crude Primary and semifinished Finished	1.7 3.1 3.7	.3 1.4 3.3	3 2.6 2.5	5 4.4 3.4	-1.0 .9 .6	-2.1 1 .6	-1.1 .9 .8	9 2.5 1.2	-1.3 2.1 1.1	-1.0 2.4 1.2	7 2.6 1.3	6 2.8 1.3	.0 .2 .1

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1. See note on cover page.

p Preliminary.
1. See note on cover page.

Table 9 GROSS VALUE OF FINAL PRODUCTS AND NONINDUSTRIAL SUPPLIES

Billions of 2000 dollars at annual rate, seasonally adjusted

·			2004	2005				2005			
Item	2000	2005	Q4	Q1	Q2	Q3r	Q4p	Sept.r	Oct.r	Nov.r	Dec.p
Final products and nonindustrial supplies	2,815.1	2,986.4	2,920.6	2,951.0	2,967.7	2,988.2	3,023.9	2,981.2	3,016.5	3,026.6	3,028.7
Final products	2,114.0	2,260.8	2,206.9	2,233.6	2,244.5	2,262.4	2,287.2	2,254.5	2,285.0	2,287.4	2,289.2
Consumer goods	1,480.7	1,590.5	1,569.2	1,581.5	1,583.6	1,597.5	1,590.2	1,604.8	1,592.6	1,589.1	1,588.9
Durable	471.7	537.7	527.0	530.2	526.3	540.7	542.3	555.3	557.5	539.7	529.6
Automotive products	279.5	339.4	331.8	334.5	330.3	343.2	338.5	355.2	353.5	335.7	326.3
Other durable goods	192.1	198.6	195.4	196.1	196.3	197.9	204.0	200.5	204.3	204.2	203.4
Nondurable	1,009.1	1,054.5	1,043.4	1,052.3	1,057.7	1,058.7	1,050.3	1,053.2	1,039.8	1,051.4	1,059.7
Equipment, total	633.2	674.4	639.8	655.1	664.4	668.2	703.7	651.3	698.5	705.1	707.4
Business and defense	616.9	657.5	624.5	639.1	648.9	651.8	683.6	634.0	678.3	683.9	688.6
Business	558.7	578.2	549.9	562.5	570.2	571.8	602.8	554.7	597.8	603.6	606.8
Defense and space	58.1	78.3	73.7	75.7	77.6	78.7	80.2	77.6	79.7	79.8	81.0
Nonindustrial supplies Construction supplies	701.2 198.0	725.9 205.5	713.9 200.7	717.6 201.2	723.5 203.2	726.2 205.7	737.0 212.6	726.9 208.4	731.8 212.6	739.4 213.5	739.6 211.8
Business supplies	503.2	520.3	513.2	516.5	520.3	520.4	524.1	518.3	518.9	525.7	527.6
Commercial energy products	136.0	150.7	151.2	149.9	153.0	151.9	149.1	150.3	146.1	149.9	151.2

r Revised. p Preliminary.

Percent change, seasonally adjusted

Table 10 GROSS-VALUE-WEIGHTED INDUSTRIAL PRODUCTION: STAGE-OF-PROCESS GROUPS

•			rth quarte urth quar			Annua	ıl rate			Month	nly rate		Dec. '04
Item	2004				2005				2005		-		to
	gross value <sup>1</sup>	2003	2004	2005	Q1	Q2	Q3r	Q4P	Sept.r	Oct.r	Nov.r	Dec.p	Dec. '05
									-				
Finished	1,841.4	3.0	4.8	5.2	5.9	1.9	4.1	8.9	4	2.4	3	.0	4.7
Semifinished	1,665.6	1.6	5.0	5.7	4.2	3.5	8.3	6.9	.9	.9	1	.2	5.3
Primary	949.1	2	2.8	-2.8	-1.0	-2.4	-4.5	-3.2	-2.2	-1.4	2.8	.9	-2.1
Crude	405.4	-1.6	3.7	-9.2	.3	-4.1	-20.9	-10.6	-10.7	1.0	5.6	2.7	-6.6

