FEDERAL RESERVE statistical release



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Percent change

INDUSTRIAL PRODUCTION AND CAPACITY UTILIZATION

Industrial production decreased 0.6 percent in March after increasing 0.1 percent in February. For the first quarter of 2015 as a whole, industrial production declined at an annual rate of 1.0 percent, the first quarterly decrease since the second quarter of 2009. The decline last quarter resulted from a drop in oil and gas well

(over)

Industrial Production and Capacity Utilization: Summary

Seasonally adjusted

	2014			2015			2014			2015			Mar. '14 to
Industrial production	Oct.r	Nov. ^r	Dec.r	Jan. ^r	Feb.r	Mar. ^p	Oct.r	Nov. ^r	Dec.r	Jan. ^r	Feb.r	Mar. ^p	Mar. '15
-													
Total index	105.1	106.3	106.2	105.8	105.9	105.2	.0	1.1	1	4	.1	6	2.0
Previous estimates	105.1	106.3	106.1	105.7	105.8		1	1.2	2	3	.1		
Major market groups													
Final Products	100.7	102.6	101.9	101.5	101.8	101.2	.0	1.8	7	4	.3	6	.7
Consumer goods	97.1	99.2	98.7	98.8	99.3	98.8	3	2.2	5	.1	.6	6	.8
Business equipment	108.8	110.4	109.0	108.2	109.0	109.2	1.1	1.5	-1.3	8	.8	.2	3.2
Nonindustrial supplies	92.8	93.5	93.3	93.3	93.3	92.3	.4	.7	2	.0	.0	-1.0	1.8
Construction	86.7	86.8	87.7	86.8	86.6	85.8	.7	.1	1.0	9	3	9	2.7
Materials	113.5	114.2	114.7	114.1	114.0	113.4	2	.6	.4	5	1	5	3.2
Major industry groups													
Manufacturing (see note below)	100.8	101.9	101.9	101.3	101.1	101.2	.2	1.1	.0	6	2	.1	2.4
Previous estimates	100.7	101.9	101.8	101.5	101.3	101.2	.1	1.2	1	3	2	• • •	
Mining	132.3	132.0	135.1	132.9	130.7	129.7	-1.1	2	2.4	-1.7	-1.6	7	3.7
Utilities	101.6	105.3	100.0	103.2	109.1	102.7	.4	3.6	-5.0	3.3	5.7	-5.9	-3.6
	10110	10010	100.0	100.2	107.1	102.7		0.0	2.0	0.0	0.,	0.5	5.0
													Capacity
					Perce	nt of cap	acity						growth
	Average	1988-	1990-	1994-		1							
	1972-	89	91	95	2009	2014	2014			2015			Mar. '14 to
Capacity utilization	2014	high	low	high	low	Mar.	Oct.r	Nov. ^r	Dec.r	Jan. ^r	Feb.r	Mar. ^p	Mar. '15
Total industry	80.1	85.3	78.7	85.0	66.9	79.1	79.2	79.8	79.5	79.1	79.0	78.4	3.0
Previous estimates							79.1	79.8	79.4	79.1	78.9		
Manufacturing (see note below)	78.6	85.6	77.3	84.6	63.9	76.8	77.4	78.1	78.0	77.4	77.1	77.1	2.1
Previous estimates							77.3	78.1	77.9	77.6	77.3		
Mining	87.3	86.3	83.8	88.5	78.8	88.3	88.4	87.5	88.9	87.2	85.4	84.4	8.5
Utilities	85.9	92.9	84.3	93.3	78.5	83.7	79.4	82.2	78.0	80.5	85.1	80.0	.9
Stage-of-process groups													
Crude	86.3	87.7	84.4	89.6	76.8	86.4	86.6	85.8	86.9	85.4	84.1	83.2	6.9
Primary and semifinished	80.8	86.5	77.9	87.7	64.2	77.9	77.7	78.5	77.7	77.8	78.4	77.2	2.0
Finished	77.1	83.4	77.4	80.6	66.8	77.0	77.2	78.4	78.0	77.5	77.3	77.5	2.1

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.

drilling and servicing of more than 60 percent at an annual rate and from a decrease in manufacturing production of 1.2 percent. In March, manufacturing output moved up 0.1 percent for its first monthly gain since November; however, factory output in January is now estimated to have fallen 0.6 percent, about twice the size of the previously reported decline. The index for mining decreased 0.7 percent in March. The output of utilities fell 5.9 percent to largely reverse a similarly sized increase in February, which was related to unseasonably cold temperatures. At 105.2 percent of its 2007 average, total industrial production in March was 2.0 percent above its level of a year earlier. Capacity utilization for the industrial sector decreased 0.6 percentage point in March to 78.4 percent, a rate that is 1.7 percentage points below its long-run (1972–2014) average.

Market Groups

Business equipment was the only major market group to post a gain in production for March; its increase of 0.2 percent was mostly due to higher output of transit equipment. The index for consumer goods moved down 0.6 percent, with the decrease due to a drop of 5.0 percent in consumer energy products. The index for non-energy nondurable consumer goods moved up 0.2 percent. The output of durable consumer goods increased 1.7 percent, as a gain of 3.0 percent in automotive products outweighed declines in home electronics and in appliances, furniture, and carpeting. The index for materials fell 0.5 percent, with decreases in the output of both non-energy and energy materials.

Industry Groups

Manufacturing output for the first quarter of 2015 fell at an annual rate of 1.2 percent, its first appreciable decline since the second quarter of 2009. For March, manufacturing output edged up 0.1 percent. The production of durable goods moved up 0.2 percent, on the strength of a rebound in the production of motor vehicles and parts. The output of primary metals declined 3.2 percent to register the largest loss among durable goods industries. The production of nondurable goods moved up 0.1 percent; decreases in the indexes for paper, for chemicals, and for plastics and rubber products mostly offset gains by the other major nondurables industries. The production of other manufacturing industries (publishing and logging) fell 0.4 percent. The decrease of 0.7 percent for mining reflected a drop of $17\frac{1}{2}$ percent in the index for oil and gas well drilling and servicing that was partly offset by gains in crude oil and natural gas extraction and by a bounceback in coal mining.

The capacity utilization rate for manufacturing in March was unchanged from the previous month at 77.1 percent, a rate 1.5 percentage points below its long-run average. The operating rate for durable goods manufacturing edged down 0.1 percentage point to 76.6 percent, just below its long-run average. The operating rate for nondurable goods manufacturing remained constant at 79.4 percent, a rate 1.2 percentage points below its long-run average. Utilization for other manufacturing (publishing and logging) decreased 0.1 percentage point to 57.6 percent. Capacity utilization for mines dropped 1.0 percentage point to 84.4 percent, while the operating rate for utilities declined 5.1 percentage points to 80.0 percent.

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

Revision of Industrial Production and Capacity Utilization

The Federal Reserve Board plans to issue its annual revision to the index of industrial production (IP) and the related measures of capacity utilization in mid-2015. New annual benchmark data for 2012 and 2013 for manufacturing will be incorporated, as well as other annual data, including information on the mining of metallic and nonmetallic minerals (except fuels). The weights for market-group splits of the indexes will be updated with information from the 2007 benchmark input-output accounts from the Bureau of Economic Analysis. 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.

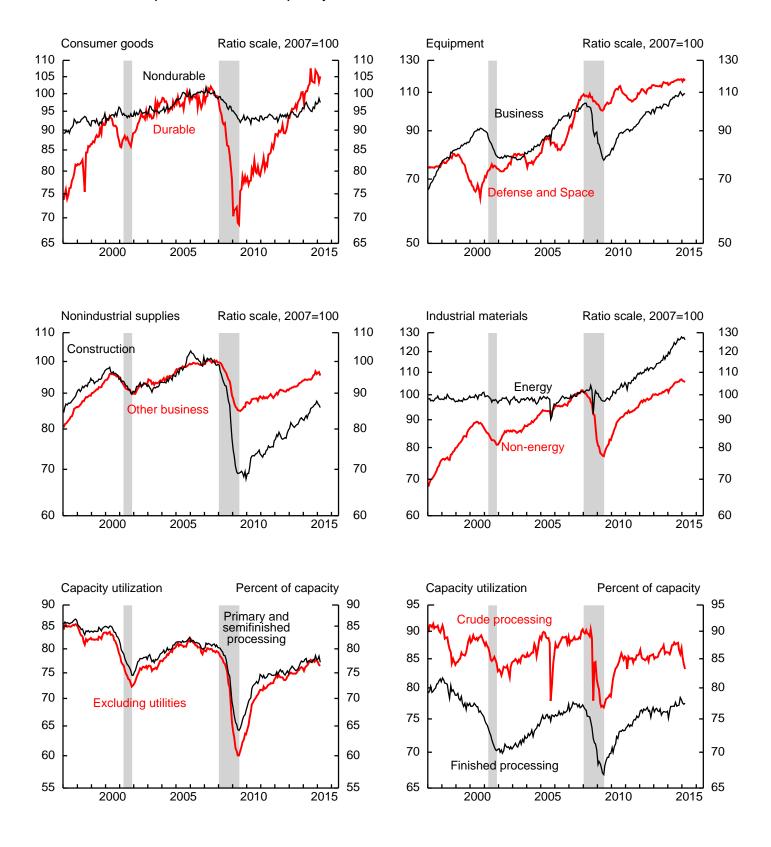
Capacity and capacity utilization will be revised to incorporate data through the fourth quarter of 2014 from the Census Bureau's Quarterly Survey of Plant Capacity, which covers manufacturing, along with new data on capacity from the U.S. Geological Survey, the U.S. Department of Energy, and other organizations.

1. Industrial production, capacity, and utilization



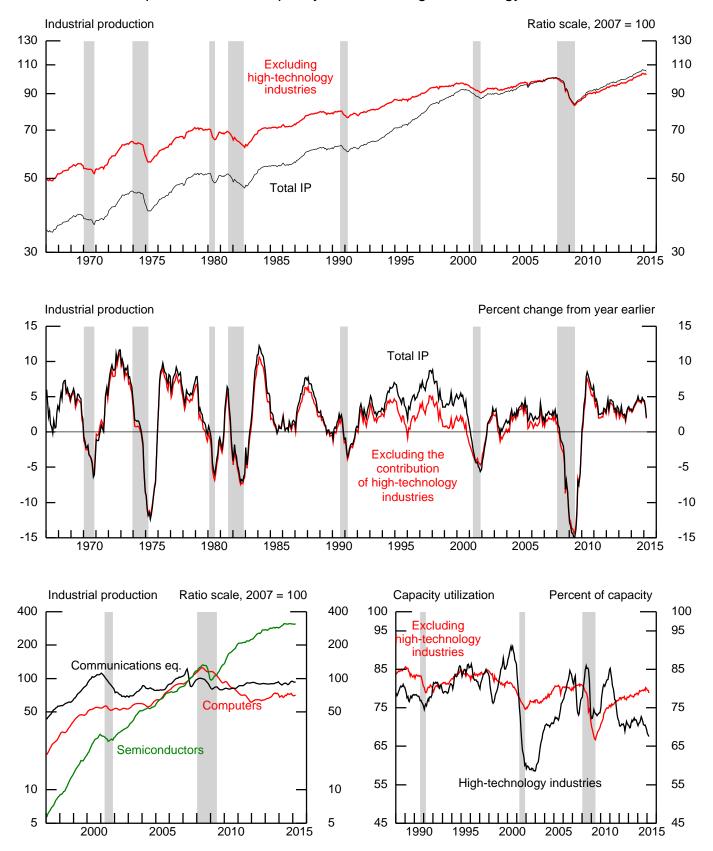
Note: The shaded areas are periods of business recession as defined by the National Bureau of Economic Research (NBER).

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 334412-9), computers (NAICS 3341), and communications equipment (NAICS 3342).

The shaded areas are periods of business recession as defined by the NBER.

