FEDERAL RESERVE statistical release



G.17 (419)

INDUSTRIAL PRODUCTION AND CAPACITY UTILIZATION

Industrial production was unchanged in June, as increases for both manufacturing and mining offset a decline for utilities. For the second quarter as a whole, industrial production declined at an annual rate of 1.2 percent, its second consecutive quarterly decrease. In June, manufacturing output advanced 0.4 percent. An

(over)

Industrial Production and Capacity Utilization: Summary

Seasonally adjusted

			2012=	100						Percent	change		
	2019						2019						June '18 to
Industrial production	Jan. ^r	Feb. ^r	Mar. ^r	Apr."	May ^r	June ^p	Jan. ^r	Feb. ^r	Mar. ^r	Apr. ^r	May ^r	June ^p	June '19
Total index	110.1	109.6	109.7	109.2	109.6	109.6	4	5	.1	5	.4	.0	1.3
Previous estimates	110.1	109.5	109.6	109.2	109.6	107.0	4	6	.1	4	.4	.0	1.0
Major market groups													
Final Products	103.7	103.6	104.2	102.6	103.1	103.2	9	1	.6	-1.6	.5	.1	.3
Consumer goods	105.4	105.8	106.3	104.5	105.0	105.0	-1.3	.3	.5	-1.7	.5	.0	7
Business equipment	103.2	101.9	102.7	101.2	101.6	102.1	1	-1.2	.8	-1.5	.4	.5	1.8
Nonindustrial supplies	109.5	108.4	108.2	107.6	108.2	108.3	.4	-1.0	2	6	.5	.1	.0
Construction	117.8	115.8	115.9	115.1	115.7	116.3	.3	-1.7	.1	8	.6	.5	1.4
Materials	115.6	114.8	114.6	115.2	115.6	115.3	2	7	2	.5	.4	2	2.6
Major industry groups													
Manufacturing (see note below)	105.8	105.3	105.2	104.6	104.8	105.2	6	5	.0	7	2	4	.4
Previous estimates	105.8	105.5	105.2	104.6	104.8	103.2	0 6	5 6	0. 0.	7	.2 .2	.4	.4
Mining	132.1	130.6	130.1	133.5	133.7	134.0	0	-1.1	.0 4	2.6	.2	.2	8.7
Utilities	104.4	105.1	106.8	103.3	105.7	101.9	4	-1.1	4 1.7	-3.3	.2 2.4	-3.6	-2.6
oundes	104.4	105.1	100.0	105.5	105.7	101.9	.0	. /	1./	-5.5	2.4	-5.0	-2.0
													Capacity
					Perce	nt of capa	acity						growth
	Average	1988-	1990-	1994-									
	1972-	89	91	95	2009	2018	2019						June '18 to
Capacity utilization	2018	high	low	high	low	June	Jan. ^r	Feb. ^r	Mar. ^r	Apr. ^r	May ^r	June ^p	June '19
Total industry	79.8	85.1	78.8	85.0	66.7	78.6	79.0	78.5	78.4	77.9	78.1	77.9	2.1
Previous estimates	19.0	0.0.1	/0.0	85.0	00.7	/ 0.0	79.0	78.4	78.4	77.9	78.1	11.9	2.1
Frevious estimates							79.0	/0.4	/0.4	11.9	/0.1		
Manufacturing (see note below)	78.3	85.5	77.3	84.6	63.7	76.5	76.7	76.3	76.2	75.6	75.6	75.9	1.2
Previous estimates	70.5	05.5	11.5	01.0	05.7	10.5	76.7	76.2	76.1	75.6	75.7	15.7	1.2
Mining	87.1	86.3	84.3	88.6	78.3	90.2	92.4	90.9	90.1	92.0	91.7	91.5	7.2
Utilities	85.4	93.2	84.7	93.2	78.2	78.5	77.3	77.6	78.7	75.9	77.6	74.6	2.4
Stage-of-process groups													
Crude	86.1	87.8	84.7	90.0	76.4	89.1	90.6	89.2	88.5	90.3	90.2	90.1	5.4
Primary and semifinished	80.4	86.4	78.1	87.8	63.9	77.1	77.2	76.7	76.7	75.6	76.0	75.4	1.5
Finished	76.8	83.3	77.3	80.6	66.5	75.2	75.4	75.3	75.4	74.5	74.6	75.0	1.4
r Revised n Preliminary													

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.

increase of nearly 3 percent for motor vehicles and parts contributed significantly to the gain in factory production; excluding motor vehicles and parts, manufacturing output moved up 0.2 percent. The output of utilities fell 3.6 percent as milder-than-usual temperatures in June reduced the demand for air conditioning. The index for mining rose 0.2 percent. At 109.6 percent of its 2012 average, total industrial production was 1.3 percent higher in June than it was a year earlier. Capacity utilization for the industrial sector decreased 0.2 percentage point in June to 77.9 percent, a rate that is 1.9 percentage points below its long-run (1972–2018) average.

Market Groups

The major market groups recorded mixed results in June. The drop in utilities contributed notably to small declines for nondurable consumer goods, materials, and business supplies through their energy components, but almost all of the major non-energy market groups posted increases. The largest gain was recorded by consumer durables, as decreases for most of its categories were outweighed by a substantial increase for automotive products.

Industry Groups

Manufacturing output increased 0.4 percent in June after moving up 0.2 percent in May. Despite the gains in the past two months, factory production declined at an annual rate of 2.2 percent in the second quarter, about the same pace as in the first quarter. In June, the indexes for durables and for nondurables advanced 0.4 percent and 0.5 percent, respectively. The output for other manufacturing (publishing and logging) declined 0.5 percent. Among durables, an increase of nearly 3 percent in the output of motor vehicles and parts was accompanied by gains of around 1 percent in the indexes for nonmetallic mineral products and for computer and electronic products. Among nondurables, the index for petroleum and coal products recorded the largest advance—2.5 percent—and most other categories also posted gains; the indexes for printing and support activities and for chemicals registered the only declines.

In June, electric utilities and natural gas utilities posted drops of 3.9 percent and 2.0 percent, respectively. Mining output rose 0.2 percent, as a gain in oil and gas extraction was partly offset by declines in coal mining and in support activities for mining. Mining production advanced 8.9 percent at an annual rate for the second quarter, its 11th consecutive quarterly increase.

Capacity utilization for manufacturing rose 0.3 percentage point in June, with increases for both durables and nondurables and a decrease for other manufacturing (publishing and logging). The overall manufacturing operating rate of 75.9 percent is 2.4 percentage points below its long-run average. The utilization rate for mining moved down to 91.5 percent, which is still more than 4 percentage points higher than its long-run average. The operating rate for utilities dropped 3.0 percentage points and remained well below its long-run average.

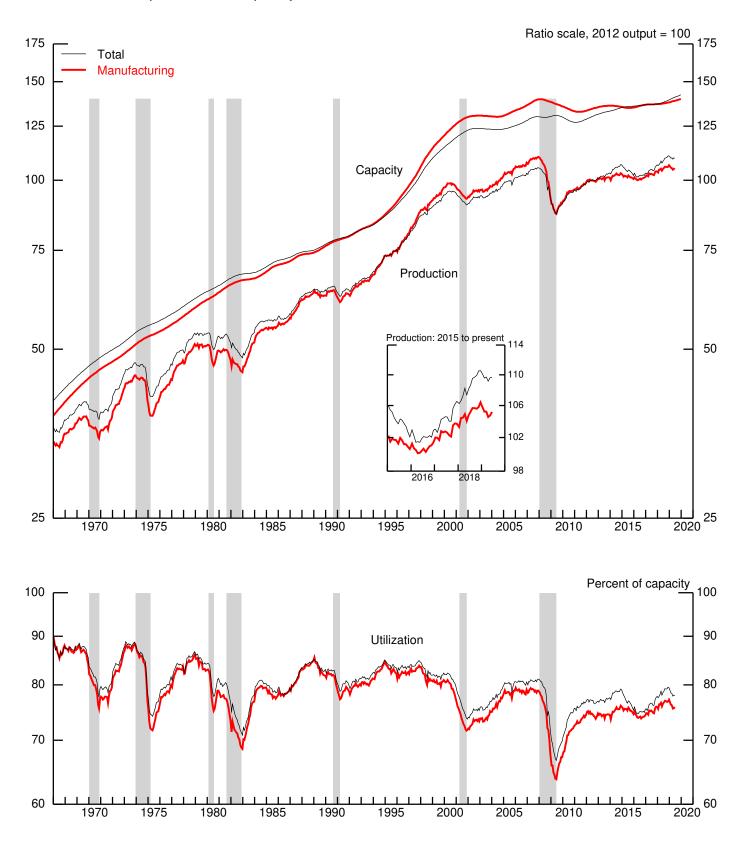
Note: Revised Estimates of Industrial Capacity

The estimates for industrial capacity for 2019 were revised for this release. The revisions reflect updated measures of physical capacity from various government and private sources as well as updated estimates of capital spending by industry. Measured from the fourth quarter of 2018 to the fourth quarter of 2019, capacity for the industrial sector is now expected to increase 2.1 percent, a rate that is 0.1 percentage point higher than previously estimated. Capacity for manufacturing is now expected to grow 1.4 percent, a rate that is also 0.1 percentage point higher than previously estimated. Mining capacity is now expected to rise 5.8 percent. This increase is 0.5 percentage point higher than previously estimated, primarily reflecting faster capacity growth for oil and gas extraction. The gain in capacity for utilities, at 2.5 percent, is 0.1 percentage point lower than

Tables

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- 2. Industrial Production: Special Aggregates and Selected Detail; percent change
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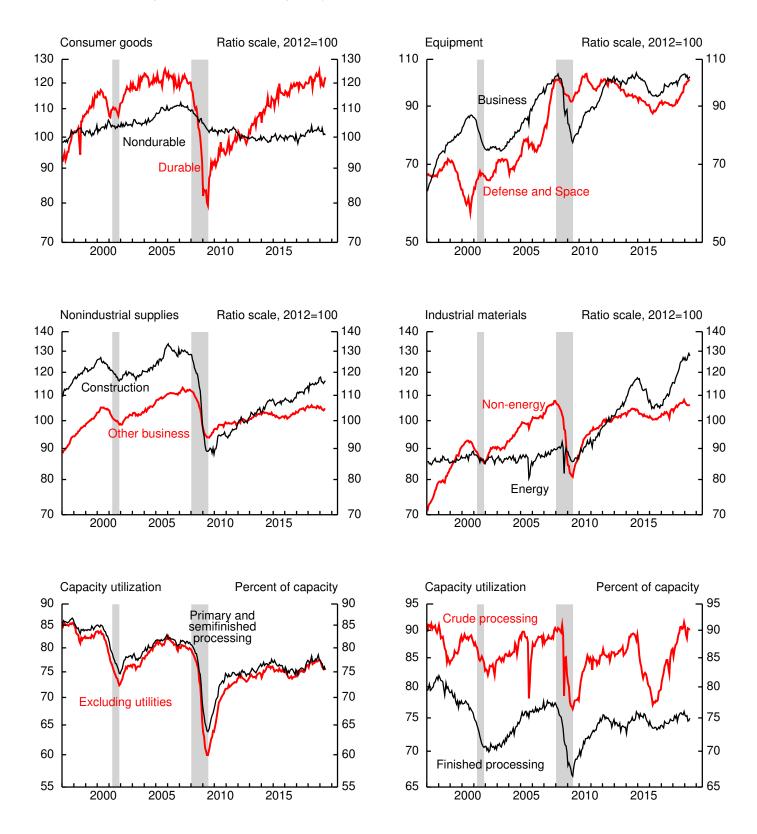
Further detail is available on the Board's website (www.federalreserve.gov/releases/G17/).



1. Industrial production, capacity, and utilization

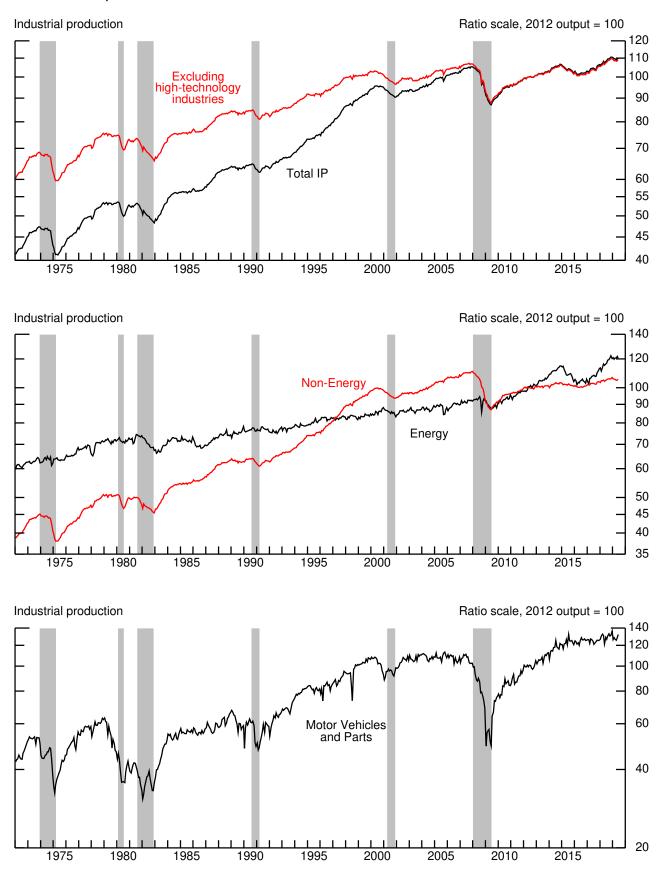
Note: The shaded areas are periods of business recession as defined by the National Bureau of Economic Research (NBER).

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 of selected 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 represent periods of business recession as defined by the NBER.