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

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

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
<b>IP</b> (percent change) <sup>1</sup>																	
1983	1.9	6	.9	1.2	.8	.6	1.6	1.1	1.5	.9	.3	.5	4.3	9.4	14.7	10.9	2.6
1984 1985	2.1 3	.5 .4	.5 .2	.6 2	.5 .1	.4 .0	.3 6	.1 .5	2 .4	1 4	.4	.1 1.0	12.4 1.1	6.4 .6	2.9 6	.4 2.5	9.0 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 1989	.1	.3 5	.3	.5 1	.0 7	.2	.2 9	.5 .9	3 3	.6 1	.2	.4 .7	3.4 1.5	3.2 -1.9	2.1 -2.5	3.3 1.8	5.0 .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 1994	.5 .5	.3 .0	.0 1.0	.3 .5	4 .6	.3 .7	.3 .2	.0 .5	.5 .2	.7 .9	.4 .6	.5 1.1	3.7 5.3	1.0 7.5	2.4 5.3	6.1 7.9	3.3 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 1999	.4 .5	.1 .5	.1	.5 .2	.6 .8	5 1	3 .7	2.2	2 4	.7 1.3	1 .6	.3 .9	4.4 4.1	3.1 4.2	3.6 4.3	5.6 7.7	5.9 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 2005	.4	.8	3 .0	.8 1	.9	6 .8	.6 .0	.3	2 -1.3	.7 1.0	.2	.7	5.3 3.8	5.2 1.6	2.6 1.4	4.2 3.8	4.1 3.2
IP (2002=100)			.0			.0	.0		1.0	1.0	.0	.0	0.0	1.0		2.0	5.2
2003	100.5	100.6	100.4	99.6	99.5	99.8	100.3	100.4	101.0	101.1	102.0	102.3	100.5	99.7	100.5	101.8	100.6
2004 2005	102.7 106.9	103.5 107.4	103.2 107.3	104.0 107.2	105.0 107.4	104.4 108.3	105.0 108.3	105.3 108.6	105.1 107.2	105.8 108.2	106.0 109.1	106.7 109.8	103.1 107.2	104.4 107.6	105.1 108.0	106.2 109.0	104.7 108.1
Capacity (percent of 2002 output)																	
2003	133.1	133.1	133.0	133.0	133.0	132.9	132.9	132.9	132.9	132.9	132.9	132.9	133.1	133.0	132.9	132.9	133.0
2004 2005	133.0 134.0	133.0 134.2	133.0 134.3	133.1 134.5	133.1 134.7	133.2 134.9	133.3 135.1	133.4 135.3	133.5 135.5	133.6 135.7	133.7 135.9	133.9 136.1	133.0 134.2	133.1 134.7	133.4 135.3	133.7 135.9	133.3 135.0
Utilization																	
(percent) 1983	72.0	71.5	72.1	72.9	73.4	73.8	74.9	75.7	76.8	77.5	77.6	77.9	71.8	73.4	75.8	77.7	74.7
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 1989	83.4 85.1	83.6 84.6	83.7 84.7	84.1 84.5	84.0 83.8	84.2 83.6	84.3 82.7	84.6 83.3	84.3 82.8	84.7 82.6	84.8 82.7	85.0 83.1	83.6 84.8	84.1 84.0	84.4 82.9	84.8 82.8	84.2 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 1994	81.2 82.5	81.4 82.3	81.3 83.0	81.4 83.2	81.0 83.5	81.1 83.8	81.2 83.8	81.1 83.9	81.4 83.8	81.8 84.2	82.0 84.5	82.3 85.0	81.3 82.6	81.1 83.5	81.2 83.8	82.0 84.6	81.4 83.6
1994	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 1999	84.2 82.0	83.7 82.0	83.3 81.8	83.1 81.7	83.1 82.0	82.2 81.7	81.5 81.9	82.8 82.0	82.3 81.3	82.5 82.1	82.1 82.2	81.9 82.6	83.7 81.9	82.8 81.8	82.2 81.7	82.2 82.3	82.7 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 2005	77.2 79.8	77.8 80.0	77.6 79.9	78.1 79.7	78.8	78.4 80.3	78.8 80.2	79.0	78.7	79.2 79.8	79.3	79.7	77.5 79.9	78.4 79.9	78.8 70.8	79.4	78.6 80.0
	19.0	00.0	19.9	19.1	79.8	00.5	00.2	80.3	79.1	19.0	80.3	80.7	19.9	19.9	79.8	80.2	80.0

