### **FEDERAL RESERVE statistical release**



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### G.17 (419)

### INDUSTRIAL PRODUCTION AND CAPACITY UTILIZATION

Industrial production rose 0.8 percent in December after falling 0.7 percent in November. For the fourth quarter as a whole, the index slipped 0.6 percent at an annual rate. In December, manufacturing output moved up 0.2 percent and mining output was unchanged. The index for utilities jumped 6.6 percent, largely because of a

(over)

### **Industrial Production and Capacity Utilization: Summary**

Seasonally adjusted

			2012=	100					I	Percent	change		
	2016						2016						Dec. '15 to
Industrial production	July	Aug."	Sept. <sup>r</sup>	Oct."	Nov. <sup>r</sup>	Dec. <sup>p</sup>	July <sup>r</sup>	Aug."	Sept. <sup>r</sup>	Oct. <sup>r</sup>	Nov. <sup>r</sup>	Dec. <sup>p</sup>	Dec. '16
Total index	104.5	104.4	104.2	104.4	103.7	104.6	.3	1	2	.2	7	.8	.5
Previous estimates	104.5	104.5	104.2	104.3	103.9	101.0	.3	1	2	.1	4	.0	
1 revious estimates	101.5	101.5	101.2	101.5	105.7			.1	.2	.1			
Major market groups													
Final Products	101.0	101.1	100.9	100.8	100.1	101.0	.0	.1	2	1	7	.9	1.1
Consumer goods	103.9	104.1	104.0	103.8	102.8	103.9	.0	.2	2	2	-1.0	1.1	1.5
Business equipment	102.7	102.2	101.9	102.0	101.4	102.1	.0	5	3	.1	7	.7	.8
Nonindustrial supplies	105.6	104.8	105.4	105.5	105.5	105.6	.5	7	.5	.1	.0	.1	2
Construction	109.2	107.8	108.5	109.5	110.6	110.3	.8	-1.3	.6	.9	1.0	3	.2
Materials	107.0	107.0	106.4	106.9	106.0	107.0	.5	.0	6	.5	9	1.0	.2
Major industry groups													
Manufacturing (see note below)	103.3	102.8	102.9	103.2	103.0	103.2	.2	5	.1	.3	1	.2	.2
Previous estimates	103.3	102.8	102.9	103.2	103.2		.3	5	.2	.3	1		
Mining	104.5	104.4	104.1	107.8	107.0	107.1	.8	1	2	3.5	7	.0	-2.8
Utilities	105.1	108.1	105.1	102.3	97.6	104.0	.3	2.8	-2.7	-2.7	-4.6	6.6	6.2
													Capacity
					Perce	ent of cap	acity						growth
	Average	1988-	1990-	1994-									
	1972-	89	91	95	2009	2015	2016						Dec. '15 to
Capacity utilization	2015	high	low	high	low	Dec.	July <sup>r</sup>	Aug."	Sept. <sup>r</sup>	Oct. <sup>r</sup>	Nov. <sup>r</sup>	Dec. <sup>p</sup>	Dec. '16
	00.0	05.0		05.0							= 4.0		
Total industry	80.0	85.3	78.8	85.0	66.7	75.4	75.6	75.5	75.3	75.4	74.9	75.5	.4
Previous estimates							75.7	75.6	75.4	75.4	75.0		
Manufacturing (see note helew)	78.5	85.6	77.3	84.6	63.8	75.2	75.1	74.7	74.7	74.9	74.7	74.8	.8
Manufacturing (see note below) Previous estimates	/8.3	83.0	11.5	84.0	05.0	13.2				74.9 74.9	74.7	/4.0	.0
	87.3	86.2	83.8	88.6	79.0	77.5	75.1 75.1	74.7 75.3	74.8 75.4	74.9 78.2	74.8 77.9	78.1	-3.5
Mining			83.8 84.7	93.2		75.1		82.5		78.2	74.3		-3.5 .8
Utilities	85.8	93.2	84.7	93.2	78.2	/5.1	80.2	82.5	80.1	//.9	74.3	79.1	.8
Stage-of-process groups													
Crude	86.3	87.6	84.5	90.1	77.0	77.4	76.1	76.0	76.0	77.9	77.6	77.8	-2.5
Primary and semifinished	80.6	86.5	78.1	87.8	63.8	75.3	75.8	75.9	75.5	75.2	74.4	75.4	1.0
Finished	77.0	83.4	77.3	80.6	66.6	74.8	75.2	75.0	75.0	75.0	74.6	74.9	.6
r Revised p Preliminary	,,	00.1	11.5	00.0	00.0	/ 1.0	13.2	75.0	10.0	10.0	, 110	7.1.7	.0

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.

return to more normal temperatures following unseasonably warm weather in November; the gain last month was the largest since December 1989. At 104.6 percent of its 2012 average, total industrial production in December was 0.5 percent above its year-earlier level. Capacity utilization for the industrial sector increased 0.6 percentage point in December to 75.5 percent, a rate that is 4.5 percentage points below its long-run (1972–2015) average.

### Market Groups

In December, the jump in the output of utilities contributed substantially to gains in the indexes for consumer goods, business supplies, and materials through their energy components. Among the non-energy market groups, consumer durables posted an increase of 1.1 percent, with a gain in automotive products outweighing a decline in home electronics. The output of consumer non-energy nondurables was unchanged, as cutbacks in chemical products and paper products offset a gain in the index for foods and tobacco. An increase of 0.7 percent for business equipment was attributable to improvements both in information processing equipment and in industrial and other equipment; the index for transit equipment was unchanged. The output of defense and space equipment decreased 0.3 percent after advancing 1.5 percent in November. The indexes for construction supplies and non-energy business supplies moved down 0.3 percent and 0.4 percent, respectively, in December. The production of non-energy materials was unchanged, with a gain for durable materials offset by a loss for nondurable materials.

### Industry Groups

Manufacturing output moved up 0.2 percent in December, as an increase in durable manufacturing outweighed declines in nondurable manufacturing and other manufacturing (publishing and logging). The index for manufacturing rose at an annual rate of 0.7 percent in the fourth quarter but was unchanged from its level in the fourth quarter of 2015. In December, the production of durables gained 0.5 percent. Primary metals recorded a sizable increase for a second consecutive month, and motor vehicles and parts registered a jump of 1.8 percent to nearly reverse its drop in November. Most nondurables industries posted declines in December; the biggest decreases were recorded by textile and product mills and by chemicals, at 3.0 percent and 1.0 percent, respectively.

The output of mining was unchanged in December. Gains posted in crude oil extraction and in oil and gas well drilling and servicing were offset by declines reported in other mining categories. After having fallen for six consecutive quarters, the index for mining advanced 3.4 percent at an annual rate in the third quarter and jumped nearly 12 percent in the fourth quarter.

Capacity utilization for manufacturing moved up 0.1 percentage point in December to 74.8 percent, a rate that is 3.7 percentage points below its long-run average. The operating rate for durables, at 76.2 percent, was 0.7 percentage point below its long-run average; the rates for nondurables and for other manufacturing (publishing and logging), at 74.2 percent and 60.6 percent, respectively, were substantially below their long-run averages. Utilization for mining increased 0.2 percentage point to 78.1 percent, and the rate for utilities jumped 4.8 percentage points to 79.1 percent.

### Tables

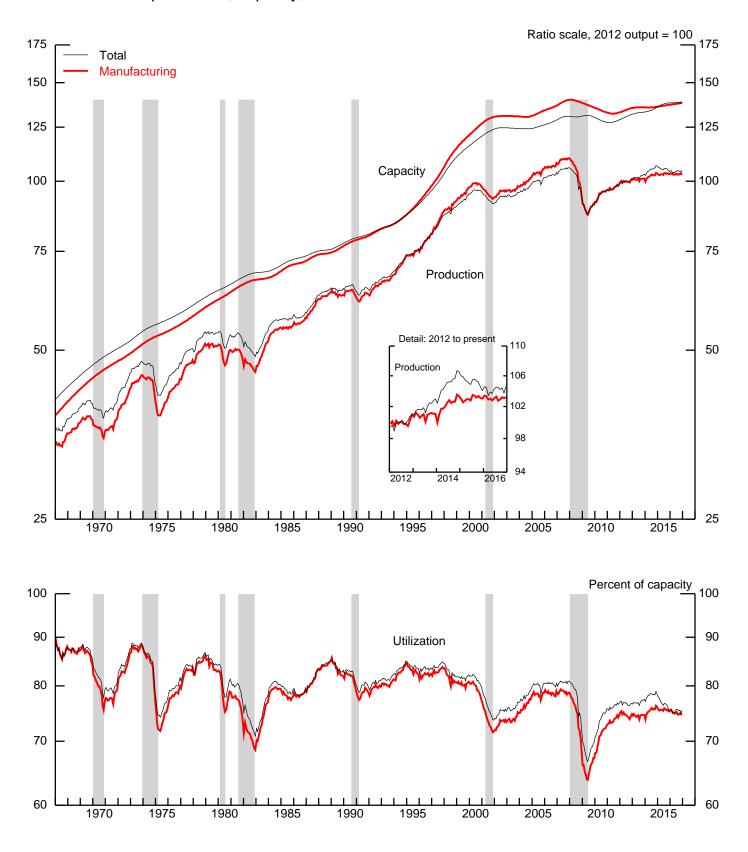
- 1. Industrial Production: Market and Industry Group Summary; percent change
- 2. Industrial Production: Special Aggregates and Selected Detail; percent change
- 3. Motor Vehicle Assemblies
- 4. Industrial Production: Market and Industry Group Summary; indexes
- 5. Industrial Production: Special Aggregates and Selected Detail; indexes
- 6. Diffusion Indexes of Industrial Production
- 7. Capacity Utilization
- 8. Industrial Capacity
- 9. Gross Value of Final Products and Nonindustrial Supplies
- 10. Gross-Value-Weighted Industrial Production: Stage-of-Process Groups
- 11. Historical Statistics: Total Industry
- 12. Historical Statistics: Manufacturing
- 13. Historical Statistics: Total Industry Excluding Selected High-Technology Industries
- 14. Historical Statistics: Manufacturing Excluding Selected High-Technology Industries

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 its annual revision to the index of industrial production (IP) and the related measures of capacity utilization on March 31, 2017. New annual benchmark data for 2015 for manufacturing will be incorporated, as will other annual data, including information on the mining of metallic and nonmetallic minerals (except fuels). The updated IP indexes will include revisions to the monthly indicator (either product data or input data) and to seasonal factors for each industry. In addition, the estimation methods for some series may be changed. Any modifications to the methods for estimating the output of an industry will affect the index from 1972 to the present.

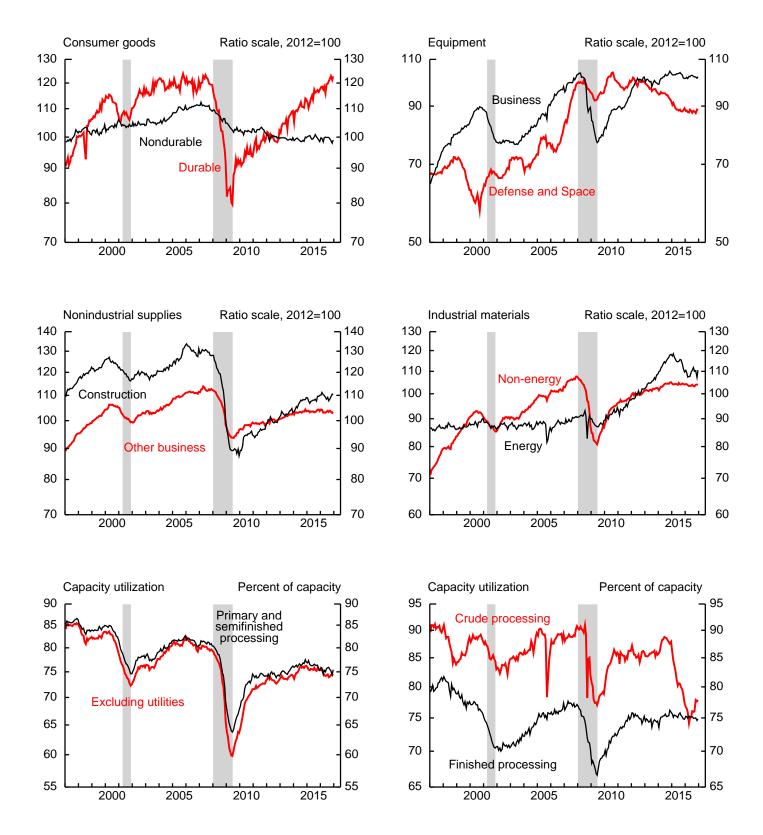
Capacity and capacity utilization will be revised to incorporate data through the fourth quarter of 2016 from the U.S. Census Bureau's Quarterly Survey of Plant Capacity along with new data on capacity from the U.S. Geological Survey, the U.S. Department of Energy, and other organizations.



### 1. Industrial production, capacity, and utilization

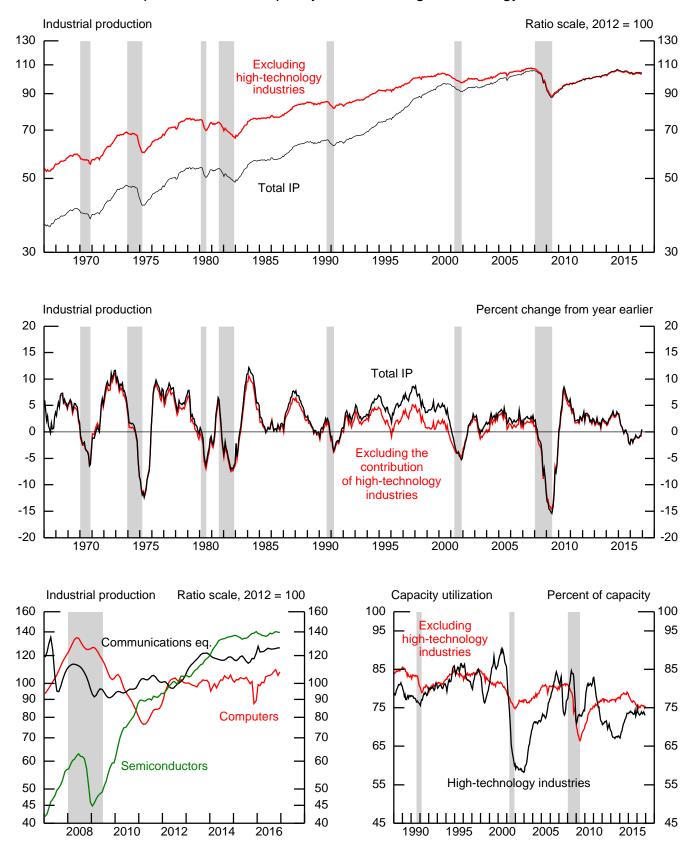
Note: The shaded areas are periods of business recession as defined by the National Bureau of Economic Research (NBER).

### 2. Industrial production and capacity utilization



Note: The shaded areas are periods of business recession as defined by the National Bureau of Economic Research (NBER).

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



Notes: High-technology industries are defined as semiconductors and related electronic components (NAICS 3344), 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

			1	th quart 1rth quar			nnual rat	e			Month	ly rate			Dec. '1
Item		2015 proportion <sup>1</sup>	2014	2015	2016	2016 Q2	Q3 <sup>r</sup>	Q4 <sup>p</sup>	2016 July <sup>r</sup>	Aug. <sup>r</sup>	Sept. <sup>r</sup>	Oct.r	Nov. <sup>r</sup>	Dec. <sup>p</sup>	to Dec. '1
Total IP		100.00	3.5	-1.6	3	8	1.8	6	.3	1	2	.2	7	.8	.5
MARKET GROUPS															
Final products and nonindustrial supplies		55.52	1.8	-1.0	.1	.3	.9	7	.1	1	.0	1	5	.7	.8
Consumer goods		27.08	.9	.6	.8	2.0	1.7	-2.1	.0	.2	2	2	-1.0	1.1	1.5
Durable Automotive products		6.36 3.18	3.6	3.8 6.6	4.6 7.8	3 -1.8	9.6 17.8	5.2 6.7	.2	.8 2.2	.9 1.1	.9 1.1	-1.3 -2.4	1.1 2.1	4.6
Home electronics		.17	.2	5	1.5	-10.2	-1.1	13.0	2.8	-3.1	-2.2	6.3	-2.4	-1.1	2.1
Appliances, furniture, carpeting		.90	2.6	3.1	.8	3	6	3.4	5	-1.6	.5	1.1	1	.2	.3
Miscellaneous goods		2.11	2.0	.5	1.6	3.2	3.1	3.0	.5	1	1.1	.2	3	.3	.7
Nondurable		20.72	.1	4	4	2.7	7	-4.4	.0	.0	5	6	8	1.0	.6
Non-energy		17.34	1.0	1	-1.1	8	-3.5	-1.6	1	5	.0	1	2	.0	-1.1
Foods and tobacco		9.60	4	.4	.3	-1.5	.9	-1.5	.7	.0	2	2	3	.7	.4
Clothing		.26	-1.3	-4.6	-4.1	-13.0	5.3	7.0	.6	3	2.1	.0	.4	.3	-3.8
Chemical products Paper products		5.71 1.26	5.0	.4 -4.5	-2.4 -6.6	1.0 -2.6	-10.1 -9.7	-1.4 -1.9	-1.2 -2.3	-1.1 1	1 .5	.4 3	.1	-1.0	-2.5
Energy		3.38	-2.8	-4.5	-0.0	24.8	-9.7	-18.4	-2.5	1	-3.1	-3.3	-4.5	8	10.1
Energy		5.50	-2.0	-2.0	5.2	24.0	10.0	-10.4		5.0	-5.1	-5.5	-4.5	7.4	10.1
Business equipment		11.32	4.6	-1.9	1	3.2	1	-1.8	.0	5	3	.1	7	.7	.8
Transit		3.09	10.4	4	-2.3	-3.6	-3.1	1	-1.7	.9	2	.2	5	.0	-1.7
Information processing		2.45	1.9	1.1	4.6	2.8	1.7	7.3	5	1.5	2	1.0	.0	1.4	4.7
Industrial and other		5.78	3.0	-3.9	9	7.2	.7	-6.4	1.2	-2.0	4	3	-1.0	.8	.5
Defense and space equipment		2.37	-3.2	-4.7	3	.3	-1.2	1.5	7	.7	3	6	1.5	3	8
Construction supplies Business supplies		5.12 9.19	4.4	1.2 .3	.3 8	-4.6 -2.6	-2.6 1.8	6.0 -1.7	.8 .4	-1.3 5	.6 .5	.9 4	1.0 5	3 .4	.2
											-				
Materials		44.48 28.59	5.2	-2.3 5	9 3	-2.3 -2.2	3.1 .2	4 1.8	.5	.0 6	6 1	.5 .7	9 .1	1.0	.2
Non-energy Durable		17.81	3.6	-1.3	5 5	-2.2	.2	.7	.4	6	1	.7	.1 1	.0	1
Consumer parts		3.32	4.6	3.4	4.9	5.1	17.2	-4.0	2.6	-1.3	7	.2	8	.7	5.8
Equipment parts		5.91	5.7	-1.4	-2.4	-1.8	.5	8	.7	4	-1.4	1.1	4	1	-2.5
Other		8.58	2.0	-3.0	-1.3	-2.0	-5.3	3.8	6	4	.2	.6	.5	.2	7
Nondurable		10.78	.1	.9	.0	-4.7	6	3.8	.3	6	.7	.6	.3	4	2
Textile		.44	-1.2	4	1.6	-6.7	4.5	9.7	1.1	-1.3	1.3	2.3	1.1	-3.2	9
Paper		2.08	5	-2.6	4	-6.0	-1.8	8.1	4	9	1.2	.8	.8	.4	.7
Chemical Energy		5.09 15.89	.0 9.2	2.8 -5.1	-1.6 -2.0	-7.9 -2.4	-3.9 9.3	2.7 -5.0	.2 .7	6 1.1	.6 -1.5	.7 .2	.2 -2.7	-1.0 3.1	-2.4
INDUSTRY GROUPS															
Manufacturing		78.47	2.0	.0	.0	-1.1	.2	.7	.2	5	.1	.3	1	.2	.2
Manufacturing (NAICS)	31–33	76.02	2.3	.1	.2	-1.0	.6	.8	.3	5	.2	.3	1	.2	.4
Durable manufacturing	221	41.77	3.3	7	.8	.6	2.2	.7	.3	4	1	.4	3	.5	1.1
Wood products Nonmetallic mineral products	321 327	1.28 2.20	3.0	1 4.4	.9 .0	-4.4 -5.2	-3.6 -5.5	11.0 7.7	-1.0 6	.0 -1.2	5 1.1	1.7 .4	2.1 1.3	3 .7	.1
Primary metals	327	2.20	-1.8	-7.0	-2.0	3.8	-11.7	1.4	-2.5	-1.2	-1.5	7	2.6	1.4	1.2
Fabricated metal products	332	6.10	1.1	-3.2	2	-3.6	1.1	3.4	.5	4	.8	.9	9	.7	5
Machinery	333	6.32	3.9	-5.0	7	10.2	6.5	-6.2	1.9	-1.6	-1.4	.4	-1.2	.9	1.3
Computer and electronic products	334	5.88	5.6	1.4	3.2	.1	2.6	6.9	.2	.7	1	1.3	1	.9	3.0
Electrical equip., appliances,															
and components	335	1.96	.8	2.4	-2.1	-5.8	.8	-3.4	1	9	3	2	.3	-1.1	-3.4
Motor vehicles and parts	3361-3	5.86	6.4	5.1	5.4	-2.0	14.8	2.8	.7	.9	.3	.9	-1.9	1.8	6.6
Aerospace and miscellaneous	2264 0	5 75	16	15	1 4	0	0.1	2.2	А	2	0	A	0	0	-2.0
transportation equipment Furniture and related products	3364–9 337	5.35 1.24	4.6	-1.5 3.1	-1.4 -2.3	.8 -5.4	-2.1 -5.0	-2.2 4.5	4 5	.2 5	9 2	4 1.1	.9 .7	8 4	-2.0
Miscellaneous	337	3.18	.3	-1.5	-2.3	-5.4 6.5	-5.0	4.5 -7.6	5	-2.2	2.3	-1.5	-1.6	4	-1.1
Nondurable manufacturing		34.25	1.1	1.1	5	-2.9	-1.5	.8	.2	6	.4	.2	.1	3	6
Food, beverage, and tobacco products	311,2	11.40	1	.7	.6	-1.1	1.2	9	.6	1	1	2	4	.7	.7
Textile and product mills	313,4	.74	.1	5	.3	-5.0	1.8	.9	.9	-1.4	1.2	.7	.3	-3.0	-1.8
Apparel and leather	315,6	.27	-1.4	-4.3	-4.0	-13.1	5.5	6.5	.7	3	2.1	1	.5	.2	-3.7
Paper	322	2.67	.7	-3.2	1.2	-2.9	8	9.9	7	4	1.1	1.0	1.2	2	1.8
Printing and support	323	1.59	6	2.7	-2.7	-10.2	-2.1	4.5	5	8	1.2	.2	.9	8	-2.8
Petroleum and coal products	324	1.85	-2.4	6.5	.0	-3.8	-2.3	7.8	7	7	.2	2	3.6	5	2.3
Chemicals Plastics and rubber products	325 326	12.23 3.50	2.3	1.4 1.2	-1.5 -1.3	-3.2 -2.5	-5.1 1.8	2 -1.4	2 1.6	8 -1.5	.4 1.0	.2	.1 -1.3	-1.0 2	-1.8
Other manufacturing (non-NAICS)	1133,5111	2.46	-5.3	-4.2	-7.2	-4.9	-11.0	-2.6	-1.4	9	3	4	.6	3	-6.5
Mining	21	10.76	12.4	-8.3	-4.4	-14.8	3.4	11.9	.8	1	2	3.5	7	.0	-2.8
Utilities	2211,2	10.76	7	-4.1	1.4	15.1	12.9	-17.0	.3	2.8	-2.7	-2.7	-4.6	6.6	6.2
Electric	2211	9.75	3	-3.2	1.0	10.7	15.1	-16.7	.4	3.0	-2.7	-2.3	-4.9	6.1	5.2
Litetiie	2211	2.15		0.12	110	68.4	-5.9						-1.4		17.7

r Revised. p Preliminary.