Table 1 INDUSTRIAL PRODUCTION: MARKET AND INDUSTRY GROUP SUMMARY

Percent change, seasonally adjusted

				th quart 11 quar			nnual rat	e			Month	nly rate			June '18
Item		2018 proportion ¹	2016	2017	2018	2018 Q4	2019 Q1 ^r	Q2 ^p	2019 Jan. ^r	Feb. ^r	Mar. ^r	Apr. ^r	May ^r	June ^p	to June '19
Fotal IP		100.00	3	3.6	4.0	3.9	-1.9	-1.2	4	5	.1	5	.4	.0	1.3
MARKET GROUPS															
Final products and nonindustrial supplie	s	53.84	.3	2.7	2.1	3.2	-2.1	-3.1	5	3	.4	-1.3	.5	.1	.2
Consumer goods		27.57	1.0	1.7	1.5	2.4	-4.2	-3.7	-1.3	.3	.5	-1.7	.5	.0	7
Durable		6.28	3.1	.7	3.0	3.5	-11.4	2.5	-4.4	1.3	-1.6	4	1.8	1.3	1.1
Automotive products		3.28	4.9	.6	3.5	5.7	-17.2	8.2	-8.0	3.2	-1.5	8	2.4	3.4	2.7
Home electronics		.12	.8	1.3	5.7	26.4	24.0	3.9	1	1.6	1.2	-2.7	3.7	1	17.7
Appliances, furniture, carpeting		.85	.8	5	-1.6	-3.5	-9.7	-4.8	8	-1.0	-1.8	.1	1.8	-2.9	-5.2
Miscellaneous goods		2.03	1.5	1.4	4.0	1.7	-4.0	-3.2	2	5	-1.7	.1	.7	2	.1
Nondurable		21.29	.4	1.9	1.0	2.1	-1.9	-5.4	4	.0	1.1	-2.1	.2	4	-1.2
Non-energy		16.17	7	1.6	1	-3.3	1.2	-4.0	1	.1	.5	-1.2	4	.3	-1.0
Foods and tobacco		9.26	.3	2.5	2	-6.6	2.4	-3.2	.1	5	.4	8	6	.8	-1.5
Clothing		.18	-2.2	-10.5	-5.0	-18.5	-22.7	1.4	-2.6	-3.5	.9	1.4	-1.0	.7	-9.7
Chemical products		5.27	-1.6	2.1	1.2	2.0	.1	-6.0	5	.6	.6	-2.2	.2	1	4
Paper products		1.03	-3.4	-4.5 3.0	-5.4	1.0 20.5	-2.6 -10.8	-5.9 -10.0	.3 -1.1	2.4 2	.0 3.1	-1.3 -4.8	-1.1	-1.1	6 -2.1
Energy		5.13	4.4	5.0	4.7	20.5	-10.8	-10.0	-1.1	2	5.1	-4.8	1.9	-2.0	-2.1
Business equipment		9.42	-2.1	4.8	3.9	5.3	-1.6	-3.8	1	-1.2	.8	-1.5	.4	.5	1.8
Transit		2.36	-6.4	.2	3.6	3.2	-4.0	-7.4	-3.6	.0	1.4	-2.6	-1.2	1.6	9
Information processing		2.12	3.9	4.1	3.6	.7	10.4	4.7	.9	.5	.4	.4	.0	.9	5.2
Industrial and other		4.93	-2.3	7.6	4.2	8.4	-5.2	-5.6	1.2	-2.5	.7	-1.8	1.4	3	1.6
Defense and space equipment		2.11	.8	8	6.7	11.2	12.5	5.2	.7	.1	1.0	.2	.6	.1	9.1
Construction countries		5.00		4 1	2.5	4.2	1.5	2.0	2	1.7		0		_	1.4
Construction supplies Business supplies		5.26 8.83	.8 1.4	4.1 2.3	2.5 .0	4.3 1.0	1.5 -1.9	-2.8 -2.3	.3 .5	-1.7 6	.1 4	8 4	.6 .5	.5 1	1.4 9
Materials		46.16	-1.0	4.8	6.1	4.6	-1.7	1.1	2	7	2	.5	.4	2	2.6
Non-energy		27.77	.0	2.7	3.2	2.6	-3.0	-2.1	9	5	6	1	.0	.2	.2
Durable		16.42	7	2.7	3.9	4.6	-2.9	-4.6	-1.2	.0	7	7	1	.2	.1
Consumer parts		2.98	2	.7	3.9	7.5	-15.5	-7.7	-4.9	4	-1.4	-1.6	.9	.1	-3.2
Equipment parts		4.77	.2	1.8	5.8	2.0	3.2	-3.8	.5	.2	.3	-1.4	.3	1	1.9
Other		8.67	-1.4	4.0	2.7	5.0	-1.6	-3.9	8	.0	-1.0	1	6	.5	.2
Nondurable		11.35	1.0	2.7	2.2	1	-3.1	1.5	5	-1.1	4	.9	.1	.1	.3
Textile		.36	1.2	-1.3	5.4	5.3	2.8	-7.8	2.3	1.3	.6	-2.2	-1.6	1.2	1.5
Paper		1.82	.4	-3.6	3	7	-9.9	-8.4	4	-2.6	-2.2	1.0	-1.5	.5	-4.3
Chemical		6.03	.6	4.9	4.3	1.4	-2.7	6.0	7	-1.6	.3	1.2	.9	.0	2.0
Energy		18.39	-2.9	8.2	10.4	7.3	.3	6.4	.8	-1.0	.3	1.4	.9	9	6.0
INDUSTRY GROUPS		75.05		2.5		1.5	1.0			~	0	-	2		
Manufacturing	24 22	75.05 73.17	.3	2.5 2.7	2.2 2.5	1.5 1.6	-1.9 -1.8	-2.2	6 6	5	0. 0.	7 7	.2	.4	.4
				2.7	2.3	10	-1.8	-2.	0	6			2		
Manufacturing (NAICS)	31–33		.3	2.6									.2	.4	.5
Durable manufacturing		37.68	1	2.6	4.1	4.7	-2.7	-1.8	-1.0	4	.0	7	.4	.4	1.4
Durable manufacturing Wood products	321	37.68 1.44	1 4.7	5.4	4.1 9	4.7 -6.6	-2.7 -1.9	-1.8 4.0	-1.0 1.2	4 -1.3	.0 -1.1	7 .8	.4 1.7	.4 .6	1.4 .0
Durable manufacturing Wood products Nonmetallic mineral products	321 327	37.68 1.44 2.23	1 4.7 .0	5.4 5.3	4.1 9 1.9	4.7 -6.6 2.8	-2.7 -1.9 9	-1.8 4.0 -2.6	-1.0 1.2 .7	4 -1.3 -3.9	.0 -1.1 .2	7 .8 .3	.4 1.7 2	.4 .6 1.1	1.4 .0 .0
Durable manufacturing Wood products Nonmetallic mineral products Primary metals	321 327 331	37.68 1.44 2.23 2.85	1 4.7 .0 -4.1	5.4 5.3 4.4	4.1 9 1.9 6.2	4.7 -6.6 2.8 13.7	-2.7 -1.9 9 -10.4	-1.8 4.0 -2.6 -3.0	-1.0 1.2 .7 -2.6	4 -1.3 -3.9 -1.1	.0 -1.1 .2 .4	7 .8 .3 .9	.4 1.7 2 -2.3	.4 .6 1.1 .0	1.4 .0 .0 .4
Durable manufacturing Wood products Nonmetallic mineral products Primary metals Fabricated metal products	321 327 331 332	37.68 1.44 2.23 2.85 5.63	1 4.7 .0 -4.1 -1.6	5.4 5.3 4.4 3.0	4.1 9 1.9 6.2 4.9	4.7 -6.6 2.8 13.7 4.9	-2.7 -1.9 9 -10.4 1.4	-1.8 4.0 -2.6 -3.0 -6.2	-1.0 1.2 .7 -2.6 .5	4 -1.3 -3.9 -1.1 5	.0 -1.1 .2 .4 1	7 .8 .3 .9 8	.4 1.7 2 -2.3 8	.4 .6 1.1 .0 .0	1.4 .0 .0 .4 .2
Durable manufacturing Wood products Nonmetallic mineral products Primary metals Fabricated metal products Machinery	321 327 331 332 333	37.68 1.44 2.23 2.85 5.63 5.39	1 4.7 .0 -4.1 -1.6 -2.3	5.4 5.3 4.4 3.0 9.3	4.1 9 1.9 6.2 4.9 5.8	4.7 -6.6 2.8 13.7 4.9 8.2	-2.7 -1.9 9 -10.4 1.4 -6.2	-1.8 4.0 -2.6 -3.0 -6.2 -9.9	-1.0 1.2 .7 -2.6 .5 .5	4 -1.3 -3.9 -1.1 5 -2.3	.0 -1.1 .2 .4 1 1.0	7 .8 .3 .9 8 -3.5	.4 1.7 2 -2.3 8 2.2	.4 .6 1.1 .0 .0 -1.0	1.4 .0 .0 .4 .2 .5
Durable manufacturing Wood products Nonmetallic mineral products Primary metals Fabricated metal products Machinery Computer and electronic products	321 327 331 332	37.68 1.44 2.23 2.85 5.63	1 4.7 .0 -4.1 -1.6	5.4 5.3 4.4 3.0	4.1 9 1.9 6.2 4.9	4.7 -6.6 2.8 13.7 4.9	-2.7 -1.9 9 -10.4 1.4	-1.8 4.0 -2.6 -3.0 -6.2	-1.0 1.2 .7 -2.6 .5	4 -1.3 -3.9 -1.1 5	.0 -1.1 .2 .4 1	7 .8 .3 .9 8	.4 1.7 2 -2.3 8	.4 .6 1.1 .0 .0	1.4 .0 .0 .4 .2
Durable manufacturing Wood products Nonmetallic mineral products Primary metals Fabricated metal products Machinery Computer and electronic products Electrical equip., appliances,	321 327 331 332 333 334	37.68 1.44 2.23 2.85 5.63 5.39 4.80	1 4.7 .0 -4.1 -1.6 -2.3 5.1	5.4 5.3 4.4 3.0 9.3 3.5	4.1 9 1.9 6.2 4.9 5.8 4.5	4.7 -6.6 2.8 13.7 4.9 8.2 4	-2.7 -1.9 9 -10.4 1.4 -6.2 8.6	-1.8 4.0 -2.6 -3.0 -6.2 -9.9 5.5	-1.0 1.2 .7 -2.6 .5 .5 .8	4 -1.3 -3.9 -1.1 5 -2.3 .5	.0 -1.1 .2 .4 1 1.0 .4	7 .8 .3 .9 8 -3.5 .4	.4 1.7 -2.3 -8 2.2 .3	.4 .6 1.1 .0 .0 -1.0 .9	1.4 .0 .0 .4 .2 .5 5.3
Durable manufacturing Wood products Nonmetallic mineral products Primary metals Fabricated metal products Machinery Computer and electronic products Electrical equip., appliances, and components	321 327 331 332 333 334 335	37.68 1.44 2.23 2.85 5.63 5.39 4.80 1.81	1 4.7 .0 -4.1 -1.6 -2.3 5.1 2	5.4 5.3 4.4 3.0 9.3 3.5 .0	4.1 9 1.9 6.2 4.9 5.8 4.5 3.5	4.7 -6.6 2.8 13.7 4.9 8.2 4 -1.4	-2.7 -1.9 9 -10.4 1.4 -6.2 8.6 -7.6	-1.8 4.0 -2.6 -3.0 -6.2 -9.9 5.5 -4.9	-1.0 1.2 .7 -2.6 .5 .5 .8 -2.1	4 -1.3 -3.9 -1.1 5 -2.3 .5 .1	.0 -1.1 .2 .4 1 1.0 .4 4	7 .8 .3 .9 8 -3.5 .4 -1.7	.4 1.7 2 -2.3 8 2.2 .3 1.6	.4 .6 1.1 .0 .0 -1.0 .9 -1.0	1.4 .0 .0 .4 .2 .5 5.3 -2.8
Durable manufacturing Wood products Nonmetallic mineral products Primary metals Fabricated metal products Machinery Computer and electronic products Electrical equip., appliances, and components Motor vehicles and parts	321 327 331 332 333 334	37.68 1.44 2.23 2.85 5.63 5.39 4.80	1 4.7 .0 -4.1 -1.6 -2.3 5.1	5.4 5.3 4.4 3.0 9.3 3.5	4.1 9 1.9 6.2 4.9 5.8 4.5	4.7 -6.6 2.8 13.7 4.9 8.2 4	-2.7 -1.9 9 -10.4 1.4 -6.2 8.6	-1.8 4.0 -2.6 -3.0 -6.2 -9.9 5.5	-1.0 1.2 .7 -2.6 .5 .5 .8	4 -1.3 -3.9 -1.1 5 -2.3 .5	.0 -1.1 .2 .4 1 1.0 .4	7 .8 .3 .9 8 -3.5 .4	.4 1.7 -2.3 -8 2.2 .3	.4 .6 1.1 .0 .0 -1.0 .9	1.4 .0 .0 .4 .2 .5 5.3
Durable manufacturing Wood products Nonmetallic mineral products Primary metals Fabricated metal products Machinery Computer and electronic products Electrical equip, appliances, and components Motor vehicles and parts Aerospace and miscellaneous	321 327 331 332 333 334 335	37.68 1.44 2.23 2.85 5.63 5.39 4.80 1.81	1 4.7 .0 -4.1 -1.6 -2.3 5.1 2	5.4 5.3 4.4 3.0 9.3 3.5 .0	4.1 9 1.9 6.2 4.9 5.8 4.5 3.5	4.7 -6.6 2.8 13.7 4.9 8.2 4 -1.4	-2.7 -1.9 9 -10.4 1.4 -6.2 8.6 -7.6	-1.8 4.0 -2.6 -3.0 -6.2 -9.9 5.5 -4.9	-1.0 1.2 .7 -2.6 .5 .5 .8 -2.1 -7.2	4 -1.3 -3.9 -1.1 5 -2.3 .5 .1 1.6	.0 -1.1 .2 .4 1 1.0 .4 4	7 .8 .3 .9 8 -3.5 .4 -1.7	.4 1.7 2 -2.3 8 2.2 .3 1.6	.4 .6 1.1 .0 .0 -1.0 .9 -1.0 2.9	1.4 .0 .0 .4 .2 .5 5.3 -2.8
Durable manufacturing Wood products Nonmetallic mineral products Primary metals Fabricated metal products Machinery Computer and electronic products Electrical equip., appliances, and components Motor vehicles and parts Aerospace and miscellaneous transportation equipment	321 327 331 332 333 334 335 3361–3	37.68 1.44 2.23 2.85 5.63 5.39 4.80 1.81 5.61	1 4.7 .0 -4.1 -1.6 -2.3 5.1 2 2.5 -3.2	5.4 5.3 4.4 3.0 9.3 3.5 .0 3	4.1 9 1.9 6.2 4.9 5.8 4.5 3.5 5.5	4.7 -6.6 2.8 13.7 4.9 8.2 4 -1.4 8.0 4.1	-2.7 -1.9 -9 -10.4 1.4 -6.2 8.6 -7.6 -14.9 5.4	-1.8 4.0 -2.6 -3.0 -6.2 -9.9 5.5 -4.9 4.9	-1.0 1.2 .7 -2.6 .5 .5 .8 -2.1 -7.2 .3	4 -1.3 -3.9 -1.1 5 -2.3 .5 .1 1.6 .1	.0 -1.1 .2 .4 1 1.0 .4 4 -1.4	7 .8 .9 8 -3.5 .4 -1.7 9	.4 1.7 -2.3 -8 2.2 .3 1.6 2.3	.4 .6 1.1 .0 .0 -1.0 .9 -1.0 2.9 .2	1.4 .0 .4 .2 .5 5.3 -2.8 2.4
Durable manufacturing Wood products Nonmetallic mineral products Primary metals Fabricated metal products Machinery Computer and electronic products Electrical equip, appliances, and components Motor vehicles and parts Aerospace and miscellaneous	321 327 331 332 333 334 335 3361–3 3364–9	37.68 1.44 2.23 2.85 5.63 5.39 4.80 1.81 5.61 4.10	1 4.7 .0 -4.1 -1.6 -2.3 5.1 2 2.5	5.4 5.3 4.4 3.0 9.3 3.5 .0 3 9	4.1 9 1.9 6.2 4.9 5.8 4.5 3.5 5.5 2.7	4.7 -6.6 2.8 13.7 4.9 8.2 4 -1.4 8.0	-2.7 -1.9 9 -10.4 1.4 -6.2 8.6 -7.6 -14.9	-1.8 4.0 -2.6 -3.0 -6.2 -9.9 5.5 -4.9 4.9 -5.9	-1.0 1.2 .7 -2.6 .5 .5 .8 -2.1 -7.2	4 -1.3 -3.9 -1.1 5 -2.3 .5 .1 1.6	.0 -1.1 .2 .4 1 1.0 .4 4 4	7 .8 .3 .9 8 -3.5 .4 -1.7 9 -1.5	.4 1.7 -2.3 -8 2.2 .3 1.6 2.3 -1.0	.4 .6 1.1 .0 .0 -1.0 .9 -1.0 2.9	1.4 .0 .0 .4 .2 .5 5.3 -2.8 2.4 1.7
Durable manufacturing Wood products Nonmetallic mineral products Primary metals Fabricated metal products Machinery Computer and electronic products Electrical equip., appliances, and components Motor vehicles and parts Aerospace and miscellaneous transportation equipment Furniture and related products Miscellaneous	321 327 331 332 333 334 335 3361–3 3364–9 337	$37.68 \\ 1.44 \\ 2.23 \\ 2.85 \\ 5.63 \\ 5.39 \\ 4.80 \\ 1.81 \\ 5.61 \\ 4.10 \\ 1.18 \\ 2.64$	1 4.7 .0 -4.1 -1.6 -2.3 5.1 2 2.5 -3.2 4 -1.3	5.4 5.3 4.4 3.0 9.3 3.5 .0 3 9 -1.7 -1.2	4.1 9 1.9 6.2 4.9 5.8 4.5 3.5 5.5 2.7 1.6 2.2	4.7 -6.6 2.8 13.7 4.9 8.2 4 -1.4 8.0 4.1 1.8 5.2	$\begin{array}{r} -2.7\\ -1.9\\9\\ -10.4\\ 1.4\\ -6.2\\ 8.6\\ -7.6\\ -14.9\\ 5.4\\ -5.8\\ 3.4\end{array}$	-1.8 4.0 -2.6 -3.0 -6.2 -9.9 5.5 -4.9 4.9 -5.9 .0 4.7	-1.0 1.2 .7 -2.6 .5 .5 .5 .8 -2.1 -7.2 .3 .2 1	4 -1.3 -3.9 -1.1 5 -2.3 .5 .1 1.6 .1 9 1.1	.0 -1.1 .2 .4 1 1.0 .4 4 -1.4 .8 -1.2 .0	7 .8 .3 .9 8 -3.5 .4 -1.7 9 -1.5 1.0 1.0	.4 1.7 -2.2 -2.3 8 2.2 .3 1.6 2.3 -1.0 .6 2	.4 .6 1.1 .0 .0 -1.0 .9 -1.0 2.9 .2 8 2	1.4 .0 .0 .4 .2 .5 5.3 -2.8 2.4 1.7 7 3.1
Durable manufacturing Wood products Nonmetallic mineral products Primary metals Fabricated metal products Machinery Computer and electronic products Electrical equip., appliances, and components Motor vehicles and parts Aerospace and miscellaneous transportation equipment Furniture and related products Miscellaneous Nondurable manufacturing	321 327 331 332 333 334 335 3361–3 3364–9 337 339	37.68 1.44 2.23 2.85 5.63 5.39 4.80 1.81 5.61 4.10 1.18 2.64 35.48	1 4.7 .0 -4.1 -1.6 -2.3 5.1 -2 2.5 -3.2 4 -1.3 .8	5.4 5.3 4.4 3.0 9.3 3.5 .0 3 9 -1.7 -1.2 2.7	4.1 9 1.9 6.2 4.9 5.8 4.5 3.5 5.5 2.7 1.6 2.2 .9	4.7 -6.6 2.8 13.7 4.9 8.2 4 -1.4 8.0 4.1 1.8 5.2 -1.6	-2.7 -1.9 9 -10.4 1.4 -6.2 8.6 -7.6 -14.9 5.4 -5.8 3.4 8	-1.8 4.0 -2.6 -3.0 -6.2 -9.9 5.5 -4.9 4.9 -5.9 .0 4.7 -2.4	-1.0 1.2 .7 -2.6 .5 .5 .8 -2.1 -7.2 .3 .2 1 1	4 -1.3 -3.9 -1.1 5 -2.3 .5 .1 1.6 .1 9 1.1 7	.0 -1.1 .2 .4 1 1.0 .4 4 -1.4 .8 -1.2 .0	7 .8 .3 .9 8 -3.5 .4 -1.7 9 -1.5 1.0 1.0 6	.4 1.7 -2.2 -2.3 8 2.2 .3 1.6 2.3 -1.0 .6 2 .1	.4 .6 1.1 .0 .0 -1.0 .9 -1.0 2.9 -2 8 2 .5	1.4 .0 .0 .4 .2 .5 5.3 -2.8 2.4 1.7 7 3.1 5
Durable manufacturing Wood products Nonmetallic mineral products Primary metals Fabricated metal products Machinery Computer and electronic products 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	321 327 331 332 333 334 335 3361–3 3364–9 337 339 311,2	37.68 1.44 2.23 2.85 5.63 5.39 4.80 1.81 5.61 4.10 1.18 2.64 35.48 11.28	1 4.7 .0 -4.1 -1.6 -2.3 5.1 -2 2.5 -3.2 4 -1.3 .8 .8	5.4 5.3 4.4 3.0 9.3 3.5 .0 3 9 -1.7 -1.2 2.7 3.1	4.1 9 1.9 6.2 4.9 5.8 4.5 3.5 5.5 2.7 1.6 2.2 .9 .2	4.7 -6.6 2.8 13.7 4.9 8.2 4 -1.4 8.0 4.1 1.8 5.2 -1.6 -6.4	-2.7 -1.9 -9 -10.4 1.4 -6.2 8.6 -7.6 -14.9 5.4 -5.8 3.4 8 2.9	-1.8 4.0 -2.6 -3.0 -6.2 -9.9 5.5 -4.9 4.9 -5.9 .0 4.7 -2.4 -2.7	-1.0 1.2 .7 -2.6 .5 .5 .8 -2.1 -7.2 .3 .2 1 1 .3	4 -1.3 -3.9 -1.1 5 -2.3 .5 .1 1.6 .1 9 1.1 7 3	.0 -1.1 .2 .4 1 1.0 .4 4 -1.4 .8 -1.2 .0 .0 .3	7 .8 .3 .9 8 -3.5 .4 -1.7 9 -1.5 1.0 1.0 6 7	.4 1.7 -2.2 -2.3 8 2.2 .3 1.6 2.3 -1.0 .6 2 .1 5	.4 .6 1.1 .0 .0 -1.0 .9 -1.0 2.9 -2 8 2 .5 .7	1.4 .0 .0 .4 .2 .5 5.3 -2.8 2.4 1.7 7 3.1 5 -1.0
Durable manufacturing Wood products Nonmetallic mineral products Primary metals Fabricated metal products Machinery Computer and electronic products 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	321 327 331 332 333 334 335 3361–3 3364–9 337 339 311,2 313,4	$37.68 \\ 1.44 \\ 2.23 \\ 2.85 \\ 5.63 \\ 5.39 \\ 4.80 \\ 1.81 \\ 5.61 \\ 4.10 \\ 1.18 \\ 2.64 \\ 35.48 \\ 11.28 \\ .64 $	1 4.7 .0 -4.1 -1.6 -2.3 5.1 -2.2 2.5 -3.2 4 -1.3 .8 .8 .8 .9	5.4 5.3 4.4 3.0 9.3 3.5 .0 3 9 -1.7 -1.2 2.7 3.1 .2	4.1 9 1.9 6.2 4.9 5.8 4.5 3.5 5.5 2.7 1.6 2.2 .9 .2 .9	4.7 -6.6 2.8 13.7 4.9 8.2 4 -1.4 8.0 4.1 1.8 5.2 -1.6 -6.4 -2.7	-2.7 -1.9 9 -10.4 1.4 -6.2 8.6 -7.6 -14.9 5.4 -5.8 3.4 -5.8 3.4 8 2.9 -2.2	-1.8 4.0 -2.6 -3.0 -6.2 -9.9 5.5 -4.9 4.9 -5.9 .0 4.7 -2.4 -2.7 -7.5	-1.0 1.2 .7 -2.6 .5 .5 .8 -2.1 -7.2 .3 .2 1 1 .3 .8	4 -1.3 -3.9 -1.1 5 -2.3 .5 .1 1.6 .1 9 1.1 7 3 .0	.0 -1.1 .2 .4 1 1.0 .4 4 -1.4 .8 -1.2 .0 .0 .3 1.3	7 .8 .3 .9 .8 -3.5 .4 -1.7 9 -1.5 1.0 1.0 1.0 6 .7 -1.8	.4 1.7 -2.2 -2.3 -8 2.2 .3 1.6 2.3 -1.0 .6 2 .1 5 -1.9	.4 .6 1.1 .0 0 -1.0 2.9 -1.0 2.9 .2 8 2 .5 .7 .8	1.4 .0 .0 .4 2 .5 5.3 -2.8 2.4 1.7 7 3.1 5 -1.0 -2.8
Durable manufacturing Wood products Nonmetallic mineral products Primary metals Fabricated metal products Machinery Computer and electronic products 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	321 327 331 332 333 334 335 3361–3 3364–9 337 339 311,2 313,4 315,6	$37.68 \\ 1.44 \\ 2.23 \\ 2.85 \\ 5.63 \\ 5.39 \\ 4.80 \\ 1.81 \\ 5.61 \\ 4.10 \\ 1.18 \\ 2.64 \\ 35.48 \\ 11.28 \\ .64 \\ .20 \\ 1.20 \\ 1.40 \\ 1.10 \\$	1 4.7 .0 -4.1 -1.6 -2.3 5.1 2 2.5 -3.2 4 -1.3 .8 .8 .8 .9 9 -1.9	5.4 5.3 4.4 3.0 9.3 3.5 .0 3 9 -1.7 -1.2 2.7 3.1 .2 -10.0	4.1 9 1.9 6.2 4.9 5.8 4.5 5.5 5.5 2.7 1.6 2.2 .9 .2 .9 -5.2	4.7 -6.6 2.8 13.7 4.9 8.2 4 -1.4 8.0 4.1 1.8 5.2 -1.6 -6.4 -2.7 -17.7	-2.7 -1.9 -9 -10.4 1.4 -6.2 8.6 -7.6 -14.9 5.4 -5.8 3.4 -5.8 3.4 8 2.9 -2.2 -22.6	-1.8 4.0 -2.6 -3.0 -6.9 5.5 -4.9 4.9 -5.9 .0 4.7 -2.4 -2.7 -7.5 .9	-1.0 1.2 .7 -2.6 .5 .5 .8 -2.1 -7.2 .3 .2 1 1 .3 .8 -2.6	4 -1.3 -3.9 -1.1 5 -2.3 .5 .1 1.6 .1 9 1.1 7 3 .0 -3.5	.0 -1.1 .2 .4 1 1.0 .4 4 -1.4 .8 -1.2 .0 .0 .3 1.3 .7	7 .8 .3 .9 .8 -3.5 .4 -1.7 9 -1.5 1.0 1.0 6 .7 -1.8 1.4	.4 1.7 -2 -2.3 8 2.2 .3 1.6 2.3 -1.0 .6 2 .1 5 -1.9 -1.0	.4 .6 1.1 .0 0 -1.0 2.9 -1.0 2.9 .2 8 2 .5 .7 .7 .8 .7	1.4 .0 .0 .4 .2 .5 5.3 -2.8 2.4 1.7 7 3.1 5 -1.0 2.8 -9.7