Table 1 INDUSTRIAL PRODUCTION: MARKET AND INDUSTRY GROUP SUMMARY

Percent change, seasonally adjusted				th quart irth quai		Aı	nnual ra	te			Month	lv rate			Mar. '14
Item		2014 proportion ¹	2012	2013	2014	2014 Q3	Q4 ^r	2015 Q1 ^p	2014 Oct. ^r	Nov. ^r	Dec. ^r	2015 Jan. ^r	Feb. ^r	Mar. ^p	to Mar. '15
Total IP		100.00	3.2	3.3	4.6	4.1	4.6	-1.0	.0	1.1	1	4	.1	6	2.0
Market Groups															
Final products and nonindustrial supplie	es	51.63	2.7	3.2	3.5	2.4	5.2	-1.0	.1	1.5	6	3	.2	7	1.0
Consumer goods		26.16	1.6	3.2	2.5	.2	5.1	2.5	3	2.2	5	.1	.6	6	.8
Durable		5.81	6.2	9.1	5.6	11.6	2.4	-3.2	1	3.6	6	8	-1.9	1.7	4.3
Automotive products		2.99	6.6	11.2	7.2	18.4	-1.0	-3.5	9	6.4	-1.3	-1.1	-2.9	3.0	5.3
Home electronics		.12	-2.5	4.7	6.1	3.9	10.4	.4	1.0	2.2	.8	-1.1	.3	7	7.6
Appliances, furniture, carpeting		.79	3.7	7.4	8.1	13.6	6.7	-7.7	1.0	8	2.3	-1.7	-2.0	6	5.3
Miscellaneous goods Nondurable		1.91 20.35	7.5	6.7 1.6	2.2	1.1 -3.0	5.8 5.9	9 4.2	.5 4	1.3	8 5	.0	5 1.3	.8 -1.2	2.1
Non-energy		15.22	.2	.3	2.5	.2	3.3	.1	4	1.7	.3	3	4	.2	1.0
Foods and tobacco		8.77	3.1	.8	2.2	-3.4	5.7	-1.0	5	1.5	.4	8	6	.7	.3
Clothing		.18	-1.5	6.3	2.5	-1.9	11.1	4.1	.1	1.4	3.1	.7	-3.4	.2	1.1
Chemical products		4.59	-3.8	3	4.5	7.8	1.7	3.0	6	1.1	.2	.2	.4	8	2.9
Paper products		1.19	-6.3	-2.9	-4.6	-2.9	-10.1	.0	.1	4	5	.7	3	3	-1.3
Energy		5.13	1.0	5.7	8	-12.0	14.2	17.3	1	3.3	-2.9	2.4	6.4	-5.0	-3.4
Business equipment		9.37	6.6	3.4	6.1	4.4	5.5	-2.1	1.1	1.5	-1.3	8	.8	.2	3.2
Transit		2.26	14.6	3.2	5.5	10.7	-4.5	-2.1	-1.2	1.9	8	8	1	.6	3.8
Information processing		1.88	6.3	3.9	2.8	3.2	10.2	4.3	1.2	.3	.7	.5	.0	.1	3.7
Industrial and other		5.23	3.7	3.3	7.7	2.2	8.5	-4.4	2.1	1.8	-2.2	-1.2	1.5	.1	2.9
Defense and space equipment		2.19	4.6	1.7	1.8	3.6	.9	-1.8	3	.2	.2	-1.2	1.1	6	1.1
Construction supplies Business supplies		4.10 9.00	3.8 2.1	5.0 2.9	5.2 2.9	10.3 2.3	5.6 6.3	-2.8 1	.7 .3	.1 1.0	1.0 8	9 .5	3 .1	9 -1.1	2.7 1.3
Materials		48.37	3.8	3.5	5.8	5.9	4.0	9	2	.6	.4	5	1	5	3.2
Non-energy		27.84	4.5	2.6	4.3	5.4	3.2	-2.0	.1	.8	.1	6	2	2	2.4
Durable		17.12	6.1	4.2	5.7	6.9	2.1	-2.7	.0	.7	.1	6	4	2	2.9
Consumer parts		2.47	8.6	6.5	8.4	16.3	5.6	1	1.0	2.0	.0	.4	-2.4	1.8	7.3
Equipment parts		6.16	8.2	4.1	7.3	6.4	7.1	-1.2	.5	1.1	-1.2	.1	.0	.3	4.6
Other		8.48	3.8	3.5	3.8	4.7	-2.5	-4.5	7	.0	1.2	-1.5	1	-1.2	.4
Nondurable		10.72	2.1	.1	2.1	3.1	4.9	9	.2	1.0	.0	4	.0	3	1.6
Textile		.40	-1.6	1.7	5.2	9.9	13.4	12.1	.8	2.1	.5	2	2.5	1.2	8.9
Paper		1.73	-2.3	5	-1.1	-2.8	1.3	-4.6	6	.6	.7	8	-1.5	1	-1.0
Chemical Energy		5.55 20.54	4.5	.2 4.9	3.5 7.9	7.8 6.5	5.1 5.2	-1.5 .5	.2 6	.8 .5	.1 .9	8 5	.5	5 9	2.6
INDUSTRY GROUPS															
Manufacturing Manufacturing		72.71	3.5	2.9	4.1	4.4	3.8	-1.2	.2	1.1	.0	6	2	.1	2.4
Manufacturing (NAICS)	31-33	70.43	3.9	3.2	4.5	4.9	4.3	-1.2	.2	1.2	.0	6	2	.1	2.7
Durable manufacturing		37.37	6.2	4.9	5.5	6.7	3.4	-2.7	.4	1.1	3	5	6	.2	3.1
Wood products	321	.87	7.8	9.0	3.4	10.4	4.4	-11.2	1.5	4	1.3	-3.2	2	-1.0	1.5
Nonmetallic mineral products	327	1.49	2.2	3.9	7.4	13.6	1.5	2.3	5	.0	1.3	.4	7	7	5.5
Primary metals	331	3.20	-1.4	4.0	1.7	7.5	-11.6	-21.1	-1.2	-2.3	2.5	-4.3	-2.0	-3.2	-6.3
Fabricated metal products Machinery	332 333	5.54 5.69	5.4	4.8	3.5 9.2	3.3 5.7	2.3	-2.9	3.0	2.2	-3.1	.4 4	7 1.6	.2	2.7
Computer and electronic products	334	5.59	12.9	4.9	5.0	1.8	6.7	1.9	.9	.0	-5.1 .4	.2	.1	.0	3.8
Electrical equip., appliances,	334	3.39	12.9	4.2	5.0	1.0	0.7	1.9	.9	.0	.4	.2	.1	.0	3.6
and components	335	1.77	4.1	2.5	3.2	5.4	.6	3.7	4	.7	7	1.0	3	.9	3.2
Motor vehicles and parts	3361–3	4.47	11.5	8.9	7.1	18.3	-3.1	-3.8	5	6.0	-1.2	7	-3.6	3.2	5.2
Aerospace and miscellaneous															
transportation equipment	3364-9	4.59	5.0	2.3	5.4	7.3	1.5	1.2	3	.2	1	7	1.5	1	4.5
Furniture and related products	337	1.01	4.3	4.6	9.3	9.0	10.8	-3.0	.3	.8	1.9	-2.3	.5	8	4.7
Miscellaneous	339	3.14	7.4	6.7	4.9	2.6	8.9	-4.2	.4	1.7	6	.5	-2.9	.7	2.3
Nondurable manufacturing		33.06	1.3	1.2	3.3	2.7	5.3	.5	1	1.3	.4	6	.1	.1	2.3
Food, beverage, and tobacco products	311,2	10.67	3.3	1.0	2.5	-2.9	6.8	.3	2	1.6	.2	5	4	.6	1.0
Textile and product mills	313,4	.64	-1.0	.8	4.1	9.3	9.3	1.8	1.1	1.7	2	-1.4	1.8	.6	6.1
Apparel and leather	315,6	.23	-1.9	5.9	1.6	-3.2	9.9	5.1	.1	1.3	3.1	1.0	-3.3	.1	.7
Paper	322	2.15	-2.1	-1.4	9	-3.0	2.4	-7.1	3	.9	.5	-1.2	-1.6	6	-1.2
Printing and support	323	1.24	-2.7	3.1	1.7	2.7	3.6	.6	.4	.6	.8	6	2	.4	1.0
Petroleum and coal products	324	3.68	-1.5	1.7	2.1	3.0	8	5.8	-1.5	1.8	1.1	-1.9	2.8	.6	2.7
Chemicals Plastics and rubber products	325 326	11.44 3.02	1.0	.7 4.4	4.1 9.0	7.7 8.1	5.5 8.9	1 2.3	.3	.7 2.2	.4 6	6 .5	.3 4	5 3	3.1 6.0
Other manufacturing (non-NAICS)	1133,5111	2.28	-6.2	-3.4	-7.0	-10.0	-12.2	4	6	6	-1.0	.6	4	4	-5.2
	•			40	10.0	10.5	1.0	60	1 1	2	2.4	17		7	3.7
Mining Utilities	21 2211,2	17.76 9.54	4.2	4.8	10.0	-9.1	1.8 17.8	-6.0 11.1	-1.1 .4	3.6	2.4 -5.0	-1.7 3.3	-1.6 5.7	/ -5.9	-3.6
Electric	2211	8.24	4	3.4	3	-9.3	18.0	10.3	.9	2.1	-3.4	2.4	5.4	-5.3	-2.3
Natural gas	2212	1.30	4.0	10.6	-4.1	-7.7	16.1	17.0	-2.2	13.6	-14.8	9.5	7.6	-9.8	-11.1
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r Revised. p Preliminary.

NOTE. Under the industry groups, the figures to the right of the series descriptions are 2002 North American Industry Classification System (NAICS) codes. The abbreviation pt denotes part of a NAICS code. Additional industry detail is available on the Board's 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

^{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.

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

				rth quart urth quar		A	nnual ra	te			Month	ly rate			Mar. '14
Item		2014 proportion	2012	2013	2014	2014 Q3	Q4 ^r	2015 Q1 ^p	2014 Oct. ^r	Nov.r	Dec.r	2015 Jan. ^r	Feb. ^r	Mar. ^p	to Mar. '15
Total industry		100.00	3.2	3.3	4.6	4.1	4.6	-1.0	.0	1.1	1	4	.1	6	2.0
Energy		29.30	1.8	4.8	5.7	2.8	7.1	.6	5	1.1	1	1	1.0	-2.2	1.4
Consumer products		5.13	1.0	5.7	8	-12.0	14.2	17.3	1	3.3	-2.9	2.4	6.4	-5.0	-3.4
Commercial products		2.87	1.4	4.0	1.7	2.3	10.5	2.5	4	2.1	-2.3	1.3	1.7	-3.0	.8
Oil and gas well drilling	213111	.77	-7.5	-1.2	7.4	12.2	.4	-69.8	8	5	-1.9	-10.0	-17.3	-17.7	-36.6
Converted fuel		3.88	.3	1.0	.8	-4.1	9.1	2.7	.4	1.3	-3.8	1.7	3.0	-2.4	-3.2
Primary energy		16.65	3.3	6.1	9.7	9.2	4.4	.0	9	.3	2.0	9	4	6	6.3
Non-energy		70.70	3.7	2.8	4.2	4.6	3.6	-1.6	.2	1.1	1	6	3	.0	2.3
Selected high-technology industries		2.90	16.9	5.4	6.3	1.4	4.7	-3.1	.9	.2	5	6	1	.3	4.0
Computers and peripheral equipment	3341	.31	2.6	13.6	8	17.3	3.6	-10.5	.1	2.3	-3.4	-1.8	.3	1.1	1.1
Communications equipment	3342	.43	-1.5	2.5	1.2	-4.8	21.2	7	3.7	2.2	.6	9	6	.0	6.4
Semiconductors and related															
electronic components	334412–9	2.17	23.9	5.0	8.4	.6	1.9	-2.5	.5	5	3	3	.0	.2	3.9
Excluding selected high-technology industries		67.80	3.1	2.7	4.1	4.8	3.6	-1.6	.1	1.2	1	6	3	.0	2.2
Motor vehicles and parts	3361-3	4.47	11.5	8.9	7.1	18.3	-3.1	-3.8	5	6.0	-1.2	7	-3.6	3.2	5.2
Motor vehicles	3361	2.21	12.7	11.7	6.0	25.1	-3.1	-3.8 -9.7	-2.3	9.8	-1.2	-1.8	-5.9	4.3	3.2
Motor vehicle parts	3363	1.95	9.7	5.9	7.1	12.6	1.1	1.0	-2.3	1.9	-1.8	.0	-3.9 -1.7	2.6	6.6
Excluding motor vehicles and parts		63.32	2.5	2.3	3.8	3.8	4.1	-1.4	.2	.8	.0	5	1	2	2.0
Consumer goods		18.46	1.1	1.3	2.9	1.2	3.8	1	3	1.1	.2	3	4	.2	1.6
Business equipment		8.20	6.0	3.8	6.8	3.6	6.8	-1.7	1.3	1.0	-1.2	9	1.3	.0	3.4
Construction supplies		4.08	3.9	5.0	5.2	10.4	5.6	-2.8	.7	.1	1.0	9	3	9	2.7
Business supplies		5.87	1.5	2.3	3.1	2.3	4.4	-1.3	.7	.5	1	.1	7	2	1.4
Materials		24.49	2.4	2.0	3.7	5.2	3.3	-2.1	.0	.8	.1	6	1	5	1.9
Measures excluding selected high-technology industries		97.10	2.7	3.3	4.5	4.2	4.6	0	1	1.1	1	4	1	7	2.0
Total industry					4.5			9	1		1	4	.1	7	
Manufacturing ¹ Durable		69.80 34.61	2.8 5.1	2.8 4.9	4.0 5.4	4.5 7.2	3.7 3.4	-1.1 -2.7	.1	1.2 1.2	.0 3	6 5	2 6	.1 .2	2.4 2.9
		34.01	3.1	4.9	3.4	1.2	3.4	-2.1	.4	1.2	3	3	0	.2	2.9
Measures excluding motor vehicles and parts															
Total industry		95.53	2.8	3.1	4.5	3.4	5.0	8	.0	.9	.0	4	.3	8	1.9
Manufacturing ¹		68.23	3.0	2.6	3.9	3.5	4.2	-1.0	.2	.8	.1	5	.0	1	2.3
Durable		33.04	5.5	4.4	5.2	5.1	4.4	-2.6	.6	.5	2	5	1	2	2.7
Measures excluding selected high-technology industries															
and motor vehicles and parts															
Total industry		92.62	2.3	3.0	4.4	3.5	5.0	8	.0	.9	.0	4	.3	8	1.8
Manufacturing ¹		65.33	2.3	2.4	3.8	3.6	4.2	9	.2	.8	.1	5	.0	1	2.2
Stage-of-process components of non-energy materials, measures of the input to Finished processors		10.76	6.0	3.8	6.1	7.1	6.0	-1.0	.4	1.2	6	.0	7	.6	4.5
Primary and semifinished processors		17.07	3.5	1.8	3.2	4.3	1.3	-2.6	2	.5	.5	9	.0	8	1.1
Timaly and seministica processors		17.07	3.3	1.0	3.4	7.3	1.5	2.0	2			,	.0	0	1.1

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

vinnons or units, scasonarry adjusted annual rate											
	2014	2014			2015	2014			2015		
Item	average	Q2	Q3	Q4	Q1	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Total	11.66	11.67	12.19	11.73	11.48	11.14	12.12	11.93	11.73	10.98	11.73
Autos	4.25	4.15	4.44	4.33	4.06	3.97	4.46	4.55	4.07	3.83	4.28
Trucks	7.41	7.52	7.75	7.40	7.42	7.17	7.66	7.38	7.66	7.14	7.45
Light	7.12	7.22	7.44	7.11	7.10	6.88	7.35	7.10	7.35	6.83	7.13
Medium and heavy	.29	.29	.31	.29	.31	.29	.31	.28	.31	.31	.32
Memo Autos and light trucks	11.37	11.38	11.88	11.44	11.17	10.85	11.81	11.64	11.42	10.67	11.41
Autos and right trucks	11.57	11.50	11.00	11.44	11.17	10.65	11.01	11.04	11.42	10.07	11.41

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

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1. Refer to note on cover page.