NOTE. Under the industry groups, the figures to the right of the series descriptions are 2012 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 website (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 the relative weights for the rates of change for each series in the computation of the change in total industrial production in the following year.  $\frac{7}{7}$ 

## Table 2 Industrial Production: Special Aggregates and Selected Detail Percent change, seasonally adjusted Fourth quarter to

ercent change, seasonally adjusted			Fou	rth quart	er to										
_			1	urth quait			.nnual ra	te			Month	ly rate			Dec. '15
Item		2015 proportion	2014	2015	2016	2016 Q2	Q3 <sup>r</sup>	Q4 <sup>p</sup>	2016 July <sup>r</sup>	Aug. <sup>r</sup>	Sept. <sup>r</sup>	Oct.r	Nov. <sup>r</sup>	Dec. <sup>p</sup>	to Dec. '16
Fotal industry		100.00	3.5	-1.6	3	8	1.8	6	.3	1	2	.2	7	.8	.5
Energy		21.52	6.7	-6.1	-1.2	1.4	10.8	-7.2	.6	1.7	-1.8	5	-2.9	3.9	2.3
Consumer products		3.38	-2.8	-2.6	3.2	24.8	16.0	-18.4	.4	3.0	-3.1	-3.3	-4.5	7.4	10.1
Commercial products		1.86	.7	1	.6	4.6	12.2	-11.8	.0	3.2	-1.7	-2.4	-2.6	3.5	3.1
Oil and gas well drilling	213111	.39	7.1	-59.5	-22.6	-62.6	27.4	118.6	4.9	3.2	5.1	9.0	5.3	9.3	-10.5
Converted fuel		5.13	.5	-2.0	1.8	17.9	25.4	-19.8	.9	1.8	-3.2	-3.3	-3.2	4.9	6.2
Primary energy		10.76	12.0	-6.1	-4.0	-12.3	.5	5.4	.6	.7	5	2.4	-2.5	2.0	-2.1
Non-energy		78.48	2.3	2	1	-1.3	2	1.1	.2	5	.1	.4	1	.1	.1
Selected high-technology industries		2.66	8.8	.1	3.7	2	6.4	3.0	.9	3	.6	.8	7	.3	3.0
Computers and peripheral equipment	3341	.36	2.2	-10.6	16.0	16.2	12.9	3.9	.2	1.0	1.6	1.3	-3.7	2.4	20.9
Communications equipment	3342	.64	-2.6	.4	6.0	.4	2.3	2.4	4	1	.1	.2	.5	.0	3.8
Semiconductors and related															
electronic components	3344	1.66	15.5	2.5	.4	-3.7	6.7	3.0	1.5	6	.6	.8	4	1	6
Excluding selected high-technology															I
industries		75.82	2.0	2	2	-1.3	5	1.0	.2	5	.1	.4	1	.1	.0
Motor vehicles and parts	3361-3	5.86	6.4	5.1	5.4	-2.0	14.8	2.8	.7	.9	.3	.9	-1.9	1.8	6.6
Motor vehicles	3361	2.74	3.4	3.2	3.7	-6.8	12.4	1.5	-1.6	2.4	.7	1.0	-4.0	2.5	5.0
Motor vehicle parts	3363	2.64	8.9	6.6	7.2	4.8	19.7	-1.6	3.6	-1.2	8	.6	7	1.1	7.9
Excluding motor vehicles and parts		69.96	1.7	6	7	-1.3	-1.7	.8	.1	6	.1	.3	.1	.0	6
Consumer goods		20.87	1.2	.2	7	7	-2.6	7	.0	6	.1	.1	2	.0	8
Business equipment		9.65	4.9	-1.9	.0	5.4	.8	-2.9	.4	6	5	1	4	.6	.8
Construction supplies		5.10	4.5	1.2	.3	-4.6	-2.6	6.1	.8	-1.3	.6	.9	1.0	3	.2
Business supplies		6.89	.1	.3	-1.5	-4.5	-1.6	.7	.4	-1.4	1.1	.1	.0	4	-1.6
Materials		25.09	1.3	-1.1	9	-2.7	-1.8	2.4	.0	5	.0	.7	.2	2	8
Measures excluding selected high-technology industries		07.04					1.7	_					-	0	
Total industry		97.34	3.3	-1.7	4	8	1.7	7	.3	1	3	.2	7	.8	.4
Manufacturing <sup>1</sup>		75.81	1.8	.0	1	-1.2	.0	.6	.2	5	.1	.3	1	.2	.1
Durable		39.29	2.9	8	.6	.6	1.8	.7	.3	4	1	.4	3	.5	1.0
Measures excluding motor vehicles and parts															
Total industry		94.14	3.3	-2.0	7	7	1.0	8	.3	1	3	.1	6	.8	.1
Manufacturing <sup>1</sup>		72.61	1.7	4	5	-1.1	-1.0	.5	.2	6	.1	.2	.0	.0	4
Durable		36.09	2.8	-1.6	.1	1.0	.1	.5	.3	6	1	.3	.0	.3	.3
Measures excluding selected high-technology industries															
and motor vehicles and parts		01.47	2.0	0.1	0	7	0	0	2	1	2	1	6	0	0
Total industry Manufacturing <sup>1</sup>		91.47	3.2	-2.1	8	7	.8	9	.2	1	3	.1	6	.8	.0
Manufacturing <sup>1</sup>		69.95	1.4	4	6	-1.1	-1.2	.4	.2	6	.1	.2	.1	.0	5
Stage-of-process components of non-energy materials, measures of the input to					2							0	2		5
		11 75													
Finished processors Primary and semifinished processors		11.75 16.84	4.0	2 6	.2 6	8	4.9 -3.0	.1 3.1	1.1	8 4	6 .3	.8 .6	2 .3	.1 2	.5 5

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

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

Millions of units, seasonally adjusted annual rate											
	2016	2016				2016					
Item	average	Q1	Q2	Q3	Q4	July	Aug.	Sept.	Oct.	Nov.	Dec.
TT- 4 - 1	12.20	10.11	12.00	10.10	10.10	11.05	10.04	10.01	10.24	11.07	10.10
Total	12.20	12.11	12.00	12.13	12.16	11.95	12.24	12.21	12.34	11.97	12.19
Autos	3.94	3.96	3.94	3.91	3.78	3.86	3.95	3.91	3.75	3.85	3.73
Trucks	8.27	8.15	8.07	8.22	8.39	8.09	8.29	8.29	8.58	8.11	8.46
Light	8.00	7.83	7.79	8.00	8.14	7.86	8.07	8.06	8.34	7.87	8.22
Medium and heavy	.27	.32	.28	.23	.24	.23	.22	.23	.24	.24	.24
Memo											
Autos and light trucks	11.94	11.79	11.72	11.91	11.92	11.72	12.02	11.97	12.10	11.73	11.94

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

### Table 4 INDUSTRIAL PRODUCTION INDEXES: MARKET AND INDUSTRY GROUP SUMMARY 2012 = 100, seasonally adjusted

012 = 100, seasonally adjusted											
Item		2015 proportion	2016 Apr.	May	June	July <sup>r</sup>	Aug. <sup>r</sup>	Sept. <sup>r</sup>	Oct. <sup>r</sup>	Nov. <sup>r</sup>	Dec. <sup>p</sup>
Total IP		100.00	103.8	103.7	104.2	104.5	104.4	104.2	104.4	103.7	104.6
		100.00	105.0	105.7	104.2	104.5	104.4	104.2	104.4	105.7	104.0
MARKET GROUPS		55.50	101.0	101 (	102.0	102.2	102.0	102.0	102.0	101 5	102.2
Final products and nonindustrial supplies		55.52 27.08	101.9 103.6	101.6 103.2	102.0 103.9	102.2 103.9	102.0 104.1	102.0 104.0	102.0 103.8	101.5 102.8	102.2 103.9
Consumer goods			1								
Durable		6.36 3.18	118.6 132.5	115.9 126.7	119.5 134.0	119.8 134.1	120.7 137.0	121.8 138.5	122.9 140.0	121.3 136.7	122.7 139.6
Automotive products Home electronics		.17	104.5	120.7	103.4	106.3	102.9	138.5	140.0	106.8	105.7
		.90	104.5	102.8	103.4	100.5	102.9	100.7	107.0	100.8	103.7
Appliances, furniture, carpeting Miscellaneous goods		2.11	108.1	108.2	10.1	109.6	107.9	108.4	109.8	109.4	109.6
Nondurable		20.72	99.7	99.9	99.8	99.8	99.8	99.3	98.8	97.9	98.9
Non-energy		17.34	99.7	99.9 98.1	99.8 97.5	99.8 97.4	99.8 96.9	99.3 96.9	98.8 96.8	97.9 96.6	98.9 96.6
Foods and tobacco		9.60	102.2	102.0	101.6	102.3	102.2	102.0	101.8	101.5	102.2
Clothing		.26	80.5	79.9	80.4	80.9	80.7	82.4	82.4	82.7	83.0
Chemical products		5.71	94.0	94.1	93.1	92.0	91.0	90.8	91.2	91.3	90.4
Paper products		1.26	85.6	85.9	85.3	83.4	83.3	83.7	83.4	83.2	82.5
Energy		3.38	105.1	106.0	109.4	109.8	113.1	109.6	106.0	101.3	108.8
Enorgy		5.50	100.1	100.0	109.1	107.0	110.1	109.0	100.0	101.5	100.0
Business equipment		11.32	102.2	102.1	102.6	102.7	102.2	101.9	102.0	101.4	102.1
Transit		3.09	116.7	115.6	116.8	114.8	115.9	115.6	115.8	115.2	115.2
Information processing		2.45	105.1	106.2	105.7	105.2	106.7	106.5	107.5	107.5	109.0
Industrial and other		5.78	95.1	94.9	95.6	96.8	94.8	94.5	94.2	93.2	94.0
Defense and space equipment		2.37	87.5	88.6	88.1	87.4	88.1	87.8	87.3	88.7	88.4
Construction supplies		5.12	110.0	109.2	108.4	109.2	107.8	108.5	109.5	110.6	110.3
Business supplies		9.19	103.1	103.1	103.3	103.8	103.3	103.8	103.4	102.9	103.3
**											
Materials		44.48	105.7	105.8	106.5	107.0	107.0	106.4	106.9	106.0	107.0
Non-energy		28.59	103.4	103.4	103.5	103.9	103.3	103.2	103.9	104.0	103.9
Durable		17.81	105.3	105.1	105.6	106.1	105.5	105.0	105.7	105.6	105.8
Consumer parts		3.32	115.8	113.4	118.9	122.1	120.5	119.6	119.9	118.9	119.7
Equipment parts		5.91	105.3	105.5	105.5	106.3	105.9	104.5	105.7	105.3	105.2
Other		8.58	101.5	102.0	101.0	100.4	100.0	100.1	100.7	101.2	101.4
Nondurable		10.78	100.5	100.9	100.3	100.6	100.0	100.7	101.3	101.6	101.1
Textile		.44	103.1	102.7	103.6	104.7	103.4	104.7	107.1	108.3	104.8
Paper		2.08	94.1	94.4	94.4	94.1	93.2	94.4	95.1	95.9	96.3
Chemical		5.09	101.2	101.4	99.8	100.1	99.4	100.0	100.7	100.9	99.8
Energy		15.89	107.6	107.6	109.7	110.5	111.7	110.0	110.2	107.2	110.5
_											
INDUSTRY GROUPS		70.47	102.0	102.0	102.0	102.2	102.0	102.0	102.2	102.0	102.2
Manufacturing	21.22	78.47	103.0	102.8	103.0	103.3	102.8	102.9	103.2	103.0	103.2
Manufacturing (NAICS)	31-33	76.02	103.7	103.5	103.8	104.0	103.5	103.7	104.0	103.9	104.0
Durable manufacturing	201	41.77	106.0	105.5	106.5	106.8	106.4	106.4	106.8	106.4	107.0
Wood products	321	1.28	110.0	109.1	110.1	109.0	108.9	108.3	110.1	112.5	112.2
Nonmetallic mineral products	327	2.20	116.3 94.9	115.2	115.1	114.5	113.1	114.3	114.8	116.3	117.1
Primary metals	331	2.41		96.3	95.8	93.4	93.1	91.7	91.0	93.4	94.7
Fabricated metal products	332	6.10	100.1	100.0	99.7	100.2	99.8	100.6	101.5	100.5	101.2
Machinery	333	6.32	91.7	90.9	93.0	94.8	93.3	92.0	92.4		92.1
				112 4	112 4	112 5	114.2	1140	115 7	91.2	1166
Computer and electronic products	334	5.88	113.0	113.6	113.4	113.5	114.3	114.2	115.7	91.2 115.6	116.6
Electrical equip., appliances,										115.6	
Electrical equip., appliances, and components	335	1.96	101.0	101.9	102.9	102.8	101.9	101.6	101.4	115.6	100.6
Electrical equip., appliances, and components Motor vehicles and parts										115.6	
Electrical equip., appliances, and components Motor vehicles and parts Aerospace and miscellaneous	335 3361–3	1.96 5.86	101.0 127.7	101.9 122.0	102.9 128.8	102.8 129.8	101.9 130.9	101.6 131.3	101.4 132.5	115.6 101.7 129.9	100.6 132.3
Electrical equip., appliances, and components Motor vehicles and parts Aerospace and miscellaneous transportation equipment	335 3361–3 3364–9	1.96 5.86 5.35	101.0 127.7 105.5	101.9 122.0 106.8	102.9 128.8 106.2	102.8 129.8 105.7	101.9 130.9 106.0	101.6 131.3 105.0	101.4 132.5 104.6	115.6 101.7 129.9 105.6	100.6 132.3 104.8
Electrical equip., appliances, and components Motor vehicles and parts Aerospace and miscellaneous transportation equipment Furniture and related products	335 3361–3 3364–9 337	1.96 5.86 5.35 1.24	101.0 127.7 105.5 105.1	101.9 122.0 106.8 104.6	102.9 128.8 106.2 104.2	102.8 129.8 105.7 103.7	101.9 130.9 106.0 103.2	101.6 131.3 105.0 102.9	101.4 132.5 104.6 104.0	115.6 101.7 129.9 105.6 104.8	100.6 132.3 104.8 104.4
Electrical equip., appliances, and components Motor vehicles and parts Aerospace and miscellaneous transportation equipment	335 3361–3 3364–9	1.96 5.86 5.35	101.0 127.7 105.5	101.9 122.0 106.8	102.9 128.8 106.2	102.8 129.8 105.7	101.9 130.9 106.0	101.6 131.3 105.0	101.4 132.5 104.6	115.6 101.7 129.9 105.6	100.6 132.3 104.8
Electrical equip., appliances, and components Motor vehicles and parts Aerospace and miscellaneous transportation equipment Furniture and related products Miscellaneous	335 3361–3 3364–9 337	1.96 5.86 5.35 1.24 3.18	101.0 127.7 105.5 105.1 106.3	101.9 122.0 106.8 104.6 107.3	102.9 128.8 106.2 104.2 106.4	102.8 129.8 105.7 103.7 108.0	101.9 130.9 106.0 103.2 105.7	101.6 131.3 105.0 102.9 108.1	101.4 132.5 104.6 104.0 106.4	115.6 101.7 129.9 105.6 104.8 104.7	100.6 132.3 104.8 104.4 104.4
Electrical equip., appliances, and components Motor vehicles and parts Aerospace and miscellaneous transportation equipment Furniture and related products Miscellaneous Nondurable manufacturing	335 3361-3 3364-9 337 339	1.96 5.86 5.35 1.24 3.18 34.25	101.0 127.7 105.5 105.1 106.3 101.1	101.9 122.0 106.8 104.6 107.3 101.3	102.9 128.8 106.2 104.2 106.4 100.8	102.8 129.8 105.7 103.7 108.0 101.0	101.9 130.9 106.0 103.2 105.7 100.3	101.6 131.3 105.0 102.9 108.1 100.8	101.4 132.5 104.6 104.0 106.4 100.9	115.6 101.7 129.9 105.6 104.8 104.7 101.0	100.6 132.3 104.8 104.4 104.4 100.7
Electrical equip., appliances, and components Motor vehicles and parts Aerospace and miscellaneous transportation equipment Furniture and related products Miscellaneous Nondurable manufacturing Food, beverage, and tobacco products	335 3361-3 3364-9 337 339 311,2	1.96 5.86 5.35 1.24 3.18 34.25 11.40	101.0 127.7 105.5 105.1 106.3 101.1 103.0	101.9 122.0 106.8 104.6 107.3 101.3 103.0	102.9 128.8 106.2 104.2 106.4 100.8 102.7	102.8 129.8 105.7 103.7 108.0 101.0 103.3	101.9 130.9 106.0 103.2 105.7 100.3 103.2	101.6 131.3 105.0 102.9 108.1 100.8 103.1	101.4 132.5 104.6 104.0 106.4 100.9 103.0	115.6 101.7 129.9 105.6 104.8 104.7 101.0 102.6	100.6 132.3 104.8 104.4 104.4 100.7 103.3
Electrical equip., appliances, and components Motor vehicles and parts Aerospace and miscellaneous transportation equipment Furniture and related products Miscellaneous Nondurable manufacturing Food, beverage, and tobacco products Textile and product mills	335 3361-3 3364-9 337 339 311,2 313,4	1.96 5.86 5.35 1.24 3.18 34.25 11.40 .74	101.0 127.7 105.5 105.1 106.3 101.1 103.0 104.6	101.9 122.0 106.8 104.6 107.3 101.3 103.0 105.2	102.9 128.8 106.2 104.2 106.4 100.8 102.7 105.1	102.8 129.8 105.7 103.7 108.0 101.0 103.3 106.0	101.9 130.9 106.0 103.2 105.7 100.3 103.2 104.5	101.6 131.3 105.0 102.9 108.1 100.8 103.1 105.8	101.4 132.5 104.6 104.0 106.4 100.9 103.0 106.5	115.6 101.7 129.9 105.6 104.8 104.7 101.0 102.6 106.8	100.6 132.3 104.8 104.4 104.4 100.7 103.3 103.6
Electrical equip., appliances, and components Motor vehicles and parts Aerospace and miscellaneous transportation equipment Furniture and related products Miscellaneous Nondurable manufacturing Food, beverage, and tobacco products Textile and product mills Apparel and leather	335 3361–3 3364–9 337 339 311,2 313,4 315,6	1.96 5.86 5.35 1.24 3.18 34.25 11.40 .74 .27	101.0 127.7 105.5 105.1 106.3 101.1 103.0 104.6 81.2	101.9 122.0 106.8 104.6 107.3 101.3 103.0 105.2 80.5	102.9 128.8 106.2 104.2 106.4 100.8 102.7 105.1 81.1	102.8 129.8 105.7 103.7 108.0 101.0 103.3 106.0 81.6	101.9 130.9 106.0 103.2 105.7 100.3 103.2 104.5 81.4	101.6 131.3 105.0 102.9 108.1 100.8 103.1 105.8 83.1	101.4 132.5 104.6 104.0 106.4 100.9 103.0 106.5 83.0	115.6 101.7 129.9 105.6 104.8 104.7 101.0 102.6 106.8 83.4	100.6 132.3 104.8 104.4 104.4 100.7 103.3 103.6 83.6
Electrical equip., appliances, and components Motor vehicles and parts Aerospace and miscellaneous transportation equipment Furniture and related products Miscellaneous Nondurable manufacturing Food, beverage, and tobacco products Textile and product mills Apparel and leather Paper	335 3361-3 3364-9 337 339 311,2 313,4 315,6 322	1.96 5.86 5.35 1.24 3.18 34.25 11.40 .74 .27 2.67	101.0 127.7 105.5 105.1 106.3 101.1 103.0 104.6 81.2 95.0	101.9 122.0 106.8 104.6 107.3 101.3 103.0 105.2 80.5 96.0	102.9 128.8 106.2 104.2 106.4 100.8 102.7 105.1 81.1 96.0	102.8 129.8 105.7 103.7 108.0 101.0 103.3 106.0 81.6 95.4	101.9 130.9 106.0 103.2 105.7 100.3 103.2 104.5 81.4 95.0	101.6 131.3 105.0 102.9 108.1 100.8 103.1 105.8 83.1 96.1	101.4 132.5 104.6 104.0 106.4 100.9 103.0 106.5 83.0 97.0	115.6 101.7 129.9 105.6 104.8 104.7 101.0 102.6 106.8 83.4 98.2	100.6 132.3 104.8 104.4 104.4 100.7 103.3 103.6 83.6 98.0
Electrical equip., appliances, and components Motor vehicles and parts Aerospace and miscellaneous transportation equipment Furniture and related products Miscellaneous <b>Nondurable manufacturing</b> Food, beverage, and tobacco products Textile and product mills Apparel and leather Paper Printing and support	335 3361-3 3364-9 337 339 311,2 313,4 315,6 322 323	1.96 5.86 5.35 1.24 3.18 34.25 11.40 .74 .27 2.67 1.59	101.0 127.7 105.5 105.1 106.3 101.1 103.0 104.6 81.2 95.0 100.7	101.9 122.0 106.8 104.6 107.3 101.3 103.0 105.2 80.5 96.0 99.2	102.9 128.8 106.2 104.2 106.4 100.8 102.7 105.1 81.1 96.0 100.1	102.8 129.8 105.7 103.7 108.0 101.0 103.3 106.0 81.6 95.4 99.6	101.9 130.9 106.0 103.2 105.7 100.3 103.2 104.5 81.4 95.0 98.8	101.6 131.3 105.0 102.9 108.1 100.8 103.1 105.8 83.1 96.1 100.0	101.4 132.5 104.6 104.0 106.4 100.9 103.0 106.5 83.0 97.0 100.2	115.6 101.7 129.9 105.6 104.8 104.7 101.0 102.6 106.8 83.4 98.2 101.2	100.6 132.3 104.8 104.4 104.4 100.7 103.3 103.6 83.6 98.0 100.3
Electrical equip., appliances, and components Motor vehicles and parts Aerospace and miscellaneous transportation equipment Furniture and related products Miscellaneous Nondurable manufacturing Food, beverage, and tobacco products Textile and product mills Apparel and leather Paper Printing and support Petroleum and coal products	335 3361-3 3364-9 337 339 311,2 313,4 315,6 322 323 324	1.96      5.86      5.35      1.24      3.18      34.25      11.40      .74      .27      2.67      1.59      1.85	101.0 127.7 105.5 105.1 106.3 101.1 103.0 104.6 81.2 95.0 100.7 105.7	101.9 122.0 106.8 104.6 107.3 101.3 103.0 105.2 80.5 96.0 99.2 104.7	102.9 128.8 106.2 104.2 106.4 100.8 102.7 105.1 81.1 96.0 100.1 106.0	102.8 129.8 105.7 103.7 108.0 101.0 103.3 106.0 81.6 95.4 99.6 105.3	101.9 130.9 106.0 103.2 105.7 100.3 103.2 104.5 81.4 95.0 98.8 104.5	101.6 131.3 105.0 102.9 108.1 100.8 103.1 105.8 83.1 96.1 100.0 104.7	101.4 132.5 104.6 104.0 106.4 100.9 103.0 106.5 83.0 97.0 100.2 104.5	115.6 101.7 129.9 105.6 104.8 104.7 101.0 102.6 106.8 83.4 98.2 101.2 108.3	100.6 132.3 104.8 104.4 104.4 100.7 103.3 103.6 83.6 98.0 100.3 107.7
Electrical equip., appliances, and components Motor vehicles and parts Aerospace and miscellaneous transportation equipment Furniture and related products Miscellaneous Nondurable manufacturing Food, beverage, and tobacco products Textile and product mills Apparel and leather Paper Printing and support Petroleum and coal products Chemicals	335 3361-3 3364-9 337 339 311.2 313,4 315,6 322 323 324 325	$     \begin{array}{r}       1.96 \\       5.86 \\       5.35 \\       1.24 \\       3.18 \\       34.25 \\       11.40 \\       .74 \\       .27 \\       2.67 \\       1.59 \\       1.85 \\       12.23 \\     \end{array} $	101.0 127.7 105.5 105.1 106.3 101.1 103.0 104.6 81.2 95.0 100.7 105.7 98.4	101.9 122.0 106.8 104.6 107.3 101.3 103.0 105.2 80.5 96.0 99.2 104.7 98.9	102.9 128.8 106.2 104.2 106.4 100.8 102.7 105.1 81.1 96.0 100.1 106.0 97.7	102.8 129.8 105.7 103.7 108.0 101.0 103.3 106.0 81.6 95.4 99.6 105.3 97.5	101.9 130.9 106.0 103.2 105.7 100.3 103.2 104.5 81.4 95.0 98.8 104.5 96.7	101.6 131.3 105.0 102.9 108.1 100.8 103.1 105.8 83.1 96.1 100.0 104.7 97.1	101.4 132.5 104.6 104.0 106.4 100.9 103.0 106.5 83.0 97.0 100.2 104.5 97.3	115.6 101.7 129.9 105.6 104.8 104.7 101.0 102.6 106.8 83.4 98.2 101.2 108.3 97.4	100.6 132.3 104.8 104.4 100.7 103.3 103.6 83.6 98.0 100.3 107.7 96.4
Electrical equip., appliances, and components Motor vehicles and parts Aerospace and miscellaneous transportation equipment Furniture and related products Miscellaneous Nondurable manufacturing Food, beverage, and tobacco products Textile and product mills Apparel and leather Paper Printing and support Petroleum and coal products	335 3361-3 3364-9 337 339 311,2 313,4 315,6 322 323 324	1.96      5.86      5.35      1.24      3.18      34.25      11.40      .74      .27      2.67      1.59      1.85	101.0 127.7 105.5 105.1 106.3 101.1 103.0 104.6 81.2 95.0 100.7 105.7	101.9 122.0 106.8 104.6 107.3 101.3 103.0 105.2 80.5 96.0 99.2 104.7	102.9 128.8 106.2 104.2 106.4 100.8 102.7 105.1 81.1 96.0 100.1 106.0	102.8 129.8 105.7 103.7 108.0 101.0 103.3 106.0 81.6 95.4 99.6 105.3	101.9 130.9 106.0 103.2 105.7 100.3 103.2 104.5 81.4 95.0 98.8 104.5	101.6 131.3 105.0 102.9 108.1 100.8 103.1 105.8 83.1 96.1 100.0 104.7	101.4 132.5 104.6 104.0 106.4 100.9 103.0 106.5 83.0 97.0 100.2 104.5	115.6 101.7 129.9 105.6 104.8 104.7 101.0 102.6 106.8 83.4 98.2 101.2 108.3	100.6 132.3 104.8 104.4 100.7 103.3 103.6 83.6 98.0 100.3 107.7 96.4
Electrical equip., appliances, and components Motor vehicles and parts Aerospace and miscellaneous transportation equipment Furniture and related products Miscellaneous Nondurable manufacturing Food, beverage, and tobacco products Textile and product mills Apparel and leather Paper Printing and support Petroleum and coal products Chemicals	335 3361-3 3364-9 337 339 311.2 313,4 315,6 322 323 324 325	$     \begin{array}{r}       1.96 \\       5.86 \\       5.35 \\       1.24 \\       3.18 \\       34.25 \\       11.40 \\       .74 \\       .27 \\       2.67 \\       1.59 \\       1.85 \\       12.23 \\     \end{array} $	101.0 127.7 105.5 105.1 106.3 101.1 103.0 104.6 81.2 95.0 100.7 105.7 98.4	101.9 122.0 106.8 104.6 107.3 101.3 103.0 105.2 80.5 96.0 99.2 104.7 98.9	102.9 128.8 106.2 104.2 106.4 100.8 102.7 105.1 81.1 96.0 100.1 106.0 97.7	102.8 129.8 105.7 103.7 108.0 101.0 103.3 106.0 81.6 95.4 99.6 105.3 97.5	101.9 130.9 106.0 103.2 105.7 100.3 103.2 104.5 81.4 95.0 98.8 104.5 96.7	101.6 131.3 105.0 102.9 108.1 100.8 103.1 105.8 83.1 96.1 100.0 104.7 97.1	101.4 132.5 104.6 104.0 106.4 100.9 103.0 106.5 83.0 97.0 100.2 104.5 97.3	115.6 101.7 129.9 105.6 104.8 104.7 101.0 102.6 106.8 83.4 98.2 101.2 108.3 97.4	100.6 132.3 104.8 104.4 104.4 100.7 103.3 103.6 83.6 98.0
Electrical equip., appliances, and components Motor vehicles and parts Aerospace and miscellaneous transportation equipment Furniture and related products Miscellaneous Nondurable manufacturing Food, beverage, and tobacco products Textile and product mills Apparel and leather Paper Printing and support Petroleum and coal products Chemicals Plastics and rubber products Other manufacturing (non-NAICS)	335 3361–3 3364–9 337 339 311,2 313,4 315,6 322 323 324 325 326 <b>1133,5111</b> 21	$     \begin{array}{r}       1.96 \\       5.86 \\       5.35 \\       1.24 \\       3.18 \\       34.25 \\       11.40 \\       .74 \\       .27 \\       2.67 \\       1.59 \\       1.85 \\       12.23 \\       3.50 \\       2.46 \\       10.76 \\     \end{array} $	101.0 127.7 105.5 105.1 106.3 101.1 103.0 104.6 81.2 95.0 100.7 105.7 98.4 107.0 84.1 102.9	101.9 122.0 106.8 104.6 107.3 101.3 103.0 105.2 80.5 96.0 99.2 104.7 98.9 106.7 83.8 103.8	102.9 128.8 106.2 104.2 106.4 100.8 102.7 105.1 81.1 96.0 100.1 106.0 97.7 106.1 83.0 103.7	102.8 129.8 105.7 103.7 108.0 101.0 103.3 106.0 81.6 95.4 99.6 105.3 97.5 107.8 81.8 104.5	101.9 130.9 106.0 103.2 105.7 100.3 103.2 104.5 81.4 95.0 98.8 104.5 96.7 106.2 81.1 104.4	101.6 131.3 105.0 102.9 108.1 100.8 103.1 105.8 83.1 96.1 100.0 104.7 97.1 107.3 80.8 104.1	101.4 132.5 104.6 104.0 106.4 100.9 103.0 106.5 83.0 97.0 100.2 104.5 97.3 107.7 80.5	115.6 101.7 129.9 105.6 104.8 104.7 101.0 102.6 106.8 83.4 98.2 101.2 108.3 97.4 106.3 80.9 107.0	100.6 132.3 104.8 104.4 104.4 100.7 103.3 103.6 83.6 98.0 100.3 107.7 96.4 106.2 80.7 107.1
Electrical equip., appliances, and components Motor vehicles and parts Aerospace and miscellaneous transportation equipment Furniture and related products Miscellaneous Nondurable manufacturing Food, beverage, and tobacco products Textile and product mills Apparel and leather Paper Printing and support Petroleum and coal products Chemicals Plastics and rubber products Other manufacturing (non-NAICS) Mining Utilities	335 3361–3 3364–9 337 339 311,2 313,4 315,6 322 323 324 325 326 1133,5111 21 2211,2	$     \begin{array}{r}       1.96 \\       5.86 \\       5.35 \\       1.24 \\       3.18 \\       34.25 \\       11.40 \\       .74 \\       .27 \\       2.67 \\       1.59 \\       1.85 \\       12.23 \\       3.50 \\       2.46 \\       10.76 \\     $	101.0 127.7 105.5 105.1 106.3 101.1 103.0 104.6 81.2 95.0 100.7 105.7 98.4 107.0 84.1 102.9 102.3	101.9 122.0 106.8 104.6 107.3 101.3 103.0 105.2 80.5 96.0 99.2 104.7 98.9 106.7 83.8 103.8 101.8	102.9 128.8 106.2 104.2 106.4 100.8 102.7 105.1 81.1 96.0 100.1 106.0 97.7 106.1 83.0 103.7 104.8	102.8 129.8 105.7 103.7 108.0 101.0 103.3 106.0 81.6 95.4 99.6 105.3 97.5 107.8 81.8 104.5 105.1	101.9 130.9 106.0 103.2 105.7 100.3 103.2 104.5 81.4 95.0 98.8 104.5 96.7 106.2 81.1 104.4 108.1	101.6 131.3 105.0 102.9 108.1 100.8 103.1 105.8 83.1 96.1 100.0 104.7 97.1 107.3 80.8 104.1 105.1	101.4 132.5 104.6 104.0 106.4 100.9 103.0 106.5 83.0 97.0 100.2 104.5 97.3 107.7 80.5 107.8 102.3	115.6 101.7 129.9 105.6 104.8 104.7 101.0 102.6 106.8 83.4 98.2 101.2 108.3 97.4 106.3 80.9 107.0 97.6	100.6 132.3 104.8 104.4 104.4 100.7 103.3 103.6 83.6 98.0 100.3 107.7 96.4 106.2 80.7 107.1 104.0
Electrical equip., appliances, and components Motor vehicles and parts Aerospace and miscellaneous transportation equipment Furniture and related products Miscellaneous Nondurable manufacturing Food, beverage, and tobacco products Textile and product mills Apparel and leather Paper Printing and support Petroleum and coal products Chemicals Plastics and rubber products Other manufacturing (non-NAICS)	335 3361–3 3364–9 337 339 311,2 313,4 315,6 322 323 324 325 326 <b>1133,5111</b> 21	$     \begin{array}{r}       1.96 \\       5.86 \\       5.35 \\       1.24 \\       3.18 \\       34.25 \\       11.40 \\       .74 \\       .27 \\       2.67 \\       1.59 \\       1.85 \\       12.23 \\       3.50 \\       2.46 \\       10.76 \\     \end{array} $	101.0 127.7 105.5 105.1 106.3 101.1 103.0 104.6 81.2 95.0 100.7 105.7 98.4 107.0 84.1 102.9	101.9 122.0 106.8 104.6 107.3 101.3 103.0 105.2 80.5 96.0 99.2 104.7 98.9 106.7 83.8 103.8	102.9 128.8 106.2 104.2 106.4 100.8 102.7 105.1 81.1 96.0 100.1 106.0 97.7 106.1 83.0 103.7	102.8 129.8 105.7 103.7 108.0 101.0 103.3 106.0 81.6 95.4 99.6 105.3 97.5 107.8 81.8 104.5	101.9 130.9 106.0 103.2 105.7 100.3 103.2 104.5 81.4 95.0 98.8 104.5 96.7 106.2 81.1 104.4	101.6 131.3 105.0 102.9 108.1 100.8 103.1 105.8 83.1 96.1 100.0 104.7 97.1 107.3 80.8 104.1	101.4 132.5 104.6 104.0 106.4 100.9 103.0 106.5 83.0 97.0 100.2 104.5 97.3 107.7 80.5	115.6 101.7 129.9 105.6 104.8 104.7 101.0 102.6 106.8 83.4 98.2 101.2 108.3 97.4 106.3 80.9 107.0	100.6 132.3 104.8 104.4 104.4 104.4 100.7 103.3 103.6 83.6 98.0 100.3 107.7 96.4 106.2 80.7 107.1