<sup>1.</sup> Quarterly changes are at annual rates. Annual changes are calculated from annual averages.

Table 12 HISTORICAL STATISTICS FOR INDUSTRIAL PRODUCTION, CAPACITY, AND UTILIZATION: Manufacturing<sup>1</sup>

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
IP (percent																	
<i>change</i> ) <sup>2</sup> 1983	2.4	1	1.0	1.1	1.3	.8	1.5	.7	1.9	1.2	.3	.2	8.7	12.2	15.4	12.5	1.6
1984	1.9	1.1	.5	.5	.2	.4	.5	.2	2	.4	.3	.3	12.8	6.3	3.7	2.8	4.6 9.9
1985	4	3	.8	3	.1	.1	6	.6	2 .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	2	.8	1	.1	.1	.1	.3	.7	.3	.4	2.4	4.1	1.4	5.0	5.2
1989	2	-1.0	.3 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 1997	-1.0 .2	1.5 1.4	3 1.2	1.2 3	.7 .8	1.0 .7	.2 .3	.7 1.5	.7 .9	.0 .7	1.0 1.2	.9 .5	.8 10.1	9.5 6.8	7.5 9.9	6.5 11.4	4.6 8.5
1998 1999	.7	.1	1 1	.6 .4	.5 1.0	6 2	4 .5	2.6	3 4	1.0 1.5	.1 .7	.5 .8	6.0 4.6	2.5 4.8	3.9 4.0	7.8 9.3	6.7 5.2
2000	.3	.3	1 .6	.7	.0	.2	.3 1	. / 7	4 .4	3	3	.o 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	.4	.2	4.5	1.3	2.0	7.9	3.9
<b>IP</b> (2002=100)																	
2003	100.3	100.1	100.3	99.5	99.4	99.9	100.2	100.1	101.0	101.1	102.3	102.3	100.3	99.6	100.4	101.9	100.5
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	111.4	111.6	108.3	108.6	109.2	111.3	109.5
Capacity (percent of 2002 output)	100																
2003	136.4	136.4	136.4	136.4	136.4	136.4	136.4	136.4	136.4	136.4	136.3	136.3	136.4	136.4	136.4	136.3	136.4
2004 2005	136.3 137.4	136.3 137.6	136.3 137.8	136.4 138.1	136.4 138.3	136.5 138.6	136.5 138.8	136.6 139.1	136.7 139.3	136.9 139.6	137.0 139.9	137.2 140.1	136.3 137.6	136.4 138.3	136.6 139.1	137.0 139.9	136.6 138.7
Utilization	10,11	10710	10710	10011	10010	10010	10010	10311	103.0	103.0	10313	1.011	10710	10010	10311	10313	10017
(percent)	70.0	(0.0	70.5	71.0	70.0	70.7	72.0	740	757	765	767	76.0	70.1	70.1	746	767	70.4
1983 1984	70.0 78.1	69.9 78.9	70.5 79.1	71.3 79.4	72.2 79.5	72.7 79.6	73.8 79.8	74.3 79.8	75.7 79.4	76.5 79.5	76.7 79.6	76.8 79.6	70.1 78.7	72.1 79.5	74.6 79.7	76.7 79.6	73.4 79.4
1985	79.1	78.6	79.1	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 2002	77.0 72.5	76.2 72.3	75.7 72.9	75.4 73.0	74.6 73.3	74.0 74.0	73.7 73.7	73.1 73.9	72.7 73.9	72.2 73.4	72.0 73.6	72.1 73.3	76.3 72.6	74.7 73.4	73.2 73.8	72.1 73.4	74.1 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
	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
2004 2005	78.6	78.9	78.5	78.4	78.6	78.7	78.6	78.8	78.2	79.5	79.6	79.6	78.7	78.5	78.5	79.6	78.8