 Table 4

 INDUSTRIAL PRODUCTION INDEXES: MARKET AND INDUSTRY GROUP SUMMARY

 2007 = 100, seasonally adjusted

2007 = 100, seasonally adjusted											
Item		2014 proportion	2014 July	Aug.	Sept.	Oct.r	Nov. ^r	Dec.r	2015 Jan. ^r	Feb.r	Mar. ^p
Total IP		100.00	104.5	104.5	105.2	105.1	106.3	106.2	105.8	105.9	105.2
Market Groups											
Final products and nonindustrial supplies		51.63	98.2	97.8	98.4	98.6	100.1	99.5	99.2	99.5	98.7
Consumer goods		26.16	97.5	96.5	97.4	97.1	99.2	98.7	98.8	99.3	98.8
Durable		5.81	107.5	103.6	103.3	103.1	106.9	106.2	105.3	103.3	105.1
Automotive products		2.99	127.7	120.5	118.6	117.5	125.0	123.4	122.1	118.6	122.1
Home electronics		.12	62.9	64.7	63.6	64.2	65.6	66.2	65.4	65.6	65.2
Appliances, furniture, carpeting		.79	78.8	76.8	78.3	79.1	78.4	80.3	78.9	77.3	76.9
Miscellaneous goods Nondurable		1.91 20.35	96.8 95.1	95.8 94.9	96.8 96.2	97.3 95.8	98.5 97.5	97.7 97.0	97.7 97.3	97.2 98.6	98.0 97.4
Non-energy		15.22	93.1	93.1	93.6	93.8	94.3	94.6	94.2	93.9	94.0
Foods and tobacco		8.77	100.8	100.8	102.0	101.5	103.0	103.3	102.5	101.9	102.6
Clothing		.18	62.2	60.2	61.8	61.8	62.7	64.6	65.1	62.9	63.1
Chemical products		4.59	86.0	86.5	86.6	86.0	87.0	87.2	87.4	87.7	87.0
Paper products		1.19	74.9	73.7	71.8	71.9	71.6	71.2	71.7	71.6	71.4
Energy		5.13	102.0	101.3	105.1	105.0	108.5	105.4	108.0	114.8	109.1
Business equipment		9.37	108.2	108.0	107.6	108.8	110.4	109.0	108.2	109.0	109.2
Transit		2.26	117.1	113.4	113.6	112.3	114.4	113.4	112.6	112.5	113.2
Information processing Industrial and other		1.88 5.23	101.0 106.6	101.9 107.3	102.6 106.3	103.9 108.5	104.2 110.4	104.9 108.0	105.4 106.6	105.4 108.2	105.5 108.3
Defense and space equipment		2.19	117.1	107.3	117.8	117.4	110.4	117.8	116.4	117.7	117.0
, , , ,											
Construction supplies Business supplies		4.10 9.00	85.6 94.1	85.9 94.5	86.1 95.4	86.7 95.8	86.8 96.7	87.7 96.0	86.8 96.4	86.6 96.5	85.8 95.4
Duamesa supplies											
Materials		48.37	112.4	112.9 105.4	113.7 105.7	113.5	114.2	114.7 106.7	114.1 106.1	114.0 105.8	113.4 105.6
Non-energy Durable		27.84 17.12	105.5 116.9	105.4	105.7	105.8 116.7	106.6 117.5	117.6	116.1	105.8	105.6
Consumer parts		2.47	105.3	102.1	102.3	103.3	105.3	105.3	105.8	103.2	105.0
Equipment parts		6.16	149.7	150.5	152.2	152.9	154.6	152.7	152.8	152.8	153.2
Other		8.48	99.5	99.2	98.8	98.2	98.2	99.4	97.9	97.8	96.6
Nondurable		10.72	90.1	90.7	90.9	91.1	91.9	91.9	91.5	91.5	91.3
Textile		.40	79.5	78.9	80.2	80.8	82.5	82.9	82.7	84.8	85.8
Paper		1.73	80.7	81.1	81.2	80.7	81.2	81.8	81.1	79.9	79.8
Chemical Energy		5.55 20.54	91.7 123.7	92.5 124.9	92.8 126.8	93.0 126.0	93.7 126.5	93.8 127.7	93.0 127.1	93.5 127.4	93.0 126.2
INDUSTRY GROUPS Manufacturing		72.71	100.8	100.4	100.6	100.8	101.9	101.9	101.3	101.1	101.2
Manufacturing (NAICS)	31-33	70.43	102.5	102.2	102.5	102.7	103.9	103.9	103.2	103.0	103.1
Durable manufacturing		37.37	111.9	110.9	111.1	111.5	112.7	112.4	111.8	111.2	111.4
Wood products	321	.87	82.8	83.1	82.2	83.4	83.1	84.2	81.5	81.3	80.5
Nonmetallic mineral products	327	1.49	79.7	79.8	80.3	79.9	79.9	80.9	81.2	80.7	80.1
Primary metals	331	3.20	109.2	108.3	107.0	105.7	103.2	105.8	101.3	99.2	96.0
Fabricated metal products Machinery	332 333	5.54 5.69	99.9 109.5	98.5 111.0	99.6 110.4	99.7 113.8	99.8 116.3	100.1 112.7	100.5 112.2	99.8 114.0	99.9 114.0
Computer and electronic products	334	5.59	150.5	151.3	152.3	153.6	153.6	154.2	154.5	154.6	154.7
Electrical equip., appliances,	35 7	2.27	130.5	-01.0	-52.5	-55.0	-55.0	-52	-55	-50	-5
and components	335	1.77	91.7	92.5	92.5	92.2	92.8	92.2	93.1	92.8	93.7
Motor vehicles and parts	3361-3	4.47	123.9	115.0	112.9	112.3	119.1	117.6	116.8	112.6	116.3
Aerospace and miscellaneous					4		4			4	4
transportation equipment	3364–9	4.59	111.0	111.2	112.2	111.8	112.0	111.8	111.1	112.8	112.7
Furniture and related products Miscellaneous	337 339	1.01 3.14	76.3 115.2	75.8 114.4	77.4 116.2	77.6 116.7	78.2 118.6	79.7 117.9	77.9 118.5	78.3 115.0	77.6 115.9
Nondurable manufacturing Food, beverage, and tobacco products	311,2	33.06 10.67	93.0 102.1	93.4 102.3	93.8 103.3	93.7 103.1	94.9 104.8	95.2 105.0	94.6 104.4	94.7 104.0	94.8 104.6
Textile and product mills	311,2	.64	75.4	75.1	75.3	76.2	77.5	77.3	76.3	77.6	78.1
Apparel and leather	315,6	.23	60.7	58.5	60.0	60.0	60.8	62.7	63.3	61.2	61.3
Paper	322	2.15	82.4	82.8	82.8	82.5	83.2	83.6	82.7	81.4	80.9
Printing and support	323	1.24	77.7	77.4	77.3	77.6	78.1	78.7	78.2	78.1	78.4
Petroleum and coal products	324	3.68	98.8	99.2	98.7	97.2	99.0	100.0	98.1	100.8	101.4
Chemicals Plactics and rubban products	325	11.44	89.5	90.2	90.5	90.8	91.4	91.8	91.2	91.5	91.1
Plastics and rubber products	326	3.02	97.7	98.5	99.0	99.2	101.5	100.9	101.4	101.1	100.8
Other manufacturing (non-NAICS)	1133,5111	2.28	66.5	65.5	64.2	63.8	63.4	62.8	63.1	63.4	63.2
Mining	21	17.76	131.3	132.5	133.8	132.3	132.0	135.1	132.9	130.7	129.7
Utilities	2211,2	9.54	96.3	97.0 96.2	101.2	101.6	105.3	100.0	103.2	109.1	102.7
Electric	2211	8.24	95.1		100.2	101.1	103.2	99.6	102.0	107.6	101.8
Natural gas	2212	1.30	104.4	102.5	107.6	105.2	119.5	101.8	111.5	119.9	108.2

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

Table 5 INDUSTRIAL PRODUCTION INDEXES: SPECIAL AGGREGATES

21	0	7	=	10	0	seas	on:	allv	ac	lin	ist	ed

2007 = 100, seasonally adjusted											
*.		2014	2014		G .	0 . 1	N.Y	ъ г	2015	F.1.	3.6 D
Item		proportion	July	Aug.	Sept.	Oct. ^r	Nov. ^r	Dec. ^r	Jan. ^r	Feb. ^r	Mar. ^p
Total industry		100.00	104.5	104.5	105.2	105.1	106.3	106.2	105.8	105.9	105.2
Energy		29.30	116.3	117.1	119.4	118.8	120.1	120.0	119.9	121.1	118.5
Consumer products		5.13	102.0	101.3	105.1	105.0	108.5	105.4	108.0	114.8	109.1
Commercial products		2.87	103.0	103.6	106.9	106.5	108.7	106.2	107.6	109.5	106.2
Oil and gas well drilling	213111	.77	102.8	104.6	106.6	105.8	105.3	103.3	93.0	76.8	63.2
Converted fuel		3.88	95.0	97.4	99.5	99.8	101.1	97.3	99.0	101.9	99.4
Primary energy		16.65	133.0	133.9	135.7	134.5	134.9	137.6	136.3	135.7	134.9
Non-energy		70.70	100.6	100.3	100.4	100.6	101.7	101.7	101.1	100.8	100.8
Selected high-technology industries		2.90	193.5	192.8	193.9	195.7	196.0	195.1	194.0	193.9	194.4
Computers and peripheral equipment	3341	.31	70.2	73.0	72.0	72.1	73.7	71.3	70.0	70.2	71.0
Communications equipment	3342	.43	90.5	88.0	88.6	91.9	93.9	94.5	93.6	93.1	93.1
Semiconductors and related											
electronic components	334412–9	2.17	309.5	308.1	310.6	312.3	310.6	309.8	308.8	308.7	309.3
Excluding selected high-technology industries		67.80	96.9	96.6	96.7	96.8	98.0	97.9	97.4	97.1	97.1
Motor vehicles and parts	3361-3	4.47	123.9	115.0	112.9	112.3	119.1	117.6	116.8	112.6	116.3
Motor vehicles	3361	2.21	138.5	122.4	118.7	116.0	127.4	125.2	122.9	115.7	120.7
Motor vehicle parts	3363	1.95	114.0	110.0	109.1	110.0	112.1	111.9	112.0	110.0	112.9
Excluding motor vehicles and parts		63.32	95.1	95.4	95.7	95.8	96.6	96.6	96.1	96.1	95.9
Consumer goods		18.46	92.4	92.3	92.9	92.6	93.7	93.9	93.6	93.2	93.4
Business equipment		8.20	109.9	110.7	110.4	111.8	113.0	111.7	110.7	112.2	112.2
Construction supplies		4.08	85.5	85.8	86.1	86.6	86.7	87.6	86.8	86.5	85.8
Business supplies Materials		5.87 24.49	86.5 95.8	86.8 96.0	86.7 96.3	87.4 96.3	87.8 97.0	87.7 97.2	87.8 96.6	87.2 96.4	87.0 96.0
Measures excluding selected high-technology industries											
Total industry		97.10	101.8	101.8	102.5	102.5	103.6	103.6	103.1	103.2	102.6
Manufacturing ¹		69.80	97.1	96.8	97.0	97.1	98.2	98.2	97.7	97.5	97.6
Durable		34.61	104.7	103.7	103.8	104.2	105.5	105.2	104.6	104.0	104.2
Measures excluding motor vehicles and parts						1010					
Total industry		95.53	103.6	103.9	104.8	104.8	105.7	105.7	105.3	105.5	104.7
Manufacturing ¹ Durable		68.23 33.04	99.3 110.1	99.5 110.1	99.8 110.6	100.1 111.2	100.9 111.7	100.9 111.5	100.4 110.9	100.4 110.8	100.3 110.6
Measures excluding selected high-technology industries and motor vehicles and parts		33.04	110.1	110.1	110.0	111.2	111./	111.5	110.9	110.0	110.0
Total industry		92.62	100.8	101.2	102.0	102.0	102.9	102.9	102.5	102.8	101.9
Manufacturing ¹		65.33	95.5	95.7	96.0	96.1	96.9	97.0	96.5	96.5	96.4
Stage-of-process components of non-energy materials, measures of the input to		10.76	120.0	120.4	121.2	121.0	122.4	122.7	122.7	121.0	122.5
Finished processors		10.76	120.8	120.4	121.3	121.9	123.4	122.7	122.7	121.8	122.5
Primary and semifinished processors		17.07	96.2	96.4	96.3	96.2	96.6	97.1	96.2	96.3	95.5
		1	1								

Table 6 DIFFUSION INDEXES OF INDUSTRIAL PRODUCTION

ercent	Ton	T7-1-	Man	Λ	Mari	T	T1	A	C	04	N1	Dan
Item	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
One month earlier												
2013	55.1	62.2	50.6	51.6	54.5	62.2	50.6	63.5	57.4	53.8	58.7	53.5
2014	36.2	63.1	67.0	50.0	58.7	53.2	59.6	49.0	59.1	57.2	66.2	51.8
2015	46.6	46.8										
Three months earlier												
2013	67.6	63.5	55.4	53.8	51.6	56.1	55.1	64.1	58.7	61.2	61.9	56.4
2014	49.4	55.1	60.3	68.6	66.3	61.2	65.7	63.1	62.8	57.7	67.1	65.9
2015	58.5	43.6										
Six months earlier												
2013	58.3	63.8	65.1	67.6	57.7	56.7	57.4	56.7	57.4	66.3	66.2	64.1
2014	57.4	59.0	65.4	63.1	62.5	59.3	72.8	68.9	64.4	65.1	72.8	68.3
2015	61.5	56.7										

NOTE. The diffusion indexes are calculated as the percentage of series that increased over the indicated span (one, three, or six months) plus one-half the percentage that were unchanged.

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1. Refer to note on cover page.

Table 7
CAPACITY UTILIZATION
Percent of capacity, seasonally adjusted

ercent of capacity, seasonally adjusted			1972-	1994-										
Item		2014	2014	95	2009	2014		2015	2014			2015		
		proportion	ave.	high	low	Q3	Q4 ^r	Q1 ^p	Oct.r	Nov.r	Dec.r	Jan. ^r	Feb.r	Mar
Total industry		100.00	80.1	85.0	66.9	79.3	79.5	78.8	79.2	79.8	79.5	79.1	79.0	78
Manufacturing ¹		75.18	78.6	84.6	63.9	77.5	77.8	77.2	77.4	78.1	78.0	77.4	77.1	77.
Manufacturing (NAICS)	31-33	72.12	78.5	84.7	63.7	78.3	78.7	78.1	78.2	79.0	78.8	78.3	78.0	77
Durable manufacturing		38.76	77.0	83.6	58.5	77.9	77.9	76.8	77.7	78.3	77.9	77.3	76.7	76
Wood products	321	.99	76.5	86.5	50.1	72.1	71.9	69.0	72.1	71.5	72.1	69.6	69.2	68
Nonmetallic mineral products	327	1.89	74.2	82.6	44.1	64.7	65.1	65.5	64.8	64.9	65.7	66.0	65.5	65
Primary metals	331	3.19	79.0	94.1	48.7	80.7	78.1	73.4	78.7	76.8	78.7	75.3	73.7	71
Fabricated metal products	332	5.47	77.6	84.8	61.9	80.9	80.6	80.2	80.7	80.6	80.5	80.7	80.0	80
Machinery	333	5.58	78.1	87.6	59.3	81.1	83.3	82.0	83.2	84.8	82.0	81.4	82.4	82
Computer and electronic products	334	6.38	77.9	84.3	70.6	71.7	71.5	70.7	71.9	71.5	71.3	71.0	70.7	70
Electrical equip., appliances,														
and components	335	1.67	82.6	92.5	66.0	84.8	84.6	84.9	84.5	84.9	84.2	85.0	84.6	85.
Motor vehicles and parts	3361-3	4.48	75.1	87.8	35.1	83.6	82.6	81.3	79.9	84.6	83.4	82.6	79.5	81
Aerospace and miscellaneous														
transportation equipment	3364-9	4.71	73.5	70.3	72.0	78.2	78.2	78.2	78.3	78.3	78.1	77.5	78.6	78
Furniture and related products	337	1.05	76.5	82.6	57.2	78.2	80.1	79.3	79.2	79.8	81.2	79.3	79.6	79
Miscellaneous	339	3.34	76.0	80.5	68.1	75.0	76.0	74.7	75.5	76.5	75.9	76.1	73.8	74
Nondurable manufacturing		33.36	80.6	86.0	69.1	78.7	79.5	79.4	78.8	79.7	79.9	79.3	79.4	79
Food, beverage, and tobacco products	311,2	10.53	80.9	85.4	75.1	79.7	80.6	80.4	79.8	80.9	80.9	80.5	80.1	80
Textile and product mills	313,4	.71	79.4	91.8	53.4	72.5	74.4	74.8	73.6	74.9	74.9	73.8	75.1	75
Apparel and leather	315,6	.25	77.4	87.2	56.9	75.8	78.0	79.2	76.4	77.5	80.1	80.9	78.3	78
Paper	322	2.07	86.6	92.6	72.4	82.7	83.8	82.7	83.0	83.9	84.5	83.6	82.4	82
Printing and support	323	1.38	80.5	85.0	59.8	72.2	73.1	73.4	72.5	73.1	73.8	73.3	73.2	73
Petroleum and coal products	324	3.50	85.5	91.1	75.8	84.8	84.5	85.5	83.2	84.6	85.5	83.8	86.1	86
Chemicals	325	11.87	77.5	82.0	65.2	76.5	77.3	77.1	76.9	77.3	77.6	77.1	77.3	76
Plastics and rubber products	326	3.05	82.0	93.2	58.5	79.0	79.7	79.5	79.0	80.4	79.7	80.0	79.5	79
Other manufacturing (non-NAICS)	1133,5111	3.06	81.2	83.2	68.6	59.2	57.4	57.6	57.8	57.5	57.0	57.4	57.7	57.
Mining	21	15.36	87.3	88.5	78.8	90.1	88.3	85.7	88.4	87.5	88.9	87.2	85.4	84.
Utilities	2211,2	9.46	85.9	93.3	78.5	76.9	79.9	81.9	79.4	82.2	78.0	80.5	85.1	80.
Selected high-technology industries		3.48	77.8	86.3	72.2	70.8	70.0	67.9	70.5	70.1	69.2	68.4	67.8	67
Computers and peripheral equipment	3341	.39	77.9	87.7	83.5	68.1	69.6	69.1	69.0	70.9	68.8	68.2	68.9	70
Communications equipment	3342	.47	76.7	84.1	77.3	74.1	77.4	76.5	76.2	77.8	78.1	77.1	76.4	76
Semiconductors and related														
electronic components	334412–9	2.63	79.5	90.8	63.3	70.5	68.6	66.1	69.6	68.5	67.6	66.8	66.1	65
Measures excluding selected high-technology industries														
Total industry		96.52	80.2	84.9	66.7	79.6	79.9	79.3	79.5	80.2	80.0	79.5	79.5	78.
Manufacturing ¹		71.69	78.7	84.5	63.5	77.9	78.3	77.8	77.8	78.6	78.5	78.0	77.7	77.
STAGE-OF-PROCESS GROUPS		10.50	06.2	00.6	76.6	07.7	06.4	0.4.2	06.6	07.6	066	05.4	04.1	0.2
Crude		19.50	86.3	89.6	76.8	87.7	86.4	84.2	86.6	85.8	86.9	85.4	84.1	83
Primary and semifinished		43.58	80.8	87.7	64.2	77.4	78.0	77.8	77.7	78.5	77.7	77.8	78.4	77.
Finished		36.92	77.1	80.6	66.8	77.3	77.9	77.5	77.2	78.4	78.0	77.5	77.3	77.

r Revised. p Preliminary.