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

### Table 5 INDUSTRIAL PRODUCTION INDEXES: SPECIAL AGGREGATES 2012 = 100, seasonally adjusted

12 – 100, seasonany aujusteu											
16		2015	2016	Mari	T	T. I. I	<b>Δ</b> Γ	C and I	Orth I	Num	Des
Item		proportion	Apr.	May	June	July <sup>r</sup>	Aug. <sup>r</sup>	Sept. <sup>r</sup>	Oct. <sup>r</sup>	Nov. <sup>r</sup>	Dec. <sup>p</sup>
Fotal industry		100.00	103.8	103.7	104.2	104.5	104.4	104.2	104.4	103.7	104.6
Energy		21.52	104.3	104.5	106.7	107.4	109.2	107.2	106.7	103.6	107.6
Consumer products		3.38	105.1	106.0	109.4	109.8	113.1	109.6	106.0	101.3	108.8
Commercial products		1.86	104.9	105.5	107.3	107.4	110.7	108.9	106.3	103.5	107.1
Dil and gas well drilling	213111	.39	25.5	23.5	23.6	24.7	25.5	26.8	29.3	30.8	33.7
Converted fuel		5.13	98.8	99.8	106.5	107.5	109.5	106.0	102.5	99.2	104.0
rimary energy		10.76	109.7	109.2	108.2	108.8	109.6	109.0	111.7	108.9	111.1
Non-energy		78.48	103.0	102.8	102.9	103.1	102.6	102.8	103.2	103.0	103.1
Selected high-technology industries		2.66	127.0	127.8	128.7	129.8	129.5	130.3	131.3	130.4	130.8
Computers and peripheral equipment	3341	.36	100.4	104.5	105.0	105.2	106.3	107.9	109.3	105.3	107.8
Communications equipment	3342	.64	123.2	124.6	125.9	125.3	125.2	125.3	125.6	126.2	126.2
Semiconductors and related											
electronic components	3344	1.66	136.5	136.2	137.0	139.1	138.2	139.1	140.3	139.7	139.5
Excluding selected high-technology											
industries		75.82	102.1	101.9	102.0	102.2	101.7	101.8	102.1	102.0	102.2
Motor vehicles and parts	3361-3	5.86	127.7	122.0	128.8	129.8	130.9	131.3	132.5	129.9	132.3
Motor vehicles	3361	2.74	125.7	116.9	126.3	124.3	127.3	128.2	129.5	124.3	127.4
Motor vehicle parts	3363	2.64	128.6	125.6	130.9	135.6	134.1	133.1	133.8	132.9	134.4
Excluding motor vehicles and parts		69.96	100.3	100.5	100.1	100.3	99.6	99.7	100.0	100.1	100.1
Consumer goods		20.87	99.4	99.4	98.9	99.0	98.4	98.5	98.6	98.4	98.4
Business equipment		9.65	101.2	101.5	101.9	102.3	101.7	101.2	101.1	100.6	101.2
Construction supplies		5.10	110.0	109.2	108.3	109.2	107.8	108.5	109.4	110.5	110.2
Business supplies		6.89	99.9	99.7	99.5	99.9	98.5	99.5	99.6	99.6	99.2
Materials		25.09	100.3	100.6	100.2	100.2	99.8	99.8	100.5	100.7	100.5
Measures excluding selected high-technology											
industries											
Fotal industry		97.34	103.2	103.1	103.6	103.9	103.8	103.5	103.7	103.0	103.9
Manufacturing <sup>1</sup>		75.81	102.1	101.9	102.1	102.3	101.8	101.9	102.2	102.1	102.2
Durable		39.29	104.4	103.9	104.8	105.2	104.8	104.7	105.0	104.7	105.3
Measures excluding motor vehicles and parts		39.29	104.4	105.9	104.0	105.2	104.0	104.7	105.0	104.7	105.5
Fotal industry		94.14	102.6	102.8	103.0	103.3	103.1	102.8	103.0	102.4	103.2
Manufacturing <sup>1</sup>		72.61	102.0	102.8	103.0	105.5	103.1	102.8	103.0	102.4	103.2
Durable		36.09	101.3	101.5	101.5	101.5	100.9	101.0	101.2	101.3	101.5
Measures excluding selected high-technology		50.07	105.0	105.2	105.4	105.0	105.0	102.9	105.2	105.2	103.3
industries and motor vehicles and parts											
Fotal industry		91.47	102.0	102.1	102.3	102.5	102.4	102.1	102.2	101.6	102.4
Manufacturing <sup>1</sup>		69.95	100.4	100.5	100.3	100.4	99.8	99.9	100.1	100.2	100.2
Stage_of_process components of non-one-											
Stage-of-process components of non-energy materials, measures of the input to											
		11.75	105.9	105 4	106.9	108.1	107.3	106.6	107.5	107.2	107.4
Finished processors		11.75	105.9	105.4 102.2	106.9	108.1	107.3	106.6 101.1	107.5	107.2	107.4
Primary and semifinished processors											

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1. Refer to note on cover page.

### Table 6 DIFFUSION INDEXES OF INDUSTRIAL PRODUCTION Percent

ercent												
Item	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
One month earlier												
2014	42.5	65.9	66.9	51.5	59.5	56.5	58.2	46.8	62.9	51.5	61.9	49.8
2015	42.8	44.1	54.5	49.5	50.8	47.5	57.9	50.5	41.1	56.2	48.8	51.5
2016	52.5	51.0	45.0	47.0	53.7	52.2	52.2	46.3	57.4	61.7	53.3	
Three months earlier												
2014	45.8	57.2	61.9	67.9	62.2	58.2	61.5	59.2	57.9	55.9	65.9	59.5
2015	54.8	41.1	43.1	49.2	53.2	47.8	54.2	56.5	51.5	54.2	48.5	50.2
2016	50.8	52.3	46.2	41.6	43.6	51.5	56.2	48.8	54.2	56.0	57.4	
Six months earlier												
2014	51.2	53.5	61.5	60.5	59.9	61.5	67.6	64.5	57.5	61.9	66.2	60.9
2015	56.2	51.5	53.8	52.8	45.2	45.5	51.5	55.9	55.9	54.8	50.8	54.8
2016	48.2	48.2	46.2	41.8	49.3	49.2	53.5	47.2	56.2	59.2	58.2	
	1											

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.

			1972-	1994-										
Item		2015	2015	95	2009	2016			2016					
		proportion	ave.	high	low	Q2	Q3 <sup>r</sup>	Q4 <sup>p</sup>	July <sup>r</sup>	Aug. <sup>r</sup>	Sept. <sup>r</sup>	Oct.r	Nov. <sup>r</sup>	Dec.
Total industry		100.00	80.0	85.0	66.7	75.2	75.5	75.3	75.6	75.5	75.3	75.4	74.9	75.
Manufacturing <sup>1</sup>		78.58	78.5	84.6	63.8	74.9	74.8	74.8	75.1	74.7	74.7	74.9	74.7	74.
Manufacturing (NAICS)	31-33	75.80	78.4	84.7	63.5	75.4	75.3	75.3	75.6	75.2	75.2	75.4	75.2	75.
Durable manufacturing		41.24	76.9	83.7	58.2	75.8	76.1	76.0	76.3	76.0	75.9	76.1	75.8	76.
Wood products	321	1.41	76.4	86.6	48.6	66.0	64.7	65.7	65.0	64.8	64.2	65.0	66.2	65.
Nonmetallic mineral products	327	2.52	74.0	82.5	45.0	65.7	64.6	65.6	65.0	64.1	64.7	65.0	65.8	66.
Primary metals	331	2.64	78.8	94.1	49.1	71.0	69.0	69.5	69.4	69.3	68.3	67.9	69.8	70.
Fabricated metal products	332	5.71	77.6	84.9	62.1	78.6	78.9	79.7	78.9	78.6	79.2	79.9	79.2	79.
Machinery	333	6.42	77.7	87.1	58.5	71.5	78.9	79.7	73.7	78.0	79.2	79.9	79.2	79.
	333							72.3					70.9	71.
Computer and electronic products	554	6.10	77.6	84.5	69.8	72.3	71.9	12.3	71.9	72.1	71.8	72.4	72.1	12.
Electrical equip., appliances,	225	1.77	00 (	02.7	(7.0	02.5	02.6	02.7	04.0	02.4	02.1	02.0	02.1	00
and components	335	1.77	82.6	92.7	67.0	83.5	83.6	82.7	84.2	83.4	83.1	82.9	83.1	82.
Motor vehicles and parts	3361-3	5.53	74.9	87.8	33.8	81.5	84.2	84.7	83.7	84.4	84.6	85.3	83.6	85.
Aerospace and miscellaneous							a. –	a						
transportation equipment	3364-9	4.85	74.0	70.1	72.4	82.0	81.7	81.3	81.7	82.0	81.3	81.0	81.8	81.
Furniture and related products	337	1.21	76.5	82.6	56.1	76.5	75.7	76.7	75.9	75.6	75.5	76.3	77.0	76.
Miscellaneous	339	3.09	76.4	80.9	68.8	79.8	80.2	78.6	80.8	79.0	80.8	79.5	78.2	78.
Nondurable manufacturing		34.55	80.3	86.0	69.3	74.8	74.4	74.4	74.6	74.1	74.4	74.5	74.5	74.
Food, beverage, and tobacco products	311,2	11.25	80.8	85.3	75.1	75.7	75.5	74.9	75.7	75.5	75.3	75.1	74.7	75.
Textile and product mills	313,4	.78	79.3	91.9	53.6	71.5	71.9	72.1	72.2	71.3	72.2	72.7	72.9	70.
Apparel and leather	315.6	.31	76.8	87.1	56.9	60.5	62.2	64.1	61.6	61.7	63.3	63.6	64.2	64.
Paper	322	2.42	86.6	92.7	72.9	81.8	81.9	84.1	81.7	81.5	82.5	83.4	84.5	84.
Printing and support	323	1.84	79.7	84.9	58.9	63.8	63.6	64.5	63.6	63.2	64.0	64.2	64.9	64.
Petroleum and coal products	324	2.02	85.4	91.0	76.0	78.5	78.0	79.3	78.3	77.7	77.9	77.6	80.4	79.
Chemicals	325	12.65	77.1	82.1	66.1	73.4	72.6	72.7	72.9	72.3	72.7	72.9	73.0	72.
Plastics and rubber products	326	3.29	82.0	93.3	58.4	77.5	77.1	76.1	77.9	76.5	77.0	77.1	75.9	75.
Other manufacturing (non-NAICS)	1133,5111	2.79	81.0	83.2	67.3	63.3	61.3	60.7	61.8	61.2	60.9	60.6	60.9	60.
Mining	21	11.19	87.3	88.6	79.0	73.9	75.3	78.1	75.1	75.3	75.4	78.2	77.9	78.
Utilities	2211,2	10.22	85.8	93.2	78.2	78.7	80.9	77.1	80.2	82.5	80.1	77.9	74.3	79.
Selected high-technology industries		2.82	77.5	86.5	71.0	73.3	73.7	73.4	73.9	73.4	73.6	73.9	73.2	73.
Computers and peripheral equipment	3341	.40	77.6	88.0	83.0	78.2	82.7	85.6	81.0	82.5	84.5	86.3	83.8	86.
Communications equipment	3342	.72	76.6	84.3	77.5	69.9	70.2	70.6	70.2	70.1	70.2	70.4	70.7	70.
Semiconductors and related	5542	.,2	, 0.0	07.5	11.5	07.7	, 0.2	70.0	, 0.2	, 0.1	,0.2	, 0.4	,0.7	70.
electronic components	3344	1.70	78.9	91.8	62.4	73.9	73.4	72.4	74.1	73.1	73.1	73.2	72.3	71.
Measures excluding selected high-technology industries														
Total industry		97.18	80.1	84.9	66.4	75.3	75.6	75.3	75.7	75.6	75.4	75.5	74.9	75.
Manufacturing <sup>1</sup>		75.76	78.5	84.5	63.3	75.0	74.9	74.9	75.2	74.8	74.8	75.0	74.8	74.
STAGE-OF-PROCESS GROUPS														
		15.30	86.3	90.1	77.0	74.8	76.0	77.8	76.1	76.0	76.0	77.9	77.6	77.
			00.5	20.1	11.0	74.0	70.0	11.0			70.0			, , .
Crude			80.6	87.8	63.8	75.3	757	75.0	75.8	75.0	75 5	75.2	74.4	75
Crude Primary and semifinished Finished		44.60 40.10	80.6 77.0	87.8 80.6	63.8 66.6	75.3 75.2	75.7 75.0	75.0 74.8	75.8 75.2	75.9 75.0	75.5 75.0	75.2 75.0	74.4 74.6	75. 74.