See note on cover page.
 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

Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
IP (percent																	
change) <sup>1</sup>	1.0	7	0	1.1	7	~	1.5	1.0	1.0	0	2		2.6	0.7	12.0	0.6	1.0
1983 1984	1.9 2.0	7 .3	.8 .4	1.1	.7 .4	.5 .2	1.5	1.2	1.2 2	.8 2	.2	.4 .1	3.6 11.4	8.5 5.0	13.8 1.6	9.6	1.8 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 1.2	7	.0	.1	2 .4	.3	2	.2	.4 1.4	.4	.8	2.3	-2.7	.6	4.0	.9
1987	5	1.2	.2	.5	.0		.5	.6	.2	1.4	.5	.4	4.5	6.3	6.0	9.1	4.2
1988 1989	.0	.3 5	.2	.4 1	1 7	.2	.1 -1.1	.5 .9	4 4	.6 2	.2	.4	3.1 1.8	2.6 -2.1	1.5 -3.3	2.9	4.4
1990	7	.8	.4	1	.0	.2	2	.3	.1	8	-1.2	8	2.2	2.4	1.0	-6.5	.3
1991 1992	5 8	8 .7	6 .7	.2	1.0	1.0 2	.0 .7	.1 5	.9 .1	2 .6	2	5 .0	-8.1 -1.9	2.2 6.1	5.4 1.7	3.0	-2.0 1.9
					.3				.1	.0					1./	3.0	
1993 1994	.5 .4	.3 1	.0 .8	.2 .3	4 .4	.2 .6	.3 .1	1 .3	.4 .0	.6 .7	.3 .4	.5 .9	3.0 4.2	.4 5.3	1.6 3.4	5.2 5.5	2.5 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 1999	.1	.0	1 1	.2 2	.5 .6	9 4	8 .3	2.0	6 5	.5 1.2	3 .3	.1 .6	1.6 .9	1.0	3 1.2	2.3 5.6	3.1 1.2
2000	3	.0	1 .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 2005	.3	.7	4 1	.8 2	.9 .1	7 .8	.5 1	.2	3 -1.5	.8 1.0	.2	.6 .5	4.3 2.4	4.6	1.6 .1	3.8 2.8	3.2 2.2
		-	-				-				.,	-			-		
<b>IP</b> (2002=100) 2003	100.1	99.9	99.7	98.8	98.7	98.9	99.3	99.2	99.9	99.9	100.8	100.9	99.9	98.8	99.5	100.5	99.7
2004	101.2	101.9 104.9	101.6	102.4	103.3	102.6	103.1	103.3	103.0	103.8	104.0 105.8	104.6	101.6	102.7 104.9	103.1 105.0	104.1	102.9
Capacity (percent of 2002 output) 2003	130.6	130.5 130.1	130.4	130.3 130.1	130.2 130.2	130.2 130.2	130.1	130.1	130.1	130.1 130.4	130.1	130.1	130.5 130.1	130.3 130.2	130.1 130.3	130.1 130.4	130.2