Durable manufacturing Wood products Nonmetallic mineral products Primary metals Fabricated metal products Machinery Computer and electronic products Electrical equip., appliances, and components Motor vehicles and parts Aerospace and miscellaneous transportation equipment Furniture and related products Miscellaneous Textile and product mills Apparel and leather Paper	321 327 331 332 333 334 335 3361–3 3364–9 337 339 311,2 313,4 315,6 322	37.68 1.44 2.23 2.85 5.63 5.39 4.80 1.81 5.61 4.10 1.18 2.64 35.48 11.28 .64 .20 2.42	1 4.7 .0 -4.1 -1.6 -2.3 5.1 2 2.5 -3.2 4 -1.3 .8 .8 .8 .9 -1.9 1.1	5.4 5.3 4.4 3.0 9.3 3.5 .0 3 9 -1.7 -1.2 2.7 3.1 2 2-10.0 -2.6	4.1 9 1.9 6.2 4.9 5.8 4.5 3.5 5.5 2.7 1.6 2.2 .9 .2 .9 9 -5.2 .0	4.7 -6.6 2.8 13.7 4.9 8.2 4 -1.4 8.0 4.1 1.8 5.2 -1.6 -6.4 -2.7 -17.7 .1	-2.7 -1.9 -9 -10.4 1.4 -6.2 8.6 -7.6 -14.9 5.4 -5.8 3.4 -5.8 3.4 8 2.9 -2.2 -22.6 -7.7	-1.8 4.0 -2.6 -3.0 -6.2 -9.9 5.5 -4.9 4.9 -5.9 .0 4.7 -2.4 -2.4 -2.7 -7.5 .9 -7.1	-1.0 1.2 .7 -2.6 .5 .8 -2.1 -7.2 .3 .2 1 1 .3 .8 -2.6 2	4 -1.3 -3.9 -1.1 5 -2.3 .5 .1 1.6 .1 9 1.1 7 3 .0 -3.5 -2.0	.0 -1.1 .2 .4 1 4 4 -1.4 .8 -1.2 .0 .0 .3 3 .3 .7 -2.3	7 .8 .3 .9 8 -3.5 .4 -1.7 9 -1.5 1.0 1.0 6 7 1.8 1.4 1.0	.4 1.7 -2.3 -8.8 2.2 .3 1.6 2.3 -1.0 .6 2 .1 .5 -1.9 -1.0 -1.2	.4 .6 1.1 .0 .0 -1.0 2.9 -1.0 2.9 .2 .8 -2 .5 .7 .7 .4	1.4 .0 .0 .4 .2 .5 5.3 -2.8 2.4 1.7 7 3.1 5 -1.0 -2.8 -9.7 -3.1
Durable manufacturing Wood products Nonmetallic mineral products Primary metals Fabricated metal products Machinery Computer and electronic products 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 Pare Printing and support	321 327 331 332 333 334 335 3361–3 3364–9 337 339 311,2 313,4 315,6 322 323	$\begin{array}{c} 37.68\\ 1.44\\ 2.23\\ 2.85\\ 5.63\\ 5.39\\ 4.80\\ 1.81\\ 5.61\\ 4.10\\ 1.18\\ 2.64\\ 35.48\\ 11.28\\ .64\\ .20\\ 2.42\\ 1.31\\ \end{array}$	1 4.7 .0 -4.1 -1.6 -2.3 5.1 -2 2.5 -3.2 -4 -1.3 .8 .8 .9 -1.9 1.1 1.7	5.4 5.3 4.4 3.0 9.3 3.5 .0 3 9 -1.7 -1.2 2.7 3.1 .2 -10.0 -2.6 -1.3	4.1 9 1.9 6.2 4.9 5.8 4.5 3.5 5.5 2.7 1.6 2.2 .9 .2 .9 .2 .9 .2 .0 0 -2.7	4.7 -6.6 2.8 13.7 4.9 8.2 4 -1.4 8.0 4.1 1.8 5.2 -1.6 -6.4 -2.7 -17.7 -17.7 .1 -4.1	-2.7 -1.9 -9 -10.4 1.4 -6.2 8.6 -7.6 -14.9 5.4 -5.8 3.4 -5.8 3.4 8 2.9 -2.2 -22.6 -7.7 -6.1	-1.8 4.0 -2.6 -3.0 -6.2 -9.9 5.5 -4.9 4.9 -5.9 .0 4.7 -2.4 -2.7 -7.1 -6.2	-1.0 1.2 .7 -2.6 .5 .8 -2.1 -7.2 .3 .2 1 .1 .3 .8 -2.6 .5 .2 .3 .8 -2.6 .3 .2 .1 .1 .3 .2 .1 .5 .5 .3 .2 .1 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5	4 -1.3 -3.9 -1.1 5 -2.3 .5 .1 1.6 .1 9 1.1 7 3 .0 -3.5 2.0 -1.4	.0 -1.1 .2 .4 1 4 4 -1.4 .8 -1.2 .0 .0 .3 1.3 .7 -2.3 -1.1	7 .8 .3 .9 8 -3.5 .4 -1.7 9 -1.5 1.0 1.0 6 7 -1.8 1.4 1.0 0 2	.4 1.7 -2.2 -2.3 8 2.2 .3 1.6 2.3 -1.0 .6 2 .1 2 .1 5 -1.9 -1.0 .1.2 .2	.4 .6 1.1 .0 .0 -1.0 2.9 .2 .8 2 .5 .7 .8 .5 .7 .8 .7 .4 .4 9	1.4 .0 .0 .4 .2 .5 .5 .5 .3 .2.8 2.4 1.7 7 3.1 5 .1.0 .2.8 .9.7 .3.1 .5.6
Durable manufacturing Wood products Nonmetallic mineral products Primary metals Fabricated metal products Machinery Computer and electronic products 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	321 327 331 332 333 334 335 3361–3 3364–9 337 339 311,2 313,4 315,6 322 323 324	$\begin{array}{c} 37.68 \\ 1.44 \\ 2.23 \\ 2.85 \\ 5.63 \\ 5.39 \\ 4.80 \\ 1.81 \\ 5.61 \\ 4.10 \\ 1.18 \\ 2.64 \\ 35.48 \\ 11.28 \\ .64 \\ .20 \\ 2.42 \\ 1.31 \\ 3.43 \end{array}$	1 4.7 .0 -4.1 -1.6 -2.3 5.1 -2.2 2.5 -3.2 -4 -1.3 .8 .8 .8 .9 -1.9 1.1 1.7 4.2	5.4 5.3 4.4 3.0 9.3 3.5 .0 3 9 -1.7 -1.2 2.7 3.1 .2 -10.0 -2.6 -1.3 2.7	4.1 9 1.9 6.2 4.9 5.8 4.5 3.5 5.5 2.7 1.6 2.2 .9 .2 .9 .2 .9 -5.2 .0 0 -2.7 -1.2	4.7 -6.6 2.8 13.7 4.9 8.2 4 -1.4 8.0 4.1 1.8 5.2 -1.6 -6.4 -2.7 -17.7 -17.7 -4.1 -3.0	-2.7 -1.9 9 -10.4 1.4 -6.2 8.6 -7.6 -14.9 5.4 -5.8 3.4 -5.8 3.4 8 2.9 -2.2 -22.6 -7.7 -6.1 -1.7	-1.8 4.0 -2.6 -3.0 -6.2 -9.9 5.5 -4.9 4.9 -5.9 .0 4.7 -2.4 -2.7 -7.5 .9 -7.5 .9 -7.5 .9 -7.5 .9 -7.5 -2.4 -2.5	-1.0 1.2 .7 -2.6 .5 .5 .8 -2.1 -7.2 .3 .2 1 .3 .8 -2.6 .5 .5 .8 .5 .5 .8 .5 .5 .5 .8 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5	4 -1.3 -3.9 -1.1 5 -2.3 .5 .1 1.6 .1 9 1.1 7 3 .0 -3.5 -2.0 -1.4 -4.5	.0 -1.1 .2 .4 -1 1.0 .4 4 -1.4 .8 -1.2 .0 .0 .3 1.3 .7 -2.3 -1.1 1.0	7 .8 .9 -8 -3.5 .4 -1.7 9 -1.5 1.0 1.0 6 7 -1.8 1.4 1.0 0 2 8	.4 1.7 -2 -2.3 -8 2.2 .3 1.6 2.3 -1.0 .6 2 .1 5 -1.9 -1.0 -1.2 2 .4	.4 .6 1.1 .0 0 -1.0 .9 -1.0 2.9 .2 .8 2 .5 .7 .7 .8 .7 .7 .8 .7 .7 .8 .7 .7 .8 .7 .2 .5 .7 .7 .8 .7 .7 .8 .7 .7 .7 .7 .7 .7 .7 .7 .7 .7 .7 .7 .7	1.4 .0 .0 .4 .2 .5 5.3 -2.8 2.4 1.7 7 3.1 5 -1.0 -2.8 -9.7 -3.1 -5.6 .2
Durable manufacturing Wood products Nonmetallic mineral products Primary metals Fabricated metal products Machinery Computer and electronic products 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	321 327 331 332 333 334 335 3361–3 3364–9 337 339 311,2 313,4 315,6 322 323 324 324	$\begin{array}{c} 37.68\\ 1.44\\ 2.23\\ 2.85\\ 5.63\\ 5.39\\ 4.80\\ 1.81\\ 5.61\\ 4.10\\ 1.18\\ 2.64\\ 35.48\\ 11.28\\64\\20\\ 2.42\\ 1.31\\ 3.43\\ 12.68\\ \end{array}$	1 4.7 .0 -4.1 -1.6 -2.3 5.1 -2.2 2.5 -3.2 4 -1.3 .8 .8 .8 .9 -1.9 1.1 1.7 .2 2.2 2 2	5.4 5.3 4.4 3.0 9.3 3.5 9 -1.7 -1.2 2.7 3.1 .2 -10.0 -2.6 -1.3 2.7 4.3	4.1 9 1.9 6.2 4.9 5.8 4.5 5.5 5.5 2.7 1.6 2.2 .9 .2 .9 -5.2 .0 0 -2.7 -1.2 2.9	4.7 -6.6 2.8 13.7 4.9 8.2 4 -1.4 8.0 4.1 1.8 5.2 -1.6 -6.4 -2.7 -17.7 .1 -1.7, .1 -3.0 2.2	$\begin{array}{c} -2.7\\ -1.9\\9\\ -0.4\\ 1.4\\ -6.2\\ 8.6\\ -7.6\\ -14.9\\ 5.4\\ -5.8\\ 3.4\\ -5.8\\ 3.4\\8\\ 2.9\\ -2.2\\ -22.6\\ -7.7\\ -6.1\\ -1.7\\ -1.3\\ \end{array}$	-1.8 4.0 -2.6 -3.0 -6.2 -9.9 5.5 -4.9 4.9 -5.9 .0 4.7 -2.4 -2.7 -7.5 .9 -7.1 -6.2 -2.5 -2 -2.5	-1.0 1.2 .7 -2.6 .5 .8 -2.1 -7.2 .3 .2 1 .3 .8 -2.6 2 .3 .8 -2.6 .5 .7 .7 .7 .7 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5	4 -1.3 -3.9 -1.1 5 -2.3 .5 .1 1.6 .1 9 1.1 7 3 .0 -3.5 -2.0 -1.4 -4.5 .1	.0 -1.1 .2 .4 1 1.0 .4 4 -1.4 .8 -1.2 .0 .0 .3 1.3 .7 -2.3 -1.1 1.0 .3	7 .8 .3 .9 .8 -3.5 .4 -1.7 9 -1.5 1.0 1.0 1.0 6 7 -1.8 1.4 1.0 .2 8 4	.4 1.7 -2 -2.3 -8 2.2 .3 1.6 2.3 -1.0 .6 2 .1 5 -1.9 -1.0 -1.2 .2 .4 .5	.4 .6 1.1 .0 .0 -1.0 2.9 .2 .8 2 .5 .7 .8 .7 .8 .7 .8 .7 .8 .7 .8 .7 .9 2.5 .7 .1	1.4 .0 .0 .4 2 .5 5.3 -2.8 2.4 1.7 7 3.1 5 -1.0 -2.8 -9.7 -3.1 -5.6 (.2 .9
Durable manufacturing Wood products Nonmetallic mineral products Primary metals Fabricated metal products Machinery Computer and electronic products 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	321 327 331 332 333 334 335 3361–3 3364–9 337 339 311,2 313,4 315,6 322 323 324 325 326	$\begin{array}{c} 37.68\\ 1.44\\ 2.23\\ 2.85\\ 5.63\\ 5.39\\ 4.80\\ 1.81\\ 5.61\\ 4.10\\ 1.18\\ 2.64\\ 35.48\\ 11.28\\ .64\\ .20\\ 2.42\\ 1.31\\ 3.43\\ 12.68\\ 3.52\\ \end{array}$	$\begin{array}{c}1\\ 4.7\\ .0\\ -4.1\\ -1.6\\ -2.3\\ 5.1\\2\\ 2.5\\ -3.2\\4\\ -1.3\\ .8\\ .8\\ .9\\ -1.9\\ 1.1\\ 1.7\\ 4.2\\2\\ 1.3\\ \end{array}$	$5.4 \\ 5.3 \\ 4.4 \\ 3.0 \\ 9.3 \\ 3.5 \\ .0 \\3 \\9 \\ -1.7 \\ -1.2 \\ 2.7 \\ 3.1 \\ .2 \\ -10.0 \\ -2.6 \\ -1.3 \\ 2.7 \\ 4.3 \\ 2.8 \\ $	4.1 9 1.9 6.2 4.9 5.8 4.5 5.5 2.7 1.6 2.2 .9 -2.7 -1.2 2.9 .0 -2.7 -1.2 2.9 .0	$\begin{array}{c} 4.7\\ -6.6\\ 2.8\\ 13.7\\ 4.9\\ 8.2\\4\\ -1.4\\ 8.0\\ 4.1\\ 1.8\\ 5.2\\ -1.6\\ -6.4\\ -2.7\\ -17.7\\ .1\\ -4.1\\ -3.0\\ 2.2\\ 2.2\end{array}$	$\begin{array}{r} -2.7\\ -1.9\\ -9\\ -10.4\\ 1.4\\ -6.2\\ 8.6\\ -7.6\\ -14.9\\ 5.4\\ -5.8\\ 3.4\\ -5.8\\ 3.4\\ -5.8\\ 3.4\\ -2.2\\ -22.6\\ -7.7\\ -6.1\\ -1.7\\ -1.3\\ -1.7\end{array}$	-1.8 4.0 -2.6 -3.0 -6.2 -9.9 5.5 -4.9 4.9 -5.9 .0 4.7 -2.4 -2.7 -7.5 .9 -7.1 -6.2 -2.5 .2 -4.8	-1.0 1.2 .7 -2.6 .5 .8 -2.1 -7.2 .3 .2 1 1 .3 .8 -2.6 2 .3 1.9 7 7	$\begin{array}{c}4 \\ -1.3 \\ -3.9 \\ -1.1 \\5 \\ -2.3 \\ .5 \\ .1 \\ 1.6 \\ .1 \\9 \\ 1.1 \\7 \\3 \\ .0 \\ -3.5 \\ -2.0 \\ -1.4 \\ -4.5 \\ .1 \\1 \end{array}$	$\begin{array}{c} .0 \\ -1.1 \\ .2 \\ .4 \\1 \\ 0 \\ .4 \\4 \\ -1.4 \\ .8 \\ -1.2 \\ .0 \\ 0 \\ .3 \\ 1.3 \\ .7 \\ -2.3 \\ -1.1 \\ 1.0 \\ .3 \\ -1.1 \end{array}$	7 .8 .3 .9 .8 .3.5 .4 -1.7 9 -1.5 1.0 1.0 6 .7 1.8 1.4 1.0 .2 .8 4 -1.7	.4 1.7 -2 -2.3 -8 2.2 .3 1.6 2.3 -1.0 .6 2 .1 5 -1.9 -1.0 -1.2 .2 .4 .5 1.5	.4 .6 1.1 .0 .0 -1.0 2.9 .2 .8 .2 .2 .8 .2 .2 .5 .7 .7 .8 .7 .4 .4 .9 2.5 .1 .6	1.4 .0 .0 .4 .2 .5 5.3 -2.8 2.4 1.7 7 3.1 5 1.0 2.8 -9.7 3.1 -5.6 .2 .9 .6
Durable manufacturing Wood products Nonmetallic mineral products Primary metals Fabricated metal products Machinery Computer and electronic products 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	321 327 331 332 333 334 335 3361–3 3364–9 337 339 311,2 313,4 315,6 322 323 324 325 326 1133,5111	$\begin{array}{c} 37.68\\ 1.44\\ 2.23\\ 2.85\\ 5.63\\ 5.39\\ 4.80\\ 1.81\\ 5.61\\ 4.10\\ 1.18\\ 2.64\\ 35.48\\ 11.28\\ .64\\ .20\\ 2.42\\ 1.31\\ 3.43\\ 12.68\\ 3.52\\ 1.88\\ \end{array}$	1 4.7 .0 -4.1 -1.6 -2.3 5.1 -2 2.5 -3.2 4 -1.3 .8 .8 .8 .9 -1.9 1.1 1.7 4.2 2 1.3 -1.5	$5.4 \\ 5.3 \\ 4.4 \\ 3.0 \\ 9.3 \\ 3.5 \\ .0 \\3 \\9 \\ -1.7 \\ -1.2 \\ 2.7 \\ 3.1 \\ -2.6 \\ -1.3 \\ 2.7 \\ 4.3 \\ 2.8 \\ -3.5 \\ $	4.1 9 1.9 6.2 4.9 5.8 4.5 3.5 5.5 2.7 1.6 2.2 .9 .9 2.9 -5.2 .0 -2.7 -1.2 2.9 .0 -10.0	4.7 -6.6 2.8 13.7 4.9 8.2 4 -1.4 8.0 4.1 1.8 5.2 -1.6 -6.4 -2.7 -1.7, 1 -4.1 -3.0 2.2 2.2 1	$\begin{array}{c} -2.7\\ -1.9\\9\\ -10.4\\ 1.4\\ -6.2\\ 8.6\\ -7.6\\ -14.9\\ 5.4\\ -5.8\\ 3.4\\8\\ 2.9\\ -2.2\\ -22.6\\ -7.7\\ -6.1\\ -1.7\\ -1.3\\ -1.7\\ -4.2\\ \end{array}$	-1.8 4.0 -2.6 -3.0 -6.2 -9.9 5.5 -4.9 4.9 -5.9 .0 4.7 -2.4 -2.7 -7.5 .9 -7.1 -6.2 -2.5 .2 -4.8 -8.7	-1.0 1.2 .7 -2.6 .5 .8 -2.1 -7.2 .3 .2 1 1 .3 .8 -2.6 2 .3 1.9 7 7 .2	$\begin{array}{c}4 \\ -1.3 \\ -3.9 \\ -1.1 \\5 \\ -2.3 \\ .5 \\ .1 \\ 1.6 \\ .1 \\9 \\ 1.1 \\7 \\3 \\ .0 \\ -3.5 \\ -2.0 \\ -1.4 \\ -4.5 \\ .1 \\1 \\ .9 \end{array}$.0 -1.1 .2 .4 -1 1.0 .4 -1.4 -1.4 .8 -1.2 .0 .0 .3 1.3 .7 -2.3 -1.1 1.0 .3 -1.1 -1.2	7 .8 .3 .9 8 -3.5 .4 -1.7 9 -1.5 1.0 1.0 6 7 -1.8 1.4 1.0 2 8 4 -1.7 7	.4 1.7 2 -2.3 8 2.2 .3 1.6 2.3 -1.0 .6 2 .1 5 -1.9 -1.0 -1.2 -1.2 2 .4 .5 1.5 -1.3	.4 .6 1.1 .0 0 -1.0 2.9 .2 .8 2 .5 .7 .8 .7 .7 .8 .7 .7 .8 .7 .7 .8 .7 .7 .8 .7 .5 .7 .5 .5 1 .6 .5 .5	1.4 .0 .0 .4 .2 .5 5.3 -2.8 2.4 1.7 7 3.1 5 -1.0 -2.8 -9.7 -3.1 56 .2 .9 .6 -4.0
Durable manufacturing Wood products Nonmetallic mineral products Primary metals Fabricated metal products Machinery Computer and electronic products 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	321 327 331 332 333 334 335 3361–3 3364–9 337 339 311,2 313,4 315,6 322 323 324 325 326 1133,5111 21	$\begin{array}{c} 37.68\\ 1.44\\ 2.23\\ 2.85\\ 5.63\\ 5.39\\ 4.80\\ 1.81\\ 5.61\\ 4.10\\ 1.18\\ 2.64\\ 35.48\\ 11.28\\64\\ .20\\ 2.42\\ 1.31\\ 3.43\\ 12.68\\ 3.52\\ 1.88\\ 14.56\\ \end{array}$	1 4.7 .0 -4.1 -1.6 -2.3 5.1 -2.2 2.5 -3.2 4 -1.3 .8 .8 .8 .9 -1.9 1.1 1.7 4.2 2 1.3 -1.5 -6.2	$5.4 \\ 5.3 \\ 4.4 \\ 3.0 \\ 9.3 \\ 3.5 \\ .0 \\3 \\9 \\ -1.7 \\ -1.2 \\ 2.7 \\ 3.1 \\ .2 \\ -10.0 \\ -2.6 \\ -1.3 \\ 2.7 \\ 4.3 \\ 2.8 \\ -3.5 \\ 11.3 \\ $	4.1 9 1.9 6.2 4.9 5.8 4.5 5.5 2.7 1.6 2.2 .9 .2 .9 .2 .9 -5.2 .0 0 -2.7 -1.2 2.9 .0 -10.0 13.9	4.7 -6.6 2.8 13.7 4.9 8.2 4 -1.4 8.0 4.1 1.8 5.2 -1.6 -6.4 -2.7 -17.7 .1 -1.7 2.2 2.2 1 11.9	$\begin{array}{c} -2.7\\ -1.9\\9\\ -10.4\\ 1.4\\ -6.2\\ 8.6\\ -7.6\\ -14.9\\ 5.4\\ -5.8\\ 3.4\\ -5.8\\ 3.4\\ -5.8\\ 3.4\\8\\ 2.9\\ -2.2\\ -22.6\\ -7.7\\ -6.1\\ -1.7\\ -1.3\\ -1.7\\ -4.2\\ 2.0\\ \end{array}$	-1.8 4.0 -2.6 -3.0 -6.2 -9.9 5.5 -4.9 4.9 -5.9 .0 4.7 -2.4 -2.7 -7.5 .9 -7.1 -6.2 -2.5 .2 -4.8 -8.7 8.9	-1.0 1.2 .7 -2.6 .5 .8 -2.1 -7.2 .3 .2 1 1 .3 .8 -2.6 2 .3 1.9 7 7 .2 .4	4 -1.3 -3.9 -1.1 5 -2.3 .5 -2.3 .5 .1 1.6 .1 9 1.1 7 3 .0 -3.5 -2.0 -1.4 -4.5 .1 1 1 .9 -1.1	.0 -1.1 .2 .4 -1 1.0 .4 4 -1.4 .8 -1.2 .0 .0 .3 1.3 .7 -2.3 -1.1 1.0 .3 -1.1 -1.2 4	7 .8 .3 .9 8 -3.5 .4 -1.7 9 -1.5 1.0 1.0 6 7 -1.8 1.4 1.0 2 8 4 7 8 4 7 7 8 4 7 7 7 8 4 7 7 7 7 8 4 7 7 7 7 8 4 7 7 8 4 7 7 8 4 7 7 8 4 7 7 8 4 7 7 7 7 8 4 7	.4 1.7 -2 -2.3 -8 2.2 .3 -1.6 2.3 -1.0 .6 2 .1 5 -1.9 -1.0 -1.2 .2 .4 .5 1.5 -1.3 .2	.4 .6 1.1 .0 0 -1.0 2.9 .2 .8 -2 .2 .8 .2 .5 .7 .8 .7 .8 .7 .7 .8 .7 .7 .8 .7 .7 .8 .7 .7 .8 .7 .5 .7 .5 .7 .5 .7 .2 .5 .7 .2 .5 .7 .2 .5 .7 .2 .5 .7 .2 .5 .7 .2 .5 .7 .2 .5 .7 .2 .5 .7 .7 .2 .5 .7 .7 .2 .5 .7 .7 .7 .7 .7 .7 .7 .7 .7 .7 .7 .7 .7	1.4 .0 .0 .4 .2 .5 5.3 -2.8 2.4 1.7 7 3.1 5 -1.0 -2.8 -9.7 -3.1 -5.6 .2 .9 .9 .6 -4.0 8.7
Durable manufacturing Wood products Nonmetallic mineral products Primary metals Fabricated metal products Machinery Computer and electronic products 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	321 327 331 332 333 334 335 3361–3 3364–9 337 339 311,2 313,4 315,6 322 323 324 325 326 1133,5111	$\begin{array}{c} 37.68\\ 1.44\\ 2.23\\ 2.85\\ 5.63\\ 5.39\\ 4.80\\ 1.81\\ 5.61\\ 4.10\\ 1.18\\ 2.64\\ 35.48\\ 11.28\\ .64\\ .20\\ 2.42\\ 1.31\\ 3.43\\ 12.68\\ 3.52\\ 1.88\\ \end{array}$	1 4.7 .0 -4.1 -1.6 -2.3 5.1 -2 2.5 -3.2 4 -1.3 .8 .8 .8 .9 -1.9 1.1 1.7 4.2 2 1.3 -1.5	$5.4 \\ 5.3 \\ 4.4 \\ 3.0 \\ 9.3 \\ 3.5 \\ .0 \\3 \\9 \\ -1.7 \\ -1.2 \\ 2.7 \\ 3.1 \\ -2.6 \\ -1.3 \\ 2.7 \\ 4.3 \\ 2.8 \\ -3.5 \\ $	4.1 9 1.9 6.2 4.9 5.8 4.5 3.5 5.5 2.7 1.6 2.2 .9 .9 2.9 -5.2 .0 -2.7 -1.2 2.9 .0 -10.0	4.7 -6.6 2.8 13.7 4.9 8.2 4 -1.4 8.0 4.1 1.8 5.2 -1.6 -6.4 -2.7 -1.7 .1 -4.1 -3.0 2.2 2.2 1	$\begin{array}{c} -2.7\\ -1.9\\9\\ -10.4\\ 1.4\\ -6.2\\ 8.6\\ -7.6\\ -14.9\\ 5.4\\ -5.8\\ 3.4\\8\\ 2.9\\ -2.2\\ -22.6\\ -7.7\\ -6.1\\ -1.7\\ -1.3\\ -1.7\\ -4.2\\ \end{array}$	-1.8 4.0 -2.6 -3.0 -6.2 -9.9 5.5 -4.9 4.9 -5.9 .0 4.7 -2.4 -2.7 -7.5 .9 -7.1 -6.2 -2.5 .2 -4.8 -8.7	-1.0 1.2 .7 -2.6 .5 .8 -2.1 -7.2 .3 .2 1 1 .3 .8 -2.6 2 .3 1.9 7 7 .2	$\begin{array}{c}4 \\ -1.3 \\ -3.9 \\ -1.1 \\5 \\ -2.3 \\ .5 \\ .1 \\ 1.6 \\ .1 \\9 \\ 1.1 \\7 \\3 \\ .0 \\ -3.5 \\ -2.0 \\ -1.4 \\ -4.5 \\ .1 \\1 \\ .9 \end{array}$.0 -1.1 .2 .4 -1 1.0 .4 -1.4 .8 -1.2 .0 .0 .3 1.3 .7 -2.3 -1.1 1.0 .3 -1.1 -1.2	7 .8 .3 .9 8 -3.5 .4 -1.7 9 -1.5 1.0 1.0 6 7 -1.8 1.4 1.0 2 8 4 -1.7 7	.4 1.7 2 -2.3 8 2.2 .3 1.6 2.3 -1.0 .6 2 .1 5 -1.9 -1.0 -1.2 -1.2 2 .4 .5 1.5 -1.3	.4 .6 1.1 .0 0 -1.0 2.9 .2 .8 2 .5 .7 .8 .7 .7 .8 .7 .7 .8 .7 .7 .8 .7 .7 .8 .7 .5 .7 .5 .5 1 .6 .5 .5	1.4 .0 .0 .4 .2 .5 5.3 -2.8 2.4 1.7 7 3.1 5 -1.0 -2.8 -9.7 -3.1 56 .2 .9 .6 -4.0