## Table 7 CAPACITY UTILIZATION Percent of capacity, seasonally adjusted

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

## Table 8 INDUSTRIAL CAPACITY Percent change

		Average	nnual rate		Fourth	quarter t	o fourth c	uartar		Annua	1 roto		Monthly rate
Item	1972-	1980-	1989-	1995-	Fourth	quarter t	o iourui c	Juarter	2016	Annua	Tate		2016
пеш	79	88	94	2016	2013	2014	2015	2016	Q1	Q2	Q3	Q4	Dec.
Total industry	3.0	1.9	2.3	2.2	1.0	1.8	2.0	.4	.3	.1	.3	.7	.1
Manufacturing <sup>1</sup>	3.2	2.2	2.6	2.1	.4	.2	.8	.7	.7	.7	.8	.8	.1
Mining Utilities	.7 4.4	.1 2.2	6 1.8	1.2 1.7	6.7 .0	8.3 .9	5.6 .7	-3.4 .8	-2.2 .6	-3.9 .7	-4.2 .8	-3.3 .8	2 .1
Selected high-technology industries	18.6	16.8	15.7	18.4	15.4	.2	4	4.0	3.4	4.1	4.4	4.3	.3
Manufacturing <sup>1</sup> ex. selected high-technology industries	2.6	1.3	1.6	.8	1	.2	.9	.6	.6	.5	.6	.7	.1
STAGE-OF-PROCESS GROUPS Crude	1.5	.4	5	1.2	4.9	6.5	4.8	-2.5	-1.8	-3.0	-3.0	-2.1	1
Primary and semifinished	3.0	1.3	2.5	2.3	.7	.1	.6	1.0	.8	.9	1.1	1.1	.1
Finished	3.9	3.3	2.8	1.9	2	.5	1.2	.7	.8	.6	.6	.6	.1

1. Refer to note on cover page.

## Table 9 GROSS VALUE OF FINAL PRODUCTS AND NONINDUSTRIAL SUPPLIES Billions of 2009 dollars at annual rate, seasonally adjusted 2016

Billions of 2007 domais at almaal fate, seasor			2016			2016					
			2016			2016					
Item	2009	2016	Q2	Q3 <sup>r</sup>	Q4 <sup>p</sup>	July <sup>r</sup>	Aug. <sup>r</sup>	Sept. <sup>r</sup>	Oct. <sup>r</sup>	Nov. <sup>r</sup>	Dec. <sup>p</sup>
Final products and nonindustrial supplies	3,234.7	3,645.9	3,636.4	3,662.5	3,651.7	3,657.9	3,665.4	3,664.3	3,656.3	3,632.1	3,666.7
Final products	2,407.9	2,710.0	2,703.4	2,726.1	2,715.0	2,719.8	2,731.2	2,727.3	2,720.0	2,696.8	2,728.4
Consumer goods	1,790.5	1,967.6	1,960.3	1,986.0	1,974.4	1,978.1	1,992.1	1,988.0	1,978.9	1,958.9	1,985.4
Durable	351.6	526.8	517.1	532.3	538.1	526.0	532.9	537.8	541.8	532.6	540.0
Automotive products	197.7	358.4	349.2	363.9	368.3	357.1	365.6	369.2	371.9	362.9	370.2
Other durable goods	153.9	169.3	168.6	169.4	170.9	169.8	168.5	169.8	171.1	170.7	170.9
Nondurable	1,438.9	1,457.1	1,459.4	1,470.0	1,452.3	1,468.3	1,475.5	1,466.3	1,453.1	1,442.3	1,461.5
Equipment, total	617.4	750.1	750.4	748.1	748.3	749.4	747.3	747.4	748.8	745.3	750.8
Business and defense	600.0	743.4	744.9	742.3	740.6	744.3	741.6	741.0	741.8	737.6	742.5
Business	483.3	635.2	636.6	634.4	632.5	636.8	633.4	633.1	634.6	628.8	634.1
Defense and space	116.8	108.9	108.9	108.6	108.8	108.2	108.9	108.6	107.9	109.5	109.1
Nonindustrial supplies	826.8	937.0	934.0	937.3	937.7	939.2	934.8	937.9	937.3	936.6	939.3
Construction supplies	232.1	282.5	281.9	280.2	284.2	282.6	278.4	279.6	282.3	285.0	285.2
Business supplies	594.7	654.5	652.0	657.4	653.3	656.6	656.9	658.7	655.1	651.1	653.6
Commercial energy products	218.5	234.1	233.3	239.7	232.6	236.6	243.3	239.3	234.0	229.4	234.6

r Revised. p Preliminary.

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

		Fou	rth quarte	er to										
		fo	urth quar	ter	A	Annual r	ate			Month	ly rate			Dec. '15
Item	2015				2016			2016						to
	gross value1	2014	2015	2016	Q2	Q3 <sup>r</sup>	Q4 <sup>p</sup>	July <sup>r</sup>	Aug. <sup>r</sup>	Sept. <sup>r</sup>	Oct.r	Nov. <sup>r</sup>	Dec. <sup>p</sup>	Dec. '16
Finished	2,122.1	2.2	9	1.2	3	1.9	1.1	1	1	.3	.3	6	.7	1.7
Semifinished	1,919.0	3.8	.1	.6	.7	6.8	-3.0	1.1	.1	5	.0	-1.2	1.1	1.4
Primary	1,487.9	-1.8	4	1	4.0	1.2	-5.0	5	.6	-1.0	-1.4	.0	1.6	1.9
Crude	768.1	5.7	-3.4	-2.9	-8.6	1.5	5.6	.5	7	.4	1.2	.2	.0	-1.7

r Revised. p Preliminary.

1. Billions of 2009 dollars.

$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Seasonally adjusted Year	Jan.	Feb.	Mar.	Apr	May	June	Inly	Ang	Sant	Oct	Nov.	Dec.	01	02	03	Q4	Appuol
change         10         5         5         4         2         6         4         0         5         1         1         5         1         5         1         5         1         5         1         5         1         1         5         1         1         5         1         1         0         3         3         4         1         1         1         5         1 </td <td>rear</td> <td>Jan.</td> <td>Feb.</td> <td>war.</td> <td>Apr.</td> <td>May</td> <td>June</td> <td>July</td> <td>Aug.</td> <td>Sept.</td> <td>Oct.</td> <td>INOV.</td> <td>Dec.</td> <td>Q1</td> <td>Q2</td> <td>Q3</td> <td>Q4</td> <td>Annual</td>	rear	Jan.	Feb.	war.	Apr.	May	June	July	Aug.	Sept.	Oct.	INOV.	Dec.	Q1	Q2	Q3	Q4	Annual
1994         4         0         1.0         5         5         5         6         2         6         1.0         5         7.4         5.2         2.5         1.5         4.5         1.5	•																	
1996         2         -1         1         0         3         -3         -4         1.3         4         -1         2         4         4.3         7.5         4.7           1996         -1         12         -3         4         6         -1         9         8         9         3         1         14         12         -5         1.4         6         -5         7         10         3         4         4         5         2.5         5         3.5         1.5         2.5         5         3.5         3         7         -2         6         -4         -4         1.5         3         -5         2.4         4.4         4.6         3.5         3         -5         5         4.4         4.4         3.3         3         -5         5         1.4         2.4         -2         4.7         3.5         5         1.5 </td <td></td> <td>4</td> <td>0</td> <td>1.0</td> <td>~</td> <td>~</td> <td>(</td> <td>2</td> <td>(</td> <td>4</td> <td>0</td> <td>(</td> <td>1.0</td> <td>5.0</td> <td>7.4</td> <td>5.0</td> <td>0.7</td> <td>5.2</td>		4	0	1.0	~	~	(	2	(	4	0	(	1.0	5.0	7.4	5.0	0.7	5.2
1996         -7.         1.6         -1.         9         8         8         -2.         6.         7.         -1.         9.         8.8         8.51         5.6         4.73           1997         5         1.1         1.3         5         1.1         1.3         8         9.1         1.4         8.4         1.4         8.4         4.4         4.4         4.0         1.3         5.         4.4         4.4         4.0         1.0         2.3         4.4         4.4         1.0         -2.         4.3         4.4         4.0         1.0         2.3         4.4         5.5         4.4         5.5         4.3         5.5         4.3         5.5         4.3         5.5         4.3         5.5         4.3         5.5         4.3         5.5         4.4         5.5         4.4         5.5         4.4         5.5         4.3         5.5         4.3         5.5         4.3         5.5         4.3         5.5         4.3         5.5         4.3         5.5         4.3         5.5         4.3         5.5         4.3         5.5         4.3         5.5         4.3         5.5         4.3         5.5         4.3         5.5																		
1997         1         1.2         7         1         6         5         7         1.1         9         8         9         3         7         6.1         9.6         1.6         7         7         1.1         9         8         7         4         4         5         2.5         2.5         2.9         3         7         2.2         6         4         4         1.5         1.4         4.5         1.4         5.1         4.5         1.4         5.5         2.2         9.4         4.2         3.3           2001         -7         -0         -2         -2         -7         -6         -6         -2         -3         -4         1.5         5         2.2         6.4         4.4         2.3         3         7         2.2         2.3         -5         2.2         -7         2.2         3																		
1999         5         5         2         3         7         -2         6         4         -4         15         5         8         45         40         37         7.5         43           2002         6         0         3         4.2         7         2         1																		
2000         0.0         3         4         7         2         1         1         1         1         3         4         5         1         5.1         4.5         1         5.1         4.5         5.5         4.5         5.5         4.5         5.5         4.5         5.5         4.5         5.5         4.5         5.5         4.5         2.2         2.6         4.4         4.2         4.3         4.5         4.5         4.5         4.5         4.5         4.5         4.5         4.5         4.7         4.4         4.2         4.7         4.3         1.1         1.9         9.2         7.7         7.5         7.5         7.2         1.1         1.2         4.4         4.1         4.4         0.0         3.3         2.2         0.1         1.1         1.3         3.4         3.1         4.4         1.0         1.2         2.2         4.6         1.1         3.3         3.4         3.3         2.0         3.7         4.6         1.1         3.3         3.4         3.3         3.4         3.3         3.4         3.3         3.4         3.3         3.4         3.3         3.4         3.3         3.3         3.3         3.3	1998	.5	.1	.1	.3	.6	6	4	2.0	2	.8	1	.4	4.5	2.6	2.9	5.9	5.8
2000         0.0         3         4         7         2         1         1         1         1         3         4         5         1         5.1         4.5         1         5.1         4.5         5.5         4.5         5.5         4.5         5.5         4.5         5.5         4.5         5.5         4.5         5.5         4.5         2.2         2.6         4.4         4.2         4.3         4.5         4.5         4.5         4.5         4.5         4.5         4.5         4.5         4.7         4.4         4.2         4.7         4.3         1.1         1.9         9.2         7.7         7.5         7.5         7.2         1.1         1.2         4.4         4.1         4.4         0.0         3.3         2.2         0.1         1.1         1.3         3.4         3.1         4.4         1.0         1.2         2.2         4.6         1.1         3.3         3.4         3.3         2.0         3.7         4.6         1.1         3.3         3.4         3.3         3.4         3.3         3.4         3.3         3.4         3.3         3.4         3.3         3.4         3.3         3.3         3.3         3.3	1999	5	5	2	3	7	- 2	6	4	- 4	13	5	8	4.5	4.0	37	73	44
2002         6         0         8         4         4         1         0         -2         0         1         -3         5         -5         1         22         2.5         4.1         1.1           2004         5         7         -2         1         8         8         1         1         9         2         7         2.3         2.3         5.3         5.3           2006         -1         1         1         2         4         -1         4         0         3         -2         0.1         1.1         1.0         2.2         7.5         0.0         0.2         -3         -5         0.0         3.7         4.0         9         7.7         2.5         1.5         4.3         9         -1.2         2.0         1.0         3.5         1.8         2.0         1.5         2.0         1.0         2.0         1.1         3         3.4         3         3.4         3         2.0         1.5         2.0         1.0         2.0         1.5         3.0         2.0         1.0         2.0         1.0         2.0         1.0         2.0         1.0         1.0         1.0         1.0 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>																		
2003         .6         .3        2         .7         0         2         4         -2         0         .1         .8         *.1         1.2         2.2         -2.8         2.5         4.1         1.2           2004         .2         .6         .5         .4         .8         .8         .1         1.1         .9         1.2         .1.7         2.3         .2.3         .5.7         2.3         .2.4         .2.4         .0.9         .2.3         .2.4         .1.0         .2.4         .2.4         .0.9         .2.4         .2.7         .2.7         .2.8         .2.5         .2.5         .2.5         .2.5         .2.5         .2.5         .2.5         .2.5         .2.5	2001					7				3								
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$																		
2005         1         1         2         1         2         4         1         4         0         3         2         0.1         11         13         10         2.0         5.1         11         13         5.7         2.0         2.0         1.0         2.2         3         3.5         5         5         1.0         3.7         4.9         9         7.7         2.5           2007        3        3        2        7        5        2         2.5         5.1         3.4         3         4.4         3         3.4         8         7.8         8.6         5.9         1.5         5.5         2.1         1.4         4.3        3         4.8         7.8         7.8         6.8         6.4         1.1         5.5         3.2         2.0         9         3.1         5.5         3.2         2.0         2.0         2.0         3        5         3         3.5         3         3.6         6.5         1.0         3.2         2.0         2.0         2.0         2.0         2.0         2.0         2.0         2.0         2.0         2.0         2.0         2.0         2.0         2.0	2003	.6	.3	2	7	.0	.2	.4	2	.6	.1	.8	1	2.2	-2.8	2.5	4.1	1.2
2006         .1         .1         .2         .4         .1         .4         0         0         2         .1         1.1         1.9         2.2         1.4         1.0         2.2           2008        5         1.0         2.7        5        2        5         1.5         4.3         9         1.2         2.9         1.7         -5.5         1.0         3.5         5.5         0.0         1.7         -5.5         1.0         3.5         1.8         8.6         5.9         1.1         5.5         1.0         3.5         1.5         1.0         1.1         8.4         4.1         1.0         1.1         8.3         7.7         7.4         4.0         0.0         2.2         5.5         0.7         7.1         3.0         2.2         1.2         9.9         4.1         5.5         2.0         2.7         3.3         3.6         2.2         5.5         3.7         2.2         2.0         7.5         7.1         3         2.2         5.5         3.7         2.2         2.5         3.7         2.2         5.5         3.7         2.2         5.5         3.7         3.7         2.2         5.5         3.7         3																		
2007         -5         1.0         2.7         0         0         0         2         3         -5         5         0         3.7         4.9         9         7         2.5           2009         -2.4         -6         -1.6         -9         -1.0         -4         1.0         1.1         8         3         -4         3         -20.5         -1.1         3         5.8         6.4         -11.5           2010         1.1         -4         1.9         -4         1.2         2.4         4         3         -4         3         20.5         -1.1.3         5.8         6.4         -1.1.5         5.9         2.2         7.3         -5         -1         3         -2         2.7         1.2         9         3.2         2.1         9         3.2         2.2         1.0         3.3         -1         -2         2.2         2.5         1.3         3.3         2.2         7.7         1.2         9         3.2         2.7         1.2         9         3.2         2.7         1.2         2.7         1.2         2.7         1.3         3.3         2.2         1.2         2.2         1.2         3.3         3.3 <td></td>																		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$																		
2010         1.1         3         7.         4         1.6         2         4         4         3         -3         1.1         8         7.8         8.6         5.9         1.5         5.2           2012         7.         3         -7         9         2         0         3         -5         1         3         5         3         3.6         2.7         1.2         9         3.2         19           2013        1         5.3         1.4         4         4         1         0         4         1.1         0         -2         2.7         1.2         9         3.2         1.9         3.3         -5         2.7         1.8         1.8         6         -1.0           2016         -5        1        9         A        1         5         3         -1         2         -7         7         8         1.0         3.1         10.3         10.4         10.4         10.5         10.5         10.5         10.5         10.5         10.5         10.5         10.5         10.5         10.5         10.5         10.5         10.5         10.5         10.5         10.5         10.5 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>																		
2010         1.1         3         7.         4         1.6         2         4         4         3         -3         1.         8         7.8         8.6         5.9         1.5         5.5           2012         7.7         3         -7         9         2         0         3         -5         1         3         5.8         2.0         2.3         3         2.6         2.7         1.5         3         2.7         1.2         9         3.2         1.9           2014         -5         8.8         8.1         1.4         4         1         0         4         1.1         0         -2         2.7         1.8         1.8         6         -1.0           2016         -5         -1         -9         A         -1         5         3         -1         2         -7         8         1.7         1.8         1.6         -1.0           2016         10.5         10.5         10.5         10.5         10.5         10.5         10.5         10.5         10.5         10.5         10.5         10.5         10.5         10.5         10.5         10.5         10.5         10.5         10.5	2000	2.4	(	1.6	0	1.0	4	1.0	1.1	0	2	4	2	20.5	11.2	5.0	6.4	11.5
2011         -1.         -4.         -9.         -4.         -2.         2.         2.         5.         5.         0.         7.         -1.         4.         2.0         9.         4.1         3.5         2.3         2.6         2.8           2013        1         5.         1.         0.0         0.2        6         7.         5.        1         3.5         2.2         2.2         2.5         2.5         2.5         2.5         3.3         3.3         3.3           2016         -5         -1         -3         -2         -2         2.2         6         1.1         -2         2.2         5.5         2.5         3.3         3.3           2016         5         0.5         10.5         10.4         10.5         10.5         10.4         10.5         10.5         10.4         10.5         10.5         10.4         10.5         10.5         10.4         10.5         10.5         10.4         10.5         10.5         10.4         10.5         10.5         10.4         10.5         10.5         10.4         10.5         10.5         10.4         10.5         10.5         10.4         10.5         10.5         <																		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $																		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	2012	.7	.3	7	.9	.2		.3			.3	.5	.3		2.5	.3	2.6	2.8
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	2013	1	.5	.1	.0	.0	.2	6	.7	.5	1	.3	.2	2.7	1.2	.9	3.2	1.9
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	2014	5	.8		.1	.4	.4	.1	.0	.4	.1	1.0	2	2.2	5.5		3.7	
IP (2012=100)         P(2012=100)         P(2012=100)         P(2015         P(2015)         P(2015) <td></td>																		
2014         102.5         103.3         104.1         104.2         104.7         105.3         105.6         105.6         105.6         105.6         105.8         105.1         105.5         106.6         105.5         105.6         105.3         105.0         105.5         106.6         105.5         106.6         105.5         106.6         105.5         106.6         105.5         106.6         105.2         104.4         103.7         104.6         104.1         103.9         104.4         103.2         104.4         103.2         104.4         103.7         104.6         104.1         103.9         104.4         104.2         104.2           Capacity (percent of 2012 comput)         133.0         133.1         133.2         133.4         133.6         133.8         134.0         134.3         134.6         134.9         135.2         135.6         135.0         136.2         137.1         137.7         138.0 <th< td=""><td>2016</td><td>.5</td><td>1</td><td>9</td><td>.4</td><td>1</td><td>.5</td><td>.3</td><td>1</td><td>2</td><td>.2</td><td>7</td><td>.8</td><td>-1.7</td><td>8</td><td>1.8</td><td>6</td><td>-1.0</td></th<>	2016	.5	1	9	.4	1	.5	.3	1	2	.2	7	.8	-1.7	8	1.8	6	-1.0
2015         106.0         105.5         105.5         105.5         105.5         105.5         105.5         104.5         104.4         103.7         104.6         104.1         103.9         104.4         104.2         104.5         104.4         103.7         104.6         104.1         103.9         104.4         104.2         104.2           Capacity (percent of 2012 output)         2014         133.0         133.1         133.2         133.4         133.6         133.8         134.0         134.3         134.6         134.9         135.2         135.6         133.1         133.2         133.4         133.6         133.7         137.7         137.8         137.9         138.0         136.2         138.1	<b>IP</b> (2012=100)																	
2016         104.5         104.4         103.4         103.7         104.5         104.4         104.2         104.4         103.7         104.6         104.1         103.9         104.4         104.2         104.2           Capacity (percent) 2012 output)         s																		
Capacity (percent of 2012 output)         Res         Res <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>																		
(precur) of 2012 output)         133.0         133.1         133.2         133.4         133.6         133.8         134.0         134.3         134.6         135.9         135.6         133.1         133.6         134.3         135.2         137.7         137.8         137.9         138.0         138.1         138.1         138.1         138.1         138.1         138.1         138.1         138.1         138.1         138.1         138.1         138.2         138.2         138.4         138.5         138.6         138.1         138.1         138.1         138.1         138.1         138.1         138.1         138.1         138.2         138.2         138.4         138.4         138.5         138.6         138.6         138.6         138.1         138.1         138.1         138.1         138.1         138.1         138.2         138.2         138.2         138.4         138.5         138.6         138.6         138.6         138.5         138.6         138.5         138.6         138.5         138.5         138.5         138.5         138.5         138.5         138.5         138.5         138.5         138.5         138.5         138.5         138.5         138.5         138.5         138.5         138.5         138	2010	104.5	104.4	105.4	105.8	103.7	104.2	104.5	104.4	104.2	104.4	103.7	104.0	104.1	103.9	104.4	104.2	104.2
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Capacity																	
2014         133.0         133.1         133.2         133.4         133.6         133.8         133.0         133.1         133.6         133.1         133.6         133.1         133.6         133.1         133.6         133.1         133.6         133.1         133.1         133.1         133.1         137.5         137.7         137.7         137.7         137.8         137.1         137.3         137.7         137.7         137.8         137.1         137.3         137.1         137.3         137.7         137.7         138.0         138.0         138.1         138.1         138.2         138.2         138.4         138.4         138.1         138.2         138.2         138.4         138.4         138.4         138.4         138.1         138.2         138.2         138.4         138.4         138.4         138.4         138.4         138.4         138.4         138.4         138.4         138.4         138.4         138.2         138.2         138.1         138.2         138.2         138.1         138.2         138.2         138.4         138.4         138.4         138.4         138.4         138.4         83.6         83.7         83.4         83.4         83.4         83.6         83.4         83.4 <td></td>																		
2015         135.9         136.2         136.5         136.8         137.1         137.5         137.7         137.8         137.9         138.0         138.0         136.2         137.1         137.7         138.0         138.0         138.1         137.7         138.0         137.2           2016         138.1         138.1         138.1         138.1         138.1         138.2         138.2         138.3         138.4         138.5         138.6         138.1         138.1         138.2         138.2           Uilization (percent)           82.4         82.2         82.9         83.1         83.3         83.6         83.7         83.6         83.4         83.4         83.4         83.4         83.4         83.5         83.5         83.7         83.6         83.1         83.4         83.5         83.3         83.4         83.4         83.4         83.4         83.4         83.4         83.4         83.4         83.4 </td <td>· ·</td> <td>122.0</td> <td>122.1</td> <td>122.2</td> <td>122.4</td> <td>122.6</td> <td>122.0</td> <td>124.0</td> <td>124.2</td> <td>124.6</td> <td>124.0</td> <td>125.2</td> <td>125.6</td> <td>122.1</td> <td>122.6</td> <td>124.2</td> <td>125.2</td> <td>124.1</td>	· ·	122.0	122.1	122.2	122.4	122.6	122.0	124.0	124.2	124.6	124.0	125.2	125.6	122.1	122.6	124.2	125.2	124.1
2016         138.1         138.1         138.1         138.2         138.2         138.3         138.4         138.5         138.6         138.1         138.1         138.2         138.2           Uilization (percent)         1994         82.4         82.2         82.9         83.1         83.3         83.6         83.7         83.7         83.7         84.4         85.0         82.5         83.3         83.6         83.5           1995         84.9         84.4         84.5         84.3         84.0         83.5         83.8         83.3         83.4         83.4         83.4         83.4         83.4         83.4         83.4         83.4         83.7         83.7         83.4         83.4         83.4         83.7         83.7         83.4         83.4         83.4         83.4         83.4         83.4         83.4         83.4         83.4         83.4         83.4         83.4         83.4         83.4         83.6         83.7         83.6         83.8         84.2         84.4         84.5         83.7         83.6         84.1         84.6         84.8         84.5         83.7         83.6         84.1         84.6         84.8         84.5         83.7 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>																		
(premt)         (premt) <t< td=""><td>2016</td><td>138.1</td><td>138.1</td><td>138.1</td><td></td><td>138.1</td><td>138.2</td><td></td><td></td><td>138.3</td><td>138.4</td><td>138.5</td><td></td><td>138.1</td><td>138.1</td><td>138.2</td><td>138.5</td><td></td></t<>	2016	138.1	138.1	138.1		138.1	138.2			138.3	138.4	138.5		138.1	138.1	138.2	138.5	
(premt)         (premt) <t< td=""><td>Utilization</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	Utilization																	
1994         82.4         82.2         82.2         82.9         83.1         83.3         83.6         83.5         83.7         84.7         84.2         84.4         85.0         82.5         83.3         83.6         84.5         83.3         83.6         83.9         83.3         83.9         83.3         83.4         83.6         83.4         83.4         83.4         83.4         83.4         83.4         83.4         83.4         83.4         83.4         83.3         83.4         83.3         83.4         83.3         83.4         83.4         83.4         83.4         83.4         83.4         83.5         83.7         83.6         83.1         83.3         83.4         83.6         83.1         83.8         83.2         82.2         83.6         83.4         83.3         83.6         83.7         83.7         83.4         83.6         83.4         83.5         83.7         83.2 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>																		
1996       82.5       83.4       82.9       83.3       83.5       83.8       83.3       83.4       83.6       83.1       83.4       83.5       82.9       83.6       83.4       83.3         1997       83.2       83.8       84.0       83.6       83.7       83.6       83.8       84.2       84.4       84.6       84.8       84.5       83.7       83.6       83.4       84.2         1998       84.4       83.9       83.4       83.2       83.2       82.2       81.4       82.6       82.0       82.2       81.8       81.8       81.8       81.4       84.6       84.4       84.6       84.8       84.5       83.7       83.6       83.4       83.7       83.6       83.4       84.0       82.0       82.3       82.1       82.0       82.0       82.7       82.9       83.6       83.4       83.6       83.7       83.6       83.4       83.6       83.4       83.8       81.9       83.1       83.4       83.7       83.6       83.4       83.7       83.6       83.4       83.7       83.7       83.7       83.6       83.4       83.7       83.7       83.6       83.7       83.7       83.7       83.6       83.7       <		82.4	82.2	82.9	83.1	83.3	83.6	83.5	83.7	83.7	84.2	84.4	85.0	82.5	83.3	83.6	84.5	83.5
1997         83.2         83.8         84.0         83.6         83.7         83.6         83.8         84.2         84.4         84.6         84.8         84.5         83.7         83.6         84.1         84.6         84.8           1998         84.4         83.9         83.4         83.2         83.2         82.2         81.4         82.6         82.0         82.3         81.8         81.8         81.6         81.4         82.0         82.7           1999         81.8         81.9         81.6         81.5         81.8         81.4         81.6         81.0         81.8         81.9         82.1         81.2         80.3         81.4           2001         79.1         78.4         77.9         77.5         76.8         76.1         75.4         75.5         75.2         74.8         74.3         73.8         73.7         76.8         75.4         75.0         75.4         75.9         75.7         76.2         76.3         76.9         75.9         75.4         75.4         75.0         75.4         75.9         75.7         76.2         76.3         76.9         75.9         75.4         75.9         76.7         76.0           2004																		
1998         84.4         83.9         83.4         83.2         82.2         81.4         82.6         82.0         82.3         81.8         81.8         83.9         82.8         82.0         82.0         82.7           1999         81.8         81.9         81.6         81.5         81.8         81.4         81.6         81.0         81.8         81.9         82.2         81.8         81.6         81.4         82.0         82.1           2000         81.9         81.9         81.9         82.3         82.1         81.9         81.6         81.0         81.8         81.9         82.1         81.2         80.3         81.4           2001         79.1         78.4         77.9         77.5         76.8         76.1         75.5         75.2         75.6         75.3         74.4         74.7         74.7         74.7         74.7         75.5         75.8         75.7         76.2         76.3         76.9         75.9         75.4         75.4         75.4         75.4         75.4         75.4         75.4         75.4         75.4         75.4         75.4         75.4         75.4         75.4         75.9         76.7         76.0																		
1999         81.8         81.9         81.6         81.5         81.8         81.4         81.6         81.0         81.8         81.9         82.2         81.8         81.6         81.4         82.3         81.0         81.1         80.6         80.4         79.9         81.9         82.1         81.9         82.1         81.9         82.1         81.9         82.1         81.4         81.6         81.0         81.1         80.6         80.4         79.9         81.9         82.1         81.2         80.3         81.4           2001         79.1         78.4         77.9         77.5         76.8         76.1         75.5         75.2         74.8         74.3         73.8         73.7         78.5         76.8         75.4         75.4         75.4         75.7         76.2         76.3         76.9         75.9         75.4         75.4         75.7         76.2         76.3         76.9         75.9         75.4         75.4         75.7         76.2         76.3         76.9         75.9         75.4         75.4         75.6         75.3         74.1         75.0         76.7         76.0           2004         77.1         77.5         77.2         77.5<																		
2000         81.9         81.9         81.9         81.6         81.0         81.1         80.6         80.4         79.9         81.9         82.1         81.2         80.3         81.4           2001         79.1         78.4         77.9         77.5         76.8         76.1         75.5         75.2         74.8         74.3         73.8         73.7         78.5         76.8         75.2         73.9         76.1           2003         75.7         76.0         75.9         75.4         75.4         75.5         75.7         76.2         76.3         76.9         75.9         75.7         76.0           2004         77.1         77.5         77.2         77.5         78.2         77.6         78.2         78.3         79.0         79.1         79.7         77.3         77.8         78.2         79.3         78.1           2005         80.0         80.4         80.2         80.2         80.3         80.5         80.1         80.2         80.3         80.6         80.3         80.1         79.9         80.5         80.2         80.3         80.6         80.3         80.1         79.9         80.5         80.5         80.2         80.2																		
2001         79.1         78.4         77.9         77.5         76.8         76.1         75.5         75.2         74.8         74.3         73.8         73.7         78.5         76.8         75.2         73.9         74.1         75.0         75.4         75.4         75.5         75.2         75.6         75.3         74.1         75.0         75.4         75.4         75.5           2003         75.7         76.0         75.9         75.3         75.4         75.5         75.8         75.7         76.2         76.3         76.9         75.9         75.4         75.9         76.7         76.0           2004         77.1         77.5         77.2         77.5         78.2         78.2         78.3         79.0         79.1         79.7         77.3         77.8         78.2         79.3         78.1           2005         80.0         80.4         80.2         80.3         80.1         80.5         80.2         80.3         80.1         80.5         80.2         80.3         80.0         80.0         80.0         80.0         80.0         80.0         80.0         80.0         80.5         80.4         80.9         80.7         80.5         80.9 <td></td>																		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$																		
2003         75.7         76.0         75.9         75.3         75.4         75.5         75.8         75.7         76.2         76.3         76.9         76.9         75.9         75.4         75.9         76.7         76.0           2004         77.1         77.5         77.2         77.5         78.2         77.6         78.2         78.3         79.0         79.1         79.7         77.3         77.8         78.2         79.3         80.0         80.0         80.4         80.2         80.3         80.5         80.1         80.2         78.5         79.4         80.1         80.5         80.3         79.6         80.0         80.0         80.0         80.4         80.5         80.6         80.5         80.6         80.3         80.1         79.9         80.5         80.6         80.5         80.6         80.7         80.9         80.5         80.6         80.7         80.9         80.7         80.5         80.9         80.7         80.5         80.4         80.9         80.7         80.8         80.7         80.5         79.5         77.0         73.5         77.7         74.3         74.9         74.0         71.7         80.5         79.5         77.0         73																		
2005         80.0         80.4         80.2         80.3         80.5         80.1         80.2         78.5         79.4         80.1         80.5         80.2         80.3         79.6         80.0         80.0           2006         80.5         80.4         80.5         80.7         80.5         80.6         80.3         80.1         79.9         80.5         80.6         80.5         80.4         80.5         80.2         80.3         79.6         80.0         80.4           2007         80.0         80.6         80.6         81.0         80.9         80.7         80.6         80.7         80.9         80.9         80.9         80.4         80.9         80.7         80.8         80.9         80.7         80.5         80.9         80.9         80.4         80.9         80.7         80.8         80.9         80.7         80.8         80.9         80.9         80.7         80.8         80.9         80.9         80.4         80.9         80.7         80.8         80.9         80.9         80.4         80.9         80.7         80.8         80.7         71.7         74.0         71.7         74.0         71.7         74.0         71.7         73.5         73.5<																		
2005         80.0         80.4         80.2         80.3         80.5         80.1         80.2         78.5         79.4         80.1         80.5         80.2         80.3         79.6         80.0         80.0           2006         80.5         80.4         80.5         80.7         80.5         80.6         80.3         80.1         79.9         80.5         80.6         80.5         80.4         80.5         80.2         80.3         79.6         80.0         80.4           2007         80.0         80.6         80.6         81.0         80.9         80.7         80.6         80.7         80.9         80.9         80.4         80.9         80.7         80.8         80.9         80.9         80.4         80.9         80.7         80.8         80.9         80.9         80.4         80.9         80.7         80.8         80.9         80.9         80.4         80.9         80.7         80.8         80.9         80.9         80.4         80.9         80.7         80.8         80.9         80.9         80.4         80.9         80.7         80.8         80.7         71.7         71.0         71.7         71.5         71.0         71.5         71.0         71.5<	2004	77 1	77 5	77 2	77 5	78.2	77.6	78.2	78.2	78 3	79.0	79 1	797	77 3	77 8	78.2	79 3	78.1
2006         80.5         80.4         80.5         80.7         80.5         80.6         80.3         80.1         79.9         80.5         80.6         80.5         80.4         2007           2007         80.0         80.6         80.6         81.0         80.9         80.7         80.9         80.5         80.9         80.9         80.4         80.9         80.7         80.8           2008         80.7         80.5         80.4         79.8         79.5         79.4         78.9         77.7         74.3         74.9         74.0         71.7         80.5         79.5         77.0         73.5         77.7           2009         70.0         69.5         68.3         67.7         67.0         66.7         67.4         68.2         68.8         69.1         69.5         69.8         69.2         67.1         68.1         69.5         68.5           2010         70.8         71.2         71.8         72.2         73.5         73.8         74.3         74.7         75.0         75.7         75.7         75.8         76.4         76.5         76.7         75.7         75.8         76.4         76.5         76.7         75.7         75.8																		
2008         80.7         80.5         80.4         79.8         79.5         79.4         78.9         77.7         74.3         74.9         74.0         71.7         80.5         79.5         77.0         73.5         77.7           2009         70.0         69.5         68.3         67.7         67.0         66.7         67.4         68.2         68.8         69.1         69.5         69.8         69.2         67.1         68.1         69.5         68.3         69.2         67.1         68.1         69.5         68.5         2010         73.2         74.6         75.2         73.5         73.8         74.3         74.7         75.0         75.7         75.7         75.8         76.4         76.6         76.1         75.7         75.7         75.8         76.4         76.6         76.1           2012         77.1         77.1         76.4         76.9         76.8         76.8         76.3         76.3         76.3         76.6         76.7         75.8         76.4         76.6         76.1           2012         77.1         77.1         76.4         76.9         76.8         76.3         76.3         76.6         76.7         76.8         76.6 <td>2006</td> <td>80.5</td> <td>80.4</td> <td>80.5</td> <td>80.7</td> <td>80.5</td> <td>80.6</td> <td>80.5</td> <td>80.6</td> <td>80.3</td> <td>80.1</td> <td>79.9</td> <td>80.5</td> <td>80.5</td> <td>80.6</td> <td>80.5</td> <td>80.2</td> <td>80.4</td>	2006	80.5	80.4	80.5	80.7	80.5	80.6	80.5	80.6	80.3	80.1	79.9	80.5	80.5	80.6	80.5	80.2	80.4
2009         70.0         69.5         68.3         67.7         67.0         66.7         67.4         68.2         68.8         69.1         69.5         69.8         69.2         67.1         68.1         69.5         68.5           2010         70.8         71.2         71.8         72.2         73.5         73.8         74.3         74.7         75.0         74.9         75.7         71.2         73.2         74.6         75.2         73.6           2011         75.7         75.4         76.0         75.7         75.8         75.9         76.2         76.5         76.4         76.8         76.7         75.7         75.8         76.4         76.3         76.6         76.7         75.7         75.8         76.4         76.3         76.3         76.6         76.7         75.9         76.5         76.4         76.3         76.6         76.7         76.9         76.5         76.6         76.7           2013         76.6         76.9         76.8         76.4         76.9         77.2         77.1         77.4         77.5         76.8         76.8         76.3         76.6         76.7         76.8         76.8         76.9         76.7         76.6 <td></td>																		
2010         70.8         71.2         71.8         72.2         73.5         73.8         74.3         74.7         75.0         74.9         75.0         75.7         71.2         73.2         74.6         75.2         73.6           2011         75.7         75.4         76.0         75.7         75.8         75.9         76.2         76.5         76.4         76.8         76.7         75.7         75.8         76.4         76.6         76.7         75.7         75.8         76.4         76.6         76.7         75.7         75.8         76.4         76.6         76.7         75.7         75.8         76.4         76.6         76.7         75.7         75.8         76.4         76.6         76.7         75.7         75.8         76.4         76.6         76.7         75.7         75.8         76.4         76.6         76.7         75.7         75.8         76.4         76.6         76.3         76.6         76.7         75.7         75.8         76.4         76.9         77.2         77.1         77.4         77.5         76.8         76.6         76.7         76.8         76.4         76.9         77.2         77.1         77.4         77.5         76.8         76	2008	80.7	80.5	80.4	79.8	79.5	79.4	78.9	77.7	74.3	74.9	74.0	71.7	80.5	79.5	77.0	73.5	77.7
2011         75.7         75.4         76.0         75.7         75.8         75.9         76.2         76.5         76.4         76.8         76.7         75.7         75.8         76.4         76.6         76.7         75.7         75.8         76.4         76.6         76.7         75.7         75.8         76.4         76.6         76.7         75.7         75.8         76.4         76.6         76.7         75.7         75.8         76.4         76.6         76.7         75.7         75.8         76.4         76.6         76.7         75.7         75.8         76.4         76.6         76.7         75.7         75.8         76.4         76.6         76.7         75.7         75.8         76.4         76.6         76.7         75.8         76.4         76.6         76.7         75.8         76.4         76.6         76.3         76.6         76.7         76.8         76.7         76.8         76.3         76.3         76.3         76.3         76.3         76.3         76.3         76.3         76.4         76.7         77.1         77.4         77.5         76.8         76.8         77.3         76.9         76.4         76.7         76.4         76.3         75.4 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>																		
2012         77.1         77.1         76.4         76.9         76.9         76.8         76.3         76.3         76.6         76.7         76.9         76.9         76.5         76.6         76.7           2013         76.6         76.9         76.9         76.8         76.7         76.9         77.1         77.1         77.4         77.5         76.8         76.8         76.7         76.9         76.8         76.7         76.9         76.8         76.7         76.9         76.7         76.8         76.7         76.9         76.7         76.8         76.7         76.9         76.7         76.8         76.7         76.9         76.8         76.7         76.9         76.7         76.9         76.8         76.7         76.9         76.7         76.9         76.8         76.7         76.9         76.8         76.8         77.3         76.9         76																		
2013         76.6         76.9         76.9         76.8         76.7         76.8         76.4         76.9         77.2         77.1         77.4         77.5         76.8         76.8         76.8         77.3         76.9           2014         77.0         77.6         78.1         78.1         78.4         78.6         78.3         78.4         78.3         78.9         78.6         77.6         78.4         78.6         78.2           2015         78.0         77.7         77.3         76.9         76.6         76.4         76.7         76.4         76.3         75.7         75.4         77.7         76.6         76.6         76.7           2016         75.7         75.6         74.9         75.2         75.1         75.4         75.5         75.3         75.4         74.9         75.2         75.5         75.3         75.4         74.9         75.2         75.5         75.3         75.4         74.9         75.5         75.3         75.4         74.9         75.5         75.3         75.4         74.9         75.5         75.3         75.4         75.4         75.5         75.3         75.4         74.9         75.5         75.3         75.4 <td></td>																		
2015         78.0         77.7         77.3         76.9         76.6         76.7         76.4         76.3         75.7         75.4         77.7         76.6         76.6         75.7           2016         75.7         75.6         74.9         75.2         75.1         75.4         75.5         75.3         75.4         74.9         75.2         75.5         75.4																		
2015         78.0         77.7         77.3         76.9         76.6         76.7         76.4         76.3         75.7         75.4         77.7         76.6         76.6         75.7           2016         75.7         75.6         74.9         75.2         75.1         75.4         75.5         75.3         75.4         74.9         75.2         75.5         75.4	2014	77 0	77 6	70 1	70 1	701	786	785	78.2	70 1	78.2	78.0	786	776	70 1	701	786	78.2
2016 75.7 75.6 74.9 75.2 75.1 75.4 75.6 75.5 75.3 75.4 74.9 75.5 75.4 75.2 75.5 75.3 75.4																		
							2											