2004 2005 <b>Utilization</b>	130.1 130.5	130.1	130.1 130.6	130.1	130.2	130.2	130.2 130.8	130.3 130.8	130.3 130.9	130.4	130.4 131.0	130.4 131.0	130.1	130.2	130.8	131.0	130.2 130.7
(percent)	71.0	71.4	71.0	72.7	72.2	72.6	747	75 (	700	77.2	77.4	77.7	71.7	72.2	75.6	77.4	745
1983 1984	71.9 79.2	71.4 79.4	71.9 79.7	72.7 80.1	73.3 80.3	73.6 80.4	74.7 80.5	75.6 80.4	76.6 80.1	77.2 79.9	77.4 80.1	77.7 80.0	71.7 79.5	73.2 80.3	75.6 80.4	77.4 80.0	74.5 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 1987	80.1 79.2	79.3 80.0	78.7 80.1	78.7 80.4	78.7 80.8	78.5 81.1	78.7 81.4	78.4 81.9	78.5 81.9	78.7 83.1	79.0 83.4	79.6 83.7	79.4 79.8	78.6 80.8	78.5 81.7	79.1 83.4	78.9 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 1991	82.7 80.1	83.2 79.3	83.5 78.8	83.3 78.8	83.2 79.5	83.3 80.2	83.0 80.1	83.1 80.1	83.1 80.7	82.4 80.5	81.2 80.2	80.5 79.7	83.1 79.4	83.2 79.5	83.1 80.3	81.4 80.1	82.7 79.8
1992	79.0	79.5	80.0	80.5	80.6	80.4	81.0	80.5	80.7	80.9	81.1	81.0	79.4	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 1997	82.1 83.4	83.1 83.8	82.6 84.0	83.1 83.4	83.3 83.4	83.7 83.3	83.1 83.2	83.3 83.8	83.5 84.1	83.1 84.3	83.5 84.6	83.7 84.4	82.6 83.7	83.4 83.4	83.3 83.7	83.4 84.5	83.2 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	82.3	82.3	82.1	81.6	81.4	82.3	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 2002	78.9 75.6	78.4 75.4	78.0 76.1	78.0 76.3	77.3 76.6	76.9 77.3	76.7 77.0	76.4 77.0	76.0 76.9	75.5 76.6	75.1 76.8	75.0 76.3	78.4 75.7	77.4 76.7	76.4 77.0	75.2 76.6	76.9 76.5
2003 2004	76.7 77.8	76.6 78.4	76.4 78.1	75.8 78.7	75.8 79.3	76.0 78.8	76.3 79.2	76.3 79.3	76.8 79.0	76.8 79.6	77.5 79.7	77.6 80.2	76.6 78.1	75.9 78.9	76.4 79.2	77.3 79.8	76.5 79.0
2005	80.1	80.3	80.3	80.1	80.1	80.7	80.6	80.7	79.5	80.2	80.8	81.1	80.2	80.3	80.2	80.7	80.4