r Revised. p Preliminary.

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.

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 well drilling, and manufactured homes are not shown separately; in the nondurable materials category, containers and miscellaneous nondurable materials are not shown separately.

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

ercent change, seasonally adjusted			Fou	rth quart	er to										
				urth quar			nnual ra	te			Month	nly rate			June '18
Item		2018 proportion	2016	2017	2018	2018 Q4	2019 Q1 ^r	Q2 ^p	2019 Jan. ^r	Feb. ^r	Mar. ^r	Apr. ^r	May ^r	June ^p	to June '19
Total industry		100.00	3	3.6	4.0	3.9	-1.9	-1.2	4	5	.1	5	.4	.0	1.3
Energy		26.49	-1.6	7.0	8.7	9.3	-2.3	1.9	.5	9	.8	.0	1.0	-1.2	3.6
Consumer products		5.13	4.4	3.0	4.7	20.5	-10.8	-10.0	-1.1	2	3.1	-4.8	1.9	-2.6	-2.1
Commercial products		2.40	2.3	2.1	2.6	3.5	-4.3	4	2.0	-1.5	1	1	1.0	4	3
Oil and gas well drilling	213111	.57	-26.5	37.2	19.3	7.7	9	-15.1	.0	-1.3	.3	-1.3	-4.0	.5	-6.0
Converted fuel		4.71	.6	2.4	3.2	-1.5	-2.6	-7.1	4.1	1	.9	-4.2	3.7	-1.7	.8
Primary energy		13.68	-4.3	10.5	12.8	10.3	1.1	11.4	2	-1.3	.0	3.4	.0	6	7.9
Non-energy		73.51	.1	2.5	2.2	1.8	-1.7	-2.3	7	3	1	6	.2	.4	.4
Selected high-technology industries		1.92	7.9	1.9	5.4	-4.1	7.7	5.6	1.5	.8	.7	.0	.6	.7	5.1
Computers and peripheral equipment	3341	.33	12.2	12.2	1.5	-2.4	9.1	-4.9	1.4	.7	1.1	-2.7	.5	.8	7
Communications equipment	3342	.45	5.0	-5.1	7.0	9.8	22.3	5.6	2.7	1.8	.9	.1	.0	.2	14.7
Semiconductors and related															
electronic components	3344	1.14	8.0	2.4	5.9	-9.6	1.9	8.8	1.1	.5	.5	.7	.9	.9	3.2
Excluding selected high-technology industries		71.59	2	2.6	2.1	2.0	-2.0	-2.5	8	4	2	6	.2	.3	.3
Motor vehicles and parts	3361-3	5.61	2.5	3	5.5	8.0	-14.9	4.9	-7.2	1.6	-1.4	9	2.3	2.9	2.4
Motor vehicles	3361-5	2.68	1.8	5	9.5	8.0	-14.9	4.9	-10.4	2.2	-1.4	9 8	3.2	5.1	6.5
Motor vehicle parts	3363	2.68	3.7	-3.4	9.3 4.4	7.0	-19.2 -8.7	-3.6	-10.4 -3.1	.0	-1.4	-1.0	3.2 1.4	.8	4
Excluding motor vehicles and parts		65.98	4	2.8	1.8	1.5	8	-3.1	2	5	1	6	.0	.1	.1
Consumer goods		19.57	4	1.7	.3	-2.5	1	-3.9	2	.0	.2	-1.1	1	.1	-1.0
Business equipment		7.90	-2.4	5.8	2.8	4.4	-1.5	-5.7	.8	-1.6	.7	-1.6	.3	.2	.7
Construction supplies		5.24	.8	4.2	2.5	4.3	1.4	-2.9	.3	-1.7	.1	8	.6	.5	1.4
Business supplies Materials		6.14 24.98	.4	2.4 2.9	-1.2 3.0	.5 2.7	9 -2.6	-3.6 -2.2	.0	3 5	5 5	6 .0	.3 2	.0 .1	-1.3 .2
Wateriais		24.90	5	2.9	5.0	2.1	-2.0	-2.2	0	5	5	.0	2	.1	.2
Measures excluding selected															
high-technology industries		00 00	5	27	2.0	4.0	2.1	1.2	4	5	1	5		0	1.2
Total industry Manufacturing ¹		98.08	5	3.7	3.9		-2.1	-1.3 -2.4	4	5	.1	5 7	.4	.0	1.2
Manufacturing ¹ Durable		73.12 35.93	.0 6	2.5 2.7	2.1 4.0	1.7 5.2	-2.1 -3.1	-2.4 -2.2	6	6 5	0. 0.	/ 8	.2 .4	.4 .4	.3 1.2
		55.75	0	2.1	7.0	5.2	5.1	2.2	1.2	5	.0	0	.7	.+	1.2
Measures excluding motor vehicles and parts															
Total industry		94.39	5	3.9	3.9	3.6	-1.1	-1.5	.0	6	.2	4	.3	2	1.2
Manufacturing ¹		69.44	.1	2.7	1.9	1.0	7	-2.8	.0	7	.1	6	.0	.2	.2
Durable		32.24	6	3.2	3.9	4.1	3	-2.9	.1	7	.2	7	.1	.0	1.2
Measures excluding selected high-technology industries															
and motor vehicles and parts															
Total industry		92.47	7	3.9	3.8	3.8	-1.3	-1.7	.0	6	.2	5	.3	2	1.2
Manufacturing ¹		67.52	2	2.8	1.8	1.2	-1.0	-3.0	.0	7	.1	7	.0	.2	.1
Stage-of-process components of non-energy materials,															
measures of the input to															
Finished processors		9.93	.2	.3	4.1	3.3	-5.1	-5.9	-1.3	5	6	-1.1	.1	.1	8
Primary and semifinished processors		17.84	1	4.2	2.7	2.2	-1.8	.0	7	5	5	.5	1	.2	.7
						-									

r Revised. p Preliminary. 1. The composition of manufacturing is specified in a note for the summary table.

Table 3 MOTOR VEHICLE ASSEMBLIES

Millions of units, seasonally adjusted annual rate

minions of units, seasonarry adjusted annual fate	2018	2018		2019		2019					
Item	average	Q3	Q4	Q1	Q2	Jan.	Feb.	Mar.	Apr.	May	June
Total	11.30	11.18	11.64	11.07	11.13	11.14	11.20	10.86	10.65	11.10	11.63
Autos	2.79	2.62	2.91	2.60	2.55	2.85	2.59	2.36	2.45	2.58	2.62
Trucks	8.51	8.57	8.73	8.47	8.58	8.29	8.62	8.49	8.20	8.53	9.01
Light	8.18	8.22	8.38	8.11	8.21	7.93	8.28	8.12	7.83	8.16	8.65
Medium and heavy	.33	.35	.36	.36	.37	.37	.34	.38	.38	.37	.35
Memo											
Autos and light trucks	10.97	10.84	11.28	10.70	10.76	10.77	10.86	10.48	10.28	10.74	11.28

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

2012 = 100, seasonally adjusted											
Item		2018 proportion	2018 Oct.	Nov.	Dec.	2019 Jan. ^r	Feb. ^r	Mar. ^r	Apr. ^r	May ^r	June ^p
Total IP		100.00	109.9	110.5	110.6	110.1	109.6	109.7	109.2	109.6	109.6
MARKET GROUPS											
Final products and nonindustrial supplies		53.84	105.4	105.8	105.7	105.2	104.8	105.2	103.9	104.4	104.5
Consumer goods		27.57	105.4	105.8	105.7	105.2	104.8	105.2	103.9	104.4	104.5
Durable		6.28	122.7	123.0	125.0	119.5	121.1	119.2	118.7	120.8	122.4
Automotive products		3.28	136.0	136.8	140.6	129.4	133.5	131.5	130.4	133.6	138.1
Home electronics		.12	113.3	115.3	121.5	121.4	123.3	124.7	121.4	125.8	125.7
Appliances, furniture, carpeting		.85	108.5	108.5	107.8	106.9	105.8	103.9	104.0	105.9	102.8
Miscellaneous goods		2.03	111.9	111.5	111.8	111.6	111.1	109.2	109.3	110.0	109.9
Nondurable		21.29	102.6	103.4	102.3	101.9	101.9	103.0	100.9	101.0	100.7
Non-energy Foods and tobacco		16.17 9.26	99.4 106.2	99.4 105.9	99.7 107.0	99.6 107.2	99.7 106.7	100.2 107.1	98.9 106.3	98.6 105.6	98.9 106.4
Clothing		.18	69.1	68.3	67.0	65.2	62.9	63.5	64.4	63.7	64.2
Chemical products		5.27	93.8	94.6	94.2	93.7	94.3	94.8	92.7	92.9	92.8
Paper products		1.03	80.9	80.4	77.7	77.9	79.7	79.8	78.8	77.9	77.1
Energy		5.13	113.0	116.3	110.1	108.9	108.7	112.1	106.7	108.7	105.8
Denting and the second		0.42	102.0	102.0	102.2	102.2	101.0	102.7	101.2	101 (102.1
Business equipment		9.42	102.8	103.0 112.2	103.2	103.2	101.9	102.7	101.2	101.6 109.2	102.1
Transit Information processing		2.36 2.12	112.3 108.5	112.2	116.0 110.2	111.8 111.3	111.9 111.8	113.4 112.3	110.5 112.7	109.2	111.0 113.7
Industrial and other		4.93	96.6	97.1	95.3	96.5	94.0	94.7	92.9	94.2	94.0
Defense and space equipment		2.11	95.3	95.4	98.1	98.8	98.9	99.8	100.0	100.6	100.7
Construction supplies		5.26	115.3	115.5	117.5	117.8	115.8	115.9	115.1	115.7	116.3
Business supplies		8.83	105.6	105.4	104.8	105.3	104.7	104.3	103.9	104.4	104.3
Materials		46.16	114.9	115.7	115.9	115.6	114.8	114.6	115.2	115.6	115.3
Non-energy		27.77	106.9	107.3	108.1	107.2	106.7	106.1	106.0	106.0	106.2
Durable		16.42	108.6	109.1	110.0	108.7	108.7	107.9	107.1	107.1	107.3
Consumer parts		2.98	112.2	113.6	115.6	109.9	109.5	107.9	106.2	107.2	107.3
Equipment parts		4.77	110.3	110.0	110.3	110.8	111.0	111.4	109.8	110.2	110.0
Other		8.67	106.4	107.0	107.9	107.0	107.0	106.0	105.9	105.2	105.7
Nondurable		11.35 .36	104.3 101.4	104.6	105.3 96.8	104.8 99.0	103.7	103.2 100.9	104.2	104.3 97.1	104.4 98.4
Textile Paper		1.82	92.8	100.0 92.8	90.8 93.1	99.0 92.7	100.3 90.3	88.4	98.7 89.2	97.1 87.9	98.4 88.4
Chemical		6.03	105.7	106.6	107.8	107.0	105.3	105.6	106.9	107.8	107.8
Energy		18.39	125.3	126.9	125.9	126.9	125.6	125.9	127.7	128.9	127.7
INDUCTOR COOLDS											
INDUSTRY GROUPS Manufacturing		75.05	105.6	105.8	106.4	105.8	105.3	105.2	104.6	104.8	105.2
Manufacturing (NAICS)	31-33	73.17	106.6	105.8	107.5	105.0	106.3	106.3	101.6	105.9	106.3
Durable manufacturing		37.68	108.9	109.2	110.0	108.9	108.5	108.5	107.7	108.1	108.6
Wood products	321	1.44	126.4	125.3	125.1	126.5	124.9	123.5	124.5	126.7	127.4
Nonmetallic mineral products	327	2.23	119.6	118.2	121.8	122.7	117.9	118.2	118.6	118.3	119.6
Primary metals	331	2.85	99.5	101.5	101.1	98.5	97.5	97.9	98.8	96.5	96.4
Fabricated metal products	332	5.63	103.9	104.4	104.5	105.1	104.5	104.4	103.5	102.7	102.7
Machinery					04.4					02.5	01 4
	333	5.39	95.2	96.5	94.6	95.0 124.2	92.9	93.8 125.4	90.5	92.5	91.6 127.4
Computer and electronic products	333 334	5.39 4.80	95.2 122.1	96.5 121.5	94.6 123.2	95.0 124.2	92.9 124.8	93.8 125.4	90.5 125.8	92.5 126.3	91.6 127.4
Computer and electronic products Electrical equip., appliances,	334	4.80	122.1	121.5	123.2	124.2	124.8	125.4	125.8	126.3	127.4
Computer and electronic products										126.3 102.1	
Computer and electronic products Electrical equip., appliances, and components	334 335	4.80	122.1 104.5	121.5	123.2 104.8	124.2	124.8 102.7	125.4 102.3	125.8	126.3	127.4 101.1
Computer and electronic products Electrical equip., appliances, and components Motor vehicles and parts Aerospace and miscellaneous transportation equipment	334 335 3361–3 3364–9	4.80	122.1 104.5	121.5 104.4 131.0 101.4	123.2 104.8 136.3 102.6	124.2	124.8 102.7 128.5 103.0	125.4 102.3 126.8 103.9	125.8 100.6 125.7 102.3	126.3 102.1	127.4 101.1 132.2 101.5
Computer and electronic products Electrical equip., appliances, and components Motor vehicles and parts Aerospace and miscellaneous transportation equipment Furniture and related products	334 335 3361–3 3364–9 337	4.80 1.81 5.61 4.10 1.18	122.1 104.5 130.3 101.7 107.8	121.5 104.4 131.0 101.4 107.6	123.2 104.8 136.3 102.6 106.7	124.2 102.6 126.5 102.9 106.9	124.8 102.7 128.5 103.0 105.9	125.4 102.3 126.8 103.9 104.6	125.8 100.6 125.7 102.3 105.7	126.3 102.1 128.5 101.3 106.3	127.4 101.1 132.2 101.5 105.4
Computer and electronic products Electrical equip., appliances, and components Motor vehicles and parts Aerospace and miscellaneous transportation equipment	334 335 3361–3 3364–9	4.80 1.81 5.61 4.10	122.1 104.5 130.3 101.7	121.5 104.4 131.0 101.4	123.2 104.8 136.3 102.6	124.2 102.6 126.5 102.9	124.8 102.7 128.5 103.0	125.4 102.3 126.8 103.9	125.8 100.6 125.7 102.3	126.3 102.1 128.5 101.3	127.4 101.1 132.2 101.5
Computer and electronic products Electrical equip., appliances, and components Motor vehicles and parts Aerospace and miscellaneous transportation equipment Furniture and related products Miscellaneous	334 335 3361–3 3364–9 337	4.80 1.81 5.61 4.10 1.18	122.1 104.5 130.3 101.7 107.8	121.5 104.4 131.0 101.4 107.6	123.2 104.8 136.3 102.6 106.7	124.2 102.6 126.5 102.9 106.9	124.8 102.7 128.5 103.0 105.9	125.4 102.3 126.8 103.9 104.6	125.8 100.6 125.7 102.3 105.7	126.3 102.1 128.5 101.3 106.3	127.4 101.1 132.2 101.5 105.4
Computer and electronic products Electrical equip., appliances, and components Motor vehicles and parts Aerospace and miscellaneous transportation equipment Furniture and related products	334 335 3361–3 3364–9 337	4.80 1.81 5.61 4.10 1.18 2.64	122.1 104.5 130.3 101.7 107.8 100.7	121.5 104.4 131.0 101.4 107.6 100.3	123.2 104.8 136.3 102.6 106.7 100.8	124.2 102.6 126.5 102.9 106.9 100.7	124.8 102.7 128.5 103.0 105.9 101.8	125.4 102.3 126.8 103.9 104.6 101.8	125.8 100.6 125.7 102.3 105.7 102.8	126.3 102.1 128.5 101.3 106.3 102.7	127.4 101.1 132.2 101.5 105.4 102.4
Computer and electronic products Electrical equip., appliances, and components Motor vehicles and parts Aerospace and miscellaneous transportation equipment Furniture and related products Miscellaneous Nondurable manufacturing	334 335 3361–3 3364–9 337 339	4.80 1.81 5.61 4.10 1.18 2.64 35.48	122.1 104.5 130.3 101.7 107.8 100.7 104.2	121.5 104.4 131.0 101.4 107.6 100.3 104.3	123.2 104.8 136.3 102.6 106.7 100.8 104.8	124.2 102.6 126.5 102.9 106.9 100.7 104.7	124.8 102.7 128.5 103.0 105.9 101.8 103.9	125.4 102.3 126.8 103.9 104.6 101.8 103.9	125.8 100.6 125.7 102.3 105.7 102.8 103.4	126.3 102.1 128.5 101.3 106.3 102.7 103.4	127.4 101.1 132.2 101.5 105.4 102.4 103.9
Computer and electronic products 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	334 335 3361–3 3364–9 337 339 311.2 313,4 315,6	4.80 1.81 5.61 4.10 1.18 2.64 35.48 11.28 .64 .20	122.1 104.5 130.3 101.7 107.8 100.7 104.2 108.6 102.2 70.2	121.5 104.4 131.0 101.4 107.6 100.3 104.3 108.2 100.7 69.3	123.2 104.8 136.3 102.6 106.7 100.8 104.8 109.3 98.8 68.1	124.2 102.6 126.5 102.9 106.9 100.7 104.7 109.6 99.6 66.3	124.8 102.7 128.5 103.0 105.9 101.8 103.9 109.3 99.6 64.0	125.4 102.3 126.8 103.9 104.6 101.8 103.9 109.6 100.8 64.5	125.8 100.6 125.7 102.3 105.7 102.8 103.4 108.9 99.1 65.4	126.3 102.1 128.5 101.3 106.3 102.7 103.4 108.3 97.2 64.7	127.4 101.1 132.2 101.5 105.4 102.4 103.9 109.1 98.0 65.2
Computer and electronic products 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	334 335 3361-3 3364-9 337 339 311,2 313,4 315,6 322	4.80 1.81 5.61 4.10 1.18 2.64 35.48 11.28 .64 .20 2.42	122.1 104.5 130.3 101.7 107.8 100.7 104.2 108.6 102.2 70.2 96.0	121.5 104.4 131.0 101.4 107.6 100.3 104.3 108.2 100.7 69.3 95.8	123.2 104.8 136.3 102.6 106.7 100.8 104.8 109.3 98.8 68.1 96.3	124.2 102.6 126.5 102.9 106.9 100.7 104.7 109.6 99.6 66.3 96.1	124.8 102.7 128.5 103.0 105.9 101.8 103.9 109.3 99.6 64.0 94.2	125.4 102.3 126.8 103.9 104.6 101.8 103.9 109.6 100.8 64.5 92.1	125.8 100.6 125.7 102.3 105.7 102.8 103.4 103.4 108.9 99.1 65.4 93.0	126.3 102.1 128.5 101.3 106.3 102.7 103.4 108.3 97.2 64.7 91.9	127.4 101.1 132.2 101.5 105.4 102.4 103.9 109.1 98.0 65.2 92.3
Computer and electronic products 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	334 335 3361-3 3364-9 337 339 311,2 313,4 315,6 322 323	4.80 1.81 5.61 4.10 1.18 2.64 35.48 11.28 .64 .20 2.42 1.31	122.1 104.5 130.3 101.7 107.8 100.7 104.2 108.6 102.2 70.2 96.0 97.0	121.5 104.4 131.0 101.4 107.6 100.3 104.3 108.2 100.7 69.3 95.8 96.2	123.2 104.8 136.3 102.6 106.7 100.8 104.8 109.3 98.8 68.1 96.3 95.8	124.2 102.6 126.5 102.9 106.9 100.7 104.7 109.6 99.6 66.3 96.1 96.1	124.8 102.7 128.5 103.0 105.9 101.8 103.9 109.3 99.6 64.0 94.2 94.8	125.4 102.3 126.8 103.9 104.6 101.8 103.9 109.6 100.8 64.5 92.1 93.7	125.8 100.6 125.7 102.3 105.7 102.8 103.4 108.9 99.1 65.4 93.0 93.5	126.3 102.1 128.5 101.3 106.3 102.7 103.4 108.3 97.2 64.7 91.9 93.7	127.4 101.1 132.2 101.5 105.4 102.4 103.9 109.1 98.0 65.2 92.3 92.9
Computer and electronic products 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	334 335 3361-3 3364-9 337 339 311,2 313,4 315,6 322 323 324	4.80 1.81 5.61 4.10 1.18 2.64 35.48 11.28 .64 .20 2.42 1.31 3.43	122.1 104.5 130.3 101.7 107.8 100.7 104.2 108.6 102.2 70.2 96.0 97.0 106.9	121.5 104.4 131.0 101.4 107.6 100.3 104.3 108.2 100.7 69.3 95.8 96.2 105.9	123.2 104.8 136.3 102.6 106.7 100.8 104.8 109.3 98.8 68.1 96.3 95.8 107.1	124.2 102.6 126.5 102.9 106.9 100.7 104.7 109.6 66.3 96.1 96.1 109.1	124.8 102.7 128.5 103.0 105.9 101.8 103.9 109.3 99.6 64.0 94.2 94.8 104.2	125.4 102.3 126.8 103.9 104.6 101.8 103.9 109.6 100.8 64.5 92.1 93.7 105.3	125.8 100.6 125.7 102.3 105.7 102.8 103.4 108.9 99.1 65.4 93.0 93.5 104.4	126.3 102.1 128.5 101.3 106.3 102.7 103.4 108.3 97.2 64.7 91.9 93.7 104.8	127.4 101.1 132.2 101.5 105.4 102.4 103.9 109.1 98.0 65.2 92.3 92.9 107.4
Computer and electronic products 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	334 335 3361–3 3364–9 337 339 311,2 313,4 315,6 322 323 324 325	4.80 1.81 5.61 4.10 1.18 2.64 35.48 11.28 .64 .20 2.42 1.31 3.43 12.68	122.1 104.5 130.3 101.7 107.8 100.7 104.2 108.6 102.2 70.2 96.0 97.0 106.9 101.2	121.5 104.4 131.0 101.4 107.6 100.3 104.3 108.2 100.7 69.3 95.8 96.2 105.9 102.2	123.2 104.8 136.3 102.6 106.7 100.8 104.8 109.3 98.8 68.1 96.3 95.8 107.1 102.1	124.2 102.6 126.5 102.9 106.9 100.7 104.7 109.6 99.6 66.3 96.1 109.1 101.4	124.8 102.7 128.5 103.0 105.9 101.8 103.9 109.3 99.6 64.0 94.2 94.8 104.2 101.4	125.4 102.3 126.8 103.9 104.6 101.8 103.9 109.6 100.8 64.5 92.1 93.7 105.3 101.7	125.8 100.6 125.7 102.3 105.7 102.8 103.4 108.9 99.1 65.4 93.0 93.5 104.4 101.3	126.3 102.1 128.5 101.3 106.3 102.7 103.4 108.3 97.2 64.7 91.9 93.7 104.8 101.8	127.4 101.1 132.2 101.5 105.4 102.4 103.9 109.1 98.0 65.2 92.3 92.9 107.4 101.6
Computer and electronic products 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	334 335 3361–3 3364–9 337 339 311,2 313,4 315,6 322 323 324 325 326	$\begin{array}{r} 4.80\\ \hline 1.81\\ 5.61\\ \hline 4.10\\ 1.18\\ 2.64\\ \hline 35.48\\ 11.28\\ .64\\ .20\\ 2.42\\ 1.31\\ 3.43\\ 12.68\\ 3.52\\ \end{array}$	122.1 104.5 130.3 101.7 107.8 100.7 104.2 108.6 102.2 70.2 96.0 97.0 106.9 101.2 109.9	121.5 104.4 131.0 101.4 107.6 100.3 104.3 108.2 100.7 69.3 95.8 96.2 105.9 102.2 110.6	123.2 104.8 136.3 102.6 106.7 100.8 104.8 109.3 98.8 68.1 96.3 95.8 107.1 102.1 111.5	124.2 102.6 126.5 102.9 106.9 100.7 104.7 109.6 99.6 66.3 96.1 96.1 109.1 101.4 110.7	124.8 102.7 128.5 103.0 105.9 101.8 103.9 109.3 99.6 64.0 94.2 94.8 104.2 101.4 110.5	125.4 102.3 126.8 103.9 104.6 101.8 103.9 109.6 100.8 64.5 92.1 93.7 105.3 101.7 109.3	125.8 100.6 125.7 102.3 105.7 102.8 103.4 108.9 99.1 65.4 93.0 93.5 104.4 101.3 107.5	126.3 102.1 128.5 101.3 106.3 102.7 103.4 108.3 97.2 64.7 91.9 93.7 104.8 101.8 109.1	127.4 101.1 132.2 101.5 105.4 102.4 103.9 109.1 98.0 65.2 92.3 92.9 107.4 101.6 109.8
Computer and electronic products 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)	334 335 3361–3 3364–9 337 339 311,2 313,4 315,6 322 323 324 325 326 1133,5111	$\begin{array}{r} 4.80\\ \hline 1.81\\ 5.61\\ \hline 4.10\\ 1.18\\ 2.64\\ \hline 35.48\\ 11.28\\64\\ .20\\ 2.42\\ 1.31\\ 3.43\\ 12.68\\ 3.52\\ \hline 1.88\end{array}$	122.1 104.5 130.3 101.7 107.8 100.7 104.2 108.6 102.2 70.2 96.0 97.0 106.9 101.2 109.9 77.5	121.5 104.4 131.0 101.4 107.6 100.3 104.3 108.2 100.7 69.3 95.8 96.2 105.9 102.2 110.6 77.0	123.2 104.8 136.3 102.6 106.7 100.8 104.8 109.3 98.8 68.1 96.3 95.8 107.1 102.1 111.5 75.6	124.2 102.6 126.5 102.9 106.9 100.7 104.7 109.6 99.6 66.3 96.1 96.1 109.1 101.4 110.7 75.7	124.8 102.7 128.5 103.0 105.9 101.8 103.9 109.3 99.6 64.0 94.2 94.8 104.2 101.4 110.5 76.4	125.4 102.3 126.8 103.9 104.6 101.8 103.9 109.6 100.8 64.5 92.1 93.7 105.3 101.7 109.3 75.5	125.8 100.6 125.7 102.3 105.7 102.8 103.4 108.9 99.1 65.4 93.0 93.5 104.4 101.3 107.5 74.9	126.3 102.1 128.5 101.3 106.3 102.7 103.4 108.3 97.2 64.7 91.9 93.7 104.8 101.8 109.1 74.0	127.4 101.1 132.2 101.5 105.4 102.4 103.9 109.1 98.0 65.2 92.3 92.9 107.4 101.6 109.8 73.6
Computer and electronic products 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)	334 335 3361–3 3364–9 337 339 311,2 313,4 315,6 322 323 324 325 326 1133,5111 21	4.80 1.81 5.61 4.10 1.18 2.64 35.48 11.28 .64 .20 2.42 1.31 3.43 12.68 3.52 1.88 14.56	122.1 104.5 130.3 101.7 107.8 100.7 104.2 108.6 102.2 70.2 96.0 97.0 106.9 101.2 109.9 77.5 128.6	121.5 104.4 131.0 101.4 107.6 100.3 104.3 108.2 100.7 69.3 95.8 96.2 105.9 102.2 110.6 77.0 129.7	123.2 104.8 136.3 102.6 106.7 100.8 104.8 109.3 98.8 68.1 96.3 95.8 107.1 102.1 111.5 75.6 132.5	124.2 102.6 126.5 102.9 106.9 100.7 104.7 109.6 99.6 66.3 96.1 109.1 101.4 110.7 75.7 132.1	124.8 102.7 128.5 103.0 105.9 101.8 103.9 109.3 99.6 64.0 94.2 94.8 104.2 101.4 110.5 76.4 130.6	125.4 102.3 126.8 103.9 104.6 101.8 103.9 109.6 100.8 64.5 92.1 93.7 105.3 101.7 109.3 75.5 130.1	125.8 100.6 125.7 102.3 105.7 102.8 103.4 108.9 99.1 65.4 93.0 93.5 104.4 101.3 107.5 74.9 133.5	126.3 102.1 128.5 101.3 106.3 102.7 103.4 108.3 97.2 64.7 91.9 93.7 104.8 101.8 109.1 74.0 133.7	127.4 101.1 132.2 101.5 105.4 102.4 103.9 109.1 98.0 65.2 92.3 92.9 107.4 101.6 109.8 73.6 134.0
Computer and electronic products 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)	334 335 3361–3 3364–9 337 339 311,2 313,4 315,6 322 323 324 325 326 1133,5111	$\begin{array}{r} 4.80\\ \hline 1.81\\ 5.61\\ \hline 4.10\\ 1.18\\ 2.64\\ \hline 35.48\\ 11.28\\64\\ .20\\ 2.42\\ 1.31\\ 3.43\\ 12.68\\ 3.52\\ \hline 1.88\end{array}$	122.1 104.5 130.3 101.7 107.8 100.7 104.2 108.6 102.2 70.2 96.0 97.0 106.9 101.2 109.9 77.5	121.5 104.4 131.0 101.4 107.6 100.3 104.3 108.2 100.7 69.3 95.8 96.2 105.9 102.2 110.6 77.0	123.2 104.8 136.3 102.6 106.7 100.8 104.8 109.3 98.8 68.1 96.3 95.8 107.1 102.1 111.5 75.6	124.2 102.6 126.5 102.9 106.9 100.7 104.7 109.6 99.6 66.3 96.1 96.1 109.1 101.4 110.7 75.7	124.8 102.7 128.5 103.0 105.9 101.8 103.9 109.3 99.6 64.0 94.2 94.8 104.2 101.4 110.5 76.4	125.4 102.3 126.8 103.9 104.6 101.8 103.9 109.6 100.8 64.5 92.1 93.7 105.3 101.7 109.3 75.5	125.8 100.6 125.7 102.3 105.7 102.8 103.4 108.9 99.1 65.4 93.0 93.5 104.4 101.3 107.5 74.9	126.3 102.1 128.5 101.3 106.3 102.7 103.4 108.3 97.2 64.7 91.9 93.7 104.8 101.8 109.1 74.0	127.4 101.1 132.2 101.5 105.4 102.4 103.9 109.1 98.0 65.2 92.3 92.9 107.4 101.6 109.8 73.6