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

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

Seasonally adjusted Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
Icai	Jan.	reo.	Widi.	Api.	Iviay	June	July	Aug.	Sept.	001.	NOV.	Dec.		Q2	Q3	Q4	Annual
<b>IP</b> (percent																	
$(change)^2$ 1994	.2	.1	1.3	.8	.7	.3	.4	.8	.5	1.0	.8	1.1	4.8	9.4	6.1	10.2	5.8
1995	.2	2	.2	1	.1	.5	6	1.1	.9	.0	.0	.4	4.4	.8	3.0	4.5	5.1
1996	8	1.6	2	1.1	.8	1.0	.2	.5	.8	2	.9	.9	2.0	10.0	7.5	5.8	4.9
1997	.1	1.4	1.1	2	.8	.7	.7	1.3	.9	.9	1.1	.4	9.3	7.3	10.6	11.4	8.4
1998	.8	.1	1	.5	.5	8	4	2.4	2	1.0	.2	.6	6.0	2.1	3.3	8.1	6.6
1999	.3	.8	1	.4	.9	3	.4	.6	4	1.5	.6	.7	5.2	4.6	3.3	8.6	5.1
2000	.1	.2	.6	.7	1	.2	.1	7	.4	3	3	6	4.4	4.9	4	-2.3	4.1
2001	6	6	3	2	7	7	4	5	2	6	3	.3	-6.0	-5.2	-5.9	-3.9	-3.7
2002 2003	.5 .5	.0	.8	.2	.5 .1	1.1 .5	4 .2	.2 4	.1 .8	4 .1	.4 1.0	5 2	3.6	5.9 -1.9	3.1 2.2	4 4.6	.4
2005		.1	.1	0	.1	.5	.2	+	.0	.1	1.0	2	1.7	-1.9	2.2	4.0	1.5
2004	1	.7	2	.4	.8	7	.9	.5	.0	1.0	1	.7	2.4	3.4	4.0	5.4	3.1
2005	.8 .8	.8 3	5 1	.3	.4	.2 .3	4 3	.4 .6	-1.0	1.5 3	.8	.1 1.5	6.4 3.8	2.3 .8	8 .8	6.3	4.0
2006 2007	.0 5	3	1	.0	5 1	.3	5	3	.1 .4	3	.1 .5	.1	4.2	.o 5.8	.0	1.8 .4	2.5 2.7
2008	4	6	3	-1.1	5	5	-1.2	-1.2	-3.4	6	-2.3	-3.4	-2.9	-7.8	-13.5	-21.5	-4.8
2000	2.0	2	1.0	0	1.1	4	1.4	1.1	0	2	0	2	24.2	11.5	7.4	( )	12.0
2009 2010	-3.0 1.1	2 1	-1.9 1.2	8 .9	-1.1 1.5	4 .0	1.4 .6	1.1 .2	.8 .1	.2	.9 .0	2 .4	-24.3	-11.5 10.8	7.4 5.0	6.9 1.5	-13.8 5.8
2010	.2	.1	.5	6	.1	.1	.6	.2	.3	.6	4	.6	2.9	5	4.0	3.4	2.9
2012	1.0	.4	6	.7	4	.2	1	2	.0	3	.7	.7	5.3	.8	8	1.7	2.6
2013	3	.5	3	3	.2	.2	-1.0	.9	.1	.1	1	.0	2.8	6	4	1.6	.9
2014	-1.1	1.1	.7	.1	.2	.4	.4	4	.1	.0	.9	2	8	4.7	2.2	2.0	1.3
2015	4	4	.2	.2	.0	2	.7	1	2	.2	3	.0	-1.6	.6	1.7	7	.8
2016	.4	1	4	.1	2	.2	.2	5	.1	.3	1	.2	.2	-1.1	.2	.7	.1
<b>IP</b> (2012=100)																	
2014	100.0	101.0	101.7	101.8	102.0	102.4	102.8	102.4	102.6	102.6	103.5	103.3	100.9	102.1	102.6	103.1	102.2
2015 2016	103.0 103.4	102.5 103.3	102.7 102.9	102.9 103.0	103.0 102.8	102.8 103.0	103.5 103.3	103.4 102.8	103.1 102.9	103.4 103.2	103.1 103.0	103.0 103.2	102.7 103.2	102.9 102.9	103.3 103.0	103.2 103.1	103.0 103.1
2010	105.4	105.5	102.9	105.0	102.0	105.0	105.5	102.0	102.9	105.2	105.0	105.2	105.2	102.9	105.0	105.1	105.1
Capacity																	
(percent of 2012 output)																	
2012 <i>Julpul</i> ) 2014	135.5	135.4	135.4	135.4	135.4	135.5	135.5	135.5	135.6	135.7	135.7	135.8	135.4	135.4	135.5	135.7	135.5
2015	135.9	136.0	136.1	136.2	136.3	136.4	136.5	136.6	136.7	136.8	136.9	137.0	136.0	136.3	136.6	136.9	136.4
2016	137.0	137.1	137.2	137.3	137.3	137.4	137.5	137.6	137.7	137.8	137.9	138.0	137.1	137.3	137.6	137.9	137.5
Utilization																	
(percent)																	
1994	81.2	81.1	81.9	82.4	82.7	82.6	82.7	83.0	83.1	83.7	84.0	84.6	81.4	82.5	83.0	84.1	82.7
1995 1996	84.4 81.3	83.9 82.1	83.8 81.5	83.4 82.0	83.1 82.2	83.2 82.6	82.3 82.3	82.8 82.3	83.2 82.5	82.7 81.9	82.4 82.2	82.3 82.4	84.0 81.6	83.2 82.2	82.8 82.4	82.5 82.2	83.1 82.1
1997	82.0	82.7	83.1	82.5	82.6	82.7	82.7	83.2	83.4	83.5	83.8	83.5	82.6	82.6	83.1	83.6	83.0
1998	83.5	83.0	82.3	82.1	81.9	80.7	79.9	81.3	80.7	81.0	80.7	80.7	82.9	81.6	80.6	80.8	81.5
1999	80.6	80.8	80.4	80.3	80.7	80.1	80.1	80.3	79.6	80.5	80.6	80.8	80.6	80.4	80.0	80.6	80.4
2000	80.6	80.8	80.4	80.5	80.7	80.1	80.0	79.2	79.0	78.7	78.2	77.5	80.0	80.4	79.5	78.1	79.6
2001	76.7	76.0	75.5	75.1	74.4	73.7	73.2	72.7	72.4	71.9	71.6	71.7	76.1	74.4	72.8	71.7	73.7
2002	72.0	71.9	72.4	72.5	72.9	73.7	73.4	73.6	73.7	73.4	73.7	73.3	72.1	73.0	73.6	73.5	73.1
2003	73.7	73.8	73.9	73.3	73.4	73.7	73.9	73.6	74.2	74.3	75.1	75.0	73.8	73.5	73.9	74.8	74.0
2004	74.9	75.5	75.4	75.8	76.4	75.9	76.5	76.9	76.8	77.6	77.4	77.9	75.3	76.0	76.8	77.6	76.4
2005	78.4	78.9	78.3	78.4	78.6	78.5	78.1	78.2	77.3	78.3	78.7	78.7	78.5	78.5	77.9	78.6	78.4
2006	79.2	78.9	78.7	79.0	78.5	78.7	78.3	78.7	78.6	78.2	78.0	79.0	78.9	78.7	78.5	78.4	78.6
2007 2008	78.4 78.4	78.6 77.9	79.0 77.6	79.4 76.9	79.1 76.6	79.2 76.2	79.0 75.4	78.6 74.7	78.8 72.2	78.4 71.9	78.7 70.3	78.7 68.0	78.7 78.0	79.2 76.6	78.8 74.1	78.6 70.1	78.8 74.7
								,								, , , , ,	,,
2009	66.1	66.1	64.9	64.5	63.9 70.0	63.8	64.7	65.6	66.2	66.5	67.2	67.2	65.7	64.0 70.6	65.5	67.0 72.4	65.6
2010 2011	68.0 73.0	68.1 73.1	69.0 73.6	69.8 73.2	70.9 73.3	71.0 73.4	71.6 73.8	71.8 74.0	72.0 74.2	72.2 74.5	72.3 74.1	72.7 74.5	68.4 73.2	70.6 73.3	71.8 74.0	72.4 74.4	70.8 73.7
2011	75.1	75.3	74.7	75.1	74.7	74.7	74.5	74.2	74.1	73.8	74.3	74.8	75.0	74.8	74.3	74.3	74.6
2013	74.5	74.8	74.5	74.2	74.4	74.5	73.8	74.5	74.6	74.7	74.6	74.6	74.6	74.4	74.3	74.6	74.5
2014	73.8	74.6	75.1	75.1	75.3	75.6	75.9	75.6	75.7	75.6	76.3	76.1	74.5	75.4	75.7	76.0	75.4
2014 2015	75.8	74.6	75.5	75.6	75.5	75.3	75.8	75.7	75.5	75.6	75.3	75.2	74.3	75.5	75.6	75.4	75.5
2016	75.5	75.4	75.0	75.0	74.8	75.0	75.1	74.7	74.7	74.9	74.7	74.8	75.3	74.9	74.8	74.8	75.0