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

Note. Selected high-technology industries are computers, communications equipment, and semiconductors and related electronic components.

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

Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
<b>IP</b> (percent change) <sup>2</sup>																	
1983	2.4	2	.9	1.0	1.3	.7	1.3	.9	1.5	1.1	.2	.2	7.9	11.2	14.2	10.9	3.6
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 1987	1.3	7 1.4	3 .1	.4 .4	.1 .7	2 .3	.2 .5	.2	.2 .5	.3 1.5	.4 .5	.8 .5	4.7 4.8	3 5.8	1.2 5.5	4.2 10.4	2.2 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 1992	8 8	8 .9	7 .9	.3 .4	.7 .6	1.1 .1	.7	.2 5	1.1 1	2 .4	3 .3	3 2	-9.8 -1.1	1.5 6.9	7.1 2.5	1.0	-2.6 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 1997	-1.2 2	1.3 1.0	5 .9	1.0 7	.4 .5	.8 .4	1 .1	.4 1.3	.5 .7	4 .5	.8 .9	.6 .2	-1.8 6.0	6.9 2.6	4.1 6.7	3.3 8.8	1.5 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 2002	7 .7	6 1	4 .9	.1 .1	8 .5	4 1.0	.0 4	7 .1	3 1	7 7	2 .1	.2 6	-7.8 4.2	-4.1 5.3	-4.3 1.7	-4.5 -3.2	-4.9 .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	1.9	.3	.0	2.8	.3	.5	6.9	2.8
<b>IP</b> (2002=100) 2003	99.8	00.4	99.5	98.5	00.4	00.0	00.0	09.7	00.6	00.6	100.0	100.9	00.5	00.6	00.1	100.4	99.4
2003	100.9	99.4 101.7	101.8	102.7	98.4 103.5	98.8 102.7	99.0 103.5	98.7 104.1	99.6 103.5	99.6 104.5	100.8 104.5	100.8 104.9	99.5 101.5	98.6 103.0	99.1 103.7	100.4 104.6	103.2
2005	105.2	105.6	105.2	105.1	105.4	105.7	105.6	105.9	105.2	107.1	107.4	107.4	105.3	105.4	105.6	107.3	106.1
Capacity (percent of																	
2002 output) 2003	133.6	133.5	133.4	133.4	133.3	133.3	133.2	133.2	133.1	133.1	133.0	133.0	133.5	133.3	133.2	133.0	133.3
2004 2005	133.0 133.2	133.0 133.3	133.0 133.4	133.0 133.5	133.0 133.5	133.0 133.6	133.0 133.7	133.0 133.8	133.1 133.8	133.1 133.9	133.1 134.0	133.2 134.1	133.0 133.3	133.0 133.5	133.0 133.8	133.1 134.0	133.0 133.6
Utilization																	
(percent)					=		/			=			<b></b>	=			
1983	69.7	69.6	70.3	71.0	71.9	72.5 79.0	73.4	74.1	75.3	76.1	76.3 79.0	76.4	69.9	71.8	74.3 79.0	76.3	73.0
1984 1985	77.7 78.6	78.4 78.2	78.6 78.7	78.9 78.5	78.9 78.4	79.0 78.3	79.2 77.8	79.1 78.2	78.7 78.2	78.9 77.8	78.2	79.1 78.4	78.3 78.5	78.9 78.4	79.0 78.1	79.0 78.1	78.8 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 1990	86.0 81.8	85.0 82.8	84.8 82.9	84.7 82.6	83.8 82.5	83.7 82.5	82.5 82.2	83.1 82.3	82.6 82.1	82.2 81.3	82.2 80.2	82.1 79.5	85.3 82.5	84.1 82.5	82.7 82.2	82.2 80.3	83.6 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 1995	81.3 84.4	81.2 84.0	82.0 83.7	82.3 83.2	82.7 82.8	82.7 82.8	82.9 81.9	83.2 82.5	83.0 82.7	83.5 82.2	83.9 81.9	84.4 81.8	81.5 84.0	82.6 82.9	83.0 82.3	83.9 81.9	82.8 82.8
1996	80.6	81.6	80.9	81.6	81.8	82.3	82.0	82.3	82.4	81.8	82.3	82.5	81.0	81.9	82.3	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 80.4	80.3	80.8	80.1	79.9 70.6	80.2	79.6	80.6 78.4	80.8	81.0	80.9 80.4	80.4	79.9 70.1	80.8	80.5
2000 2001	80.6 76.5	80.3 76.0	80.4 75.6	80.6 75.6	80.1 75.0	80.0 74.6	79.6 74.5	78.8 74.0	78.9 73.7	78.4 73.2	77.9 73.1	77.1 73.3	80.4 76.0	80.2 75.0	79.1 74.1	77.8 73.2	79.4 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	80.2	80.1	79.0	78.9	78.9	80.1	79.2

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

### **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:

$$\frac{I_{m}^{A}}{I_{m-1}^{A}} = \sqrt{\frac{\sum I_{m} P_{m-1}}{\sum I_{m-1} P_{m-1}}} \times \frac{\sum I_{m} P_{m}}{\sum I_{m-1} P_{m}}$$

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					

NOTE—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 September 2005; 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 1972–2004 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 will be described in an article published in an upcoming *Federal Reserve Bulletin*. 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

**2005**: January 14, February 16, March 16, April 15, May 17, June 15, July 15, August 16, September 14, October 14, November 17, and December 15.

**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.