r Revised. p Preliminary. Note. Refer to the notes for table 1.

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

2018 2018 2019 Feb.r Apr." June^p Item proportion Oct. Nov. Dec. Jan. Mar.1 May **Total industry** 100.00 109.9 110.5 110.6 110.1 109.6 109.7 109.2 109.6 109.6 120.6 26.49 120.6 120.1 120.8 1197 120.4 Energy 122.4 120.6 121.8 Consumer products 5.13 113.0 116.3 110.1 108.9 108.7 112.1 106.7 108.7 105.8 Commercial products 2.40 113.4 113.2 109.9 112.1 110.4 110.3 110.2 111.4 110.9 Oil and gas well drilling 213111 .57 77.7 78.9 79.0 79.0 77.9 78.2 77.2 74.1 74.4 103.0 99.5 Converted fuel 4.71 105.6 107.2 98.9 102.9 103.8 103.2 101.4 134.7 Primary energy 13.68 131.2 132.7 134.4 132.6 132.7137.1 137.1136.3 73.51 105.6 105.8 106.6 105.8 105.5 105.3 104.7 104.9 105.3 Non-energy 149.2 150.9 153.9 Selected high-technology industries 1.92 147 5 1474 1497 1519 1519 152.9 3341 131.9 136.9 1337 134 6 135 5 133.2 133.8 134 9 Computers and peripheral equipment 33 132.8 Communications equipment 3342 .45 126.0 125.7 127.7 131.0 133.3 134.5 134.7 134.7 135.0 Semiconductors and related electronic components 3344 1.14 165.0 161.4 160.5 162.3 163.0 163.8 165.0 166.5 168.0 Excluding selected high-technology industries 71.59 104.2 104.5 105.3 104.5 104.1 103.9 103.2 103.4 103.8 Motor vehicles and parts 3361-3 5.61 130.3 131.0 136.3 126.5 128.5 126.8 125.7 128.5 132.2 128.5 139.0 124.5 135.0 Motor vehicles 3361 2.68130.4124.5 127.2125.5 128.53363 Motor vehicle parts 2.43 131.4 132.0 134.7 130.5 130.5 128.2127.0 128.8 129.9 Excluding motor vehicles and parts 65.98 102.4 102.6 103.1 102.9 102.4 102.3 101.7 101.7 101.8 19.57 101.3 Consumer goods 101.3 101.5 101.3 101.3 101.5 100.4100.3 100.4 99.4 7 90 99.6 99.0 98.9 973 977 Business equipment 99.8 98.2 97 5 Construction supplies 5.24 115.3 115.5 117.5 117.8 115.8 115.9 115.0 115.7 116.3 Business supplies 6.14 99.2 99.1 99.4 99.4 99.1 98.6 97.9 98.2 98.2 103.6 104.0 102.9 102.9 102.8 102.9 Materials 24.98 104.8 104.0 103.4 Measures excluding selected high-technology industries Total industry 98.08 109.0 109.6 109.7 109.2 108.7 108.8 108.2 108.7 108.6 Manufacturing 73.12 104.3 104.5 105.1 104.5 103.9 103.9 103.2 103.4 103.8 Durable 35.93 106.4 106.7 107.7 106.4 105.9 105.9 105.1 105.5 105.9 Measures excluding motor vehicles and parts 94.39 109.0 109.5 109.3 108.7 108.9 108.4 108.7 108.5 Total industry 1094 Manufacturing 69.44 104.0 104.1 104.5 104.5 103.7 103.8 103.2 103.2 103.4 Durable 32.24 105.9 106.2 106.5 106.5 105.7 106.0 105.3 105.3 105.3 Measures excluding selected high-technology industries and motor vehicles and parts 108.0 108.4 107.9 92.47 108.6 108.4 107.7 107.4 107.7 107.5 Total industry Manufacturing 67.52 102.5 102.7 103.0 103.0 102.2 102.3 101.6 101.6 101.8 Stage-of-process components of non-energy materials, measures of the input to Finished processors 9.93 106.9 107.2 107.8 106.4 105.9 105.3 104.2 104.3 104.4 Primary and semifinished processors 106.8 108.3 107.5 107.1 17.84 107.3 107.0 106.4 106.9 106.8

r Revised. p Preliminary.

1. The composition of manufacturing is specified in a note for the summary table.

Table 6 DIFFUSION INDEXES OF INDUSTRIAL PRODUCTION

ercent												
Item	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
One month earlier												
2017	66.9	48.2	46.5	63.2	46.2	58.2	55.5	50.5	55.2	62.2	54.5	56.5
2018	50.8	63.5	45.8	60.2	44.1	62.2	56.5	56.2	55.2	52.5	49.2	54.8
2019	45.8	43.8	46.5	42.1	54.5							
Three months earlier												
2017	57.5	63.1	60.0	57.5	50.5	55.5	50.2	51.5	56.2	61.9	64.2	62.2
2018	52.5	63.2	53.8	68.2	47.2	55.2	53.8	64.9	55.5	54.5	50.2	58.5
2019	48.5	44.1	41.1	36.8	40.1							
Six months earlier												
2017	61.9	67.1	61.0	60.7	58.0	60.3	51.2	51.8	59.9	56.2	60.9	62.2
2018	58.2	66.6	61.2	62.5	54.5	60.9	63.2	60.2	58.5	53.5	60.5	57.5
2019	51.2	46.2	43.1	35.1	37.8							
	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		2018	2018	95	2009	2018	2019		2019					
		proportion	ave.	high	low	Q4	Q1 ^r	O2 ^p	Jan.r	Feb.r	Mar. ^r	Apr. ^r	May ^r	June ^p
		ITT		0								I ·		
Total industry		100.00	79.8	85.0	66.7	79.4	78.6	78.0	79.0	78.5	78.4	77.9	78.1	77.9
Manufacturing ¹		76.12	78.3	84.6	63.7	77.0	76.4	75.7	76.7	76.3	76.2	75.6	75.6	75.9
Manufacturing (NAICS)	31-33	73.77	78.2	84.7	63.5	77.5	76.9	76.2	77.2	76.7	76.6	76.0	76.1	76.4
Manufacturing (MATCS)	51-55	15.11	70.2	04.7	05.5	11.5	70.9	70.2	11.2	/0./	70.0	70.0	70.1	70.4
Durable manufacturing		38.37	76.8	83.7	58.4	77.1	76.3	75.6	76.6	76.2	76.1	75.4	75.6	75.8
Wood products	321	1.43	76.7	86.6	47.8	77.5	76.4	76.3	77.6	76.3	75.2	75.6	76.6	76.8
Nonmetallic mineral products	327	2.52	74.0	82.5	46.5	67.9	67.5	66.8	69.3	66.6	66.6	66.8	66.5	67.2
Primary metals	331	3.03	78.0	94.1	48.7	74.6	72.6	71.9	73.0	72.2	72.5	73.1	71.4	71.3
Fabricated metal products	332	5.37	77.6	84.8	62.0	81.6	81.8	80.4	82.1	81.7	81.5	80.9	80.2	80.2
Machinery	333	5.39	77.6	87.3	59.8	80.0	78.8	76.9	79.7	78.0	78.8	76.0	77.7	76.9
Computer and electronic products	334	5.28	77.4	84.2	70.1	71.7	72.4	72.5	72.3	72.4	72.5	72.4	72.3	72.7
Electrical equip., appliances,														
and components	335	1.84	81.9	92.8	67.0	76.2	74.4	73.1	74.5	74.5	74.1	72.7	73.8	72.9
Motor vehicles and parts	3361-3	5.55	75.1	87.6	33.7	79.8	76.6	77.4	76.1	77.3	76.3	75.6	77.3	79.4
Aerospace and miscellaneous														
transportation equipment	3364-9	4.23	74.2	70.9	72.7	76.5	77.1	75.7	77.0	77.0	77.5	76.2	75.4	75.4
Furniture and related products	337	1.16	77.0	82.8	56.4	77.9	76.4	76.2	77.3	76.5	75.5	76.1	76.5	75.8
Miscellaneous	339	2.58	76.6	81.1	67.9	79.4	79.4	79.4	79.0	79.7	79.4	79.9	79.4	79.0
Nondurable manufacturing		35.40	80.0	86.1	68.8	77.9	77.5	76.7	77.9	77.3	77.2	76.7	76.6	76.9
Food, beverage, and tobacco products	311,2	11.38	80.4	85.3	75.6	75.8	75.9	75.0	76.1	75.8	75.9	75.2	74.7	75.1
Textile and product mills	313,4	.69	78.8	91.8	53.9	72.0	71.4	69.9	71.2	71.1	72.0	70.7	69.3	69.8
Apparel and leather	315,6	.23	76.1	87.0	56.6	64.2	60.8	61.6	61.9	60.0	60.6	61.6	61.2	61.9
Paper	322	2.15	86.7	92.7	72.9	87.2	85.6	84.1	87.4	85.7	83.8	84.7	83.7	84.0
Printing and support	323	1.38	79.7	85.4	58.8	72.7	71.5	70.4	72.5	71.4	70.6	70.4	70.6	70.0
Petroleum and coal products	324	3.47	85.0	91.2	76.1	80.3	79.9	79.4	82.1	78.4	79.2	78.5	78.8	80.8
Chemicals	325	12.76	76.7	82.0	64.7	77.9	77.5	77.4	77.5	77.5	77.6	77.3	77.6	77.4
Plastics and rubber products	326	3.34	82.1	93.2	57.6	80.8	79.6	77.8	80.2	79.8	78.7	77.1	78.0	78.2
Other manufacturing (non-NAICS)	1133,5111	2.35	79.8	83.3	68.0	61.3	61.0	59.8	60.8	61.4	60.8	60.4	59.6	59.4
Mining	21	13.69	87.1	88.6	78.3	92.3	91.1	91.7	92.4	90.9	90.1	92.0	91.7	91.5
Utilities	2211,2	10.19	85.4	93.2	78.2	80.0	77.9	76.0	77.3	77.6	78.7	75.9	77.6	74.6
	,													
Selected high-technology industries		2.14	77.3	86.2	71.1	73.2	73.5	73.2	73.3	73.5	73.6	73.2	73.2	73.3
Computers and peripheral equipment	3341	.36	77.8	86.8	82.9	73.2	75.0	74.1	74.3	75.0	75.8	73.7	74.0	74.6
Communications equipment	3342	.58	76.1	86.1	77.1	63.1	64.5	63.5	64.2	64.7	64.7	64.1	63.5	62.9
Semiconductors and related														
electronic components	3344	1.20	78.7	92.0	62.9	78.1	77.5	78.0	77.4	77.5	77.5	77.6	78.0	78.2
Measures excluding selected high-technology industries														
Total industry		97.86	79.9	84.9	66.5	79.6	78.7	78.1	79.1	78.6	78.5	78.0	78.2	78.0
Manufacturing ¹		73.99	78.3	84.5	63.3	77.1	76.5	75.8	76.8	76.3	76.2	75.7	75.7	76.0
STAGE-OF-PROCESS GROUPS														
Crude		17.99	86.1	90.0	76.4	90.7	89.4	90.2	90.6	89.2	88.5	90.3	90.2	90.1
Primary and semifinished		44.42	80.4	87.8	63.9	77.9	76.9	75.7	77.2	76.7	76.7	75.6	76.0	75.4
Finished		37.58	76.8	80.6	66.5	75.7	75.4	74.7	75.4	75.3	75.4	74.5	74.6	75.0
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Revised, p Preliminary.														

Table 7 CAPACITY UTILIZATION Percent of capacity, seasonally adjusted

r Revised. p Preliminary. 1. The composition of manufacturing is specified in a note for the summary table.

Table 8 INDUSTRIAL CAPACITY Percent change

	1	Average ar	nnual rate		Fourth	quarter to	o fourth q	uarter		Annua	al rate		Monthly rate
Item	1972-	1980-	1989-	1995-		_			2018		2019		2019
	79	88	94	2019	2016	2017	2018	2019	Q3	Q4	Q1	Q2	June
Total industry	3.0	1.9	2.3	2.0	.5	.3	1.5	2.1	1.9	2.1	2.2	2.2	.2
Manufacturing ¹	3.2	2.2	2.6	1.9	1.2	.3	.7	1.4	.8	1.0	1.2	1.4	.1
Mining	.7	.1	7	1.5	-2.8	.5	7.4	5.8	8.5	8.1	7.2	5.9	.4
Utilities	4.4	2.2	1.8	1.7	1.4	1.4	1.7	2.5	1.8	2.3	2.5	2.6	.2
Selected high-technology industries	18.6	16.7	16.1	17.3	10.6	3.9	3.0	7.1	3.3	4.7	6.0	7.1	.6
Manufacturing ¹ ex. selected high-technology industries	2.6	1.3	1.6	.8	.9	.2	.6	1.2	.7	.9	1.1	1.2	.1
STAGE-OF-PROCESS GROUPS			-	1.0		-	5.0			<i>c</i> 0			
Crude	1.5	.4	5	1.3	-2.1	.5	5.3	4.4	6.2	6.0	5.4	4.6	.3
Primary and semifinished	3.0	1.4	2.5	2.1	1.7	1	.8	1.6	1.1	1.4	1.6	1.7	.1
Finished	3.9	3.3	2.8	1.9	.7	1.1	1.0	1.6	1.0	1.2	1.4	1.6	.1

1. The composition of manufacturing is specified in a note for the summary table.

Table 9 GROSS VALUE OF FINAL PRODUCTS AND NONINDUSTRIAL SUPPLIES Billions of 2012 dollars at annual rate, seasonally adjusted 2018 2010

billions of 2012 dollars at annual rate, seaso	nany adjusted										
			2018	2019		2019					
Item	2012	2018	Q4	Q1 ^r	Q2 ^p	Jan. ^r	Feb. ^r	Mar. ^r	Apr. ^r	May ^r	June ^p
Final products and papindustrial											
Final products and nonindustrial	4 020 4	4 207 0	4 2 4 0 2	4 210 5	4 201 0	4 222 4	4 201 1	4 222 0	4 260 8	4 202 1	4 211 0
supplies	4,020.4	4,307.9	4,349.2	4,318.5	4,291.0	4,332.4	4,301.1	4,322.0	4,269.8	4,292.1	4,311.0
Final products	3,059.0	3,251.4	3,288.7	3,259.8	3,237.9	3,263.8	3,247.0	3,268.6	3,222.1	3,238.3	3,253.4
Consumer goods	2,238.8	2,444.0	2,459.8	2,431.7	2,414.5	2,431.4	2,425.1	2,438.4	2,402.6	2,414.9	2,426.0
Durable	436.9	543.3	552.0	531.6	536.9	530.0	537.3	527.5	525.7	536.9	548.0
Automotive products	272.6	362.2	369.8	351.4	358.3	348.3	356.5	349.6	348.0	357.1	369.8
Other durable goods	164.3	181.2	182.4	180.3	178.7	181.9	180.9	178.0	177.8	180.0	178.3
Nondurable	1,801.9	1,898.8	1,905.4	1,899.3	1,875.7	1,900.7	1,886.3	1,910.8	1,876.0	1,876.1	1,875.1
Equipment, total	820.2	812.3	833.4	832.2	827.4	836.2	826.1	834.2	823.5	827.4	831.3
Business and defense	784.9	783.0	803.7	802.6	798.3	806.7	796.5	804.5	794.1	798.3	802.4
Business	654.7	663.2	679.4	674.2	667.9	678.9	668.5	675.0	664.2	667.8	671.7
Defense and space	130.2	120.0	124.5	128.4	130.2	127.8	127.9	129.4	129.7	130.3	130.6
Nonindustrial supplies	961.4	1,056.7	1,060.7	1,058.9	1,053.3	1,068.8	1,054.3	1,053.7	1,047.8	1,054.1	1,057.9
Construction supplies	274.1	314.8	318.1	318.8	316.8	322.1	316.7	317.5	314.9	316.9	318.6
Business supplies	687.3	740.7	741.0	738.3	734.6	744.7	735.9	734.2	731.2	735.4	737.3
Commercial energy products	264.8	292.0	292.2	289.0	288.2	294.6	286.2	286.1	286.3	288.8	289.6

r Revised. p Preliminary.

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

Percent change, seasonally adjusted

			rth quarte											
		fo	urth quar	ter	4	Annual ra	ate			Month	nly rate			June '18
Item	2018				2018	2019		2019						to
	gross value1	2016	2017	2018	Q4	Q1 ^r	Q2 ^p	Jan. ^r	Feb. ^r	Mar. ^r	Apr. ^r	May ^r	June ^p	June '19
Finished	2,391.6	.0	2.3	2.8	2.0	-2.4	8	-1.3	2	.1	8	.4	.9	1.3
Semifinished	2,049.3	.9	2.2	2.2	2.4	-2.7	-3.4	-1.0	4	.7	-1.6	1.0	7	6
Primary	1,945.8	2.1	2.7	2.3	3.9	-5.0	-4.9	1.2	-1.8	.1	7	1	.4	7
Crude	1,011.7	-1.7	6.4	7.8	4.9	-1.7	7.2	5	-1.1	9	2.4	.4	.2	4.9

r Revised. p Preliminary.