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

 I. Refer to note on cover page.

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

Seasonally adjusted Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
<b>IP</b> $(percent change)^2$																	
1994	.3	.0	.9	.3	.4	.6	.0	.4	.1	.6	.4	.9	4.3	5.4	3.2	5.8	4.0
1995	.1	2	1	2	.1	.2	5	1.0	.1	4	.1	.1	2.8	-1.2	1.3	.4	2.4
1996	-1.0	1.3	3	.8	.6	.6	5	.3	.5	4	.7	.5	5	6.6	2.0	2.9	1.7
1997	1	.9	.4	2	.3	.2	.5	.8	.6	.7	.7	.1	5.1	2.5	6.4	7.6	4.2
1998	.3	.0	.0	.1	.6	-1.0	7	1.9	5	.5	3	.1	2.2	.7	4	2.5	3.1
1999	.1	.2	1	1	.6	5	.3	.4	5	1.2	.2	.6	.6	.3	.9	5.6	1.1
2000	3	.0	.1	.5	1	1	5	5	.3	4	2	5	.6	1.7	-3.2	-2.6	1.0
2001	7	6	3	1	6	5	4	1	4	5	5	1	-5.9	-4.2	-4.5	-4.4	-3.9
2002	.6	1	.8	.4	.4	.9	3	1	.1	4	.5	5	2.5	6.1	1.9	7	.2
2003	.5	.1	3	9	1	.0	.2	3	.5	.0	.8	1	1.2	-4.4	.6	2.8	.2
2004	.1	.6	5	.4	.8	9	.8	.0	.0	.9	.2	.7	1.8	2.2	2.0	5.2	1.8
2005	.3	.6	2	.1	.1	.4	4	.1	-2.1	1.2	1.0	.5	4.7	1.3	-3.1	2.6	2.5
2006	.1	.0	.1	.4	2	.3	1	.2	3	1	1	1.1	3.3	1.8	.5	.3	1.4
2007 2008	6	1.0 5	.0 4	.6 8	.1 6	.1 2	1 5	.1 -1.5	.2 -4.4	6 1.2	.4 -1.0	1 -2.8	3.0	4.0 -6.5	.9 -12.4	-1.0 -14.9	1.8 -4.3
2008	4	5	4	0	0	2	5	-1.5	-4.4	1.2	-1.0	-2.0	-2.9	-0.5	-12.4	-14.9	-4.5
2009 2010	-2.4	7 .2	-1.7 .6	-1.0 .4	-1.1 1.6	4 .2	1.0	1.1	.7 .3	.2	.4	.3	-20.3 6.8	-12.1 8.0	5.7 5.7	5.9 1.0	-11.5 4.9
2010	1.0 1	.2 5	.6 .9	.4 4	.2	.2	.4 .5	.3 .4	.3	3 .7	.0 2	.7 .4	1.5	8.0 .8	5.7 4.0	1.0 3.5	2.6
2012	1	3	8	4	.2	.2	.3	5	.0	.7	2	.4	3.3	2.1	.2	2.2	2.0
2012	1	.5	.1	1	.0	.0	6	.7	.5	1	.0	.2	2.7	.9	.5	3.0	1.7
2014	5	.8	.8	.1	.4	.4	.1	.0	.4	.1	1.0	1	2.0	5.3	2.4	3.7	2.7
2014	5	1	3	2	2	2	.6	.0	3	2	6	5	-1.9	-2.8	1.6	-3.6	.3
2016	.5	1	-1.0	.4	2	.5	.3	1	3	.2	7	.8	-1.9	8	1.7	7	-1.1
<b>IP</b> (2012=100)																	
2014	102.1	102.9	103.6	103.8	104.2	104.6	104.7	104.7	105.0	105.1	106.2	106.0	102.9	104.2	104.8	105.8	104.4
2015	105.5	105.3	105.0	104.7	104.5	104.3	105.0	105.1	104.8	104.6	103.9	103.4	105.3	104.5	104.9	104.0	104.7
2016	103.9	103.8	102.8	103.2	103.1	103.6	103.9	103.8	103.5	103.7	103.0	103.9	103.5	103.3	103.7	103.5	103.5
Capacity (percent of 2012 output)																	
2014	132.0	132.1	132.2	132.3	132.5	132.7	133.0	133.3	133.6	133.9	134.3	134.6	132.1	132.5	133.3	134.3	133.0
2015	135.0	135.3	135.7	136.0	136.2	136.5	136.7	136.8	137.0	137.1	137.1	137.2	135.3	136.2	136.8	137.1	136.4
2016	137.2	137.2	137.2	137.2	137.2	137.2	137.2	137.3	137.3	137.4	137.5	137.5	137.2	137.2	137.3	137.5	137.3
Utilization (percent)																	
1994	82.5	82.4	83.0	83.2	83.4	83.7	83.6	83.8	83.7	84.1	84.3	84.9	82.7	83.4	83.7	84.4	83.6
1995	84.9	84.5	84.3	83.9	83.8	83.8	83.2	83.9	83.8	83.4	83.3	83.2	84.5	83.8	83.6	83.3	83.8
1996	82.2	83.2	82.8	83.3	83.6	84.0	83.4	83.5	83.7	83.2	83.7	83.8	82.7	83.6	83.6	83.6	83.4
1997 1998	83.6 84.5	84.1 84.2	84.2 83.8	83.7 83.6	83.7 83.8	83.6 82.7	83.8 81.8	84.1 83.1	84.3 82.4	84.6 82.6	84.8 82.1	84.6 81.9	83.9 84.2	83.7 83.4	84.1 82.5	84.7 82.2	84.1 83.0
1999	01.0	010	81.5	01.2	01 5	80.0	81.0	81.1	<u>80 6</u>	01 5	01 5	81.9	81.7	81.2	80.0	016	01.2
2000	81.8 81.5	81.8 81.4	81.5	81.2 81.7	81.5 81.5	80.9 81.3	81.0 80.8	81.1	80.6 80.5	81.5 80.1	81.5 79.9	79.4	81.7	81.2	80.9 80.5	81.6 79.8	81.3 80.8
2000	78.8	78.3	78.0	77.8	77.2	76.7	76.4	76.2	75.8	75.3	74.9	74.8	78.3	77.2	76.1	75.0	76.7
2001 2002	75.2	75.1	75.6	75.9	76.2	76.9	76.7	76.6	76.7	76.5	76.9	76.5	75.3	76.3	76.7	76.6	76.2
2002	77.0	77.1	77.0	76.3	76.3	76.3	76.5	76.4	76.8	76.8	77.4	77.4	77.0	76.3	76.6	77.2	76.8
2004	77.5	77.9	77.6	77.9	78.6	78.0	78.6	78.7	78.7	79.4	79.6	80.1	77.7	78.2	78.7	79.7	78.6
2004	80.4	80.8	80.6	80.7	80.7	81.0	80.6	80.5	78.7	79.6	80.3	80.7	80.6	80.8	79.9	80.2	80.4
2006	80.6	80.5	80.5	80.7	80.4	80.6	80.4	80.5	80.1	79.9	79.7	80.4	80.5	80.6	80.3	80.0	80.4
2007	79.9	80.6	80.5	80.9	80.9	81.0	80.9	81.1	81.3	80.8	81.2	81.1	80.3	80.9	81.1	81.0	80.8
2008	80.9	80.6	80.4	79.7	79.3	79.1	78.7	77.4	73.9	74.7	73.9	71.7	80.6	79.4	76.7	73.4	77.5
2009	69.9	69.4	68.2	67.5	66.7	66.4	67.2	68.0	68.6	68.9	69.3	69.7	69.1	66.9	68.0	69.3	68.3
2010	70.6	70.9	71.5	71.9	73.2	73.6	74.0	74.4	74.8	74.7	74.8	75.5	71.0	72.9	74.4	75.0	73.3
2011	75.4	75.2	75.9	75.6	75.8	75.9	76.3	76.6	76.5	76.9	76.7	76.9	75.5	75.8	76.4	76.8	76.1
2012	77.3	77.4	76.6	77.1	77.1	77.0	77.0	76.6	76.5	76.5	76.9	77.0	77.1	77.1	76.7	76.8	76.9
2013	76.8	77.2	77.2	77.1	77.0	77.2	76.7	77.2	77.5	77.4	77.7	77.8	77.1	77.1	77.1	77.6	77.2
2014	77.3	77.9	78.4	78.4	78.6	78.8	78.7	78.5	78.6	78.5	79.0	78.7	77.9	78.6	78.6	78.7	78.5
2015	78.1	77.8	77.4	77.0	76.7	76.4	76.8	76.8	76.5	76.3	75.8	75.4	77.8	76.7	76.7	75.8	76.8
2016	75.7	75.7	74.9	75.2	75.1	75.5	75.7	75.6	75.4	75.5	74.9	75.5	75.4	75.3	75.6	75.3	75.4