1. Refer to note on cover page.

Table 8 INDUSTRIAL CAPACITY

Percent change

													Monthly
		Average aı			Fourth	quarter to	o fourth c	quarter		Annua	ıl rate		rate
Item	1972-	1980-	1989-	1995-					2014			2015	2015
	79	88	94	2015	2012	2013	2014	2015	Q2	Q3	Q4	Q1	Mar.
Total industry	3.1	1.9	2.3	2.4	2.6	1.9	3.1	1.8	3.1	3.3	3.4	2.4	.2
Manufacturing ¹	3.3	2.2	2.6	2.4	2.2	1.8	2.2	1.7	2.2	2.2	2.2	1.9	.1
Mining Utilities	.7 4.2	.1 2.1	6 1.8	1.3 1.8	4.8 1.3	4.0 .4	9.2 1.0	3.3	9.0 1.1	10.0 1.1	10.3 1.0	6.0 .5	.4 .0
Selected high-technology industries	19.6	17.3	15.7	19.6	19.0	4.7	8.6	8.2	8.5	9.8	9.8	9.1	.7
Manufacturing ¹ ex. selected high-technology industries	2.6	1.3	1.6	1.1	1.4	1.7	1.8	1.3	1.8	1.8	1.8	1.5	.1
STAGE-OF-PROCESS GROUPS Crude	1.6	.4	5 2.6	1.2	3.5	3.1	7.3 1.9	2.8	7.1 1.9	8.0 2.2	8.3 2.1	4.9	.3
Primary and semifinished Finished	3.9	3.3	2.6	2.6	2.6	2.9	2.3	1.5	2.4	2.2	2.1	1.8	.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

Billions of 2009 dollars at annual rate, seaso	narry adjusted		2014		2017	2014			2017		
			2014		2015	2014			2015		
Item	2009	2014	Q3	Q4 ^r	Q1 ^p	Oct.r	Nov. ^r	Dec.r	Jan. ^r	Feb. ^r	Mar. ^p
Final products and nonindustrial											
supplies	3,212.1	3,757.8	3,769.2	3,811.3	3,819.7	3,770.0	3,836.4	3,827.5	3,815.0	3,830.4	3,813.5
Final products	2,410.8	2,849.7	2,855.6	2,880.8	2,893.2	2,844.5	2,901.9	2,896.0	2,887.1	2,897.8	2,894.8
Consumer goods	1,811.4	2,054.0	2,051.6	2,070.8	2,094.2	2,039.9	2,083.8	2,088.7	2,087.0	2,098.3	2,097.3
Durable	381.7	560.2	574.8	576.4	570.2	559.8	586.8	582.6	575.8	561.3	573.5
Automotive products	225.1	376.8	390.0	388.4	383.7	372.5	398.9	394.0	388.4	375.4	387.4
Other durable goods	156.5	183.8	185.4	188.3	186.8	187.3	188.6	189.1	187.9	186.0	186.5
Nondurable	1,429.8	1,511.4	1,497.7	1,514.7	1,541.7	1,498.3	1,518.9	1,526.8	1,530.4	1,552.5	1,542.0
Equipment, total	599.4	803.4	812.6	818.6	805.4	813.8	827.0	814.9	806.9	805.7	803.5
Business and defense	583.2	778.0	786.6	792.5	786.6	787.5	800.9	789.0	783.8	787.1	788.9
Business	477.2	658.7	666.5	672.1	666.8	667.3	680.6	668.5	664.7	666.6	669.2
Defense and space	106.0	119.9	120.8	121.0	120.4	120.8	121.1	121.2	119.7	121.1	120.5
Nonindustrial supplies	801.3	907.7	913.2	930.1	926.1	925.1	934.1	931.2	927.5	932.3	918.4
Construction supplies	221.8	270.3	273.7	276.9	274.0	277.1	276.1	277.7	274.4	275.3	272.2
Business supplies	579.5	638.1	640.3	653.9	652.8	648.9	658.7	654.2	653.7	657.7	646.8
Commercial energy products	233.3	247.4	247.9	254.4	253.5	251.8	257.7	253.8	253.3	257.9	249.3

r Revised. p Preliminary.

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

Percent change, seasonally adjusted														
		Fou	rth quarte	er to										
		fo	urth quar	ter		Annual	rate			Month	ly rate			Mar. '14
Item	2014		2 2013 2014 (2015	2014			2015			to
	gross value ¹	2012	2013	2014	Q3	Q4 ^r	$Q1^p$	Oct.r	Nov.r	Dec.r	Jan. ^r	Feb.r	Mar.p	Mar. '15
Finished	2,276.2	4.3	3.6	4.5	4.8	3.6	-2.5	.0	2.2	4	7	7	.4	2.3
Semifinished	1,982.3	3.7	3.3	4.9	4.0	9.0	2.4	.7	1.2	9	.6	.6	8	3.4
Primary	1,454.9	.4	3.7	1.4	1.2	3.3	.4	4	1.5	7	8	1.8	-1.0	1
Crude	706.8	2.1	2.6	4.9	6.0	-1.1	-3.6	8	4	2.1	-1.5	8	4	1.9

r Revised. p Preliminary.

^{1.} Billions of 2009 dollars.

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

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
IP (percent																	
$hange)^1$																	
993	.5	.4	.0	.3	4	.2	.3	1	.5	.8	.4	.5	3.6	.8	1.6	6.2	3.3
994	.4	.0	1.0	.5	.6	.7	.2	.6	.4	.8	.6	1.0	5.1	7.5	5.3	8.4	5.3
.995 .996	.2	1 1.6	.1 1	.0	.3	.4	4 2	1.3	.6	1 1	.2	.6	4.4	1.5 8.5	3.9 5.0	3.4 5.5	4.7
1997	.2	1.0	.7	.1	.6	.5	.9	1.0	.9	.9	.9	.3	7.9	6.3	9.8	10.5	7.2
998	.5	.1	.1	.3	.6	7	4	2.1	3	.8	.0	.4	4.5	2.5	2.8	5.6	5.8
1999	.5	.5	.2	.2	.8	2	.6	.4	4	1.3	.5	.8	4.3	3.8	3.8	7.5	4.3
2000	.0	.3	.4	.7	.2	.1	1	3	.4	3	.0	3	4.3	5.3	4	-1.2	4.0
2001 2002	7 .6	6 .0	3 .8	3 .5	7 .4	7 1.0	5 2	2 .0	4 .1	5 3	5 .5	.0 5	-5.6 2.9	-5.5 6.5	-5.7 2.4	-4.5 2	-3.4
003	.7	.3	2	8	.0	.0	.6	3	.6	.1	.8	1	2.6	-3.1	2.7	3.4	1.2
004	.3	.5	5	.4	.8	8	.8	.0	.1	1.0	.2	.7	2.5	1.8	2.1	5.7	2.3
2005	.5	.6	1	.1	.2	.4	2	.2	-2.0	1.3	1.0	.6	5.7	2.2	-1.7	3.4	3.2
006	.1	.0	.3	.4	1	.4	.0	.3	2	.0	1	1.0	3.8	2.4	1.6	.8	2.2
2007	5	1.1	.1	.7	.0	.0	.0	.1	.4	5	.6	.0	3.7	4.9	1.1	.7	2.5
008	2 -2.2	3 7	3 -1.5	7 8	5 -1.1	2 4	5 1.0	-1.5 1.0	-4.2 .7	.8 .4	-1.3 .4	-2.8 .3	-1.4 -20.0	-5.3 -10.8	-12.1 5.2	-16.0 6.3	-3.4 -11.3
2010	1.2	.3	.8	.4	1.6	.2	.6	.3	.3	3	.2	.8	8.3	8.7	6.5	1.5	5.7
.011	.0	6	1.0	5	.3	.2	.6	.5	.1	.5	.1	.4	2.5	1.2	5.2	3.9	3.3
012	.9	.4	4	.8	.3	.1	.6	6	.3	1	1.0	.1	5.2	3.8	1.6	2.4	3.8
013	.1	.6	.4	2	.1	.2	2	.6	.7	.1	.6	.2	4.2	1.9	2.5	4.9	2.9
014 015	2 4	.9 .1	.8 6	.1	.5	.4	.3	.0	.7	.0	1.1	1	3.9	5.7	4.1	4.6	4.1
P (2007=100)																	
013	98.4	99.0	99.5	99.3	99.4	99.6	99.4	100.0	100.7	100.8	101.4	101.6	99.0	99.4	100.1	101.3	99.9
014	101.3	102.3	103.1	103.2	103.7	104.1	104.5	104.5	105.2	105.1	106.3	106.2	102.2	103.7	104.7	105.9	104.1
015	105.8	105.9	105.2										105.6				
Capacity																	
percent of 2007 output)																	
.013	127.2	127.3	127.5	127.7	127.9	128.0	128.2	128.5	128.7	128.9	129.2	129.4	127.3	127.9	128.5	129.2	128.2
2014	129.7	130.0	130.4	130.7	131.0	131.4	131.7	132.1	132.5	132.8	133.2	133.6	130.0	131.0	132.1	133.2	131.6
015	133.7	134.0	134.3										134.0				
Itilization																	
percent) 1993	81.3	81.5	81.3	81.4	81.0	81.1	81.2	81.1	81.3	81.8	82.0	82.3	81.3	81.2	81.2	82.1	81.4
994	82.5	82.3	83.0	83.2	83.4	83.7	83.6	83.8	83.8	84.2	84.4	85.0	82.6	83.4	83.7	84.5	83.6
995	84.8	84.4	84.3	83.9	83.9	83.9	83.2	84.0	84.0	83.6	83.4	83.4	84.5	83.9	83.8	83.5	83.9
996	82.5	83.4	83.0	83.3	83.6	83.9	83.3	83.5	83.6	83.2	83.5	83.6	83.0	83.6	83.5	83.4	83.4
997	83.3	83.9	84.0	83.6	83.7	83.6	83.9	84.2	84.4	84.6	84.8	84.5	83.7	83.7	84.2	84.7	84.1
998	84.4	83.9	83.4	83.2	83.2	82.2	81.4	82.6	82.0	82.3	81.8	81.8	83.9	82.8	82.0	81.9	82.7
999	81.8	81.8	81.6	81.5	81.8	81.4	81.6	81.6	81.0	81.8	81.9	82.2	81.7	81.5	81.4	81.9	81.7
2000 2001	81.9 79.1	81.9 78.3	81.9 77.9	82.2 77.5	82.1 76.7	81.9 76.0	81.6 75.4	81.0 75.1	81.1 74.7	80.6 74.2	80.3 73.6	79.9 73.5	81.9 78.4	82.1 76.7	81.2 75.1	80.3 73.8	81.4 76.0
002	73.9	73.8	74.3	74.6	74.8	75.5	75.3	75.3	75.4	75.2	75.6	75.2	74.0	75.0	75.3	75.3	74.9
003	75.8	76.0	75.9	75.3	75.4	75.4	75.9	75.7	76.2	76.2	76.8	76.8	75.9	75.4	75.9	76.6	75.9
2004	77.0	77.4	77.1	77.4	78.0	77.4	78.0	78.1	78.1	78.9	79.0	79.5	77.2	77.6	78.1	79.1	78.0
2005	79.8	80.3	80.1	80.1	80.2	80.4	80.1	80.1	78.4	79.3	79.9	80.3	80.1	80.2	79.5	79.8	79.9
2006 2007	80.2 79.7	80.2 80.4	80.3 80.4	80.4 80.8	80.2 80.7	80.4 80.6	80.3 80.5	80.4 80.5	80.1 80.8	79.9 80.4	79.7 80.8	80.3 80.8	80.2 80.2	80.4 80.7	80.3 80.6	80.0 80.7	80.2 80.5
	80.7	80.5	80.3	79.8	79.4	79.3	78.9	77.7	74.3	74.9	73.9	71.7	80.5	79.5	77.0	73.5	77.6
2008	70.1	69.5	68.5	67.9	67.2	66.9	67.6	68.3	68.9	69.3	69.7	70.0	69.4	67.3	68.3	69.7	68.7
.009	71.0	71.4	72.1	72.5	73.8	74.1	74.7	75.0	75.3	75.1	75.3	76.0	71.5	73.5	75.0	75.5	73.8
009 010		75 6	76.3	75.8	76.0	76.1	76.4 77.6	76.6 77.0	76.6 77.0	76.8 76.9	76.7 77.5	76.8 77.5	75.9 77.2	76.0 77.4	76.5 77.2	76.8 77.3	76.3 77.3
2009 2010 2011	76.0 77.3	75.6 77.4	76.9	77.4	77.4	77.3	77.0								, ,	11.3	
2008 2009 2010 2011 2012	76.0 77.3	77.4							78.3	78.2	78.5	78.5	ד דד				
2009 2010 2011	76.0		76.9 78.0 79.1	77.4 77.8 79.0	77.4 77.8 79.1	77.8 79.2	77.5 79.3	77.8 79.1	78.3 79.4	78.2 79.2	78.5 79.8	78.5 79.5	77.7 78.6	77.8 79.1	77.9 79.3	78.4 79.5	77.9 79.1