1. Billions of 2012 dollars.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
IP (percent																	
change) ¹																	
1997	.1	1.2	.7	.0	.6	.5	.8	1.0	.9	.9	.9	.3	7.9	5.8	9.5	10.4	7.2
1998	.5	.1	.1	.4	.6	6	3	2.1	2	.8	1	.4	4.6	2.7	3.0	5.9	5.8
1999	.5	.5	.2	.3	.7	2	.6	.4	4	1.3	.5	.8	4.5	3.9	3.6	7.3	4.4
2000	.0	.3	.4	.7	.2	.1	2	3	.4	3	.0	3	4.1	4.9	4	8	3.9
2001	6	6	2	3	6	6	6	1	4	4	5	.0	-5.2	-5.0	-5.4	-4.1	-3.1
2002	.6	.0	.8	.4	.4	1.0	2	.0	.1	3	.5	5	3.0	6.4	2.4	1	.4
2003	.8	.1	2	7	.0	.2	.4	1	.6	.1	.8	1	2.5	-3.0	2.7	4.0	1.3
2004	.3	.6	5	.5	.8	8	.8	.1	.1	1.0	.2	.7	2.8	2.3	2.2	5.8	2.7
2005	.5	.7	2	.2	.1	.4	3	.3	-1.9	1.3	1.0	.6	5.9	2.0	-1.8	3.9	3.3
2006	.1	.0	.2	.4	1	.4	.0	.4	2	1	1	1.0	3.8	2.4	1.5	.9	2.3
2007	5	1.0	.2	.7	.0	.0	.0	.2	.4	4	.6	.0	3.6	5.0	1.1	1.2	2.5
2007	3	3	2	8	.0 6	2	5	-1.5	-4.3	1.0	-1.3	-2.9	-1.5	-5.8	-12.5	-16.0	-3.5
2009	-2.4	6	-1.6	8	-1.0	4	1.1	1.1	.8	.3	.4	.3	-20.6	-10.9	6.1	6.4	-11.5
2010	1.2	.4	.7	.4	1.5	.1	.4	.3	.2	3	.0	1.0	8.1	8.1	5.3	1.3	5.5
2011	1	4	1.0	4	.2	.3	.5	.6	.0	.7	1	.6	2.3	1.6	4.8	4.0	3.1
2012	.6	.2	5	.8	.2	.0	.3	5	.0	.2	.5	.4	3.9	2.6	.0	2.1	3.0
2013	1	.6	.4	2	.1	.2	4	.7	.5	2	.3	.3	3.2	1.7	1.4	2.8	2.0
2014	4	.8	1.0	.0	.4	.4	.2	1	.3	.0	.8	1	3.1	5.5	2.4	2.7	3.1
2015	5	5	3	6	4	3	.6	2	4	4	7	6	-3.0	-5.3	1	-5.1	-1.0
2016	.8	7	8	.1	1	.4	.3	1	.0	.2	2	.9	-2.1	-2.3	1.8	1.3	-2.0
2017	1	4	.7	.9	.1	.2	.0	5	.0	1.5	.5	.3	2.4	5.6	8	7.5	2.3
2017 2018	.1 3	4	.7	.9	8	.2	.0	5	.0	.2	.5	.0	2.4	4.6	8	3.9	3.9
2018	3	5	.0	5	8	.0	.4	.0	.1	.2		.0	-1.9	-1.2	5.2	3.9	3.9
2017		5	.1	5	.+	.0							-1.9	-1.2			
IP (2012=100)																	
2017	103.0	102.6	103.3	104.3	104.4	104.6	104.5	104.0	104.1	105.6	106.2	106.5	103.0	104.4	104.2	106.1	104.4
2018	106.3	106.6	107.3	108.2	107.4	108.2	108.7	109.5	109.7	109.9	110.5	110.6	106.7	107.9	109.3	110.3	108.6
2019	110.1	109.6	109.7	109.2	109.6	109.6							109.8	109.5			
Capacity (percent of 2012 output) 2017	136.4	136.5	136.5	136.5	136.6	136.6	136.6	136.6	136.7	136.7	136.8	136.8	136.5	136.6	136.6	136.8	136.6
2018	136.9	137.0	137.2	137.3	137.5	137.7	137.9	138.1	138.4	138.6	138.9	139.1	137.0	137.5	138.2		137.9
2019	139.4	120 (120.0	140.2	140.4	140.6								157.5	130.2	138.9	
***		139.6	139.9	140.2	140.4								139.6	140.4	130.2	138.9	
Utilization		139.6	139.9	140.2	140.4								139.6		136.2	138.9	
		139.6	139.9	140.2	140.4								139.6		136.2	138.9	
(percent)	83 /						83.0	84.2	84 5	84 7	84 0	84.6		140.4			84.1
(percent) 1997	83.4 84.5	84.0	84.1	83.7	83.7	83.7	83.9	84.2	84.5 82.2	84.7 82.4	84.9	84.6	83.8	140.4 83.7	84.2	84.7	84.1
(<i>percent</i>) 1997 1998	84.5	84.0 84.0	84.1 83.5	83.7 83.3	83.7 83.3	83.7 82.3	81.5	82.8	82.2	82.4	82.0	81.9	83.8 84.0	83.7 83.0	84.2 82.2	84.7 82.1	82.8
(percent) 1997 1998 1999		84.0	84.1	83.7	83.7	83.7						81.9 82.3	83.8	140.4 83.7	84.2	84.7	82.8 81.8
(<i>percent</i>) 1997 1998	84.5 81.9	84.0 84.0 82.0	84.1 83.5 81.8	83.7 83.3 81.7	83.7 83.3 81.9	83.7 82.3 81.5	81.5 81.7	82.8 81.7	82.2 81.1	82.4 81.9	82.0 82.0	81.9	83.8 84.0 81.9	140.4 83.7 83.0 81.7	84.2 82.2 81.5	84.7 82.1 82.1	82.8
(percent) 1997 1998 1999 2000 2001	84.5 81.9 82.1 79.2	84.0 84.0 82.0 82.0 78.4	84.1 83.5 81.8 82.0	83.7 83.3 81.7 82.3	83.7 83.3 81.9 82.2 76.9	83.7 82.3 81.5 82.0 76.2	81.5 81.7 81.6 75.6	82.8 81.7 81.1	82.2 81.1 81.2	82.4 81.9 80.7	82.0 82.0 80.4	81.9 82.3 80.0	83.8 84.0 81.9 82.0	140.4 83.7 83.0 81.7 82.2	84.2 82.2 81.5 81.3	84.7 82.1 82.1 80.4 74.0	82.8 81.8 81.5 76.2
(percent) 1997 1998 1999 2000 2001 2002	84.5 81.9 82.1 79.2 74.0	84.0 84.0 82.0 82.0 78.4 73.9	84.1 83.5 81.8 82.0 78.0 74.4	83.7 83.3 81.7 82.3 77.6 74.6	83.7 83.3 81.9 82.2 76.9 74.9	83.7 82.3 81.5 82.0 76.2 75.5	81.5 81.7 81.6 75.6 75.3	82.8 81.7 81.1 75.3 75.3	82.2 81.1 81.2 74.8 75.4	82.4 81.9 80.7 74.3 75.2	82.0 82.0 80.4 73.8 75.6	81.9 82.3 80.0 73.7 75.2	83.8 84.0 81.9 82.0 78.6 74.1	140.4 83.7 83.0 81.7 82.2 76.9 75.0	84.2 82.2 81.5 81.3 75.2 75.3	84.7 82.1 82.1 80.4 74.0 75.3	82.8 81.8 81.5 76.2 74.9
(percent) 1997 1998 1999 2000 2001 2002 2002 2003	84.5 81.9 82.1 79.2 74.0 75.8	84.0 84.0 82.0 82.0 78.4 73.9 75.9	84.1 83.5 81.8 82.0 78.0 74.4 75.8	83.7 83.3 81.7 82.3 77.6 74.6 75.3	83.7 83.3 81.9 82.2 76.9 74.9 75.3	83.7 82.3 81.5 82.0 76.2 75.5 75.5	81.5 81.7 81.6 75.6 75.3 75.8	82.8 81.7 81.1 75.3 75.3 75.8	82.2 81.1 81.2 74.8 75.4 76.2	82.4 81.9 80.7 74.3 75.2 76.3	82.0 82.0 80.4 73.8 75.6 76.9	81.9 82.3 80.0 73.7 75.2 76.9	83.8 84.0 81.9 82.0 78.6 74.1 75.9	140.4 83.7 83.0 81.7 82.2 76.9 75.0 75.4	84.2 82.2 81.5 81.3 75.2 75.3 75.9	84.7 82.1 82.1 80.4 74.0 75.3 76.7	82.8 81.8 81.5 76.2 74.9 76.0
(percent) 1997 1998 1999 2000 2001 2002 2002 2003 2004	84.5 81.9 82.1 79.2 74.0 75.8 77.1	84.0 84.0 82.0 82.0 78.4 73.9 75.9 77.6	84.1 83.5 81.8 82.0 78.0 74.4 75.8 77.2	83.7 83.3 81.7 82.3 77.6 74.6 75.3 77.6	83.7 83.3 81.9 82.2 76.9 74.9 75.3 78.2	83.7 82.3 81.5 82.0 76.2 75.5 75.5 77.6	81.5 81.7 81.6 75.6 75.3 75.8 78.2	82.8 81.7 81.1 75.3 75.3 75.8 78.2	82.2 81.1 81.2 74.8 75.4 76.2 78.3	82.4 81.9 80.7 74.3 75.2 76.3 79.0	82.0 82.0 80.4 73.8 75.6 76.9 79.1	81.9 82.3 80.0 73.7 75.2 76.9 79.7	83.8 84.0 81.9 82.0 78.6 74.1 75.9 77.3	140.4 83.7 83.0 81.7 82.2 76.9 75.0 75.4 77.8	84.2 82.2 81.5 81.3 75.2 75.3 75.9 78.2	84.7 82.1 80.4 74.0 75.3 76.7 79.3	82.8 81.8 81.5 76.2 74.9 76.0 78.2
(percent) 1997 1998 1999 2000 2001 2002 2003 2004 2005	84.5 81.9 82.1 79.2 74.0 75.8 77.1 80.0	84.0 84.0 82.0 78.4 73.9 75.9 77.6 80.5	84.1 83.5 81.8 82.0 78.0 74.4 75.8 77.2 80.3	83.7 83.3 81.7 82.3 77.6 74.6 75.3 77.6 80.3	83.7 83.3 81.9 82.2 76.9 74.9 75.3 78.2 80.3	83.7 82.3 81.5 82.0 76.2 75.5 75.5 77.6 80.5	81.5 81.7 81.6 75.6 75.3 75.8 78.2 80.2	82.8 81.7 81.1 75.3 75.3 75.8 78.2 80.3	82.2 81.1 81.2 74.8 75.4 76.2 78.3 78.7	82.4 81.9 80.7 74.3 75.2 76.3 79.0 79.6	82.0 82.0 80.4 73.8 75.6 76.9 79.1 80.3	81.9 82.3 80.0 73.7 75.2 76.9 79.7 80.7	83.8 84.0 81.9 82.0 78.6 74.1 75.9 77.3 80.2	140.4 83.7 83.0 81.7 82.2 76.9 75.0 75.4 77.8 80.4	84.2 82.2 81.5 81.3 75.2 75.3 75.9 78.2 79.7	84.7 82.1 80.4 74.0 75.3 76.7 79.3 80.2	82.8 81.8 81.5 76.2 74.9 76.0 78.2 80.1
(percent) 1997 1998 1999 2000 2001 2002 2002 2003 2004	84.5 81.9 82.1 79.2 74.0 75.8 77.1	84.0 84.0 82.0 82.0 78.4 73.9 75.9 77.6	84.1 83.5 81.8 82.0 78.0 74.4 75.8 77.2	83.7 83.3 81.7 82.3 77.6 74.6 75.3 77.6	83.7 83.3 81.9 82.2 76.9 74.9 75.3 78.2	83.7 82.3 81.5 82.0 76.2 75.5 75.5 77.6	81.5 81.7 81.6 75.6 75.3 75.8 78.2	82.8 81.7 81.1 75.3 75.3 75.8 78.2	82.2 81.1 81.2 74.8 75.4 76.2 78.3	82.4 81.9 80.7 74.3 75.2 76.3 79.0	82.0 82.0 80.4 73.8 75.6 76.9 79.1	81.9 82.3 80.0 73.7 75.2 76.9 79.7	83.8 84.0 81.9 82.0 78.6 74.1 75.9 77.3	140.4 83.7 83.0 81.7 82.2 76.9 75.0 75.4 77.8	84.2 82.2 81.5 81.3 75.2 75.3 75.9 78.2	84.7 82.1 80.4 74.0 75.3 76.7 79.3	82.8 81.8 81.5 76.2 74.9 76.0 78.2
(percent) 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006	84.5 81.9 82.1 79.2 74.0 75.8 77.1 80.0 80.7	84.0 84.0 82.0 78.4 73.9 75.9 77.6 80.5 80.6	84.1 83.5 81.8 82.0 78.0 74.4 75.8 77.2 80.3 80.6	83.7 83.3 81.7 82.3 77.6 74.6 75.3 77.6 80.3 80.8	83.7 83.3 81.9 82.2 76.9 74.9 75.3 78.2 80.3 80.6	83.7 82.3 81.5 82.0 76.2 75.5 75.5 77.6 80.5 80.8	81.5 81.7 81.6 75.6 75.3 75.8 78.2 80.2 80.6	82.8 81.7 81.1 75.3 75.3 75.8 78.2 80.3 80.8	82.2 81.1 81.2 74.8 75.4 76.2 78.3 78.7 80.5	82.4 81.9 80.7 74.3 75.2 76.3 79.0 79.6 80.2	82.0 82.0 80.4 73.8 75.6 76.9 79.1 80.3 80.0	81.9 82.3 80.0 73.7 75.2 76.9 79.7 80.7 80.6	83.8 84.0 81.9 82.0 78.6 74.1 75.9 77.3 80.2 80.6	140.4 83.7 83.0 81.7 82.2 76.9 75.0 75.4 77.8 80.4 80.7	84.2 82.2 81.5 81.3 75.2 75.3 75.9 78.2 79.7 80.6	84.7 82.1 82.1 80.4 74.0 75.3 76.7 79.3 80.2 80.3	82.8 81.8 81.5 76.2 74.9 76.0 78.2 80.1 80.6
(percent) 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007	84.5 81.9 82.1 79.2 74.0 75.8 77.1 80.0 80.7 80.0	84.0 84.0 82.0 78.4 73.9 75.9 77.6 80.5 80.6 80.6	84.1 83.5 81.8 82.0 78.0 74.4 75.8 77.2 80.3 80.6 80.6	83.7 83.3 81.7 82.3 77.6 74.6 75.3 77.6 80.3 80.8 81.0	83.7 83.3 81.9 82.2 76.9 74.9 75.3 78.2 80.3 80.6 80.9	83.7 82.3 81.5 82.0 76.2 75.5 75.5 77.6 80.5 80.8 80.8	81.5 81.7 81.6 75.6 75.3 75.8 78.2 80.2 80.6 80.6	82.8 81.7 81.1 75.3 75.3 75.8 78.2 80.3 80.8 80.7	82.2 81.1 81.2 74.8 75.4 76.2 78.3 78.7 80.5 81.0	82.4 81.9 80.7 74.3 75.2 76.3 79.0 79.6 80.2 80.6	82.0 82.0 80.4 73.8 75.6 76.9 79.1 80.3 80.0 81.1	81.9 82.3 80.0 73.7 75.2 76.9 79.7 80.7 80.6 81.1	83.8 84.0 81.9 82.0 78.6 74.1 75.9 77.3 80.2 80.6 80.4	140.4 83.7 83.0 81.7 82.2 76.9 75.0 75.4 77.8 80.4 80.7 80.9	84.2 82.2 81.5 81.3 75.2 75.3 75.9 78.2 79.7 80.6 80.8	84.7 82.1 82.1 80.4 74.0 75.3 76.7 79.3 80.2 80.3 80.9	82.8 81.8 81.5 76.2 74.9 76.0 78.2 80.1 80.6 80.8
(percent) 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008	84.5 81.9 82.1 79.2 74.0 75.8 77.1 80.0 80.7 80.0 80.9	84.0 84.0 82.0 78.4 73.9 75.9 77.6 80.5 80.6 80.6 80.6	84.1 83.5 81.8 82.0 78.0 74.4 75.8 77.2 80.3 80.6 80.6 80.6	83.7 83.3 81.7 82.3 77.6 74.6 75.3 77.6 80.3 80.8 80.8 81.0 80.0	83.7 83.3 81.9 82.2 76.9 74.9 75.3 78.2 80.3 80.6 80.9 79.6	83.7 82.3 81.5 82.0 76.2 75.5 75.5 77.6 80.5 80.8 80.8 79.5	81.5 81.7 81.6 75.3 75.3 75.8 78.2 80.2 80.6 80.6 79.0	82.8 81.7 81.1 75.3 75.3 75.8 78.2 80.3 80.8 80.8 80.7 77.8	82.2 81.1 81.2 74.8 75.4 76.2 78.3 78.7 80.5 81.0 74.4	82.4 81.9 80.7 74.3 75.2 76.3 79.0 79.6 80.2 80.6 75.0	82.0 82.0 80.4 73.8 75.6 76.9 79.1 80.3 80.0 81.1 74.0	81.9 82.3 80.0 73.7 75.2 76.9 79.7 80.7 80.6 81.1 71.7	83.8 84.0 81.9 82.0 78.6 74.1 75.9 77.3 80.2 80.6 80.4 80.4	140.4 83.7 83.0 81.7 82.2 76.9 75.0 75.4 77.8 80.4 80.7 80.9 79.7	84.2 82.2 81.5 81.3 75.2 75.3 75.9 78.2 79.7 80.6 80.8 77.1	84.7 82.1 82.1 80.4 74.0 75.3 76.7 79.3 80.2 80.3 80.9 73.6	82.8 81.8 81.5 76.2 74.9 76.0 78.2 80.1 80.6 80.8 77.8
(percent) 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009	84.5 81.9 82.1 79.2 74.0 75.8 77.1 80.0 80.7 80.0 80.9 70.0	84.0 84.0 82.0 78.4 73.9 75.9 77.6 80.5 80.6 80.6 80.6 80.7 69.4	84.1 83.5 81.8 82.0 78.0 74.4 75.8 77.2 80.3 80.6 80.6 80.6 80.6 68.3	83.7 83.3 81.7 82.3 77.6 74.6 75.3 77.6 80.3 80.8 81.0 80.0 67.7	83.7 83.3 81.9 82.2 76.9 74.9 75.3 78.2 80.3 80.6 80.9 79.6 67.0	83.7 82.3 81.5 82.0 76.2 75.5 77.6 80.5 80.8 80.8 79.5 66.7	81.5 81.7 81.6 75.6 75.3 75.8 78.2 80.2 80.6 80.6 79.0 67.4	82.8 81.7 81.1 75.3 75.3 75.8 78.2 80.3 80.8 80.8 80.7 77.8 68.2	82.2 81.1 81.2 74.8 75.4 76.2 78.3 78.7 80.5 81.0 74.4 68.8	82.4 81.9 80.7 74.3 75.2 76.3 79.0 79.6 80.2 80.2 80.6 75.0 69.1	82.0 82.0 80.4 73.8 75.6 76.9 79.1 80.3 80.0 81.1 74.0 69.5	81.9 82.3 80.0 73.7 75.2 76.9 79.7 80.7 80.6 81.1 71.7 69.9	83.8 84.0 81.9 82.0 78.6 74.1 75.9 77.3 80.2 80.6 80.4 80.4 80.8 69.2	140.4 83.7 83.0 81.7 82.2 76.9 75.0 75.4 77.8 80.4 80.7 80.9 79.7 67.1	84.2 82.2 81.5 81.3 75.2 75.3 75.9 78.2 79.7 80.6 80.8 77.1 68.2	84.7 82.1 82.1 80.4 74.0 75.3 76.7 79.3 80.2 80.3 80.9 73.6 69.5	82.8 81.8 81.5 76.2 74.9 76.0 78.2 80.1 80.6 80.8 77.8 68.5
(percent) 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010	84.5 81.9 82.1 79.2 74.0 75.8 77.1 80.0 80.7 80.0 80.9 70.0 70.8	84.0 84.0 82.0 78.4 73.9 75.9 77.6 80.5 80.6 80.6 80.6 80.6 80.7 69.4 71.2	84.1 83.5 81.8 82.0 78.0 74.4 75.8 77.2 80.3 80.6 80.6 80.6 68.3 71.8	83.7 83.3 81.7 82.3 77.6 74.6 75.3 77.6 80.3 80.8 81.0 80.0 67.7 72.3	83.7 83.3 81.9 82.2 76.9 74.9 75.3 78.2 80.3 80.6 80.9 79.6 67.0 73.5	83.7 82.3 81.5 82.0 76.2 75.5 77.6 80.5 80.8 80.8 80.8 79.5 66.7 73.8	81.5 81.7 81.6 75.6 75.3 75.8 78.2 80.2 80.6 80.6 79.0 67.4 74.2	82.8 81.7 81.1 75.3 75.8 78.2 80.3 80.8 80.7 77.8 68.2 74.6	82.2 81.1 81.2 74.8 75.4 76.2 78.3 78.7 80.5 81.0 74.4 68.8 74.9	82.4 81.9 80.7 74.3 75.2 76.3 79.0 79.6 80.2 80.6 75.0 69.1 74.8	82.0 82.0 80.4 73.8 75.6 76.9 79.1 80.3 80.0 81.1 74.0 69.5 74.9	81.9 82.3 80.0 73.7 75.2 76.9 79.7 80.7 80.6 81.1 71.7 69.9 75.6	83.8 84.0 81.9 82.0 78.6 74.1 75.9 77.3 80.2 80.6 80.4 80.8 69.2 71.3	140.4 83.7 83.0 81.7 82.2 76.9 75.0 75.4 77.8 80.4 80.7 80.9 79.7 67.1 73.2	84.2 82.2 81.5 81.3 75.2 75.3 75.9 78.2 79.7 80.6 80.8 77.1 68.2 74.6	84.7 82.1 80.4 74.0 75.3 76.7 79.3 80.2 80.3 80.9 73.6 69.5 75.1	82.8 81.8 81.5 76.2 74.9 76.0 78.2 80.1 80.6 80.8 77.8 68.5 73.5
(percent) 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009	84.5 81.9 82.1 79.2 74.0 75.8 77.1 80.0 80.7 80.0 80.9 70.0	84.0 84.0 82.0 78.4 73.9 75.9 77.6 80.5 80.6 80.6 80.6 80.7 69.4	84.1 83.5 81.8 82.0 78.0 74.4 75.8 77.2 80.3 80.6 80.6 80.6 80.6 68.3	83.7 83.3 81.7 82.3 77.6 74.6 75.3 77.6 80.3 80.8 81.0 80.0 67.7	83.7 83.3 81.9 82.2 76.9 74.9 75.3 78.2 80.3 80.6 80.9 79.6 67.0	83.7 82.3 81.5 82.0 76.2 75.5 77.6 80.5 80.8 80.8 79.5 66.7	81.5 81.7 81.6 75.6 75.3 75.8 78.2 80.2 80.6 80.6 79.0 67.4	82.8 81.7 81.1 75.3 75.3 75.8 78.2 80.3 80.8 80.8 80.7 77.8 68.2	82.2 81.1 81.2 74.8 75.4 76.2 78.3 78.7 80.5 81.0 74.4 68.8	82.4 81.9 80.7 74.3 75.2 76.3 79.0 79.6 80.2 80.2 80.6 75.0 69.1	82.0 82.0 80.4 73.8 75.6 76.9 79.1 80.3 80.0 81.1 74.0 69.5	81.9 82.3 80.0 73.7 75.2 76.9 79.7 80.7 80.6 81.1 71.7 69.9	83.8 84.0 81.9 82.0 78.6 74.1 75.9 77.3 80.2 80.6 80.4 80.4 80.8 69.2	140.4 83.7 83.0 81.7 82.2 76.9 75.0 75.4 77.8 80.4 80.7 80.9 79.7 67.1	84.2 82.2 81.5 81.3 75.2 75.3 75.9 78.2 79.7 80.6 80.8 77.1 68.2	84.7 82.1 82.1 80.4 74.0 75.3 76.7 79.3 80.2 80.3 80.9 73.6 69.5	82.8 81.8 81.5 76.2 74.9 76.0 78.2 80.1 80.6 80.8 77.8 68.5