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

 I. 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.

Seasonally adjusted	0,																
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
<b>IP</b> (percent																	
change) <sup>3</sup>																	
1994	.1	.1	1.1	.6	.5	.1	.2	.5	.2	.7	.6	.9	3.9	7.1	3.7	7.1	4.4
1995	.1	4	1	4	1	.3	8	.8	.6	4	1	.0	2.7	-2.2	.2	.8	2.5
1996	-1.2	1.3	5	1.0	.6	.8	1	.2	.6	5	.7	.7	-2.0	7.4	4.0	2.7	1.5
1997	2	1.1	.8	5	.4	.4	.4	1.0	.6	.7	.8	.1	6.2	3.0	6.9	8.2	4.9
1998	.6	.0	3	.2	.4	-1.2	8	2.3	6	.7	1	.2	3.4	3	6	4.2	3.5
1999	1	.5	5	.0	.7	7	.0	.6	5	1.4	.4	.4	.7	.4	.0	6.7	1.3
2000	3	2	.3	.0	6	.0	2	-1.0	.3	4	5	8	.3	.9	-3.8	-4.6	.7
2001	6	6	3	1	7	6	2	5	2	7	2	.2	-6.9	-4.4	-4.6	-4.2	-4.7
2002	.6	2	.8	.2	.6	1.1	4	.1	.1	4	.4	6	3.2	5.6	2.5	-1.0	.4
2003	.4	1	.1	-1.0	1	.3	.0	6	.7	1	1.0	3	.4	-3.9	1	3.1	.0
2004	2	.7	2	.4	.8	8	.9	.4	1	1.0	1	.6	1.3	3.3	3.8	4.8	2.0
2004	.6	.7	2	.2	.3	0	5	.4	-1.2	1.0	1	.0	5.2	1.4	-2.2	4.9	3.1
2006	.8	4	1	.5	6	.2	4	.5	.0	4	.0	1.5	3.1	.0	4	.9	1.5
2007	6	.3	.6	.5	.0	.5	.0	4	.3	7	.3	.0	3.2	4.7	.7	-1.7	1.8
2008	5	8	5	-1.2	6	6	-1.1	-1.2	-3.5	4	-2.1	-3.3	-4.5	-9.2	-13.8	-20.3	-5.9
2009	-3.1	2	-2.0	9	-1.2	4	1.4	1.2	.8	.1	.9	2	-24.2	-12.5	7.4	6.4	-13.9
2009	-3.1	2	-2.0	9	-1.2	4 1	.6	.1	.8	.1	1	2	-24.2	-12.5	4.7	.8	-13.9
2010	.2	.1	.6	6	.1	.0	.6	.2	.4	.6	4	.6	2.2	6	3.8	3.5	2.5
2012	1.0	.3	7	.6	5	.2	1	2	1	4	.8	.7	5.0	.1	-1.0	1.2	2.3
2013	3	.5	3	4	.2	.2	-1.1	.9	.1	.0	1	.0	2.7	-1.1	-1.1	1.2	.5
2014	-1.1	1.0	.6	.0	.2	.4	.4	4	.1	.0	.9	1	-1.1	4.3	2.0	2.0	.9
2014	-1.1	4	.0	.0	.2	2	.4	4	3	.0	3	1	-1.1	.6	1.8	9	.9
2015	.3	.0	4	.1	2	.2	.2	5	.1	.2	1	.2	.0	-1.2	.0	.6	.0
<b>IP</b> (2012=100)																	
2014	99.3	100.4	101.0	101.1	101.2	101.7	102.1	101.6	101.8	101.8	102.7	102.5	100.2	101.3	101.8	102.3	101.4
2015 2016	102.1 102.5	101.7 102.5	101.9 102.0	102.1 102.1	102.2 101.9	102.0 102.1	102.7 102.3	102.6 101.8	102.3 101.9	102.5 102.2	102.3 102.1	102.2 102.2	101.9 102.3	102.1 102.0	102.5 102.0	102.3 102.2	102.2 102.2
2010	102.5	102.5	102.0	102.1	101.9	102.1	102.5	101.0	101.9	102.2	102.1	102.2	102.5	102.0	102.0	102.2	102.2
Capacity																	
(percent of																	
2012 output)	134.1		1210	134.0	134.1	134.1	134.1	134.2	134.3	134.4	134.5	134.6	134.1				124.0
2014		1241							134.5	134.4	154.5	1.24.0					
2015		134.1 134.8	134.0 134.9								135.6			134.1 135.1	134.2 135.4	134.5 135.6	134.2 135.2
2015 2016	134.1 134.7 135.8	134.1 134.8 135.8	134.0 134.9 135.9	134.0 135.0 135.9	135.1 136.0	134.1 135.2 136.1	135.3 136.1	135.4 136.2	135.5 136.3	135.6 136.3	135.6 136.4	135.7 136.5	134.1 134.8 135.8	134.1 135.1 136.0	134.2 135.4 136.2	134.5 135.6 136.4	134.2 135.2 136.1
2016	134.7	134.8	134.9	135.0	135.1	135.2	135.3	135.4	135.5	135.6		135.7	134.8	135.1	135.4	135.6	135.2
2016 Utilization	134.7	134.8	134.9	135.0	135.1	135.2	135.3	135.4	135.5	135.6		135.7	134.8	135.1	135.4	135.6	135.2
2016 Utilization (percent)	134.7 135.8	134.8 135.8	134.9 135.9	135.0 135.9	135.1 136.0	135.2 136.1	135.3 136.1	135.4 136.2	135.5 136.3	135.6 136.3	136.4	135.7 136.5	134.8 135.8	135.1 136.0	135.4 136.2	135.6 136.4	135.2 136.1
2016 Utilization (percent) 1994	134.7 135.8 81.3	134.8 135.8 81.2	134.9 135.9 82.1	135.0 135.9 82.4	135.1 136.0 82.7	135.2 136.1 82.7	135.3 136.1 82.8	135.4 136.2 83.1	135.5 136.3 83.1	135.6 136.3 83.5	136.4 83.8	135.7 136.5 84.5	134.8 135.8 81.5	135.1 136.0 82.6	135.4 136.2 83.0	135.6 136.4 83.9	135.2 136.1 82.8
2016 Utilization (percent)	134.7 135.8	134.8 135.8	134.9 135.9	135.0 135.9	135.1 136.0 82.7 82.9	135.2 136.1 82.7 83.0	135.3 136.1	135.4 136.2	135.5 136.3	135.6 136.3	136.4	135.7 136.5	134.8 135.8	135.1 136.0	135.4 136.2 83.0 82.5	135.6 136.4	135.2 136.1
2016 Utilization (percent) 1994 1995	134.7 135.8 81.3 84.4	134.8 135.8 81.2 83.9	134.9 135.9 82.1 83.7	135.0 135.9 82.4 83.2	135.1 136.0 82.7	135.2 136.1 82.7	135.3 136.1 82.8 82.1	135.4 136.2 83.1 82.6	135.5 136.3 83.1 82.9 82.6 83.2	135.6 136.3 83.5 82.4	136.4 83.8 82.1 82.3 83.7	135.7 136.5 84.5 82.0	134.8 135.8 81.5 84.0	135.1 136.0 82.6 83.0	135.4 136.2 83.0	135.6 136.4 83.9 82.2	135.2 136.1 82.8 82.9
2016 Utilization (percent) 1994 1995 1996	134.7 135.8 81.3 84.4 80.8	134.8 135.8 81.2 83.9 81.7	134.9 135.9 82.1 83.7 81.2	135.0 135.9 82.4 83.2 81.8	135.1 136.0 82.7 82.9 82.1	135.2 136.1 82.7 83.0 82.6	135.3 136.1 82.8 82.1 82.3	135.4 136.2 83.1 82.6 82.3	135.5 136.3 83.1 82.9 82.6	135.6 136.3 83.5 82.4 82.0	136.4 83.8 82.1 82.3	135.7 136.5 84.5 82.0 82.7	134.8 135.8 81.5 84.0 81.2	135.1 136.0 82.6 83.0 82.2	135.4 136.2 83.0 82.5 82.4	135.6 136.4 83.9 82.2 82.3	135.2 136.1 82.8 82.9 82.0
2016 Utilization (percent) 1994 1995 1996 1997 1998	134.7 135.8 81.3 84.4 80.8 82.3 83.6	134.8 135.8 81.2 83.9 81.7 82.9 83.2	134.9 135.9 82.1 83.7 81.2 83.2 82.6	135.0 135.9 82.4 83.2 81.8 82.5 82.4	135.1 136.0 82.7 82.9 82.1 82.5 82.5	135.2 136.1 82.7 83.0 82.6 82.5 81.2	135.3 136.1 82.8 82.1 82.3 82.3 82.5 80.2	135.4 136.2 83.1 82.6 82.3 83.0 81.7	135.5 136.3 83.1 82.9 82.6 83.2 80.9	135.6 136.3 83.5 82.4 82.0 83.3 81.2	136.4 83.8 82.1 82.3 83.7 80.9	135.7 136.5 84.5 82.0 82.7 83.4 80.8	134.8 135.8 81.5 84.0 81.2 82.8 83.1	135.1 136.0 82.6 83.0 82.2 82.5 82.0	135.4 136.2 83.0 82.5 82.4 82.9 81.0	135.6 136.4 83.9 82.2 82.3 83.5 81.0	135.2 136.1 82.8 82.9 82.0 82.9 81.8
2016 Utilization (percent) 1994 1995 1996 1997 1998 1999	134.7 135.8 81.3 84.4 80.8 82.3 83.6 80.5	134.8 135.8 81.2 83.9 81.7 82.9 83.2 80.6	134.9 135.9 82.1 83.7 81.2 83.2 82.6 80.0	135.0 135.9 82.4 83.2 81.8 82.5 82.4 79.8	135.1 136.0 82.7 82.9 82.1 82.5 82.5 82.5 80.2	135.2 136.1 82.7 83.0 82.6 82.5 81.2 79.4	135.3 136.1 82.8 82.1 82.3 82.5 80.2 79.3	135.4 136.2 83.1 82.6 82.3 83.0 81.7 79.6	135.5 136.3 83.1 82.9 82.6 83.2 80.9 79.0	135.6 136.3 83.5 82.4 82.0 83.3 81.2 80.0	136.4 83.8 82.1 82.3 83.7 80.9 80.1	135.7 136.5 84.5 82.0 82.7 83.4 80.8 80.3	134.8 135.8 81.5 84.0 81.2 82.8 83.1 80.4	135.1 136.0 82.6 83.0 82.2 82.5 82.0 79.8	135.4 136.2 83.0 82.5 82.4 82.9 81.0 79.3	135.6 136.4 83.9 82.2 82.3 83.5 81.0 80.1	135.2 136.1 82.8 82.9 82.0 82.9 81.8 79.9
2016 <b>Utilization</b> (percent) 1994 1995 1996 1997 1998 1999 2000	134.7 135.8 81.3 84.4 80.8 82.3 83.6	134.8 135.8 81.2 83.9 81.7 82.9 83.2	134.9 135.9 82.1 83.7 81.2 83.2 82.6 80.0 79.8	135.0 135.9 82.4 83.2 81.8 82.5 82.4 79.8 80.0	135.1 136.0 82.7 82.9 82.1 82.5 82.5	135.2 136.1 82.7 83.0 82.6 82.5 81.2	135.3 136.1 82.8 82.1 82.3 82.5 80.2 79.3 79.0	135.4 136.2 83.1 82.6 82.3 83.0 81.7	135.5 136.3 83.1 82.9 82.6 83.2 80.9	135.6 136.3 83.5 82.4 82.0 83.3 81.2	136.4 83.8 82.1 82.3 83.7 80.9	135.7 136.5 84.5 82.0 82.7 83.4 80.8	134.8 135.8 81.5 84.0 81.2 82.8 83.1	135.1 136.0 82.6 83.0 82.2 82.5 82.0	135.4 136.2 83.0 82.5 82.4 82.9 81.0	135.6 136.4 83.9 82.2 82.3 83.5 81.0	135.2 136.1 82.8 82.9 82.0 82.9 81.8
2016 <b>Utilization</b> (percent) 1994 1995 1996 1997 1998 1999 2000 2001 2002	134.7 135.8 81.3 84.4 80.8 82.3 83.6 80.5 79.9 76.1 73.2	134.8 135.8 81.2 83.9 81.7 82.9 83.2 80.6 79.6 75.6 73.1	134.9 135.9 82.1 83.7 81.2 83.2 82.6 80.0 79.8 75.3 73.7	135.0 135.9 82.4 83.2 81.8 82.5 82.4 79.8 80.0 75.2 73.8	135.1 136.0 82.7 82.9 82.1 82.5 82.5 82.5 80.2 79.4 74.6 74.2	135.2 136.1 82.7 83.0 82.6 82.5 81.2 79.4 79.3 74.2 75.1	135.3 136.1 82.8 82.1 82.3 82.5 80.2 79.3	135.4 136.2 83.1 82.6 82.3 83.0 81.7 79.6 78.2 73.6 74.9	135.5 136.3 83.1 82.9 82.6 83.2 80.9 79.0 78.3 73.4 75.0	135.6 136.3 83.5 82.4 82.0 83.3 81.2 80.0 77.9 72.9 74.7	136.4 83.8 82.1 82.3 83.7 80.9 80.1 77.4 72.7 75.0	135.7 136.5 84.5 82.0 82.7 83.4 80.8 80.3 76.7 72.8 74.6	134.8 135.8 81.5 84.0 81.2 82.8 83.1 80.4 79.8 75.7 73.3	135.1 136.0 82.6 83.0 82.2 82.5 82.0 79.8 79.6 74.7 74.3	135.4 136.2 83.0 82.5 82.4 82.9 81.0 79.3 78.5 73.6 74.9	135.6 136.4 83.9 82.2 82.3 83.5 81.0 80.1 77.3 72.8 74.8	135.2 136.1 82.8 82.9 82.0 82.9 81.8 79.9 78.8
2016 <b>Utilization</b> (percent) 1994 1995 1996 1997 1998 1999 2000 2001	134.7 135.8 81.3 84.4 80.8 82.3 83.6 80.5 79.9 76.1	134.8 135.8 81.2 83.9 81.7 82.9 83.2 80.6 79.6 75.6	134.9 135.9 82.1 83.7 81.2 83.2 82.6 80.0 79.8 75.3	135.0 135.9 82.4 83.2 81.8 82.5 82.4 79.8 80.0 75.2	135.1 136.0 82.7 82.9 82.1 82.5 82.5 80.2 79.4 74.6	135.2 136.1 82.7 83.0 82.6 82.5 81.2 79.4 79.3 74.2	135.3 136.1 82.8 82.1 82.3 82.5 80.2 79.3 79.0 74.0	135.4 136.2 83.1 82.6 82.3 83.0 81.7 79.6 78.2 73.6	135.5 136.3 83.1 82.9 82.6 83.2 80.9 79.0 78.3 73.4	135.6 136.3 83.5 82.4 82.0 83.3 81.2 80.0 77.9 72.9	136.4 83.8 82.1 82.3 83.7 80.9 80.1 77.4 72.7	135.7 136.5 84.5 82.0 82.7 83.4 80.8 80.3 76.7 72.8	134.8 135.8 81.5 84.0 81.2 82.8 83.1 80.4 79.8 75.7	135.1 136.0 82.6 83.0 82.2 82.5 82.0 79.8 79.6 74.7	135.4 136.2 83.0 82.5 82.4 82.9 81.0 79.3 78.5 73.6	135.6 136.4 83.9 82.2 82.3 83.5 81.0 80.1 77.3 72.8	135.2 136.1 82.8 82.9 82.0 82.9 81.8 79.9 78.8 74.2
2016 <b>Utilization</b> (percent) 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003	134.7 135.8 81.3 84.4 80.8 82.3 83.6 80.5 79.9 76.1 73.2 75.0	134.8 135.8 81.2 83.9 81.7 82.9 83.2 80.6 79.6 75.6 73.1 75.0	134.9 135.9 82.1 83.7 81.2 83.2 82.6 80.0 79.8 75.3 73.7 75.0	135.0 135.9 82.4 83.2 81.8 82.5 82.4 79.8 80.0 75.2 73.8 74.3	135.1 136.0 82.7 82.9 82.1 82.5 82.5 80.2 79.4 74.6 74.2 74.3	135.2 136.1 82.7 83.0 82.6 82.5 81.2 79.4 79.3 74.2 75.1 74.5	135.3 136.1 82.8 82.1 82.3 82.5 80.2 79.3 79.0 74.0 74.8 74.6	135.4 136.2 83.1 82.6 82.3 83.0 81.7 79.6 78.2 73.6 74.9 74.2	135.5 136.3 83.1 82.9 82.6 83.2 80.9 79.0 78.3 73.4 75.0 74.8	135.6 136.3 83.5 82.4 82.0 83.3 81.2 80.0 77.9 72.9 74.7 74.8	136.4 83.8 82.1 82.3 83.7 80.9 80.1 77.4 72.7 75.0 75.5	135.7 136.5 84.5 82.0 82.7 83.4 80.8 80.3 76.7 72.8 74.6 75.4	134.8 135.8 81.5 84.0 81.2 82.8 83.1 80.4 79.8 75.7 73.3 75.0	135.1 136.0 82.6 83.0 82.2 82.5 82.0 79.8 79.6 74.7 74.3 74.4	135.4 136.2 83.0 82.5 82.4 82.9 81.0 79.3 78.5 73.6 74.9 74.5	135.6 136.4 83.9 82.2 82.3 83.5 81.0 80.1 77.3 72.8 74.8 75.2	135.2 136.1 82.8 82.9 82.0 82.9 81.8 79.9 78.8 74.2 74.3 74.8
2016 <b>Utilization</b> (percent) 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004	134.7 135.8 81.3 84.4 80.8 82.3 83.6 80.5 79.9 76.1 73.2 75.0 75.3	134.8 135.8 81.2 83.9 81.7 82.9 83.2 80.6 79.6 75.6 73.1 75.0 75.9	134.9 135.9 82.1 83.7 81.2 83.2 82.6 80.0 79.8 75.3 73.7 75.0 75.7	135.0 135.9 82.4 83.2 81.8 82.5 82.4 79.8 80.0 75.2 73.8 74.3 76.1	135.1 136.0 82.7 82.9 82.1 82.5 82.5 80.2 79.4 74.6 74.2 74.3 76.8	135.2 136.1 82.7 83.0 82.6 82.5 81.2 79.4 79.3 74.2 75.1 74.5 76.2	135.3 136.1 82.8 82.1 82.3 82.5 80.2 79.3 79.0 74.0 74.0 74.8 74.6 77.0	135.4 136.2 83.1 82.6 82.3 83.0 81.7 79.6 78.2 73.6 74.9 74.2 77.3	135.5 136.3 83.1 82.9 82.6 83.2 80.9 79.0 78.3 73.4 75.0 74.8 77.2	135.6 136.3 83.5 82.4 82.0 83.3 81.2 80.0 77.9 72.9 74.7 74.8 78.0	136.4 83.8 82.1 82.3 83.7 80.9 80.1 77.4 72.7 75.0 75.5 77.9	135.7 136.5 84.5 82.0 82.7 83.4 80.8 80.3 76.7 72.8 74.6 75.4 78.3	134.8 135.8 81.5 84.0 81.2 82.8 83.1 80.4 79.8 75.7 73.3 75.0 75.6	135.1 136.0 82.6 83.0 82.2 82.5 82.0 79.8 79.6 74.7 74.3 74.4 76.4	135.4 136.2 83.0 82.5 82.4 82.9 81.0 79.3 78.5 73.6 74.9 74.5 77.2	135.6 136.4 83.9 82.2 82.3 83.5 81.0 80.1 77.3 72.8 74.8 75.2 78.1	135.2 136.1 82.8 82.9 82.0 82.9 81.8 79.9 78.8 74.2 74.3 74.8 76.8
2016 <b>Utilization</b> (percent) 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005	134.7 135.8 81.3 84.4 80.8 82.3 83.6 80.5 79.9 76.1 73.2 75.0 75.3 78.8	134.8 135.8 81.2 83.9 81.7 82.9 83.2 80.6 79.6 75.6 73.1 75.0 75.9 79.3	134.9 135.9 82.1 83.7 81.2 83.2 82.6 80.0 79.8 75.3 73.7 75.0 75.7 78.7	135.0 135.9 82.4 83.2 81.8 82.5 82.4 79.8 80.0 75.2 73.8 74.3 76.1 78.8	135.1 136.0 82.7 82.9 82.1 82.5 82.5 80.2 79.4 74.6 74.2 74.3 76.8 79.0	135.2 136.1 82.7 83.0 82.6 82.5 81.2 79.4 79.3 74.2 75.1 74.5 76.2 79.0	135.3 136.1 82.8 82.1 82.3 82.5 80.2 79.3 79.0 74.0 74.0 74.8 74.6 77.0 78.5	135.4 136.2 83.1 82.6 82.3 83.0 81.7 79.6 78.2 73.6 74.9 74.2 77.3 78.5	135.5 136.3 83.1 82.9 82.6 83.2 80.9 79.0 78.3 73.4 75.0 74.8 77.2 77.4	135.6 136.3 83.5 82.4 82.0 83.3 81.2 80.0 77.9 72.9 74.7 74.8 78.0 78.4	136.4 83.8 82.1 82.3 83.7 80.9 80.1 77.4 72.7 75.0 75.5 77.9 78.9	135.7 136.5 84.5 82.0 82.7 83.4 80.8 80.3 76.7 72.8 74.6 75.4 78.3 78.8	134.8 135.8 81.5 84.0 81.2 82.8 83.1 80.4 79.8 75.7 73.3 75.0 75.6 78.9	135.1 136.0 82.6 83.0 82.2 82.5 82.0 79.8 79.6 74.7 74.3 74.4 76.4 78.9	135.4 136.2 83.0 82.5 82.4 82.9 81.0 79.3 78.5 73.6 74.9 74.5 77.2 78.1	135.6 136.4 83.9 82.2 82.3 83.5 81.0 80.1 77.3 72.8 74.8 75.2 78.1 78.7	135.2 136.1 82.8 82.9 82.0 82.9 81.8 79.9 78.8 74.2 74.3 74.8 74.8 76.8 78.7
2016 <b>Utilization</b> (percent) 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004	134.7 135.8 81.3 84.4 80.8 82.3 83.6 80.5 79.9 76.1 73.2 75.0 75.3	134.8 135.8 81.2 83.9 81.7 82.9 83.2 80.6 79.6 75.6 73.1 75.0 75.9	134.9 135.9 82.1 83.7 81.2 83.2 82.6 80.0 79.8 75.3 73.7 75.0 75.7	135.0 135.9 82.4 83.2 81.8 82.5 82.4 79.8 80.0 75.2 73.8 74.3 76.1	135.1 136.0 82.7 82.9 82.1 82.5 82.5 80.2 79.4 74.6 74.2 74.3 76.8	135.2 136.1 82.7 83.0 82.6 82.5 81.2 79.4 79.3 74.2 75.1 74.5 76.2	135.3 136.1 82.8 82.1 82.3 82.5 80.2 79.3 79.0 74.0 74.0 74.8 74.6 77.0	135.4 136.2 83.1 82.6 82.3 83.0 81.7 79.6 78.2 73.6 74.9 74.2 77.3	135.5 136.3 83.1 82.9 82.6 83.2 80.9 79.0 78.3 73.4 75.0 74.8 77.2	135.6 136.3 83.5 82.4 82.0 83.3 81.2 80.0 77.9 72.9 74.7 74.8 78.0	136.4 83.8 82.1 82.3 83.7 80.9 80.1 77.4 72.7 75.0 75.5 77.9	135.7 136.5 84.5 82.0 82.7 83.4 80.8 80.3 76.7 72.8 74.6 75.4 78.3	134.8 135.8 81.5 84.0 81.2 82.8 83.1 80.4 79.8 75.7 73.3 75.0 75.6	135.1 136.0 82.6 83.0 82.2 82.5 82.0 79.8 79.6 74.7 74.3 74.4 76.4	135.4 136.2 83.0 82.5 82.4 82.9 81.0 79.3 78.5 73.6 74.9 74.5 77.2	135.6 136.4 83.9 82.2 82.3 83.5 81.0 80.1 77.3 72.8 74.8 75.2 78.1	135.2 136.1 82.8 82.9 82.0 82.9 81.8 79.9 78.8 74.2 74.3 74.8 76.8
2016 <b>Utilization</b> (percent) 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006	134.7 135.8 81.3 84.4 80.8 82.3 83.6 80.5 79.9 76.1 73.2 75.0 75.3 78.8 79.3	134.8 135.8 81.2 83.9 81.7 82.9 83.2 80.6 79.6 75.6 73.1 75.0 75.9 79.3 78.9	134.9 135.9 82.1 83.7 81.2 83.2 82.6 80.0 79.8 75.3 73.7 75.0 75.7 78.7 78.7	135.0 135.9 82.4 83.2 81.8 82.5 82.4 79.8 80.0 75.2 73.8 74.3 76.1 78.8 79.0	135.1 136.0 82.7 82.9 82.1 82.5 82.5 80.2 79.4 74.6 74.2 74.3 76.8 79.0 78.4	135.2 136.1 82.7 83.0 82.6 82.5 81.2 79.4 79.3 74.2 75.1 74.5 76.2 79.0 78.5	135.3 136.1 82.8 82.1 82.3 82.5 80.2 79.3 79.0 74.0 74.0 74.8 74.6 77.0 78.5 78.1	135.4 136.2 83.1 82.6 82.3 83.0 81.7 79.6 78.2 73.6 74.9 74.2 77.3 78.5 78.4	135.5 136.3 83.1 82.9 82.6 83.2 80.9 79.0 78.3 73.4 75.0 74.8 77.2 77.4 77.2	135.6 136.3 83.5 82.4 82.0 83.3 81.2 80.0 77.9 72.9 74.7 74.8 78.0 78.4 78.0	136.4 83.8 82.1 82.3 83.7 80.9 80.1 77.4 72.7 75.0 75.5 77.9 78.9 77.7	135.7 136.5 84.5 82.0 82.7 83.4 80.8 80.3 76.7 72.8 74.6 75.4 78.3 78.8 78.8	134.8 135.8 81.5 84.0 81.2 82.8 83.1 80.4 79.8 75.7 73.3 75.0 75.6 78.9 78.9	135.1 136.0 82.6 83.0 82.2 82.5 82.0 79.8 79.6 74.7 74.3 74.4 76.4 78.9 78.6	135.4 136.2 83.0 82.5 82.4 82.9 81.0 79.3 78.5 73.6 74.9 74.5 77.2 78.1 78.2	135.6 136.4 83.9 82.2 82.3 83.5 81.0 80.1 77.3 72.8 74.8 75.2 78.1 78.7 78.1	135.2 136.1 82.8 82.9 82.0 82.9 81.8 79.9 78.8 74.2 74.3 74.8 76.8 78.7 78.5
2016 Utilization (percent) 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008	134.7 135.8 81.3 84.4 80.8 82.3 83.6 80.5 79.9 76.1 73.2 75.0 75.3 78.8 79.3 78.3 78.4	134.8 135.8 81.2 83.9 81.7 82.9 83.2 80.6 79.6 75.6 73.1 75.0 75.9 79.3 78.9 78.4 77.8	134.9 135.9 82.1 83.7 81.2 83.2 82.6 80.0 79.8 75.3 73.7 75.0 75.7 78.7 78.7 78.7 78.8 77.5	135.0 135.9 82.4 83.2 81.8 82.5 82.4 79.8 80.0 75.2 73.8 74.3 76.1 78.8 79.0 79.1 76.6	135.1 136.0 82.7 82.9 82.1 82.5 82.5 80.2 79.4 74.6 74.2 74.3 76.8 79.0 78.4 79.1 76.1	135.2 136.1 82.7 83.0 82.6 82.5 81.2 79.4 79.3 74.2 75.1 74.5 76.2 79.0 78.5 79.4 75.7	135.3 136.1 82.8 82.1 82.3 82.5 80.2 79.3 79.0 74.0 74.0 74.8 74.6 77.0 78.5 78.1 79.4 74.9	135.4 136.2 83.1 82.6 82.3 83.0 81.7 79.6 78.2 73.6 74.9 74.2 77.3 78.5 78.4 79.0 74.1	135.5 136.3 83.1 82.9 82.6 83.2 80.9 79.0 78.3 73.4 75.0 74.8 77.2 77.4 78.2 77.4 78.2 71.6	135.6 136.3 83.5 82.4 82.0 83.3 81.2 80.0 77.9 72.9 74.7 74.8 78.0 78.4 78.0 78.4 77.8 71.4	136.4 83.8 82.1 82.3 83.7 80.9 80.1 77.4 72.7 75.0 75.5 77.9 78.9 77.7 78.8 70.0	135.7 136.5 84.5 82.0 82.7 83.4 80.8 80.3 76.7 72.8 74.6 75.4 78.3 78.8 78.8 78.8 67.8	134.8 135.8 81.5 84.0 81.2 82.8 83.1 80.4 79.8 75.7 73.3 75.0 75.6 78.9 78.9 78.5 77.9	135.1 136.0 82.6 83.0 82.2 82.5 82.0 79.8 79.6 74.7 74.3 74.4 76.4 78.9 78.6 79.2 76.2	135.4 136.2 83.0 82.5 82.4 82.9 81.0 79.3 78.5 73.6 74.9 74.5 77.2 78.1 78.2 79.2 73.6	135.6 136.4 83.9 82.2 82.3 83.5 81.0 80.1 77.3 72.8 74.8 75.2 78.1 78.7 78.1 78.8 69.8	135.2 136.1 82.8 82.9 82.0 82.9 81.8 79.9 78.8 74.2 74.3 74.8 76.8 78.7 78.5 78.9 74.3
2016 Utilization (percent) 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009	134.7 135.8 81.3 84.4 80.8 82.3 83.6 80.5 79.9 76.1 73.2 75.0 75.3 78.8 79.3 78.3 78.4 65.8	134.8 135.8 81.2 83.9 81.7 82.9 83.2 80.6 79.6 75.6 75.6 75.0 75.9 79.3 78.9 78.4 77.8 65.8	134.9           135.9           82.1           83.7           81.2           83.2           82.6           80.0           79.8           75.3           73.7           75.0           75.7           78.7           78.8           77.5           64.6	135.0 135.9 82.4 83.2 81.8 82.5 82.4 79.8 80.0 75.2 73.8 74.3 76.1 78.8 79.0 79.1 76.6 64.1	135.1 136.0 82.7 82.9 82.1 82.5 82.5 80.2 79.4 74.6 74.2 74.3 76.8 79.0 78.4 79.1 76.1 63.4	135.2           136.1           82.7           83.0           82.6           82.5           81.2           79.4           79.3           74.2           75.1           74.5           76.2           79.0           78.5           79.4           75.7           63.3	135.3 136.1 82.8 82.1 82.3 82.5 80.2 79.3 79.0 74.0 74.0 74.8 74.6 77.0 78.5 78.1 79.4 74.9 64.4	135.4 136.2 83.1 82.6 82.3 83.0 81.7 79.6 78.2 73.6 74.9 74.2 77.3 78.5 78.4 79.0 74.1 65.3	135.5 136.3 83.1 82.9 82.6 83.2 80.9 79.0 78.3 73.4 75.0 74.8 77.2 77.4 78.2 79.2 71.6 65.9	135.6 136.3 83.5 82.4 82.0 83.3 81.2 80.0 77.9 72.9 74.7 74.8 78.0 78.4 77.8 78.7 71.4 66.1	136.4 83.8 82.1 82.3 83.7 80.9 80.1 77.4 72.7 75.0 75.5 77.9 78.9 77.7 78.8 70.0 66.9	135.7 136.5 84.5 82.0 82.7 83.4 80.8 80.3 76.7 72.8 74.6 75.4 78.3 78.8 78.8 78.8 78.8 67.8 66.9	134.8           135.8           81.5           84.0           81.2           82.8           83.1           80.4           79.8           75.0           75.6           78.9           78.5           77.9           65.4	135.1 136.0 82.6 83.0 82.2 82.5 82.0 79.8 79.6 74.7 74.3 74.4 76.4 78.9 78.6 79.2 76.2 63.6	135.4 136.2 83.0 82.5 82.4 82.9 81.0 79.3 78.5 73.6 74.9 74.5 77.2 78.1 78.2 79.2 73.6 65.2	135.6 136.4 83.9 82.2 82.3 83.5 81.0 80.1 77.3 72.8 74.8 75.2 78.1 78.7 78.1 78.7 78.1 78.8 69.8 66.6	135.2 136.1 82.8 82.9 82.0 82.9 81.8 79.9 78.8 74.2 74.3 74.8 76.8 78.7 78.5 78.9 74.3 65.2
2016 <b>Utilization</b> (percent) 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010	134.7 135.8 81.3 84.4 80.8 82.3 83.6 80.5 79.9 76.1 73.2 75.0 75.3 78.8 79.3 78.8 79.3 78.3 78.4 65.8 67.7	134.8           135.8           81.2           83.9           81.7           82.9           83.2           80.6           79.6           75.9           79.3           78.9           78.4           77.8           65.8           67.6	134.9           135.9           82.1           83.7           81.2           83.2           82.6           80.0           79.8           75.7           78.7           78.7           78.7           78.8           77.5           64.6           68.6	135.0 135.9 82.4 83.2 81.8 82.5 82.4 79.8 80.0 75.2 73.8 74.3 76.1 78.8 79.0 79.1 76.6 64.1 69.3	135.1 136.0 82.7 82.9 82.1 82.5 82.5 80.2 79.4 74.6 74.2 74.3 76.8 79.0 78.4 79.0 78.4 79.1 76.1 63.4 70.5	135.2           136.1           82.7           83.0           82.6           82.5           81.2           79.4           79.3           74.2           75.1           74.5           76.2           79.0           78.5           79.4           75.7           63.3           70.6	135.3           136.1           82.8           82.1           82.3           82.5           80.2           79.3           79.0           74.0           74.8           74.6           77.0           78.5           78.1           79.4           74.9           64.4           71.2	135.4 136.2 83.1 82.6 82.3 83.0 81.7 79.6 78.2 73.6 74.9 74.2 77.3 78.5 78.4 79.0 74.1 65.3 71.4	135.5           136.3           83.1           82.9           82.6           83.2           80.9           79.0           78.3           73.4           75.0           74.8           77.2           77.4           78.2           79.2           71.6           65.9           71.6	135.6           136.3           83.5           82.4           82.0           83.3           81.2           80.0           77.9           74.7           74.8           78.0           78.4           77.8           78.7           71.4           66.1           71.9	136.4 83.8 82.1 82.3 83.7 80.9 80.1 77.4 72.7 75.0 75.5 77.9 78.9 77.7 78.8 70.0 66.9 72.0	135.7 136.5 84.5 82.0 82.7 83.4 80.8 80.3 76.7 72.8 74.6 75.4 78.3 78.8 78.8 78.8 78.8 78.8 67.8 66.9 72.3	134.8           135.8           81.5           84.0           81.2           82.8           83.1           80.4           79.8           75.7           73.3           75.0           75.6           78.9           78.5           77.9           65.4           68.0	135.1 136.0 82.6 83.0 82.2 82.5 82.0 79.8 79.6 74.7 74.3 74.4 76.4 78.9 78.6 79.2 76.2 63.6 70.1	135.4 136.2 83.0 82.5 82.4 82.9 81.0 79.3 78.5 73.6 74.9 74.5 77.2 78.1 78.2 79.2 73.6 65.2 71.4	135.6 136.4 83.9 82.2 82.3 83.5 81.0 80.1 77.3 72.8 74.8 75.2 78.1 78.7 78.1 78.7 78.1 78.8 69.8 66.6 72.0	135.2 136.1 82.8 82.9 82.0 82.9 81.8 79.9 78.8 74.2 74.3 74.8 76.8 78.7 78.5 78.9 74.3 65.2 70.4
2016 Utilization (percent) 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009	134.7 135.8 81.3 84.4 80.8 82.3 83.6 80.5 79.9 76.1 73.2 75.0 75.3 78.8 79.3 78.3 78.4 65.8	134.8 135.8 81.2 83.9 81.7 82.9 83.2 80.6 79.6 75.6 75.6 75.0 75.9 79.3 78.9 78.4 77.8 65.8	134.9           135.9           82.1           83.7           81.2           83.2           82.6           80.0           79.8           75.3           73.7           75.0           75.7           78.7           78.8           77.5           64.6	135.0 135.9 82.4 83.2 81.8 82.5 82.4 79.8 80.0 75.2 73.8 74.3 76.1 78.8 79.0 79.1 76.6 64.1	135.1 136.0 82.7 82.9 82.1 82.5 82.5 80.2 79.4 74.6 74.2 74.3 76.8 79.0 78.4 79.1 76.1 63.4	135.2           136.1           82.7           83.0           82.6           82.5           81.2           79.4           79.3           74.2           75.1           74.5           76.2           79.0           78.5           79.4           75.7           63.3	135.3 136.1 82.8 82.1 82.3 82.5 80.2 79.3 79.0 74.0 74.0 74.8 74.6 77.0 78.5 78.1 79.4 74.9 64.4	135.4 136.2 83.1 82.6 82.3 83.0 81.7 79.6 78.2 73.6 74.9 74.2 77.3 78.5 78.4 79.0 74.1 65.3	135.5 136.3 83.1 82.9 82.6 83.2 80.9 79.0 78.3 73.4 75.0 74.8 77.2 77.4 78.2 79.2 71.6 65.9	135.6 136.3 83.5 82.4 82.0 83.3 81.2 80.0 77.9 72.9 74.7 74.8 78.0 78.4 77.8 78.7 71.4 66.1	136.4 83.8 82.1 82.3 83.7 80.9 80.1 77.4 72.7 75.0 75.5 77.9 78.9 77.7 78.8 70.0 66.9	135.7 136.5 84.5 82.0 82.7 83.4 80.8 80.3 76.7 72.8 74.6 75.4 78.3 78.8 78.8 78.8 78.8 67.8 66.9	134.8           135.8           81.5           84.0           81.2           82.8           83.1           80.4           79.8           75.0           75.6           78.9           78.5           77.9           65.4	135.1 136.0 82.6 83.0 82.2 82.5 82.0 79.8 79.6 74.7 74.3 74.4 76.4 78.9 78.6 79.2 76.2 63.6	135.4 136.2 83.0 82.5 82.4 82.9 81.0 79.3 78.5 73.6 74.9 74.5 77.2 78.1 78.2 79.2 73.6 65.2	135.6 136.4 83.9 82.2 82.3 83.5 81.0 80.1 77.3 72.8 74.8 75.2 78.1 78.7 78.1 78.7 78.1 78.8 69.8 66.6	135.2 136.1 82.8 82.9 82.0 82.9 81.8 79.9 78.8 74.2 74.3 74.8 76.8 78.7 78.5 78.9 74.3 65.2
2016 Utilization (percent) 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011	134.7 135.8 81.3 84.4 80.8 82.3 83.6 80.5 79.9 76.1 73.2 75.0 75.3 78.8 79.3 78.8 79.3 78.3 78.4 65.8 67.7 72.6	134.8 135.8 81.2 83.9 81.7 82.9 83.2 80.6 79.6 75.6 73.1 75.0 75.9 79.3 78.9 78.4 77.8 65.8 67.6 72.7	134.9 135.9 82.1 83.7 81.2 83.2 82.6 80.0 79.8 75.3 73.7 75.0 75.7 78.7 78.7 78.7 78.7 78.7 78.7 78.7	135.0 135.9 82.4 83.2 81.8 82.5 82.4 79.8 80.0 75.2 73.8 74.3 76.1 78.8 79.0 79.1 76.6 64.1 69.3 73.0	135.1 136.0 82.7 82.9 82.1 82.5 82.5 80.2 79.4 74.6 74.2 74.3 76.8 79.0 78.4 79.0 78.4 79.1 76.1 63.4 70.5 73.1	135.2 136.1 82.7 83.0 82.6 82.5 81.2 79.4 79.3 74.2 75.1 74.5 76.2 79.0 78.5 79.4 75.7 63.3 70.6 73.2	135.3           136.1           82.8           82.1           82.3           82.5           80.2           79.3           79.0           74.0           74.8           74.6           77.0           78.5           78.1           79.4           74.9           64.4           71.2           73.7	135.4 136.2 83.1 82.6 82.3 83.0 81.7 79.6 78.2 73.6 74.9 74.2 77.3 78.5 78.4 79.0 74.1 65.3 71.4 73.9	135.5 136.3 83.1 82.9 82.6 83.2 80.9 79.0 78.3 73.4 75.0 74.8 77.4 77.4 77.4 78.2 77.4 78.2 79.2 71.6 65.9 71.6 74.2	135.6           136.3           83.5           82.4           82.0           83.3           81.2           80.0           77.9           74.7           74.8           78.0           78.4           77.8           78.7           71.4           66.1           71.9           74.6	136.4 83.8 82.1 82.3 83.7 80.9 80.1 77.4 72.7 75.0 75.5 77.9 78.9 77.7 78.8 70.0 66.9 72.0 74.3	135.7 136.5 84.5 82.0 82.7 83.4 80.8 80.3 76.7 72.8 74.6 75.4 78.3 78.8 78.8 78.8 78.8 78.8 67.8 66.9 72.3 74.7	134.8 135.8 81.5 84.0 81.2 82.8 83.1 80.4 79.8 75.7 73.3 75.0 75.6 78.9 78.9 78.5 77.9 65.4 68.0 72.9	135.1 136.0 82.6 83.0 82.2 82.5 82.0 79.8 79.6 74.7 74.3 74.4 76.4 78.9 78.6 79.2 76.2 63.6 70.1 73.1	135.4 136.2 83.0 82.5 82.4 82.9 81.0 79.3 78.5 73.6 74.9 74.5 77.2 78.1 78.2 79.2 73.6 65.2 71.4 73.9	135.6 136.4 83.9 82.2 82.3 83.5 81.0 80.1 77.3 72.8 74.8 75.2 78.1 78.7 78.1 78.7 78.1 78.8 69.8 66.6 72.0 74.5	135.2 136.1 82.8 82.9 82.0 82.9 81.8 79.9 78.8 74.2 74.3 74.8 76.8 78.7 78.5 78.9 74.3 65.2 70.4 73.6
2016 Utilization (percent) 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013	134.7           135.8           81.3           84.4           80.8           82.3           83.6           80.5           79.9           76.1           73.2           75.0           75.3           78.8           79.3           78.4           65.8           67.7           72.6           75.3           74.7	134.8           135.8           81.2           83.9           81.7           82.9           83.2           80.6           75.6           73.1           75.0           75.9           78.9           78.4           77.8           65.8           67.6           72.7           75.5           75.1	134.9           135.9           82.1           83.7           81.2           83.2           82.6           80.0           79.8           75.3           73.7           75.0           75.7           78.7           78.8           77.5           64.6           68.6           73.3           74.8	135.0           135.9           82.4           83.2           81.8           82.5           82.4           79.8           70.7           73.8           74.3           76.1           78.8           79.0           79.1           76.6           64.1           69.3           73.0           75.3           74.5	135.1           136.0           82.7           82.9           82.1           82.5           80.2           79.4           74.6           74.2           74.3           76.8           79.0           78.4           79.1           76.1           63.4           70.5           73.1           74.8           74.7	135.2           136.1           82.7           83.0           82.6           82.5           81.2           79.4           79.3           74.2           75.1           74.5           76.2           79.4           75.7           63.3           70.6           73.2           74.8	135.3           136.1           82.8           82.1           82.3           82.5           80.2           79.3           79.0           74.0           74.8           74.6           77.0           78.1           79.4           74.9           64.4           71.2           73.7           74.1	135.4           136.2           83.1           82.6           82.3           83.0           81.7           79.6           78.2           73.6           74.2           77.3           78.5           78.4           79.0           74.1           65.3           71.4           73.9           74.5	135.5           136.3           83.1           82.9           82.6           83.2           80.9           79.0           78.3           73.4           75.0           74.8           77.2           71.6           65.9           71.6           74.3           74.9	135.6           136.3           83.5           82.4           82.0           83.3           81.2           80.0           77.9           72.9           74.7           74.8           78.0           78.4           77.4           66.1           71.9           74.6           74.0           75.0	136.4           83.8           82.1           82.3           83.7           80.9           80.1           77.4           75.0           75.5           77.9           78.9           77.7           78.8           70.0           66.9           72.0           74.3           74.9	135.7           136.5           84.5           82.0           82.7           83.4           80.8           80.3           76.7           72.8           74.6           75.4           78.8           78.8           78.8           78.8           78.8           78.8           78.8           78.8           78.8           78.8           78.8           78.8           77.0           74.9	134.8           135.8           81.5           84.0           81.2           82.8           83.1           80.4           79.8           75.7           73.3           75.0           75.6           78.9           78.5           77.9           65.4           68.0           72.9           75.2           74.9	135.1           136.0           82.6           83.0           82.2           82.5           82.0           79.8           79.6           74.7           74.3           74.4           76.4           79.2           76.2           63.6           70.1           75.0           74.7	135.4           136.2           83.0           82.5           82.4           82.9           81.0           79.3           78.5           73.6           74.5           77.2           78.1           78.2           79.2           73.6           65.2           71.4           73.9           74.5           74.6	135.6           136.4           83.9           82.2           82.3           83.5           81.0           80.1           77.3           72.8           74.8           75.2           78.1           78.8           69.8           66.6           72.0           74.5           74.9	135.2 136.1 82.8 82.9 82.0 82.9 81.8 79.9 78.8 74.2 74.3 74.8 76.8 78.5 78.9 74.3 65.2 70.4 73.6 74.8 74.8
2016 Utilization (percent) 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014	134.7           135.8           81.3           84.4           80.8           82.3           83.6           80.5           79.9           76.1           73.2           75.0           75.3           78.8           79.3           78.4           65.8           67.7           72.6           75.3           74.7           74.1	134.8           135.8           81.2           83.9           81.7           82.9           83.2           80.6           79.6           75.9           79.3           78.9           78.4           77.8           65.8           67.6           72.7           75.5           75.1           74.9	134.9           135.9           82.1           83.7           81.2           83.2           82.6           80.0           79.8           75.7           78.7           78.7           78.7           78.7           78.8           77.5           64.6           68.6           73.3           74.8           75.4	135.0           135.9           82.4           83.2           81.8           82.5           82.4           79.8           70.7           73.8           74.3           76.1           78.8           79.0           79.1           76.6           64.1           69.3           73.0           75.3           74.5           75.4	135.1           136.0           82.7           82.9           82.1           82.5           80.2           79.4           74.6           74.2           74.3           76.8           79.0           78.4           79.1           76.1           63.4           70.5           75.5	135.2           136.1           82.7           83.0           82.6           82.5           81.2           79.4           79.3           74.2           75.1           74.5           76.2           79.0           78.5           79.4           75.7           63.3           70.6           73.2           74.8           75.8	135.3           136.1           82.8           82.1           82.3           82.5           80.2           79.3           79.0           74.0           74.8           74.6           77.0           78.5           78.1           79.4           74.9           64.4           71.2           73.7           74.1           76.1	135.4           136.2           83.1           82.6           82.3           83.0           81.7           79.6           78.2           73.6           74.2           77.3           78.5           78.4           79.0           74.1           65.3           71.4           73.9           74.5           74.8           75.7	135.5           136.3           83.1           82.9           82.6           83.2           80.9           79.0           78.3           73.4           75.0           74.8           77.2           77.4           78.2           79.2           71.6           65.9           71.6           74.3           74.9           75.8	135.6           136.3           83.5           82.4           82.0           83.3           81.2           80.0           77.9           72.9           74.7           74.8           78.0           78.4           77.8           71.4           66.1           71.9           74.6           74.0           75.0           75.7	136.4 83.8 82.1 82.3 83.7 80.9 80.1 77.4 72.7 75.0 75.5 77.9 78.9 77.7 78.8 70.0 66.9 72.0 74.3 74.5 74.9 76.4	135.7           136.5           84.5           82.0           82.7           83.4           80.8           80.3           76.7           72.8           74.6           75.4           78.3           78.8           78.8           78.8           78.8           78.8           78.8           78.8           78.7           75.0           74.9           76.2	134.8           135.8           81.5           84.0           81.2           82.8           83.1           80.4           79.8           75.7           73.3           75.0           75.6           78.9           78.5           77.9           65.4           68.0           72.9           75.2           74.8	135.1           136.0           82.6           83.0           82.2           82.5           82.0           79.8           79.6           74.7           74.3           74.4           76.4           78.6           79.2           76.2           63.6           70.1           75.0           74.7           75.6	135.4           136.2           83.0           82.5           82.4           82.9           81.0           79.3           78.5           73.6           74.5           77.2           78.1           78.2           79.2           73.6           65.2           71.4           73.9           74.5           74.6           75.9	135.6           136.4           83.9           82.2           82.3           83.5           81.0           80.1           77.3           72.8           74.8           75.2           78.1           78.8           69.8           66.6           72.0           74.5           74.9           76.1	135.2 136.1 82.8 82.9 82.0 82.9 81.8 79.9 78.8 74.2 74.3 74.8 76.8 78.7 78.5 78.9 74.3 65.2 70.4 73.6 74.8 74.8 74.8 75.6
2016 Utilization (percent) 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015	134.7           135.8           81.3           84.4           80.8           82.3           83.6           80.5           79.9           76.1           73.2           75.0           75.3           78.8           79.3           78.4           65.8           67.7           72.6           75.3           74.7           74.1           75.8	134.8           135.8           81.2           83.9           81.7           82.9           83.2           80.6           79.6           75.7           75.9           79.3           78.9           78.4           77.8           65.8           67.6           72.7           75.5           75.1           74.9           75.5	134.9         135.9         82.1         83.7         81.2         83.2         82.6         80.0         79.8         75.7         78.8         77.5         64.6         68.6         73.3         74.8         75.4         75.5	135.0         135.9         82.4         83.2         81.8         82.5         82.4         79.8         80.0         75.2         73.8         74.3         76.1         78.8         79.0         79.1         76.6         64.1         69.3         73.0         75.3         75.4         75.6	135.1           136.0           82.7           82.9           82.1           82.5           80.2           79.4           74.6           74.2           74.3           76.8           79.0           78.4           79.1           76.1           63.4           70.5           75.5           75.6	135.2         136.1         82.7         83.0         82.6         82.5         81.2         79.4         79.3         74.2         75.1         74.5         76.2         79.0         78.5         79.4         75.7         63.3         70.6         73.2         74.8         75.8         75.4	135.3           136.1           82.8           82.1           82.3           82.5           80.2           79.3           79.0           74.0           74.8           74.6           77.0           78.5           78.1           79.4           74.9           64.4           71.2           73.7           74.1           76.1           75.9	135.4           136.2           83.1           82.6           82.3           83.0           81.7           79.6           78.2           73.6           74.2           77.3           78.5           78.4           79.0           74.1           65.3           71.4           73.9           74.5           74.8           75.7           75.8	135.5           136.3           83.1           82.9           82.6           83.2           80.9           79.0           78.3           73.4           75.0           74.8           77.2           77.4           78.2           79.2           71.6           65.9           71.6           74.3           74.9           75.8           75.5	135.6         136.3         83.5         82.4         82.0         83.3         81.2         80.0         77.9         72.9         74.7         74.8         78.0         78.4         77.8         78.7         71.4         66.1         71.9         74.6         74.0         75.0         75.7         75.6	136.4 83.8 82.1 82.3 83.7 80.9 80.1 77.4 72.7 75.0 75.5 77.9 78.9 77.7 78.8 70.0 66.9 72.0 74.3 74.5 74.9 76.4 75.4	135.7           136.5           84.5           82.0           82.7           83.4           80.8           80.3           76.7           72.8           74.6           75.4           78.3           78.8           78.8           78.8           78.8           78.8           78.8           78.7           75.0           74.9           76.2           75.3	134.8           135.8           81.5           84.0           81.2           82.8           83.1           80.4           79.8           75.7           73.3           75.0           75.6           78.9           78.5           77.9           65.4           68.0           72.9           74.8           75.6	135.1           136.0           82.6           83.0           82.2           82.5           82.0           79.8           79.6           74.7           74.3           74.4           76.4           78.6           79.2           76.2           63.6           70.1           75.0           74.7           75.6           75.5	135.4           136.2           83.0           82.5           82.4           82.9           81.0           79.3           78.5           73.6           74.5           77.2           78.1           78.2           79.2           73.6           65.2           71.4           73.9           74.5           74.6           75.9           75.7	135.6           136.4           83.9           82.2           82.3           83.5           81.0           80.1           77.3           72.8           74.8           75.2           78.1           78.7           78.1           78.8           69.8           66.6           72.0           74.5           74.9           76.1           75.4	135.2 136.1 82.8 82.9 82.0 82.9 81.8 79.9 78.8 74.2 74.3 74.8 76.8 78.5 78.9 74.3 65.2 70.4 73.6 74.8 74.8 74.8 75.6 75.6
2016 Utilization (percent) 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014	134.7           135.8           81.3           84.4           80.8           82.3           83.6           80.5           79.9           76.1           73.2           75.0           75.3           78.8           79.3           78.4           65.8           67.7           72.6           75.3           74.7           74.1	134.8           135.8           81.2           83.9           81.7           82.9           83.2           80.6           79.6           75.9           79.3           78.9           78.4           77.8           65.8           67.6           72.7           75.5           75.1           74.9	134.9           135.9           82.1           83.7           81.2           83.2           82.6           80.0           79.8           75.7           78.7           78.7           78.7           78.7           78.8           77.5           64.6           68.6           73.3           74.8           75.4	135.0           135.9           82.4           83.2           81.8           82.5           82.4           79.8           70.7           73.8           74.3           76.1           78.8           79.0           79.1           76.6           64.1           69.3           73.0           75.3           74.5           75.4	135.1           136.0           82.7           82.9           82.1           82.5           80.2           79.4           74.6           74.2           74.3           76.8           79.0           78.4           79.1           76.1           63.4           70.5           75.5	135.2           136.1           82.7           83.0           82.6           82.5           81.2           79.4           79.3           74.2           75.1           74.5           76.2           79.0           78.5           79.4           75.7           63.3           70.6           73.2           74.8           75.8	135.3           136.1           82.8           82.1           82.3           82.5           80.2           79.3           79.0           74.0           74.8           74.6           77.0           78.5           78.1           79.4           74.9           64.4           71.2           73.7           74.1           76.1	135.4           136.2           83.1           82.6           82.3           83.0           81.7           79.6           78.2           73.6           74.2           77.3           78.5           78.4           79.0           74.1           65.3           71.4           73.9           74.5           74.8           75.7	135.5           136.3           83.1           82.9           82.6           83.2           80.9           79.0           78.3           73.4           75.0           74.8           77.2           77.4           78.2           79.2           71.6           65.9           71.6           74.3           74.9           75.8	135.6           136.3           83.5           82.4           82.0           83.3           81.2           80.0           77.9           72.9           74.7           74.8           78.0           78.4           77.8           71.4           66.1           71.9           74.6           74.0           75.0           75.7	136.4 83.8 82.1 82.3 83.7 80.9 80.1 77.4 72.7 75.0 75.5 77.9 78.9 77.7 78.8 70.0 66.9 72.0 74.3 74.5 74.9 76.4	135.7           136.5           84.5           82.0           82.7           83.4           80.8           80.3           76.7           72.8           74.6           75.4           78.3           78.8           78.8           78.8           78.8           78.8           78.8           78.8           78.7           75.0           74.9           76.2	134.8           135.8           81.5           84.0           81.2           82.8           83.1           80.4           79.8           75.7           73.3           75.0           75.6           78.9           78.5           77.9           65.4           68.0           72.9           75.2           74.8	135.1           136.0           82.6           83.0           82.2           82.5           82.0           79.8           79.6           74.7           74.3           74.4           76.4           78.6           79.2           76.2           63.6           70.1           75.0           74.7           75.6	135.4           136.2           83.0           82.5           82.4           82.9           81.0           79.3           78.5           73.6           74.5           77.2           78.1           78.2           79.2           73.6           65.2           71.4           73.9           74.5           74.6           75.9	135.6           136.4           83.9           82.2           82.3           83.5           81.0           80.1           77.3           72.8           74.8           75.2           78.1           78.8           69.8           66.6           72.0           74.5           74.9           76.1	135.2 136.1 82.8 82.9 82.0 82.9 81.8 79.9 78.8 74.2 74.3 74.8 76.8 78.7 78.5 78.9 74.3 65.2 70.4 73.6 74.8 74.8 74.8 75.6