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

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

Year	Jan.	Tr. L															
		Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
IP (percent change) ²																	
1993	1.0	.2	2	.5	1	2	.2	2	.6	.9	.4	.5	4.5	1.3	.7	7.0	3.5
1994	.2	.1	1.3	.8	.7	.3	.4	.8	.5	1.0	.8	1.1	4.9	9.6	6.2	10.1	5.9
1995	.2	2	.2	1	.1	.5	6	1.2	.9	1	.1	.4	4.6	1.0	3.3	4.3	5.2
1996 1997	8 .1	1.6 1.4	2 1.1	1.1 2	.7 .8	1.0	.2 .8	.6 1.2	.8 .9	2 .9	.8 1.1	.8 .4	1.8 9.4	9.7 7.4	7.4 11.0	5.7 11.4	4.8 8.4
1998 1999	.8	.1	1 1	.5	.5 1.0	8 3	4 .4	2.5	3 4	1.0 1.5	.2 .6	.5 .7	6.1 4.9	1.9 4.3	3.1	7.8 8.9	6.6 5.0
2000	.1	.2	.7	.7	1	.2	.1	7	.4	3	3	6	4.7	5.1	5	-2.8	4.2
2001	7	6	3	3	8	7	5	5	2	6	3	.3	-6.5	-5.7	-6.2	-4.2	-4.1
2002	.5	.0	.8	.2	.6	1.1	3	.2	.1	4	.4	5	3.5	5.9	3.1	4	.3
2003	.5	.1	.2	9	.1	.4	.4	5	.8	.1	1.0	3	1.8	-2.1	2.4	3.8	1.3
2004	.0	.6	2	.4	.8	7	.9	.4	.0	1.0	1	.6	2.1	3.0	3.7	5.4	2.8
2005 2006	.8	.8 2	4 1	.3 .5	.4 5	.2	2 2	.3	-1.1 .0	1.5 4	.8	1.5	6.4	2.4	4 .9	5.9 1.5	4.0
2007	.o 5	2 .4	1	.3 .7	3 1	.3	.2	4	.5	4 4	.5	.1	4.0	5.8	.9	.7	2.3
2008 2009	4 -2.9	6 3	3 -1.8	-1.1 7	5 -1.1	6 3	-1.1 1.4	-1.2 1.0	-3.4 .8	6 .2	-2.4 1.0	-3.4 1	-2.6 -23.9	-7.5 -10.9	-13.4 7.0	-21.6 6.9	-4.7 -13.6
2010	1.1	1	1.3	.9	1.5	.0	.8	.1	.1	.1	.2	.4	7.0	11.4	5.7	1.6	6.1
2011	.2	.0	.7	6	.2	.1	.8	.3	.4	.5	1	.7	2.9	.0	5.4	4.3	3.4
2012	1.0	.6	3	.8	2	.4	.4	5	.2	4	1.3	.7	7.3	3.0	1.2	2.5	4.1
2013	2	.6	.1	2	.3	.3	4	.7	.3	.4	.3	.2	4.4	1.3	1.9	4.2	2.6
2014	-1.0	1.3	.8	.3	.4	.4	.8	3	.2	.2	1.1	.0	1.4	7.0	4.4	3.8	3.5
2015	6	2	.1										-1.2				
IP (2007=100)	95.4	05.0	06.0	05.0	06.1	06.4	06.0	067	06.0	07.2	07.6	07.7	05.0	06.1	06.5	07.5	06.5
	95.4	95.9	96.0	95.8 99.1	96.1 99.5	96.4 99.9	96.0 100.8	96.7 100.4	96.9	97.3 100.8	97.6 101.9	97.7 101.9	95.8 97.9	96.1 99.5	96.5 100.6	97.5 101.5	96.5 99.8
		0.00					100.0	100.4	100.6	100.0	101.9	101.9	97.9	99.3	100.0	101.5	99.0
2014	96.8 101.3	98.0 101.1	98.8 101.2	99.1	77.3	,,,,							101.2				
2014 2015 Capacity (percent of 2007 output) 2013	96.8			126.3 128.8	126.5 129.0	126.7 129.3	126.9 129.5	127.1 129.8	127.3 130.0	127.5 130.2	127.7 130.5	127.9 130.7	101.2 126.0 128.4	126.5 129.0	127.1 129.8	127.7 130.5	126.8 129.4
2013 2014 2015 Capacity (percent of 2007 output) 2013 2014 2015 Utilization	96.8 101.3	101.1	101.2 126.2	126.3	126.5	126.7							126.0				
2014 2015 Capacity (percent of 2007 output) 2013 2014 2015 Utilization (percent)	96.8 101.3 125.8 128.1 130.9	126.0 128.4 131.1	101.2 126.2 128.6 131.3	126.3 128.8	126.5 129.0	126.7 129.3	129.5	129.8	130.0	130.2	130.5	130.7	126.0 128.4 131.1	129.0	129.8	130.5	129.4
2014 2015 Capacity (percent of 2007 output) 2013 2014 2015 Utilization (percent) 1993	96.8 101.3 125.8 128.1 130.9	101.1 126.0 128.4 131.1	101.2 126.2 128.6 131.3	126.3 128.8	126.5 129.0 80.2	126.7 129.3	129.5 80.1	129.8 79.8	130.0 80.2	130.2 80.8	130.5 81.0	130.7 81.3	126.0 128.4 131.1	129.0 80.2	129.8 80.0	130.5	129.4 80.4
2014 2015 Capacity (percent of 2007 output) 2013 2014 2015 Utilization (percent) 1993	96.8 101.3 125.8 128.1 130.9	126.0 128.4 131.1 80.4 81.2	101.2 126.2 128.6 131.3 80.1 82.0	126.3 128.8 80.4 82.5	126.5 129.0 80.2 82.8	126.7 129.3 80.0 82.7	129.5 80.1 82.8	79.8 83.1	80.2 83.2	80.8 83.7	81.0 84.0	81.3 84.6	126.0 128.4 131.1 80.3 81.5	80.2 82.7	80.0 83.0	81.0 84.1	80.4 82.8
2014 2015 Capacity (percent of 2007 output) 2013 2014 2015 Utilization (percent) 1993 1994	96.8 101.3 125.8 128.1 130.9 80.4 81.3 84.4	101.1 126.0 128.4 131.1 80.4 81.2 83.9	101.2 126.2 128.6 131.3 80.1 82.0 83.7	126.3 128.8 80.4 82.5 83.3	126.5 129.0 80.2 82.8 83.1	126.7 129.3 80.0 82.7 83.1	80.1 82.8 82.3	79.8 83.1 82.8	80.2 83.2 83.2	80.8 83.7 82.7	81.0 84.0 82.4	81.3 84.6 82.3	126.0 128.4 131.1 80.3 81.5 84.0	80.2 82.7 83.2	80.0 83.0 82.8	81.0 84.1 82.5	80.4 82.8 83.1
2014 2015 Capacity (percent of 2007 output) 2013 2014 2015 Utilization (percent) 1993 1994 1995 1996	96.8 101.3 125.8 128.1 130.9	126.0 128.4 131.1 80.4 81.2	101.2 126.2 128.6 131.3 80.1 82.0	126.3 128.8 80.4 82.5	126.5 129.0 80.2 82.8	126.7 129.3 80.0 82.7	129.5 80.1 82.8	79.8 83.1	80.2 83.2	80.8 83.7	81.0 84.0	81.3 84.6	126.0 128.4 131.1 80.3 81.5	80.2 82.7	80.0 83.0	81.0 84.1	80.4 82.8 83.1 82.1
2014 2015 Capacity (percent of 2007 output) 2013 2014 2015 Utilization (percent) 1993 1994 1995 1996	96.8 101.3 125.8 128.1 130.9 80.4 81.3 84.4 81.3 82.1	101.1 126.0 128.4 131.1 80.4 81.2 83.9 82.1 82.7	101.2 126.2 128.6 131.3 80.1 82.0 83.7 81.5 83.1	126.3 128.8 80.4 82.5 83.3 82.0 82.5	126.5 129.0 80.2 82.8 83.1 82.2 82.7	126.7 129.3 80.0 82.7 83.1 82.6 82.7	80.1 82.8 82.3 82.3 82.8	79.8 83.1 82.8 82.4 83.2	80.2 83.2 83.2 82.6 83.3	80.8 83.7 82.7 82.0 83.4	81.0 84.0 82.4 82.2 83.8	81.3 84.6 82.3 82.4 83.5	126.0 128.4 131.1 80.3 81.5 84.0 81.6 82.6	80.2 82.7 83.2 82.3 82.6	80.0 83.0 82.8 82.4 83.1	81.0 84.1 82.5 82.2 83.6	80.4 82.8 83.1 82.1 83.0
2014 2015 Capacity (percent of 2007 output) 2013 2014 2015 Utilization (percent) 1993 1994 1995 1996 1997	96.8 101.3 125.8 128.1 130.9 80.4 81.3 84.4 81.3 82.1 83.5	101.1 126.0 128.4 131.1 80.4 81.2 83.9 82.1 82.7 83.0	101.2 126.2 128.6 131.3 80.1 82.0 83.7 81.5 83.1 82.3	126.3 128.8 80.4 82.5 83.3 82.0 82.5 82.1	126.5 129.0 80.2 82.8 83.1 82.2 82.7 81.9	126.7 129.3 80.0 82.7 83.1 82.6 82.7 80.7	80.1 82.8 82.3 82.3 82.8 79.9	79.8 83.1 82.8 82.4 83.2 81.3	80.2 83.2 83.2 82.6 83.3 80.6	80.8 83.7 82.7 82.0 83.4 81.0	81.0 84.0 82.4 82.2 83.8 80.7	81.3 84.6 82.3 82.4 83.5 80.7	126.0 128.4 131.1 80.3 81.5 84.0 81.6 82.6	80.2 82.7 83.2 82.3 82.6 81.5	80.0 83.0 82.8 82.4 83.1 80.6	81.0 84.1 82.5 82.2 83.6 80.8	80.4 82.8 83.1 82.1 83.0 81.5
2014 2015 Capacity (percent of 2007 output) 2013 2014 2015 Utilization (percent) 1993 1994 1995 1996 1997	96.8 101.3 125.8 128.1 130.9 80.4 81.3 84.4 81.3 82.1	101.1 126.0 128.4 131.1 80.4 81.2 83.9 82.1 82.7	101.2 126.2 128.6 131.3 80.1 82.0 83.7 81.5 83.1	126.3 128.8 80.4 82.5 83.3 82.0 82.5	126.5 129.0 80.2 82.8 83.1 82.2 82.7	126.7 129.3 80.0 82.7 83.1 82.6 82.7	80.1 82.8 82.3 82.3 82.8	79.8 83.1 82.8 82.4 83.2	80.2 83.2 83.2 82.6 83.3	80.8 83.7 82.7 82.0 83.4	81.0 84.0 82.4 82.2 83.8	81.3 84.6 82.3 82.4 83.5	126.0 128.4 131.1 80.3 81.5 84.0 81.6 82.6	80.2 82.7 83.2 82.3 82.6	80.0 83.0 82.8 82.4 83.1	81.0 84.1 82.5 82.2 83.6	80.4 82.8 83.1 82.1 83.0 81.5 80.4
2014 2015 Capacity (percent of 2007 output) 2013 2014 2015 Utilization (percent) 1993 1994 1995 1996 1997 1998 1999 2000	96.8 101.3 125.8 128.1 130.9 80.4 81.3 84.4 81.3 82.1 83.5 80.6	101.1 126.0 128.4 131.1 80.4 81.2 83.9 82.1 82.7 83.0 80.8	101.2 126.2 128.6 131.3 80.1 82.0 83.7 81.5 83.1 82.3 80.4	126.3 128.8 80.4 82.5 83.3 82.0 82.5 82.1 80.3	80.2 82.8 83.1 82.2 82.7 81.9	126.7 129.3 80.0 82.7 83.1 82.6 82.7 80.7 80.1	80.1 82.8 82.3 82.3 82.8 79.9 80.1	79.8 83.1 82.8 82.4 83.2 81.3 80.2	80.2 83.2 83.2 82.6 83.3 80.6 79.6	80.8 83.7 82.7 82.0 83.4 81.0 80.5	81.0 84.0 82.4 82.2 83.8 80.7 80.6	81.3 84.6 82.3 82.4 83.5 80.7 80.8	126.0 128.4 131.1 80.3 81.5 84.0 81.6 82.6 82.9	80.2 82.7 83.2 82.3 82.6 81.5 80.3	80.0 83.0 82.8 82.4 83.1 80.6 80.0	81.0 84.1 82.5 82.2 83.6 80.8 80.6	80.4 80.8 82.8 83.1 82.1 83.0 81.5 80.4 79.6
2014 2015 Capacity (percent of 2007 output) 2013 2014 2015 Utilization (percent) 1993 1994 1995 1996 1997 1998 1999 2000 2001	96.8 101.3 125.8 128.1 130.9 80.4 81.3 84.4 81.3 82.1 83.5 80.6 80.6	101.1 126.0 128.4 131.1 80.4 81.2 83.9 82.1 82.7 83.0 80.8 80.4	101.2 126.2 128.6 131.3 80.1 82.0 83.7 81.5 83.1 82.3 80.4 80.6	126.3 128.8 80.4 82.5 83.3 82.0 82.5 82.1 80.3 80.8	80.2 82.8 83.1 82.2 82.7 81.9 80.7 80.4	126.7 129.3 80.0 82.7 83.1 82.6 82.7 80.7 80.1 80.2	80.1 82.8 82.3 82.3 82.8 79.9 80.1 80.0	79.8 83.1 82.8 82.4 83.2 81.3 80.2 79.2	80.2 83.2 83.2 82.6 83.3 80.6 79.6 79.2	80.8 83.7 82.7 82.0 83.4 81.0 80.5 78.6	81.0 84.0 82.4 82.2 83.8 80.7 80.6 78.1	81.3 84.6 82.3 82.4 83.5 80.7 80.8 77.4	126.0 128.4 131.1 80.3 81.5 84.0 81.6 82.6 82.9 80.6 80.5	80.2 82.7 83.2 82.3 82.6 81.5 80.3 80.5	80.0 83.0 82.8 82.4 83.1 80.6 80.0 79.5	81.0 84.1 82.5 82.2 83.6 80.8 80.6 78.0	80.4 82.8 83.1 82.1 83.0 81.5 80.4 79.6 73.6
2014 2015 Capacity (percent of 2007 output) 2013 2014 2015 Utilization (percent) 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003	96.8 101.3 125.8 128.1 130.9 80.4 81.3 84.4 81.3 82.1 83.5 80.6 76.6 71.9	101.1 126.0 128.4 131.1 80.4 81.2 83.9 82.1 82.7 83.0 80.8 80.4 75.9 71.8	101.2 126.2 128.6 131.3 80.1 82.0 83.7 81.5 83.1 82.3 80.4 80.6 75.5 72.3	80.4 82.5 83.3 82.0 82.5 82.1 80.3 80.8 75.1 72.5	80.2 82.8 83.1 82.2 82.7 81.9 80.7 80.4 74.3 72.8	80.0 82.7 83.1 82.6 82.7 80.1 80.2 73.6 73.7	80.1 82.8 82.3 82.3 82.8 79.9 80.1 80.0 73.1 73.4	79.8 83.1 82.8 82.4 83.2 81.3 80.2 79.2 72.6 73.5	80.2 83.2 83.2 82.6 83.3 80.6 79.6 79.2 72.3 73.6	80.8 83.7 82.7 82.0 83.4 81.0 80.5 78.6 71.7 73.3	81.0 84.0 82.4 82.2 83.8 80.7 80.6 78.1 71.4 73.7	81.3 84.6 82.3 82.4 83.5 80.7 80.8 77.4 71.6 73.3	126.0 128.4 131.1 80.3 81.5 84.0 81.6 82.6 82.9 80.6 80.5 76.0 72.0	80.2 82.7 83.2 82.3 82.6 81.5 80.3 80.5 74.3 73.0	80.0 83.0 82.8 82.4 83.1 80.6 80.0 79.5 72.7 73.5	81.0 84.1 82.5 82.2 83.6 80.8 80.6 78.0 71.6 73.4	80.4 82.8 83.1 82.1 83.0 81.5 80.4 73.6 73.0
2014 2015 Capacity (percent of 2007 output) 2013 2014 2015 Utilization (percent) 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004	96.8 101.3 125.8 128.1 130.9 80.4 81.3 84.4 81.3 82.1 83.5 80.6 76.6 71.9 73.7 74.8	101.1 126.0 128.4 131.1 80.4 81.2 83.9 82.1 82.7 83.0 80.8 80.4 75.9 71.8 73.8 75.3	101.2 126.2 128.6 131.3 80.1 82.0 83.7 81.5 83.1 82.3 80.4 80.6 75.5 72.3 73.9 75.3	126.3 128.8 80.4 82.5 83.3 82.0 82.5 82.1 80.3 80.8 75.1 72.5 73.2 75.6	80.2 82.8 83.1 82.2 82.7 81.9 80.7 80.4 74.3 72.8 73.3 76.2	126.7 129.3 80.0 82.7 83.1 82.6 82.7 80.1 80.2 73.6 73.7 73.6 75.7	80.1 82.8 82.3 82.3 82.8 79.9 80.1 80.0 73.1 73.4 73.9 76.4	79.8 83.1 82.8 82.4 83.2 81.3 80.2 79.2 72.6 73.5 76.7	80.2 83.2 83.2 82.6 83.3 80.6 79.6 79.2 72.3 73.6 74.1 76.6	80.8 83.7 82.7 82.0 83.4 81.0 80.5 78.6 71.7 73.3 74.2 77.4	81.0 84.0 82.4 82.2 83.8 80.7 80.6 78.1 71.4 73.7 74.9 77.3	81.3 84.6 82.3 82.4 83.5 80.7 80.8 77.4 71.6 73.3 74.8 77.7	126.0 128.4 131.1 80.3 81.5 84.0 81.6 82.6 82.9 80.6 80.5 76.0 72.0	80.2 82.7 83.2 82.3 82.6 81.5 80.3 80.5 74.3 73.0	80.0 83.0 82.8 82.4 83.1 80.6 80.0 79.5 72.7 73.5 73.8 76.6	81.0 84.1 82.5 82.2 83.6 80.8 80.6 71.6 73.4 74.6 77.4	80.4 82.8 83.1 82.1 83.0 81.5 80.4 79.6 73.6 73.9 76.2
2014 2015 Capacity (percent of 2007 output) 2013 2014 2015 Utilization (percent) 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005	96.8 101.3 125.8 128.1 130.9 80.4 81.3 84.4 81.3 82.1 83.5 80.6 76.6 71.9 73.7 74.8 78.2	101.1 126.0 128.4 131.1 80.4 81.2 83.9 82.1 82.7 83.0 80.8 80.4 75.9 71.8 73.8 75.3 78.7	101.2 126.2 128.6 131.3 80.1 82.0 83.7 81.5 83.1 82.3 80.4 80.6 75.5 72.3 73.9 75.3 78.2	126.3 128.8 80.4 82.5 83.3 82.0 82.5 82.1 80.3 80.8 75.1 72.5 73.2 75.6 78.3	80.2 82.8 83.1 82.2 82.7 81.9 80.7 80.4 74.3 72.8 73.3 76.2 78.4	126.7 129.3 80.0 82.7 83.1 82.6 82.7 80.1 80.2 73.6 75.7 78.4	80.1 82.8 82.3 82.3 82.8 79.9 80.1 80.0 73.1 73.4 73.9 76.4 78.0	79.8 83.1 82.8 82.4 83.2 81.3 80.2 79.2 72.6 73.5 76.7 78.1	80.2 83.2 83.2 82.6 83.3 80.6 79.6 79.2 72.3 73.6 74.1 76.6 77.1	80.8 83.7 82.7 82.0 83.4 81.0 80.5 78.6 71.7 73.3 74.2 77.4	81.0 84.0 82.4 82.2 83.8 80.7 80.6 78.1 71.4 73.7 74.9 77.3 78.6	81.3 84.6 82.3 82.4 83.5 80.7 80.8 77.4 71.6 73.3 74.8 77.7	126.0 128.4 131.1 80.3 81.5 84.0 81.6 82.6 82.9 80.6 80.5 76.0 72.0	80.2 82.7 83.2 82.3 82.6 81.5 80.3 74.3 73.0 73.4 75.8 78.3	80.0 83.0 82.8 82.4 83.1 80.6 80.0 79.5 72.7 73.5 73.8 76.6 77.7	81.0 84.1 82.5 82.2 83.6 80.8 80.6 73.4 74.6 77.4 78.4	80.4 82.8 83.1 82.1 83.0 81.5 80.4 73.6 73.0 73.9 76.2