(percent) 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010	84.5 81.9 82.1 79.2 74.0 75.8 77.1 80.0 80.7 80.0 80.9 70.0 70.8	84.0 84.0 82.0 78.4 73.9 75.9 77.6 80.5 80.6 80.6 80.6 80.6 80.7 69.4 71.2	84.1 83.5 81.8 82.0 78.0 74.4 75.8 77.2 80.3 80.6 80.6 80.6 68.3 71.8	83.7 83.3 81.7 82.3 77.6 74.6 75.3 77.6 80.3 80.8 81.0 80.0 67.7 72.3	83.7 83.3 81.9 82.2 76.9 74.9 75.3 78.2 80.3 80.6 80.9 79.6 67.0 73.5	83.7 82.3 81.5 82.0 76.2 75.5 77.6 80.5 80.8 80.8 80.8 79.5 66.7 73.8	81.5 81.7 81.6 75.6 75.3 75.8 78.2 80.2 80.6 80.6 79.0 67.4 74.2	82.8 81.7 81.1 75.3 75.8 78.2 80.3 80.8 80.7 77.8 68.2 74.6	82.2 81.1 81.2 74.8 75.4 76.2 78.3 78.7 80.5 81.0 74.4 68.8 74.9	82.4 81.9 80.7 74.3 75.2 76.3 79.0 79.6 80.2 80.6 75.0 69.1 74.8	82.0 82.0 80.4 73.8 75.6 76.9 79.1 80.3 80.0 81.1 74.0 69.5 74.9	81.9 82.3 80.0 73.7 75.2 76.9 79.7 80.7 80.6 81.1 71.7 69.9 75.6	83.8 84.0 81.9 82.0 78.6 74.1 75.9 77.3 80.2 80.6 80.4 80.8 69.2 71.3	140.4 83.7 83.0 81.7 82.2 76.9 75.0 75.4 77.8 80.4 80.7 80.9 79.7 67.1 73.2	84.2 82.2 81.5 81.3 75.2 75.3 75.9 78.2 79.7 80.6 80.8 77.1 68.2 74.6	84.7 82.1 80.4 74.0 75.3 76.7 79.3 80.2 80.3 80.9 73.6 69.5 75.1	82.8 81.8 81.5 76.2 74.9 76.0 78.2 80.1 80.6 80.8 77.8 68.5 73.5
(percent) 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011	84.5 81.9 82.1 79.2 74.0 75.8 77.1 80.0 80.7 80.0 80.9 70.0 70.8 75.6	84.0 84.0 82.0 78.4 73.9 75.9 77.6 80.5 80.6 80.6 80.6 80.6 80.6 80.7 69.4 71.2 75.3	84.1 83.5 81.8 82.0 78.0 74.4 75.8 77.2 80.3 80.6 80.6 80.6 80.6 68.3 71.8 76.0	83.7 83.3 81.7 82.3 77.6 74.6 75.3 77.6 80.3 80.3 80.8 81.0 80.0 67.7 72.3 75.7	83.7 83.3 81.9 82.2 76.9 74.9 75.3 78.2 80.3 80.6 80.9 79.6 67.0 73.5 75.8	83.7 82.3 81.5 82.0 76.2 75.5 75.6 80.5 80.8 79.5 66.7 73.8 75.9	81.5 81.7 81.6 75.6 75.3 75.8 78.2 80.2 80.6 80.6 79.0 67.4 74.2 76.2	82.8 81.7 81.1 75.3 75.8 78.2 80.3 80.8 80.7 77.8 68.2 74.6 76.6	82.2 81.1 81.2 74.8 75.4 76.2 78.3 78.7 80.5 81.0 74.4 68.8 74.9 76.4	82.4 81.9 80.7 74.3 75.2 76.3 79.0 79.6 80.2 80.6 75.0 69.1 74.8 76.8	82.0 82.0 80.4 73.8 75.6 76.9 79.1 80.3 80.0 81.1 74.0 69.5 74.9 76.6	81.9 82.3 80.0 73.7 75.2 76.9 79.7 80.6 81.1 71.7 69.9 75.6 76.9	83.8 84.0 81.9 82.0 78.6 74.1 75.9 77.3 80.2 80.6 80.4 80.8 69.2 71.3 75.6	140.4 83.7 83.0 81.7 82.2 76.9 75.0 75.4 77.8 80.4 80.7 80.9 79.7 67.1 73.2 75.8	84.2 82.2 81.5 81.3 75.9 78.2 79.7 80.6 80.8 77.1 68.2 74.6 76.4	84.7 82.1 82.1 80.4 74.0 75.3 76.7 79.3 80.2 80.3 80.9 73.6 69.5 75.1 76.8	82.8 81.8 81.5 76.2 74.9 76.0 78.2 80.1 80.6 80.8 77.8 68.5 73.5 76.1
(percent) 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014	84.5 81.9 82.1 79.2 74.0 75.8 77.1 80.0 80.7 80.0 80.9 70.0 70.8 75.6 77.2 76.7 77.2	84.0 84.0 82.0 78.4 73.9 75.9 77.6 80.5 80.6 80.6 80.6 80.6 80.7 69.4 71.2 75.3 77.2 77.1 77.8	84.1 83.5 81.8 82.0 78.0 74.4 75.8 77.2 80.3 80.6 80.6 80.6 68.3 71.8 76.0 76.7 77.3 78.5	83.7 83.3 81.7 82.3 77.6 74.6 75.3 77.6 80.3 80.8 81.0 80.0 67.7 72.3 75.7 77.2 77.1 78.4	83.7 83.3 81.9 82.2 76.9 74.9 75.3 78.2 80.3 80.6 80.9 79.6 67.0 73.5 75.8 77.8 77.0 78.6	83.7 82.3 81.5 82.0 76.2 75.5 77.6 80.5 80.8 79.5 66.7 73.8 75.9 77.0	81.5 81.7 81.6 75.6 75.3 75.8 78.2 80.2 80.6 79.0 67.4 74.2 76.2 77.1 76.7 78.9	82.8 81.7 81.1 75.3 75.8 78.2 80.3 80.8 80.8 80.7 77.8 68.2 74.6 76.6 76.6 77.2 78.7	82.2 81.1 81.2 74.8 75.4 76.2 78.3 78.7 80.5 81.0 74.4 68.8 74.9 76.4 76.5 77.5 78.8	82.4 81.9 80.7 74.3 75.2 76.3 79.0 79.6 80.2 80.6 75.0 69.1 74.8 76.8 76.6 77.3 78.7	82.0 82.0 80.4 73.8 75.6 76.9 79.1 80.3 80.0 81.1 74.0 69.5 74.9 76.6 76.8 77.4 79.2	81.9 82.3 80.0 73.7 75.2 76.9 79.7 80.7 80.6 81.1 71.7 69.9 75.6 76.9 77.0 77.6 79.0	83.8 84.0 81.9 82.0 78.6 74.1 75.9 77.3 80.2 80.6 80.4 80.8 69.2 71.3 75.6 77.1 77.0 77.8	140.4 83.7 83.0 81.7 82.2 76.9 75.0 75.4 77.8 80.4 80.7 80.9 79.7 67.1 73.2 75.8 77.1 77.1 78.6	84.2 82.2 81.5 81.3 75.2 75.3 75.9 78.2 79.7 80.6 80.8 77.1 68.2 74.6 76.4 76.7	84.7 82.1 82.1 80.4 74.0 75.3 76.7 79.3 80.2 80.3 80.9 73.6 69.5 75.1 76.8	82.8 81.8 81.5 76.2 74.9 76.0 78.2 80.1 80.6 80.8 77.8 68.5 73.5 76.1 76.9
(percent) 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015	84.5 81.9 82.1 79.2 74.0 75.8 77.1 80.0 80.7 80.0 80.9 70.0 70.8 75.6 77.2 76.7 77.2 78.6	84.0 84.0 82.0 78.4 73.9 75.9 77.6 80.5 80.6 80.6 80.6 80.7 69.4 71.2 75.3 77.2 77.1 77.8 78.1	84.1 83.5 81.8 82.0 78.0 74.4 75.8 77.2 80.3 80.6 80.6 80.6 68.3 71.8 76.0 76.7 77.3 78.5 77.8	83.7 83.3 81.7 82.3 77.6 74.6 75.3 77.6 80.3 80.8 81.0 80.0 67.7 72.3 75.7 77.2 77.1 78.4 77.3	83.7 83.3 81.9 82.2 76.9 74.9 75.3 78.2 80.3 80.6 80.9 79.6 67.0 73.5 75.8 77.2 77.0 78.6 76.9	83.7 82.3 81.5 82.0 76.2 75.5 77.6 80.5 80.8 80.8 79.5 66.7 73.8 75.9 77.0 77.1 78.8 76.6	81.5 81.7 81.6 75.6 75.3 75.8 78.2 80.2 80.6 80.6 79.0 67.4 74.2 76.2 77.1 76.7 78.9 77.0	82.8 81.7 81.1 75.3 75.8 78.2 80.3 80.8 80.7 77.8 68.2 74.6 76.6 76.6 76.6 77.2 78.7 76.9	82.2 81.1 81.2 74.8 75.4 76.2 78.3 78.7 80.5 81.0 74.4 68.8 74.9 76.4 76.5 77.5 78.8 76.6	82.4 81.9 80.7 74.3 75.2 76.3 79.0 79.6 80.2 80.6 75.0 69.1 74.8 76.8 76.6 77.3 78.7 76.3	82.0 82.0 80.4 73.8 75.6 76.9 79.1 80.3 80.0 81.1 74.0 69.5 74.9 76.6 76.8 77.4 79.2 75.7	81.9 82.3 80.0 73.7 75.2 76.9 79.7 80.7 80.6 81.1 71.7 69.9 75.6 76.9 77.0 77.6 79.0 75.3	83.8 84.0 81.9 82.0 78.6 74.1 75.9 77.3 80.2 80.6 80.4 80.8 69.2 71.3 75.6 77.1 77.0 77.8 78.1	140.4 83.7 83.0 81.7 82.2 76.9 75.0 75.4 77.8 80.4 80.7 80.9 79.7 67.1 73.2 75.8 77.1 77.1 78.6 76.9	84.2 82.2 81.5 81.3 75.2 75.3 75.9 78.2 79.7 80.6 80.8 77.1 68.2 74.6 76.4 76.7 77.1 78.8 76.8	84.7 82.1 80.4 74.0 75.3 76.7 79.3 80.2 80.3 80.9 73.6 69.5 75.1 76.8 76.8 77.5 79.0 75.8	82.8 81.8 81.5 76.2 74.9 76.0 78.2 80.1 80.6 80.8 77.8 68.5 73.5 76.1 76.9 77.2 78.6 76.9
(percent) 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014	84.5 81.9 82.1 79.2 74.0 75.8 77.1 80.0 80.7 80.0 80.9 70.0 70.8 75.6 77.2 76.7 77.2	84.0 84.0 82.0 78.4 73.9 75.9 77.6 80.5 80.6 80.6 80.6 80.6 80.7 69.4 71.2 75.3 77.2 77.1 77.8	84.1 83.5 81.8 82.0 78.0 74.4 75.8 77.2 80.3 80.6 80.6 80.6 68.3 71.8 76.0 76.7 77.3 78.5	83.7 83.3 81.7 82.3 77.6 74.6 75.3 77.6 80.3 80.8 81.0 80.0 67.7 72.3 75.7 77.2 77.1 78.4	83.7 83.3 81.9 82.2 76.9 74.9 75.3 78.2 80.3 80.6 80.9 79.6 67.0 73.5 75.8 77.8 77.0 78.6	83.7 82.3 81.5 82.0 76.2 75.5 77.6 80.5 80.8 80.8 79.5 66.7 73.8 75.9 77.0 77.1 78.8	81.5 81.7 81.6 75.6 75.3 75.8 78.2 80.2 80.6 79.0 67.4 74.2 76.2 77.1 76.7 78.9	82.8 81.7 81.1 75.3 75.8 78.2 80.3 80.8 80.8 80.7 77.8 68.2 74.6 76.6 76.6 77.2 78.7	82.2 81.1 81.2 74.8 75.4 76.2 78.3 78.7 80.5 81.0 74.4 68.8 74.9 76.4 76.5 77.5 78.8	82.4 81.9 80.7 74.3 75.2 76.3 79.0 79.6 80.2 80.6 75.0 69.1 74.8 76.8 76.6 77.3 78.7	82.0 82.0 80.4 73.8 75.6 76.9 79.1 80.3 80.0 81.1 74.0 69.5 74.9 76.6 76.8 77.4 79.2	81.9 82.3 80.0 73.7 75.2 76.9 79.7 80.7 80.6 81.1 71.7 69.9 75.6 76.9 77.0 77.6 79.0	83.8 84.0 81.9 82.0 78.6 74.1 75.9 77.3 80.2 80.6 80.4 80.8 69.2 71.3 75.6 77.1 77.0 77.8	140.4 83.7 83.0 81.7 82.2 76.9 75.0 75.4 77.8 80.4 80.7 80.9 79.7 67.1 73.2 75.8 77.1 77.1 78.6	84.2 82.2 81.5 81.3 75.9 78.2 79.7 80.6 80.8 77.1 68.2 74.6 76.4 76.7 77.1 78.8	84.7 82.1 82.1 80.4 74.0 75.3 76.7 79.3 80.2 80.3 80.9 73.6 69.5 75.1 76.8 76.8 77.5 79.0	82.8 81.8 81.5 76.2 74.9 76.0 78.2 80.1 80.6 80.8 77.8 68.5 73.5 76.1 76.9 77.2 78.6
(percent) 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016	84.5 81.9 82.1 79.2 74.0 75.8 77.1 80.0 80.7 80.0 80.9 70.0 70.8 75.6 77.2 76.7 77.2 78.6 75.9	84.0 84.0 82.0 78.4 73.9 75.9 77.6 80.5 80.6 80.6 80.6 80.6 80.7 69.4 71.2 75.3 77.2 77.1 77.8 78.1 75.3	84.1 83.5 81.8 82.0 78.0 74.4 75.8 77.2 80.3 80.6 80.6 80.6 80.6 80.6 68.3 71.8 76.0 76.7 77.3 78.5 77.8 74.7	83.7 83.3 81.7 82.3 77.6 74.6 75.3 77.6 80.3 80.8 81.0 80.0 67.7 72.3 75.7 77.2 77.1 78.4 77.3 74.7	83.7 83.3 81.9 82.2 76.9 74.9 75.3 78.2 80.3 80.6 80.9 79.6 67.0 73.5 75.8 77.2 77.0 78.6 76.9 74.6	83.7 82.3 81.5 82.0 76.2 75.5 77.6 80.5 80.8 79.5 66.7 73.8 75.9 77.0 77.1 78.8 76.6 74.9	81.5 81.7 81.6 75.3 75.8 78.2 80.2 80.6 79.0 67.4 74.2 76.2 77.1 76.2 77.1 76.7 78.9 77.0 75.1	82.8 81.7 81.1 75.3 75.8 78.2 80.3 80.8 80.7 77.8 68.2 74.6 76.6 76.6 76.6 76.6 77.2 78.7 76.9 75.0	82.2 81.1 81.2 74.8 75.4 76.2 78.3 78.7 80.5 81.0 74.4 68.8 74.9 76.4 76.5 77.5 78.8 76.6 74.9	82.4 81.9 80.7 74.3 75.2 76.3 79.0 79.6 80.2 80.6 75.0 69.1 74.8 76.8 76.8 76.8 76.6 77.3 78.7 76.3 75.0	82.0 82.0 80.4 73.8 75.6 76.9 79.1 80.3 80.0 81.1 74.0 69.5 74.9 76.6 76.8 77.4 79.2 75.7 74.9	81.9 82.3 80.0 73.7 75.2 76.9 79.7 80.6 81.1 71.7 69.9 75.6 76.9 75.6 76.9 77.0 77.6 79.0 75.3 75.5	83.8 84.0 81.9 82.0 78.6 74.1 75.9 77.3 80.2 80.6 80.4 80.4 80.8 69.2 71.3 75.6 77.1 77.0 77.8 78.1 75.3	140.4 83.7 83.0 81.7 82.2 76.9 75.0 75.4 77.8 80.4 80.7 80.9 79.7 67.1 73.2 75.8 77.1 77.1 78.6 76.9 74.8	84.2 82.2 81.5 81.3 75.2 75.3 75.9 78.2 79.7 80.6 80.8 77.1 68.2 74.6 76.4 76.7 77.1 78.8 75.0	84.7 82.1 82.1 82.1 82.1 80.4 74.0 75.3 76.7 79.3 80.2 80.3 80.9 73.6 69.5 75.1 76.8 76.8 75.8 75.1	82.8 81.8 81.5 76.2 74.9 76.0 78.2 80.1 80.6 80.8 77.8 68.5 73.5 76.1 76.9 77.2 78.6 76.9 77.2 78.6 76.9
(percent) 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017	84.5 81.9 82.1 79.2 74.0 75.8 77.1 80.0 80.7 80.0 80.9 70.0 70.8 75.6 77.2 78.6 75.9 75.5	84.0 84.0 82.0 78.4 73.9 75.9 77.6 80.5 80.6 80.6 80.6 80.6 80.7 69.4 71.2 75.3 77.2 77.1 77.8 78.1 75.3 75.2	84.1 83.5 81.8 82.0 78.0 74.4 75.8 77.2 80.3 80.6 80.6 80.6 80.6 68.3 71.8 76.0 76.7 77.3 78.5 77.8 74.7 75.7	83.7 83.3 81.7 82.3 77.6 74.6 75.3 77.6 80.3 80.8 81.0 80.0 67.7 72.3 75.7 77.2 77.1 78.4 77.3 74.7 76.4	83.7 83.3 81.9 82.2 76.9 74.9 75.3 78.2 80.3 80.6 80.9 79.6 67.0 73.5 75.8 77.2 77.0 78.6 76.9 74.6 76.5	83.7 82.3 81.5 82.0 76.2 75.5 77.6 80.5 80.8 79.5 66.7 73.8 75.9 77.0 77.1 78.8 76.6 74.9 76.6	81.5 81.7 81.6 75.3 75.8 78.2 80.2 80.6 79.0 67.4 74.2 76.2 77.1 76.7 78.9 77.0 75.1 76.5	82.8 81.7 81.1 75.3 75.8 78.2 80.3 80.8 80.7 77.8 68.2 74.6 76.6 76.6 76.6 77.2 78.7 76.9 75.0 76.2	82.2 81.1 81.2 74.8 75.4 76.2 78.3 78.7 80.5 81.0 74.4 68.8 74.9 76.4 76.5 77.5 78.8 76.6 74.9 76.1	82.4 81.9 80.7 74.3 75.2 76.3 79.0 79.6 80.2 80.6 75.0 69.1 74.8 76.8 76.8 76.8 76.6 77.3 78.7 76.3 75.0 77.3	82.0 82.0 80.4 73.8 75.6 76.9 79.1 80.3 80.0 81.1 74.0 69.5 74.9 76.6 76.8 77.4 79.2 75.7 74.9 77.6	81.9 82.3 80.0 73.7 75.2 76.9 79.7 80.6 81.1 71.7 69.9 75.6 76.9 77.0 77.6 79.0 75.3 75.5 77.9	83.8 84.0 81.9 82.0 78.6 74.1 75.9 77.3 80.2 80.6 80.4 80.8 69.2 71.3 75.6 77.1 77.0 77.8 78.1 75.3 75.5	140.4 83.7 83.0 81.7 82.2 76.9 75.0 75.4 77.8 80.4 80.7 80.9 79.7 67.1 73.2 75.8 77.1 77.1 77.1 78.6 76.9 74.8 76.5	84.2 82.2 81.5 81.3 75.2 75.3 75.9 78.2 79.7 80.6 80.8 77.1 68.2 74.6 76.4 76.7 77.1 78.8 76.8 75.0 76.3	84.7 82.1 82.1 82.1 82.1 80.4 74.0 75.3 76.7 79.3 80.2 80.3 80.9 73.6 69.5 75.1 76.8 77.5 79.0 75.8 75.1 77.6	82.8 81.8 81.5 76.2 74.9 76.0 78.2 80.1 80.6 80.8 77.8 68.5 73.5 76.1 76.9 77.2 78.6 76.9 75.0 76.5
(percent) 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016	84.5 81.9 82.1 79.2 74.0 75.8 77.1 80.0 80.7 80.0 80.9 70.0 70.8 75.6 77.2 76.7 77.2 78.6 75.9	84.0 84.0 82.0 78.4 73.9 75.9 77.6 80.5 80.6 80.6 80.6 80.6 80.7 69.4 71.2 75.3 77.2 77.1 77.8 78.1 75.3	84.1 83.5 81.8 82.0 78.0 74.4 75.8 77.2 80.3 80.6 80.6 80.6 80.6 80.6 68.3 71.8 76.0 76.7 77.3 78.5 77.8 74.7	83.7 83.3 81.7 82.3 77.6 74.6 75.3 77.6 80.3 80.8 81.0 80.0 67.7 72.3 75.7 77.2 77.1 78.4 77.3 74.7	83.7 83.3 81.9 82.2 76.9 74.9 75.3 78.2 80.3 80.6 80.9 79.6 67.0 73.5 75.8 77.2 77.0 78.6 76.9 74.6	83.7 82.3 81.5 82.0 76.2 75.5 77.6 80.5 80.8 79.5 66.7 73.8 75.9 77.0 77.1 78.8 76.6 74.9	81.5 81.7 81.6 75.3 75.8 78.2 80.2 80.6 79.0 67.4 74.2 76.2 77.1 76.2 77.1 76.7 78.9 77.0 75.1	82.8 81.7 81.1 75.3 75.8 78.2 80.3 80.8 80.7 77.8 68.2 74.6 76.6 76.6 76.6 76.6 77.2 78.7 76.9 75.0	82.2 81.1 81.2 74.8 75.4 76.2 78.3 78.7 80.5 81.0 74.4 68.8 74.9 76.4 76.5 77.5 78.8 76.6 74.9	82.4 81.9 80.7 74.3 75.2 76.3 79.0 79.6 80.2 80.6 75.0 69.1 74.8 76.8 76.8 76.8 76.6 77.3 78.7 76.3 75.0	82.0 82.0 80.4 73.8 75.6 76.9 79.1 80.3 80.0 81.1 74.0 69.5 74.9 76.6 76.8 77.4 79.2 75.7 74.9	81.9 82.3 80.0 73.7 75.2 76.9 79.7 80.6 81.1 71.7 69.9 75.6 76.9 75.6 76.9 77.0 77.6 79.0 75.3 75.5	83.8 84.0 81.9 82.0 78.6 74.1 75.9 77.3 80.2 80.6 80.4 80.4 80.8 69.2 71.3 75.6 77.1 77.0 77.8 78.1 75.3	140.4 83.7 83.0 81.7 82.2 76.9 75.0 75.4 77.8 80.4 80.7 80.9 79.7 67.1 73.2 75.8 77.1 77.1 78.6 76.9 74.8	84.2 82.2 81.5 81.3 75.2 75.3 75.9 78.2 79.7 80.6 80.8 77.1 68.2 74.6 76.4 76.7 77.1 78.8 75.0	84.7 82.1 82.1 82.1 80.4 74.0 75.3 76.7 79.3 80.2 80.3 80.9 73.6 69.5 75.1 76.8 76.8 75.7 79.0 75.8 75.1	82.8 81.8 81.5 76.2 74.9 76.0 78.2 80.1 80.6 80.8 77.8 68.5 73.5 76.1 76.9 77.2 78.6 76.9 77.2 78.6 76.9