# Table 14 HISTORICAL STATISTICS FOR INDUSTRIAL PRODUCTION, CAPACITY, AND UTILIZATION: Manufacturing' Excluding Selected High-Technology Industries<sup>2</sup> Seasonally adjusted

I. Refer to note on cover page.
 Selected high-technology industries are computers, communications equipment, and semiconductors and related electronic components.
 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 on the Board's website at www.federalreserve.gov/releases/G17. 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 from the Data Download Program on the Board's website. Instructions for searching for and downloading specific series are provided as well.

#### 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 2012. 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 299 individual series based on the 2012 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 website at www.federalreserve.gov/releases/G17/About.htm.

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 typically 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 and unit values or sales) by a corresponding Fisher price index; the most notable of these fall within the high-technology grouping and include 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 U.S. 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 the 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 monthly 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 6 percent. If output in this industry increased 10 percent in a month, then this gain would boost growth in total IP by 6/10 percentage point (0.06 x 10% = 0.6%). To assist users with calculations, the Federal Reserve's website 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/ipweightssa.txt).

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 five 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 73 percent of the source data (in value-added terms) are available; the fraction of available source data increases to 87 percent for estimates in the second month that the estimate is published, 94 percent in the third month, 97 percent in the fourth month, 99 percent in the fifth month, and 99 percent in the sixth month. Data availability by data type in early 2016 is summarized in the table below:

Availability of Monthly IP Data in Publication Window (Percent of value added in 2015; the numbers may not sum because of rounding.)

i cananig.)												
	Month of estimate											
Type of data	1st	2nd	3rd	4th	5th	6th						
Physical product	31	45	52	55	55	56						
Production-worker hours	42	42	42	42	42	42						
IP data received	73	87	94	97	99	99						
IP data estimated	27	13	6	3	1	1						

The physical product group includes series based on either monthly or quarterly data. As can be seen in the first row of the table, in the first month, a physical product indicator is available for about one-half of the series (in terms of value added) that ultimately are based on physical product data (31 percent out of a total of 56 percent). Of the 31 percent, about three-fourths (23 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 fourth estimate of industrial production. Specifically, quarterly data are available for the third estimate of the last month of a quarter, the fourth estimate of the second month of a quarter, and the fifth estimate of the first month of a quarter.

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 January 2016; for other series, the factors were estimated with data through at least December 2015. 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. Additional documentation and X-12 specifications can be found on the Board's website at www.federalreserve.gov/releases/G17/About.htm.

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 1987-2015 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 1987-2015 period. In most cases (about 85 percent), the direction of the 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 89 detailed industries (71 in manufacturing, 16 in mining, and 2 in utilities), which mostly correspond to industries at the three- and four-digit North American Industry Classification System, or 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 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-technology industries and manufacturing excluding high-technology 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 (for example, paper, industrial chemicals, petroleum refining, motor vehicles), as well as for electric utilities and mining; these industries represent about 25 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 Quarterly Survey of Plant Capacity (QSPC); these industries account for about 65 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 10 percent of total industry capacity). A detailed description of the methodology used to construct the capacity indexes is available on the Board's website (www.federalreserve.gov/releases/G17/Meth/MethCap.htm).

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 survey of large companies reported, on average, higher utilization rates than those reported by establishments covered by the annual Survey of Plant Capacity (the primary source of factory operating rates through 2006, after which it was discontinued) for the fourteen years they overlapped. Adjustments have been made to keep the industry utilization rates currently reported by the Federal Reserve (now based on the QSPC) 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 Census utilization surveys.

Perspective. Over the 1972–2015 period, the average total industry utilization rate was 80.0 percent; for manufacturing, the average factory operating rate was 78.5 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 are specific to each series and do not all occur in the same month.

#### REFERENCES AND RELEASE DATES

References. The release for the annual revision that was published on April 1, 2016, is available on the Board's website (www.federal reserve.gov/releases/g17/revisions/Current/DefaultRev.htm). A summary of the annual revision that incorporated back to 1972 production and capacity indexes reclassified according to the North American Industry Classification System is available in an article in the Federal Reserve Bulletin, vol. 89 (April 2003), pp. 151-176. 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/CapitalStockDocLatest.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, March 2006, May 2007, August 2008, August 2009) or in online staff studies (www.federalreserve.gov/releases/g17/articles/rev2010/industrial10.pdf, www.federalreserve.gov/releases/g17/articles/rev2012/industrial12.pdf, www.federalreserve.gov/releases/g17/articles/rev2013/industrial13.pdf).

#### Release Schedule

The G.17 will be published at 9:15 a.m. on

2017: January 18, February 15, March 17, April 18, May 16, June 15, July 14, August 17, September 15, October 17, November 16, and December 15.

This release schedule is available on the Board's website at http://www.federalreserve.gov/releases/g17.