2014 2015 Capacity (percent of 2007 output) 2013 2014 2015 Utilization (percent) 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006	96.8 101.3 125.8 128.1 130.9 80.4 81.3 84.4 81.3 82.1 83.5 80.6 76.6 71.9 73.7 74.8	101.1 126.0 128.4 131.1 80.4 81.2 83.9 82.1 82.7 83.0 80.8 80.4 75.9 71.8 73.8 75.3	101.2 126.2 128.6 131.3 80.1 82.0 83.7 81.5 83.1 82.3 80.4 80.6 75.5 72.3 73.9 75.3	126.3 128.8 80.4 82.5 83.3 82.0 82.5 82.1 80.3 80.8 75.1 72.5 73.2 75.6	80.2 82.8 83.1 82.2 82.7 81.9 80.7 80.4 74.3 72.8 73.3 76.2	126.7 129.3 80.0 82.7 83.1 82.6 82.7 80.1 80.2 73.6 73.7 73.6 75.7	80.1 82.8 82.3 82.3 82.8 79.9 80.1 80.0 73.1 73.4 73.9 76.4	79.8 83.1 82.8 82.4 83.2 81.3 80.2 79.2 72.6 73.5 76.7	80.2 83.2 83.2 82.6 83.3 80.6 79.6 79.2 72.3 73.6 74.1 76.6	80.8 83.7 82.7 82.0 83.4 81.0 80.5 78.6 71.7 73.3 74.2	81.0 84.0 82.4 82.2 83.8 80.7 80.6 78.1 71.4 73.7 74.9 77.3	81.3 84.6 82.3 82.4 83.5 80.7 80.8 77.4 71.6 73.3 74.8 77.7	126.0 128.4 131.1 80.3 81.5 84.0 81.6 82.6 82.9 80.6 80.5 76.0 72.0	80.2 82.7 83.2 82.3 82.6 81.5 80.3 80.5 74.3 73.0	80.0 83.0 82.8 82.4 83.1 80.6 80.0 79.5 72.7 73.5 73.8 76.6	81.0 84.1 82.5 82.2 83.6 80.8 80.6 71.6 73.4 74.6 77.4	80.4 82.8 83.1 82.1 83.0 81.5 80.4 73.6 73.0 73.9 76.2 78.2
2014 2015 Capacity (percent of 2007 output) 2013 2014 2015 Utilization (percent) 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007	96.8 101.3 125.8 128.1 130.9 80.4 81.3 84.4 81.3 82.1 83.5 80.6 80.6 76.6 71.9 73.7 74.8 78.2 79.0 78.2	101.1 126.0 128.4 131.1 80.4 81.2 83.9 82.1 82.7 83.0 80.8 80.4 75.9 71.8 73.8 75.3 78.7 78.7	101.2 126.2 128.6 131.3 80.1 82.0 83.7 81.5 83.1 82.3 80.4 80.6 75.5 72.3 73.9 75.3 78.2 78.5 78.8	126.3 128.8 80.4 82.5 83.3 82.0 82.5 82.1 80.3 80.8 75.1 72.5 73.2 75.6 78.8 79.2	80.2 82.8 83.1 82.2 82.7 81.9 80.7 80.4 74.3 72.8 73.3 76.2 78.4 78.3 78.9	80.0 82.7 83.1 82.6 82.7 80.1 80.2 73.6 73.7 73.6 75.7 78.5 79.0	80.1 82.8 82.3 82.3 82.8 79.9 80.1 80.0 73.1 73.4 73.9 76.4 78.0 78.2 78.9	79.8 83.1 82.8 82.4 83.2 81.3 80.2 79.2 72.6 73.5 76.7 78.5 78.5	80.2 83.2 82.6 83.3 80.6 79.6 79.2 72.3 73.6 74.1 76.6 77.1 78.4	80.8 83.7 82.7 82.0 83.4 81.0 80.5 78.6 71.7 73.3 74.2 77.4 78.1 78.0 78.3	81.0 84.0 82.4 82.2 83.8 80.7 80.6 78.1 71.4 73.7 74.9 77.3 78.6	81.3 84.6 82.3 82.4 83.5 80.7 80.8 77.4 71.6 73.3 74.8 77.7 78.5 78.6	126.0 128.4 131.1 80.3 81.5 84.0 81.6 82.6 82.9 80.6 80.5 76.0 72.0 73.8 75.1 78.3 78.7	80.2 82.7 83.2 82.3 82.6 81.5 80.3 80.5 74.3 73.0 73.4 75.8 78.3 78.5 79.0	80.0 83.0 82.8 82.4 83.1 80.6 80.0 79.5 72.7 73.5 73.8 76.6 77.7 78.3 78.7	81.0 84.1 82.5 82.2 83.6 80.8 80.6 71.6 73.4 74.6 77.4 78.2 78.5	80.4 82.8 83.1 82.1 83.0 81.5 80.4 73.6 73.6 73.9 76.2 78.2 78.4 78.7
2014 2015 Capacity (percent of 2007 output) 2013 2014 2015 Utilization (percent) 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008	96.8 101.3 125.8 128.1 130.9 80.4 81.3 84.4 81.3 82.1 83.5 80.6 76.6 71.9 73.7 74.8 78.2 79.0 78.2	101.1 126.0 128.4 131.1 80.4 81.2 83.9 82.1 82.7 83.0 80.8 80.4 75.9 71.8 73.8 75.3 78.7 78.7 78.4	101.2 126.2 128.6 131.3 80.1 82.0 83.7 81.5 83.1 82.3 80.4 80.6 75.5 72.3 73.9 75.3 78.2 78.5 78.8	80.4 82.5 83.3 82.0 82.5 82.1 80.3 80.8 75.1 72.5 73.2 75.6 78.3 78.8 79.2	80.2 82.8 83.1 82.2 82.7 81.9 80.7 80.4 74.3 72.8 73.3 76.2 78.4 78.3 78.9	80.0 82.7 83.1 82.6 82.7 80.1 80.2 73.6 73.7 73.6 75.7 78.4 78.5 79.0	80.1 82.8 82.3 82.3 82.8 79.9 80.1 80.0 73.1 73.4 73.9 76.4 78.0 78.2 78.9	79.8 83.1 82.8 82.4 83.2 81.3 80.2 79.2 72.6 73.5 76.7 78.1 78.5 78.5	80.2 83.2 83.2 82.6 83.3 80.6 79.6 79.2 72.3 73.6 74.1 76.6 77.1 78.4 78.7	80.8 83.7 82.7 82.0 83.4 81.0 80.5 78.6 71.7 73.3 74.2 77.4 78.1 78.0 78.3	81.0 84.0 82.4 82.2 83.8 80.7 80.6 78.1 71.4 73.7 74.9 77.3 78.6 77.8 78.6	81.3 84.6 82.3 82.4 83.5 80.7 80.8 77.4 71.6 73.3 74.8 77.7 78.5 78.6 67.9	126.0 128.4 131.1 80.3 81.5 84.0 81.6 82.6 82.9 80.6 80.5 76.0 72.0 73.8 75.1 78.3 78.7 78.5	80.2 82.7 83.2 82.3 82.6 81.5 80.3 80.5 74.3 73.0 73.4 75.8 78.3 78.5 79.0	80.0 83.0 82.8 82.4 83.1 80.6 80.0 79.5 72.7 73.5 73.8 76.6 77.7 78.3 78.7	81.0 84.1 82.5 82.2 83.6 80.8 80.6 78.0 71.6 73.4 74.6 77.4 78.2 78.5	80.4 82.8 83.1 82.1 83.0 81.5 80.4 73.6 73.6 73.9 76.2 78.2 78.4 78.7
2014 2015 Capacity (percent of 2007 output) 2013 2014 2015 Utilization (percent) 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009	96.8 101.3 125.8 128.1 130.9 80.4 81.3 84.4 81.3 82.1 83.5 80.6 80.6 76.6 71.9 73.7 74.8 78.2 79.0 78.2	101.1 126.0 128.4 131.1 80.4 81.2 83.9 82.1 82.7 83.0 80.8 80.4 75.9 71.8 73.8 75.3 78.7 78.7	101.2 126.2 128.6 131.3 80.1 82.0 83.7 81.5 83.1 82.3 80.4 80.6 75.5 72.3 73.9 75.3 78.2 78.5 78.8	126.3 128.8 80.4 82.5 83.3 82.0 82.5 82.1 80.3 80.8 75.1 72.5 73.2 75.6 78.8 79.2	80.2 82.8 83.1 82.2 82.7 81.9 80.7 80.4 74.3 72.8 73.3 76.2 78.4 78.3 78.9	80.0 82.7 83.1 82.6 82.7 80.1 80.2 73.6 73.7 73.6 75.7 78.5 79.0	80.1 82.8 82.3 82.3 82.8 79.9 80.1 80.0 73.1 73.4 73.9 76.4 78.0 78.2 78.9	79.8 83.1 82.8 82.4 83.2 81.3 80.2 79.2 72.6 73.5 76.7 78.5 78.5	80.2 83.2 82.6 83.3 80.6 79.6 79.2 72.3 73.6 74.1 76.6 77.1 78.4	80.8 83.7 82.7 82.0 83.4 81.0 80.5 78.6 71.7 73.3 74.2 77.4 78.1 78.0 78.3	81.0 84.0 82.4 82.2 83.8 80.7 80.6 78.1 71.4 73.7 74.9 77.3 78.6	81.3 84.6 82.3 82.4 83.5 80.7 80.8 77.4 71.6 73.3 74.8 77.7 78.5 78.6	126.0 128.4 131.1 80.3 81.5 84.0 81.6 82.6 82.9 80.6 80.5 76.0 72.0 73.8 75.1 78.3 78.7	80.2 82.7 83.2 82.3 82.6 81.5 80.3 80.5 74.3 73.0 73.4 75.8 78.3 78.5 79.0	80.0 83.0 82.8 82.4 83.1 80.6 80.0 79.5 72.7 73.5 73.8 76.6 77.7 78.3 78.7	81.0 84.1 82.5 82.2 83.6 80.8 80.6 71.6 73.4 74.6 77.4 78.2 78.5	80.4 82.8 83.1 82.1 83.0 81.5 80.4 73.6 73.9 76.2 78.2 78.4 74.6 65.6
2014 2015 Capacity percent of 2007 output) 2013 2014 2015 Utilization (percent) 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010	96.8 101.3 125.8 128.1 130.9 80.4 81.3 82.1 83.5 80.6 76.6 71.9 73.7 74.8 78.2 79.0 78.2	101.1 126.0 128.4 131.1 80.4 81.2 83.9 82.1 82.7 83.0 80.8 80.4 75.9 71.8 73.8 75.3 78.7 78.7 78.4	101.2 126.2 128.6 131.3 80.1 82.0 83.7 81.5 83.1 82.3 80.4 80.6 75.5 72.3 73.9 75.3 78.2 78.5 78.8	80.4 82.5 83.3 82.0 82.5 82.1 80.3 80.8 75.1 72.5 73.2 75.6 78.3 78.8 79.2	80.2 82.8 83.1 82.2 82.7 81.9 80.7 80.4 74.3 72.8 73.3 76.2 78.4 78.3 78.9	80.0 82.7 83.1 82.6 82.7 80.1 80.2 73.6 73.7 73.6 75.7 78.4 78.5 79.0	80.1 82.8 82.3 82.3 82.8 79.9 80.1 80.0 73.1 73.4 73.9 76.4 78.0 78.2 78.9	79.8 83.1 82.8 82.4 83.2 81.3 80.2 79.2 72.6 73.5 76.7 78.1 78.5 78.5 74.6 65.7	80.2 83.2 83.2 82.6 83.3 80.6 79.6 79.2 72.3 73.6 74.1 76.6 77.1 78.4 78.7	80.8 83.7 82.7 82.0 83.4 81.0 80.5 78.6 71.7 73.3 74.2 77.4 78.1 78.0 78.3	81.0 84.0 82.4 82.2 83.8 80.7 80.6 78.1 71.4 73.7 74.9 77.3 78.6 77.8 78.6	81.3 84.6 82.3 82.4 83.5 80.7 80.8 77.4 71.6 73.3 74.8 77.7 78.5 78.8 78.6	126.0 128.4 131.1 80.3 81.5 84.0 81.6 82.6 82.9 80.6 80.5 76.0 72.0 73.8 75.1 78.3 78.7 78.5	80.2 82.7 83.2 82.3 82.6 81.5 80.3 80.5 74.3 73.0 73.4 75.8 78.3 78.5 79.0	80.0 83.0 82.8 82.4 83.1 80.6 80.0 79.5 72.7 73.5 73.8 76.6 77.7 78.3 78.7	81.0 84.1 82.5 82.2 83.6 80.8 80.6 71.6 73.4 74.6 77.4 78.2 78.5	80.4 82.8 83.1 82.1 83.0 81.5 80.4 79.6 73.6 73.9 76.2 78.2 78.4 78.7
2014 2015 Capacity (percent of 2007 output) 2013 2014 2015 Utilization (percent) 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011	96.8 101.3 125.8 128.1 130.9 80.4 81.3 82.1 83.5 80.6 76.6 71.9 73.7 74.8 78.2 79.0 78.2 78.3 66.1 68.2	101.1 126.0 128.4 131.1 80.4 81.2 83.9 82.1 82.7 83.0 80.8 80.4 75.9 71.8 73.8 75.3 78.7 78.7 78.4	101.2 126.2 128.6 131.3 80.1 82.0 83.7 81.5 83.1 82.3 80.4 80.6 75.5 72.3 73.9 75.3 78.2 78.5 78.8	80.4 82.5 83.3 82.0 82.5 82.1 80.3 80.8 75.1 72.5 73.2 75.6 78.3 78.8 79.2	80.2 82.8 83.1 82.2 82.7 81.9 80.7 80.4 74.3 72.8 73.3 76.2 78.4 78.3 78.9	126.7 129.3 80.0 82.7 83.1 82.6 82.7 80.1 80.2 73.6 75.7 78.4 78.5 79.0 76.2 63.9 71.3	80.1 82.8 82.3 82.3 82.8 79.9 80.1 80.0 73.1 73.4 78.0 78.2 78.9 75.4 64.9 72.0	79.8 83.1 82.8 82.4 83.2 81.3 80.2 79.2 72.6 73.5 76.7 78.1 78.5 78.5 74.6 65.7 72.2	80.2 83.2 83.2 82.6 83.3 80.6 79.6 79.2 72.3 73.6 74.1 76.6 77.1 78.4 78.7	80.8 83.7 82.7 82.0 83.4 81.0 80.5 78.6 71.7 73.3 74.2 77.4 78.1 78.0 78.3 71.8 66.5 72.5	81.0 84.0 82.4 82.2 83.8 80.7 80.6 78.1 71.4 73.7 74.9 77.3 78.6 77.8 78.6 70.2 67.3 72.7	81.3 84.6 82.3 82.4 83.5 80.7 80.8 77.4 71.6 73.3 74.8 77.7 78.5 78.8 78.6 67.9 67.4 73.0	126.0 128.4 131.1 80.3 81.5 84.0 81.6 82.6 82.9 80.6 80.5 76.0 72.0 73.8 75.1 78.3 78.7 78.5	80.2 82.7 83.2 82.3 82.6 81.5 80.3 80.5 74.3 73.0 73.4 75.8 78.3 78.5 79.0	80.0 83.0 82.8 82.4 83.1 80.6 80.0 79.5 72.7 73.5 73.8 76.6 77.7 78.3 78.7 74.0 65.6 72.2	81.0 84.1 82.5 82.2 83.6 80.8 80.6 73.4 74.6 77.4 78.2 78.5 70.0 67.1 72.7	80.4 82.8 83.1 82.1 83.0 81.5 80.4 79.6 73.6 73.9 76.2 78.2 78.2 74.6 65.6 65.6 71.1
2014 2015 Capacity (percent of 2007 output) 2013 2014	96.8 101.3 125.8 128.1 130.9 80.4 81.3 84.4 81.3 82.1 83.5 80.6 76.6 71.9 73.7 74.8 78.2 79.0 78.2	101.1 126.0 128.4 131.1 80.4 81.2 83.9 82.1 82.7 83.0 80.8 75.9 71.8 73.8 75.3 78.7 78.4 77.8 66.0 68.3 73.3	101.2 126.2 128.6 131.3 80.1 82.0 83.7 81.5 83.1 82.3 80.4 80.6 75.5 72.3 73.9 75.3 78.2 78.5 78.8 77.6 65.0 69.3 73.8	126.3 128.8 80.4 82.5 83.3 82.0 82.5 82.1 80.3 80.8 75.1 72.5 73.2 75.6 78.3 79.2 76.8 64.6 70.0	80.2 82.8 83.1 82.2 82.7 81.9 80.7 70.3 76.2 78.4 78.3 76.5 64.0 71.2	126.7 129.3 80.0 82.7 83.1 82.6 82.7 80.7 80.1 80.2 73.6 75.7 78.4 78.5 79.0 76.2 63.9 71.3 73.5	80.1 82.8 82.3 82.3 82.8 79.9 80.1 80.0 73.1 73.4 73.9 76.4 78.0 78.2 78.9	79.8 83.1 82.8 82.4 83.2 79.2 72.6 73.5 76.7 78.1 78.5 76.5 74.6 65.7 72.2 74.2	80.2 83.2 83.2 82.6 83.3 80.6 79.6 79.2 72.3 73.6 74.1 76.6 77.1 78.4 78.7	80.8 83.7 82.7 82.0 83.4 81.0 80.5 78.6 71.7 73.3 74.2 77.4 78.1 78.0 78.3 71.8 66.5 72.5 74.6 74.8	81.0 84.0 82.4 82.2 83.8 80.7 80.6 78.1 71.4 73.7 74.9 77.3 78.6 77.8 78.6 70.2 67.3 72.7 74.4	81.3 84.6 82.3 82.4 83.5 80.7 80.8 77.4 71.6 73.3 74.8 77.7 78.5 78.6 67.9 67.4 73.0 74.8	126.0 128.4 131.1 80.3 81.5 84.0 81.6 82.6 82.9 80.6 80.5 76.0 72.0 73.8 75.1 78.3 78.7 78.5	80.2 82.7 83.2 82.3 82.6 81.5 80.3 80.5 74.3 73.0 73.4 75.8 78.5 79.0 76.5 64.2 70.8	80.0 83.0 82.8 82.4 83.1 80.6 80.0 79.5 72.7 73.5 73.8 76.6 77.7 74.0 65.6 72.2 74.2	81.0 84.1 82.5 82.2 83.6 80.8 80.6 71.6 73.4 74.6 77.4 78.2 78.5 70.0 67.1 72.7	80.4 82.8 83.1 82.1 83.0 81.5 80.4 79.6 73.6 73.9 76.2 78.4 78.7 74.6 65.6
2014 2015 Capacity (percent of 2007 output) 2013 2014 2015 Utilization (percent) 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012	96.8 101.3 125.8 128.1 130.9 80.4 81.3 84.4 81.3 82.1 83.5 80.6 80.6 76.6 71.9 73.7 74.8 78.2 79.0 78.2 78.2 79.0 78.2 75.5	101.1 126.0 128.4 131.1 80.4 81.2 83.9 82.1 82.7 83.0 80.8 80.4 75.9 71.8 73.8 75.3 78.7 78.7 78.4 77.8 66.0 68.3 73.3 75.8	101.2 126.2 128.6 131.3 80.1 82.0 83.7 81.5 83.1 82.3 80.4 80.6 75.5 72.3 73.9 75.3 78.2 78.5 78.8 77.6 65.0 69.3 73.8 75.4	126.3 128.8 80.4 82.5 83.3 82.0 82.5 82.1 80.3 80.8 75.1 72.5 73.2 75.6 78.8 79.2 76.8 64.6 70.0 73.3 75.8	80.2 82.8 83.1 82.2 82.7 81.9 80.7 80.4 74.3 72.8 73.3 76.2 78.4 78.3 76.5 64.0 71.2 73.4 75.5	126.7 129.3 80.0 82.7 83.1 82.6 82.7 80.1 80.2 73.6 75.7 78.4 78.5 79.0 76.2 63.9 71.3 73.5 75.6	80.1 82.8 82.3 82.3 82.8 79.9 80.1 80.0 73.1 73.4 73.9 76.4 78.0 78.9 75.4 64.9 72.0 74.0 75.8	79.8 83.1 82.8 82.4 83.2 81.3 80.2 79.2 72.6 73.5 76.7 78.5 78.5 74.6 65.7 72.2 74.2 75.3	80.2 83.2 82.6 83.3 80.6 79.6 79.2 72.3 73.6 74.1 76.6 77.1 78.7 72.1 66.3 72.4 74.3 75.3	80.8 83.7 82.7 82.0 83.4 81.0 80.5 78.6 71.7 73.3 74.2 77.4 78.1 78.0 78.3 71.8 66.5 72.5 74.6 74.8	81.0 84.0 82.4 82.2 83.8 80.7 80.6 78.1 71.4 73.7 74.9 77.3 78.6 77.8 78.6 70.2 67.3 72.7 74.4 75.7	81.3 84.6 82.3 82.4 83.5 80.7 80.8 77.4 71.6 73.3 74.8 77.7 78.5 78.6 67.9 67.4 73.0 74.8 76.1	126.0 128.4 131.1 80.3 81.5 84.0 81.6 82.6 82.9 80.6 80.5 76.0 72.0 73.8 75.1 78.3 78.7 78.5 77.9 65.7 68.6 73.4	80.2 82.7 83.2 82.3 82.6 81.5 80.3 80.5 74.3 73.0 73.4 75.8 78.3 78.5 79.0 76.5 64.2 70.8 73.4 75.6	80.0 83.0 82.8 82.4 83.1 80.6 80.0 79.5 72.7 73.5 73.8 76.6 77.7 78.3 78.7 74.0 65.6 72.2 74.2 75.4	81.0 84.1 82.5 82.2 83.6 80.8 80.6 73.4 74.6 77.4 78.2 78.5 70.0 67.1 72.7 74.6 75.5	80.4 82.8 83.1 82.1 83.0 81.5 80.4 73.6 73.6 73.9 76.2 78.2 78.4 78.7 74.6 65.6 71.1 73.9 75.5

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

Table 13
HISTORICAL STATISTICS FOR INDUSTRIAL PRODUCTION, CAPACITY, AND UTILIZATION: Total Industry Excluding Selected High-Technology Industries¹

Seasonally adjusted Q3 Year Jan. Feb. Mar. May June July Aug. Sept. Oct. Nov. Dec. Q1 Q2 Q4 Annual Apr. IP (percent change)2 1993 .3 3.1 2.5 1994 .4 .0 .9 .3 .4 .0 .6 .9 4.4 5.4 3.2 5.7 4.0 .6 -1.2 .1 -.2 -.3 .2 -.4 2.8 1.5 2.5 1995 -.1 .1 -.6 1.1 .1 .1 .1 .4 1996 1.0 1.3 .6 -.5 -.4 2.0 2.9 1.7 .8 .6 .5 -.5 6.6 -.3 .4 .4 .7 -.2 .2 .7 5.1 1997 .0 .9 .4 .3 .6 .6 .7 .6 .1 2.5 6.4 7.5 4.2 1998 .3 .0 .0 2 .6 -.9 -.7 1.9 -.6 5 -.3 2.0 .7 -.3 2.3 3.0 1999 .2 1.2 1.0 5.5 -.1 .6 -.5 -.5 .2 .7 .3 1.1 -.1 -.2 -2.7 2000 -.3 -.4 -.5 1.0 .0 .1 .4 -.1 -.1 .3 -.4 -.5 .4 1.6 -3.1-.7 - 5 -59 - 2 - 3 - 5 -44 -4 5 2001 - 5 - 3 -.6 - 5 - 1 -.4 - 1 -4 5 -4.02002 .7 -.1 .8 .5 .9 -.3 .1 -.3 .5 -.6 2.6 6.4 1.8 -.8 .3 .2 1.7 2003 -.3 -.9 .5 .0 .7 1.5 -4.7 2.4 .1 .4 -.4 .6 -.1 -.1 -.1 .2 .0 .0 .2 2.1 2004 .5 .8 -.8 .8 1.0 2.0 5.2 -.6 .4 2.1 .6 2005 .4 .6 -.2 .0 .1 .4 .3 .0 2.2 1.2 1.0 .5 4.8 1.3 -3.0 2.1 2.5 2006 .1 .0 .2 .4 -.2 .3 .0 .2 -.3 -.1 -.2 1.0 3.4 1.9 1.4 2007 1.0 .0 .3 -.7 3.0 4.0 1.1 -1.0 1.8 -.5 -.1 .4 -.1 2008 -4.2 -.4 4.3 1.1 -1.1 -6.412.3 14.9 -.6 -.2 1.6 -2.7 -2.5-2.2 2009 -.7 -1.6 -.9 -1.1 -.4 1.0 1.0 .7 .3 .3 -19.7 -11.7 5.0 5.8 -11.3 2 2010 1.1 .1 .6 .3 1.6 2 .6 2. -.4 .1 .8 7.2 7.9 6.2 .7 5.0 2011 0. 1.1 -.5 .2 .7 .4 .6 .4 1.8 1.1 5.0 3.8 2.9 -.6 .1 .1 .9 -.2 3.5 2012 .3 -.5 .3 .0 .2 1.0 4.9 3.0 1.3 1.8 .8 .6 -.6 .1 .0 7 -.2 2013 4 - 2 .2 5 .8 .1 .6 2 4.3 1.6 23 5.0 2.6 2014 .9 .8 0. .4 .4 .4 0. 3.9 5.4 4.2 4.1 -.3 1.1 -.1 4.6 2015 -.4 -.9 **IP** (2007=100)2013 96.1 97.1 96.9 97.0 97.2 97.0 97.5 98.2 98.3 98.9 99.1 96.6 97.0 97.6 98.8 97.5 2014 98.8 99.7 100.6 100.6 101.0 101.4 101.8 101.8 102.5 102.5 103.6 103.6 99.7 101.0 102.1 103.2 101.5 2015 103.1 103.2 102.6 103.0 Capacity (percent of 2007 output) 2013 123.7 123.8 124.0 124.2 124.3 124.5 124.7 124.9 125.1 125.3 125.6 123.8 124.3 124.9 125.6 124.7 129.2 129.5 129.2 127.7 2014 126.1 126.3 126.6 126.9 127.2 127.6 127.9 128.2 128.5 128.9 126.4 127.2 128.2 129.9 2015 129.7 129.9 130.1 Utilization (percent) 1993 81.4 81.4 81.6 81.1 81.2 81.4 81.2 81.4 81.9 82.1 82.4 81.5 81.3 81.3 82.1 81.6 81.6 1994 82.6 82.5 83.1 83.2 83.4 83.8 83.6 83.8 83.7 84.1 84.3 84.9 82.7 83.5 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 83.3 83.3 83.2 84.6 83.8 83.6 83.3 83.8 82.3 1996 83.2 82.8 83.3 83.6 84.0 83.4 83.6 83.8 83.3 83.7 83.9 82.8 83.7 83.6 83.6 83.4 1997 83.6 84.1 83.7 83.9 84.1 84.6 84.8 84.0 84.1 84.2 83.7 83.6 84.3 84.6 83.7 84.7 84.1 1998 84.5 84.1 83.8 83.6 83.8 82.7 81.8 83.1 82.4 82.6 82.1 81.9 84.1 83.4 82.5 82.2 83.0 1999 81.8 81.7 81.5 81.2 81.5 80.9 81.0 81.1 80.6 81.5 81.5 81.8 81.7 81.2 80.9 81.6 81.3 2000 81.4 81.3 81.3 81.6 81.4 81.2 80.8 80.3 80.4 80.0 79.8 79.3 81.4 81.4 80.5 79.7 80.7 2001 78.7 78.2 77.9 77.7 77.1 76.6 76.2 76.0 75.7 75.2 74.8 74.6 78.2 77.1 76.0 74.9 76.5 74.9 2002 75.1 75.5 75.8 76.1 76.8 76.6 76.5 76.6 76.4 76.8 76.4 75.2 76.2 76.6 76.5 76.1 2003 77.0 77.1 76.9 76.3 76.3 76.2 76.6 76.3 76.8 76.7 77.3 77.2 77.0 76.3 76.6 77.1 76.7 2004 77.4 77.9 77.5 77.8 78.5 77.8 78.5 78.5 78.6 79.3 79.5 80.0 77.6 78.0 78.5 79.6 78.4 2005 80.3 80.7 80.6 80.8 80.5 79.4 80.1 79.8 80.0 80.3 80.6 80.6 80.5 78.6 80.4 80.5 80.7 79 7 2006 80.4 803 80.3 80.5 80.2 80.3 80.2 80.3 799 79 5 80.2 80.3 80.3 80.1 798 80.1 2007 79.7 80.4 80.3 80.7 80.7 80.8 80.8 80.9 81.2 80.7 81.0 81.0 80.1 80.8 81.0 80.9 80.7 2008 80.8 80.5 80.3 79.6 79.2 79.0 78.6 73.9 74.6 73.7 80.5 79.3 76.6 77.4 77.3 71.7 73.3 70.0 67.6 69.1 69.5 69.5 2009 69.4 68.3 66.9 66.7 68.2 68.8 69.9 69.2 67.1 68.1 68.5 67.4 70.9 71.1 73.8 74.4 74.8 75.0 74.9 75.0 75.7 71.3 747 75.2 2010 71.8 72.2 73.5 73.2 73.6 2011 75.7 75.3 76.0 75.7 75.9 76.0 76.4 76.6 76.6 76.9 76.9 77.0 75.7 75.8 76.6 76.9 76.2 77.7 2012 77.6 77.2 77.6 77.7 77.6 77.9 77.3 77.3 77.1 77.8 77.7 77.5 77.6 77.5 77.5 77.5 78.0 78.0 78.0 78.1 2013 77.7 78.1 78.3 78.0 77.8 78.1 78.5 78.4 78.7 78.8 78.0 78.6 78.2 2014 78.4 78.9 79.4 79.3 79.4 79.5 79.6 79.4 79.8 79.5 80.2 80.0 78.9 79.4 79.6 79.9 79.5 2015 79.5 79.5 78.8 79.3

^{1.} Selected high-technology industries are computers, communications equipment, and semiconductors and related electronic components.

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

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

Year Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
IP (percent change) ³																	
1993 1994	1.1	.1	3 1.1	.5	1 .5	2 .2	.2	3 .6	.5	.8	.6	.5 .9	4.0	.5 7.1	.2 3.8	6.0 7.0	2.5
1994	.1	4	1	.0 4	 1	.3	8	.9	.5	. / 4	.0 1	.1	2.7	-2.3	.3	.7	2.5
1996	-1.2	1.3	4	1.0	.6	.8	1	.3	.6	5	.7	.7	-2.0	7.4	4.0	2.6	1.5
1997	1	1.1	.8	6	.5	.4	.5	.9	.5	.7	.8	.1	6.2	2.9	7.0	7.9	4.9
1998 1999	.6 1	1 .4	3 4	.2 1	.4	-1.2 7	8	2.3	7 5	.7 1.4	1 .3	.2	3.3	3	6 .2	4.1 6.7	3.4
2000	3	2	.3	.4	6	.0	2	-1.0	.3	4	6	8	.2	.7	-3.8	-4.7	.7
2001 2002	6 .6	5 2	3 .8	1 .2	7 .6	6 1.1	2 4	5 .1	2 .1	7 4	2 .4	.2 6	-7.0 3.2	-4.5 5.7	-4.6 2.5	-4.2 -1.1	-4.8 .4
2003	.4	1	.1	-1.0	1	.2	.2	7	.7	1	.9	3	.5	-4.0	.2	2.6	.0
2004 2005	1 .6	.7 .7	2 5	.4	.8	8 .1	1.0	.4	1 -1.4	1.0	1 .7	.6	1.6	3.3	3.7 -2.0	4.9 4.4	2.0
2006	.8	3	1	.5	6	.2	3	.5	1	4	.0	1.5	3.3	.1	2	.6	1.5
2007	6	.3	.6	.5	.0	.5	.2	5	.3	6	.3	.0	3.2	4.7	1.0	-1.6	1.8
2008 2009	5 -2.9	8 3	4 -2.0	-1.2 9	6 -1.2	6 3	-1.1 1.4	-1.3 1.0	-3.5 .8	4 .1	-2.1 1.0	-3.2 2	-4.3 -23.8	-9.2 -12.1	-13.7 6.8	-20.5 6.2	-5.8 -13.8
2010	1.0	3	1.2	.9	1.5	.0	.8	.0	.0	.0	.0	.2	5.4	10.4	5.3	.6	5.1
2011 2012	.1 1.1	.0 .5	.7 4	7 .7	.2 3	.1	.9 .4	.2 5	.4 .1	.6 6	1 1.3	.7 .7	7.0	1 1.9	5.2	4.3 1.7	2.8 3.7
2013	3	.7	.1	3	.2	.3	5	.7	.3	.3	.3	.2	4.6	.8	1.6	4.3	2.3
2014 2015	-1.1 6	1.3 2	.8	.3	.3	.4	.9	3	.2	.1	1.2	.0	1.3	6.6	4.5	3.7	3.3
IP (2007=100)																	
2013 2014	92.1 93.3	92.7 94.5	92.8 95.3	92.5 95.6	92.7 95.9	93.0 96.3	92.6 97.1	93.2 96.8	93.5 97.0	93.8 97.1	94.1 98.2	94.3 98.2	92.5 94.4	92.7 95.9	93.1 97.0	94.1 97.9	93.1
2015	93.3	97.5	97.6	93.0	93.9	90.3	97.1	90.6	97.0	97.1	96.2	90.2	97.6	93.9	97.0	91.9	96.2
Capacity (percent of 2007 output)																	
2013	121.1	121.3	121.4	121.6	121.7	121.9	122.1	122.2	122.4	122.6	122.8	123.0	121.3	121.7	122.2	122.8	122.0
2014 2015	123.2 125.3	123.3 125.4	123.5 125.6	123.7	123.9	124.1	124.2	124.4	124.6	124.8	125.0	125.2	123.3 125.4	123.9	124.4	125.0	124.2
Utilization																	
(percent) 1993	80.5	80.5	80.2	80.5	80.3	80.0	80.2	79.9	80.2	80.8	81.0	81.3	80.4	80.3	80.1	81.0	80.4
1994	81.3	81.2	82.1	82.4	82.7	82.7	82.8	83.1	83.1	83.5	83.8	84.5	81.5	82.6	83.0	83.9	82.8
1995 1996	84.4 80.9	83.9 81.7	83.7 81.2	83.2 81.9	82.9 82.2	83.0 82.6	82.1 82.4	82.6 82.4	82.9 82.7	82.4 82.0	82.1 82.4	82.0 82.7	84.0 81.3	83.0 82.2	82.5 82.5	82.2 82.3	82.9 82.1
1997	82.3	82.9	83.3	82.5	82.6	82.6	82.6	83.0	83.1	83.3	83.7	83.4	82.8	82.5	82.9	83.5	82.9
1998	83.5	83.1	82.6	82.4	82.4	81.2	80.2	81.8	80.9	81.2	80.9	80.8	83.1	82.0	81.0	80.9	81.7
1999 2000	80.5 79.9	80.6 79.6	80.0 79.7	79.8 79.9	80.2 79.4	79.4 79.2	79.3 79.0	79.6 78.1	79.0 78.2	80.0 77.8	80.1 77.3	80.2 76.5	80.4	79.8 79.5	79.3 78.4	80.1 77.2	79.9 78.7
2001	76.0	75.5	75.2	75.1	74.5	74.0	73.8	73.4	73.2	72.7	72.5	72.6	75.6	74.5	73.5	72.6	74.1
2002	73.1	73.0	73.5	73.7	74.1	75.0	74.7	74.8	74.9	74.6	74.9	74.6	73.2	74.3	74.8	74.7	74.2
2003 2004	74.9 75.2	74.9 75.7	75.0 75.6	74.2 76.0	74.2 76.6	74.4 76.1	74.6 76.8	74.1 77.1	74.7 77.1	74.6 77.8	75.4 77.7	75.2 78.2	74.9 75.5	74.3 76.2	74.4 77.0	75.1 77.9	74.7 76.7
2005	78.6	79.1	78.6	78.7	78.8	78.8	78.4	78.4	77.2	78.2	78.7	78.6	78.8	78.8	78.0	78.5	78.5
2006 2007	79.1 78.0	78.7 78.2	78.5 78.6	78.7 78.9	78.2 78.9	78.3 79.2	77.9 79.3	78.2 78.8	78.0 79.1	77.6 78.5	77.5 78.7	78.6 78.7	78.7 78.3	78.4 79.0	78.0 79.1	77.9 78.7	78.3 78.7
2008	78.3	77.7	77.4	76.4	76.0	75.6	74.8	74.0	71.4	71.2	69.8	67.7	77.8	76.0	73.4	69.6	74.2
2009	65.8 67.9	65.7 67.8	64.5 68.8	64.1 69.5	63.5	63.5	64.5 71.6	65.3	66.0 71.0	66.2	67.0	67.1 72.5	65.3 68.2	63.7	65.3	66.8	65.3
2010 2011	67.9 72.7	67.8 72.7	68.8 73.4	69.5 72.9	70.7 73.1	70.9 73.2	71.6 73.9	71.8 74.0	71.9 74.3	72.1 74.7	72.2 74.6	72.5 75.0	72.9	70.4 73.1	71.7 74.1	72.3 74.7	70.6
2012	75.7	76.1	75.6	76.1	75.7	75.9	76.1	75.6	75.5	75.0	75.9	76.4	75.8	75.9	75.7	75.8	75.8
2013	76.1	76.5	76.4	76.1	76.1	76.3	75.8	76.3	76.4	76.5	76.6	76.7	76.3	76.2	76.2	76.6	76.3
2014 2015	75.8 78.0	76.7 77.7	77.2 77.7	77.3	77.4	77.6	78.2	77.8	77.8	77.8	78.6	78.5	76.5 77.8	77.4	77.9	78.3	77.5
2013	70.0	11.1	//./										//.0				

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

EXPLANATORY NOTE

The Industrial Production and Capacity Utilization statistical release, which is published around the middle of the month, reports measures of output, capacity, and capacity utilization in manufacturing, mining, and the electric and gas utilities industries. More detailed descriptions of industrial production and capacity utilization are available on the Board's website at www.federalreserve.gov/releases/G17/About.htm. 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 all manufacturing, mining, and electric and gas utility establishments located in the United States, regardless of their ownership, but not those located in U.S. territories; the reference period for the index is 2007. Manufacturing consists of those industries included in the North American Industry Classification System (NAICS) definition of manufacturing plus those industries newspaper, periodical, book, and directory publishing plus logging—that have traditionally been considered to be manufacturing. For the period since 1997, the total IP index has been constructed from 312 individual series based on the 2007 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 (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 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 computers, communications equipment, and semiconductors. When suitable direct measures of product are not available, estimates of output are based on production-worker hours by industry. Data on hours worked by production workers are collected in the monthly establishment survey conducted by the Bureau of Labor Statistics. The factors used to convert inputs into estimates of production are based on historical relationships between the inputs and the comprehensive annual data used to benchmark the IP indexes; these factors also may be influenced by technological or cyclical developments. The annual data used in benchmarking the individual IP indexes are constructed from a variety of source data, such as the quinquennial Censuses of Manufactures and Mineral Industries and the Annual Survey of Manufactures, prepared by the Bureau of the Census; the *Minerals Yearbook*, prepared by the United States Geological Survey of the Department of the Interior; and publications of the Department of Energy.

Aggregation Methodology and Weights. The aggregation method for the IP index is a version of the Fisher-ideal index formula. (For a detailed discussion of the aggregation method, see the *Federal Reserve Bulletins* of 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

shown below. An output index for month m is denoted by I_m^A for aggregate A and I_m for each of its components. The monthly price measure in the formula (p_m) is interpolated from an annual series of value added divided by the average annual IP index.

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

The IP proportions (typically shown in the first column of the relevant tables in the G.17 release) are estimates of the industries' relative contributions to overall growth in the following year. For example, the relative importance weight of the motor vehicles and parts industry is about 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 $(0.06 \times 10\% = 0.6\%)$. 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 72 percent of the source data (in value-added terms) are available; the fraction of available source data increases to 84 percent for estimates in the second month that the estimate is published, 94 percent in the third month, 95 percent in the fourth month, 97 percent in the fifth month, and 97 percent in the sixth month. Data availability by data type in early 2014 is summarized in the table below:

Availability of Monthly IP Data in Publication Window (Percent of value added in 2011)

	Month of estimate								
Type of data	1st	2nd	3rd	4th	5th	6th			
Physical product	32	44	54	55	57	58			
Production-worker hours	40	40	40	40	40	40			
IP data received	72	84	94	95	97	97			
IP data estimated	28	16	6	5	3	3			

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 half of the series (in terms of value added) that ultimately are based on physical product data (32 percent out of a total of 58 percent). Of the 32 percent, about two-thirds (19 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 2013; for other series, the factors were estimated with data through at least December 2012. Series are pre-adjusted for the effects of holidays or business cycles when appropriate. For the data since 1972, all seasonally adjusted aggregate indexes are calculated by aggregating the seasonally adjusted indexes of the individual series.

Reliability. The average revision to the *level* of the total IP index, without regard to sign, between the first and the fourth estimates was

0.27 percent during the 1987–2013 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 1987–2013 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. The capacity indexes cover all facilities located in the United States, regardless of their ownership, but not those located in U.S. territories. 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 (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— newspaper, periodical, book, and directory publishing plus logging—that have traditionally been considered to be manufacturing. 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 (e.g., 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 a bit less than 70 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 5 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 the annual capacity aggregate with a Fisher index of its constituent monthly capacity series. Utilization rates for the individual series and aggregates are calculated by dividing the pertinent monthly production index by the related capacity index.

Consistency. A major aim is that the Federal Reserve utilization rates be consistent over time so that, for example, a rate of 85 percent means about the same degree of tightness that it meant in the past. A major task for the Federal Reserve in developing reasonable and

consistent time series of capacity and utilization is dealing with inconsistencies between the movements of the industrial production index and the survey-based utilization rates. The McGraw-Hill/DRI Survey, now discontinued, was the primary source of manufacturing utilization rates for many years. This was a survey of large companies that reported, on average, higher utilization rates than those reported by establishments covered by the Census Bureau's annual *Survey of Plant Capacity* (the predecessor to the QSPC) for the fourteen years they overlapped. Adjustments have been made to keep the industry utilization rates currently reported by the Federal Reserve roughly in line with rates formerly reported by McGraw-Hill. As a consequence, the rates reported by the Federal Reserve tend to be higher than the rates reported in the QSPC.

Perspective. Over the 1972–2013 period, the average total industry utilization rate is 80.1 percent; for manufacturing, the average factory operating rate has been 78.7 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 March 28, 2014, 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

rems, 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

At 9:15 a.m. on

2015: January 16, February 18, March 16, April 15, May 15, June 15, July 15, August 14, September 15, October 16, November 17, and December 16.