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

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

Seasonally adjusted														U			
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
IP $(percent change)^2$																	
1997	.1	1.4	1.0	2	.7	.7	.7	1.3	.9	.9	1.1	.4	9.4	7.0	10.5	11.4	8.4
1998	.8	.1	1	.5	.5	8	4	2.4	2	1.0	.2	.5	6.1	2.1	3.3	8.0	6.7
1999 2000	.3	.8 .2	1 .6	.4 .7	.9 1	3 .2	.5	.6 7	4 .4	1.5 3	.6 3	.7 6	5.1	4.5 4.8	3.2 4	8.7 -2.4	5.1
2000	6	6	2	3	6	7	5	5	2	6	3	.3	-6.0	-5.2	-5.8	-3.8	-3.7
2002	.6	.0	.8	.2	.5	1.1	3	.2	.1	4	.5	5	3.6	5.8	3.1	3	.5
2003	.7	1	.1	9	.1	.5	.2	4	.8	.1	1.0	2	2.1	-2.2	2.5	4.4	1.3
2004 2005	.0	.8 .8	2 5	.4 .4	.8 .3	7 .1	.9 3	.5 .5	.0 -1.0	1.0 1.5	1 .8	.7 .2	2.6 6.6	3.3 2.3	4.0 7	5.5 6.4	3.1 4.1
2005	.8	3	.0	.5	4	.4	3	.7	.1	4	.0	1.4	3.8	.8	1.0	1.5	2.6
2007	5	.4	.9	.7	1	.3	.1	3	.5	3	.6	.1	4.0	5.9	1.1	1.2	2.8
2008 2009	4	6 1	3 -1.9	-1.1 7	5 -1.1	7 3	-1.2 1.5	-1.2 1.1	-3.5	6 .2	-2.4 1.0	-3.5 2	-2.6	-8.2 -10.6	-14.0 8.1	-21.9 7.1	-4.8 -13.8
2009	-3.0	.0	-1.9	7	-1.1	3	.6	.1	.9	.2	.0	2	6.9	-10.0	4.2	1.2	-13.8
2011	.2	.1	.6	6	.1	.1	.6	.4	.3	.5	3	.7	3.1	1	4.5	3.8	2.9
2012	.8	.3	5	.5	4	.2	1	2	1	4	.7	.8	5.2	.6	-1.1	1.2	2.6
2013 2014	3 -1.1	.5 1.0	1 .8	4 2	.3 .3	.2 .4	9 .4	.9 5	.1 .0	.1 1	.0 .8	.0 3	2.9 8	1 4.3	1 1.6	1.7 .5	.9 1.1
2014	4	7	.3	2	.0	4	.7	3	4	.0	3	3	-2.9	-1.2	.2	-2.8	5
2016	.7	6	2	4	.0	.3	.3	4	.4	.3	.1	.3	3	-2.4	1.2	2.5	8
2017	.6	1	3	1.1	2	.1	2	3	2	1.3	.3	1	3.0	3.4	-1.6	5.3	2.0
2018	4	1.1	.0	.4	8	.7	.4	.4	.0	1	.2	.6	1.6	2.0	3.6	1.5	2.3
2019	6	5	.0	7	.2	.4							-1.9	-2.2			
IP (2012=100)	102.0	102.0	101 7	102.0	102 (102.0	100 (102.2	102.1	102 5	102.0	102.7	101.0	100 7	102.2	102.7	102.7
2017 2018	102.0 103.3	102.0 104.4	101.7 104.5	102.8 104.9	102.6 104.1	102.8 104.8	102.6 105.2	102.3 105.7	102.1 105.7	103.5 105.6	103.8 105.8	103.7 106.4	101.9 104.1	102.7 104.6	102.3 105.5	103.7 105.9	102.7 105.0
2018	105.8	105.3	104.5	104.9	104.1	104.8	105.2	105.7	105.7	105.0	105.0	100.4	104.1	104.8	105.5	105.9	105.0
Capacity (percent of 2012 output)																	
2017	136.5	136.5	136.6	136.6	136.6	136.7	136.7	136.7	136.7	136.7	136.7	136.7	136.5	136.6	136.7	136.7	136.6
2018 2019	136.8 137.9	136.8 138.0	136.9 138.2	136.9 138.3	137.0 138.5	137.1 138.7	137.2	137.3	137.4	137.5	137.6	137.7	136.8 138.0	137.0 138.5	137.3	137.6	137.2
Utilization																	
(percent)	82.2	82.9	83.2	82.6	82.7	82.7	010	83.2	02.4	025	020	025	82.8	82.7	83.1	83.6	92.0
1997 1998	83.6	82.9	83.2	82.0	82.0	80.8	82.8 80.0	81.5	83.4 80.8	83.5 81.2	83.8 80.9	83.5 80.9	83.0	81.7	80.8	81.0	83.0 81.6
1999	80.7	81.0	80.5	80.5	80.8	80.2	80.2	80.4	79.7	80.6	80.7	80.9	80.7	80.5	80.1	80.7	80.5
2000	80.7	80.5	80.7	80.9	80.5	80.3	80.1	79.3	79.3	78.8	78.3	77.6	80.6	80.6	79.6	78.2	79.7
2001	76.8	76.1	75.7	75.2	74.5	73.8	73.3	72.8	72.5	71.9	71.6	71.7	76.2	74.5	72.9	71.8	73.8
2002	72.1	71.9	72.4	72.5	72.9	73.6	73.4	73.5	73.6	73.3	73.6	73.3	72.1	73.0 73.4	73.5	73.4	73.0
2003 2004	73.8	73.7 75.6	73.8 75.5	73.2 75.8	73.3 76.4	73.7 75.9	73.9 76.6	73.6 76.9	74.2 76.9	74.3 77.6	75.1 77.5	75.0 77.9	73.8	75.4	73.9 76.8	74.8 77.7	74.0 76.5
2005	78.4	79.0	78.4	78.6	78.7	78.6	78.2	78.4	77.5	78.5	78.9	78.9	78.6	78.6	78.0	78.8	78.5
2006	79.4	79.1	78.9	79.2	78.7	78.9	78.5	78.9	78.8	78.3	78.2	79.1	79.1	78.9	78.7	78.5	78.8
2007	78.5	78.6	79.1	79.4	79.1	79.2	79.1	78.7	78.9	78.6	78.9	78.9	78.7	79.3	78.9	78.8	78.9
2008 2009	78.6 65.9	78.1 65.9	77.8 64.7	77.0 64.4	76.7 63.8	76.2 63.7	75.4 64.7	74.6 65.6	72.1 66.2	71.8 66.5	70.2 67.2	67.8 67.2	78.2	76.6 64.0	74.1 65.5	69.9 66.9	74.7 65.5
2009	68.0	68.1	69.0	69.7	70.8	70.9	71.4	71.6	71.7	71.9	72.0	72.5	68.4	70.5	71.6	72.1	70.7
2011	72.7	72.8	73.3	72.9	73.0	73.1	73.5	73.8	74.0	74.3	74.0	74.5	72.9	73.0	73.8	74.3	73.5
2012	75.0	75.1	74.7	75.0	74.6	74.7	74.5	74.2	74.1	73.8	74.2	74.7	74.9	74.8	74.3	74.2	74.5
2013 2014	74.4	74.7 74.4	74.5 75.0	74.2 74.9	74.4 75.2	74.5 75.5	73.8 75.8	74.4 75.5	74.5 75.5	74.5 75.5	74.5 76.1	74.5 75.9	74.5 74.3	74.4 75.2	74.2 75.6	74.5 75.8	74.4 75.2
2014	75.7	75.2	75.5	75.5	75.5	75.2	75.8	75.5	75.2	75.1	74.9	73.9	75.5	75.4	75.5	73.8	75.3
2016	75.1	74.6	74.3	74.0	73.9	74.0	74.1	73.8	74.0	74.1	74.1	74.4	74.7	74.0	74.0	74.2	74.2
2017	74.8	74.7	74.5	75.3	75.1	75.2	75.1	74.8	74.7	75.7	75.9	75.8	74.6	75.2	74.9	75.8	75.1
2018	75.5	76.3	76.3	76.6	76.0	76.5	76.7	77.0	76.9	76.8	76.9	77.3	76.1	76.4	76.9	77.0	76.6
2019	76.7	76.3	76.2	75.6	75.6	75.9							76.4	75.7			

Table 12 HISTORICAL STATISTICS FOR INDUSTRIAL PRODUCTION, CAPACITY, AND UTILIZATION: Manufacturing¹ Seasonally adjusted

 1. The composition of manufacturing is specified in a note for the summary table.

 2. Quarterly percentage changes are at annual rates. Annual percentage 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
	Jun.	100.	ivitui.		ivity	June	July	riug.	Sept.	000.	1101.	Dee.	<u><u>v</u>¹</u>	<u><u> </u></u>	<u><u> </u></u>	<u> </u>	
IP (percent change) ²																	
1997	1	.9	.4	3	.3	.2	.6	.8	.6	.7	.7	.1	5.2	2.1	6.3	7.6	4.2
1998 1999	.3	.0 .2	1	.2	.6 .5	9	7	1.9	5	.6 1.2	3	.1	2.2	.8	3 .9	2.5	3.1
2000	.1	.2	1 .1	1 .5	2	5 1	.3 5	.4 5	5 .3	4	.2	.6 5	.6 .6	.3 1.5	-3.2	5.6 -2.6	1.1 1.0
2000	7	6	3	2	6	5	4	1	4	5	4	1	-5.9	-4.3	-4.3	-4.4	-3.9
2002	.7	2	.8	.4	.4	.9	3	1	.1	3	.5	6	2.6	6.0	1.8	6	.3
2003	.7	.0	3	9	1	.0	.3	3	.5	.0	.7	1	1.5	-4.7	.7	2.7	.2
2004	.1	.6	6	.5	.8	9	.8	.0	.0	.9	.2	.7	1.9	2.1	1.9	5.3	1.7
2005 2006	.3	.6 1	2 .2	.1 .4	.1	.4	4 1	.2	-2.1	1.2	1.0 1	.6 1.0	4.8	1.2 1.8	-3.0	2.7	2.6 1.4
2007 2008	6 3	1.0 5	.0 4	.5 8	.1 7	.2 3	1 5	.2 -1.6	.3 -4.5	6 1.2	.4 -1.0	1 -2.8	2.8 -2.6	4.0 -6.8	1.1 -12.8	5 -14.9	1.8 -4.3
2009	-2.4	7	-1.7	9	-1.1	4	1.1	1.1	.7	.3	.3	.3	-20.4	-11.7	6.1	6.0	-11.5
2010	1.1	.2	.6	.3	1.5	.1	.4	.3	.2	3	.0	.9	7.0	7.5	5.1	.8	4.9
2011	2	5	1.1	4	.2	.3	.5	.5	.0	.7	1	.5	1.7	1.6	4.6	4.1	2.8
2012	.6 2	.2	5	.7 2	.2	1	.3 5	5	.0	.2 2	.5 .3	.4	3.6	2.1	1	1.8	2.8
2013 2014	2	.6 .8	.4 .9	2 .0	.1 .3	.2 .4	5 .2	.6 1	.5 .3	2	.3 .8	.3 1	3.1 3.0	1.4 5.2	1.1 2.3	2.6 2.7	1.8 2.9
2015	5	5	3	6	4	4	.6	2	4	4	7	6	-3.1	-5.5	1	-5.3	-1.1
2016	.8	7	8	.1	1	.4	.2	1	.0	.2	2	.9	-2.4	-2.4	1.7	1.1	-2.1
2017	.1	4	.7	.9	.1	.2	.0	5	.0	1.5	.5	.3	2.6	5.7	7	7.4	2.3
2018	3	.4	.6	.9	8	.7	.4	.8	.1	.2	.6	.0	2.2	4.5	4.9	4.0	3.9
2019	4	5	.1	5	.4	.0							-2.1	-1.3			
IP (2012=100)	102.2	101.0	102 (102.5	102 (102.0	102.0	102.2	102.2	104.0	105.4	105.7	102.2	102 (102.5	105.2	102.7
2017 2018	102.2 105.4	101.9 105.8	102.6 106.4	103.5 107.4	103.6 106.5	103.8 107.3	103.8 107.8	103.3 108.6	103.3 108.8	104.8 109.0	105.4 109.6	105.7 109.7	102.2 105.9	103.6 107.1	103.5 108.4	105.3 109.5	103.7 107.7
2010	109.2	108.7	108.8	108.2	108.7	107.5	107.0	100.0	100.0	109.0	109.0	107.7	108.9	108.5	100.4	107.5	107.7
Capacity (percent of 2012 output)																	
2017	135.2	135.2	135.3	135.3	135.3	135.3	135.3	135.4	135.4	135.4	135.5	135.6	135.2	135.3	135.4	135.5	135.3
2018 2019	135.6 138.0	135.8 138.3	135.9 138.5	136.0 138.8	136.2 139.0	136.4 139.2	136.6	136.8	137.1	137.3	137.5	137.8	135.8 138.3	136.2 139.0	136.8	137.5	136.6
Utilization																	
(percent)																	
1997	83.7	84.2	84.3	83.8	83.7	83.6	83.8	84.2	84.4	84.6	84.9	84.6	84.1	83.7	84.1	84.7	84.1
1998 1999	84.6 82.0	84.2 81.9	83.9 81.6	83.7 81.3	83.9 81.6	82.8 81.0	82.0 81.1	83.2 81.3	82.5 80.7	82.7 81.6	82.2 81.7	82.1 82.0	84.2 81.8	83.5 81.3	82.6 81.0	82.3 81.8	83.2 81.5
2000	81.6	81.5	81.5	81.8	81.5	81.4	80.9	80.4	80.7	80.2	79.9	79.5	81.5	81.5	80.6	79.9	80.9
2001	78.9	78.3	78.0	77.8	77.3	76.8	76.4	76.3	75.8	75.4	75.0	74.8	78.4	77.3	76.2	75.1	76.7
2002	75.3	75.1	75.7	75.9	76.2	76.9	76.7	76.6	76.7	76.5	76.9	76.6	75.3	76.3	76.7	76.7	76.3
2003	77.2	77.2	77.0	76.4	76.3	76.4	76.6	76.5	76.9	76.9	77.5	77.4	77.1	76.4	76.7	77.3	76.9
2004	77.6	78.0	77.6	78.0	78.7	78.0	78.7	78.7	78.7	79.5	79.7	80.2	77.7	78.2	78.7	79.8	78.6
2005 2006	80.5 80.8	80.9 80.6	80.7 80.6	80.8 80.8	80.8 80.6	81.0 80.7	80.6 80.5	80.7 80.6	78.9 80.2	79.7 80.0	80.4 79.8	80.8 80.5	80.7 80.7	80.9 80.7	80.1 80.5	80.3 80.1	80.5 80.5
2007	79.9	80.6	80.5	80.9	80.9	81.0	81.0	81.1	81.4	80.9	81.3	81.3	80.4	81.0	81.1	81.2	80.9
2008	81.1	80.8	80.6	79.9	79.4	79.2	78.8	77.5	74.0	74.8	73.9	71.7	80.8	79.5	76.8	73.5	77.6
2009	69.9	69.3	68.1	67.5	66.7	66.5	67.2	68.1	68.7	69.0	69.3	69.7	69.1	66.9	68.0	69.3	68.3
2010	70.6	70.9	71.5	72.0	73.2	73.5	74.0	74.3	74.6	74.5	74.6	75.4	71.0	72.9	74.3	74.8	73.3
2011	75.3	75.0	75.8	75.6	75.7	75.9	76.3	76.6	76.5	77.0	76.8	77.1	75.4	75.7	76.5	76.9	76.1
2012	77.4	77.4	76.9	77.3	77.3	77.2	77.3	76.8	76.7	76.7	77.0	77.1	77.3	77.3	76.9	76.9	77.1
2013 2014	76.9 77.5	77.3 78.0	77.5 78.7	77.3 78.6	77.3 78.8	77.4 79.0	76.9 79.0	77.4 78.8	77.7 78.9	77.5 78.8	77.7 79.4	77.9 79.1	77.3 78.1	77.3 78.8	77.3 78.9	77.7 79.1	77.4 78.7
2014 2015	78.6	78.0	77.9	78.0	76.9	79.0	79.0	76.9	76.6	76.3	79.4	79.1	78.1	78.8	76.9	79.1	77.0
2016	75.9	75.3	74.7	74.8	74.7	75.0	75.1	75.0	75.0	75.1	74.9	75.5	75.3	74.8	75.1	75.2	75.1
2017	75.6	75.3	75.8	76.5	76.6	76.7	76.7	76.3	76.3	77.4	77.8	78.0	75.6	76.6	76.4	77.7	76.6
2018										= 0 1	TO T	TO (70.0	70 (70.0		70.0
	77.7	78.0	78.3	79.0	78.2	78.7	78.9	79.4	79.3	79.4	79.7	79.6	78.0	78.6	79.2	79.6	78.8
2019	77.7 79.1	78.0 78.6	78.3 78.5	79.0 78.0	78.2 78.2	78.7 78.0	78.9	79.4	79.3	79.4	/9./	/9.6	78.0	78.6	79.2	79.6	/8.8

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

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

Seasonally adjusted	Lar	Esh	Mar	A	Mari	Luna	Testes	A	Caret	Ort	Neu	Dee	01	02	02		A
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
IP (percent																	
change) ³ 1997	2	1.1	.7	5	.4	.4	.4	1.0	.6	.7	.8	.1	6.3	2.7	6.8	8.2	5.0
1997	.6	.0	3	3	.4	-1.2	8	2.3	.0 6	.7	1	.1	3.5	2	5	4.1	3.5
1999	1	.5	4	.0	.7	7	.0	.6	5	1.4	.4	.4	.7	.3	.0	6.8	1.3
2000	3	2	.3	.4	6	.0	3	-1.0	.3	4	5	8	.4	.8	-3.8	-4.6	.7
2001	6	6	2	2	6	5	2	4	2	6	2	.1	-7.0	-4.4	-4.5	-4.1	-4.7
2002	.7	2	.8	.2	.5	1.1	4	.1	.1	4	.4	6	3.2	5.4	2.5	9	.4
2003	.7	3	.0	-1.0	1	.3	.0	6	.7	.0	.9	3	.8	-4.3	.0	2.9	.0
2004	1	.7 .7	2	.4	.8 .3	8	1.0	.4	1 -1.3	1.0	1 .8	.7	1.5	3.1	3.7 -2.2	4.8	2.0
2005 2006	.6	4	6 1	.3 .5	5	.1	5 4	.3	-1.3	1.4 5	.8 .0	.1 1.5	5.3 3.1	1.3 1	-2.2	5.0	3.1
2007	6	.3	.6	.5	.0	.5	.1	4	.3	6	.3	.0	3.0	4.7	1.1	-1.1	1.8
2008 2009	5	8 2	5 -2.0	-1.3	7 -1.1	7 3	-1.1 1.5	-1.2 1.2	-3.6	4 .1	-2.2 .9	-3.3	-4.2 -24.3	-9.8 -11.6	-14.4 8.1	-20.8 6.5	-5.9 -13.9
2010	1.0	3	1.1	.8	1.4	1	.6	.0	.0	.1	1	.3	5.4	9.7	3.8	.4	5.1
2011	.1	.1	.6	6	.1	.1	.7	.3	.4	.6	3	.7	2.3	2	4.3	3.9	2.5
2012	.8	.3	6	.5	5	.2	2	2	2	5	.8	.8	4.8	2	-1.4	.6	2.3
2013	4	.5	1	5	.3	.2	-1.0	.9	.1	.1	1	.0	2.8	6	7	1.5	.5
2014	-1.2	1.0	.8	2	.2	.3	.5	6	.0	1	.8	3	-1.2	3.8	1.5	.4	.8
2015 2016	4	7 6	.3 2	1 4	0. 0.	4	.7 .2	3 4	5 .3	.0	3 .1	4 .4	-3.0	-1.3 -2.6	.2 1.1	-3.0 2.3	7 -1.0
2010		.0	.2		.0	.0	.2		.0		.1		.,	2.0	1.1	2.0	1.0
2017	.6	.0	3	1.1	2	.1	2	3	2	1.3	.2	1	3.2	3.4	-1.5	5.0	1.9
2018 2019	4	1.1 6	0. 0.	.4	8 .2	.6 .4	.4	.4	.0	1	.2	.6	1.5 -2.1	1.9 -2.4	3.3	1.7	2.2
2019	0	0	.0	/	.2	.+							-2.1	-2.4			
IP (2012=100)																	
2017 2018	100.9	100.9 103.2	100.6 103.2	101.7 103.7	101.5 102.8	101.6 103.5	101.5 103.9	101.2 104.3	101.0 104.3	102.3 104.3	102.6 104.5	102.5 105.1	100.8 102.9	101.6 103.3	101.2 104.2	102.5 104.6	101.5 103.8
2018	102.1	103.2	103.2	103.7	102.8	103.5	103.9	104.5	104.5	104.5	104.5	105.1	102.9	103.3	104.2	104.0	105.8
Capacity (<i>percent of</i> 2012 output) 2017 2018	134.8 135.0	134.8 135.0	134.8 135.0	134.9 135.1	134.9 135.2	134.9 135.2	134.9 135.3	134.9 135.4	134.9 135.5	134.9 135.6	134.9 135.7	134.9 135.8	134.8 135.0	134.9 135.2	134.9 135.4	134.9 135.7	134.9 135.3
2010	136.0	136.1	136.2	136.3	136.5	136.6	155.5	155.4	155.5	155.0	155.7	155.0	136.1	136.5	155.4	155.7	155.5
Utilization (percent) 1997	82.4	83.0	83.3	82.6	82.6	82.6	82.6	83.1	83.2	83.4	83.7	83.5	82.9	82.6	82.9	83.5	83.0
1998	83.6	83.3	82.7	82.5	82.6	81.3	80.3	81.9	81.1	81.4	81.0	80.9	83.2	82.1	81.1	81.1	81.9
1999	80.6	80.8	80.2	80.0	80.3	79.5	79.4	79.7	79.1	80.1	80.2	80.4	80.5	79.9	79.4	80.2	80.0
2000 2001	80.0	79.8 75.7	79.9 75.4	80.1 75.2	79.5 74.7	79.4 74.3	79.1 74.1	78.3 73.7	78.4 73.5	78.0	77.5 72.8	76.8 72.9	79.9	79.7 74.7	78.6 73.7	77.4 72.9	78.9
2001	/0.2	13.1	13.4	13.2	/4./	74.3	/4.1	13.1	15.5	73.0	12.0	12.9	75.8	/4./	13.1	12.9	74.3
2002	73.3	73.2	73.7	73.8	74.2	75.1	74.8	74.9	75.0	74.7	75.1	74.7	73.4	74.4	74.9	74.8	74.4
2003 2004	75.2	75.0 76.0	75.1 75.9	74.4 76.2	74.4 76.9	74.6 76.3	74.7 77.1	74.3 77.4	74.9 77.3	74.9 78.1	75.6 78.0	75.4 78.5	75.1 75.8	74.5 76.5	74.6 77.3	75.3 78.2	74.9 76.9
2004 2005	78.9	78.0	78.9	76.2 79.0	76.9	76.3	78.6	77.4	77.6	78.1	78.0 79.1	78.5	75.8	76.5	78.3	78.2 78.9	78.8
2006	79.5	79.1	78.8	79.1	78.6	78.7	78.3	78.6	78.4	78.0	77.9	78.9	79.1	78.8	78.4	78.3	78.7
2007	78.3	78.5	78.9	79.2	79.1	79.4	79.4	79.1	79.3	78.8	79.0	79.0	78.6	79.2	79.3	79.0	79.0
2007 2008	78.3	78.5 78.0	78.9 77.7	79.2 76.7	79.1 76.2	79.4 75.7	79.4 74.9	79.1 74.0	79.3 71.5	78.8	79.0 69.8	79.0 67.6	78.6	79.2 76.2	79.3 73.5	79.0 69.6	79.0
2009	65.6	65.6	64.4	64.0	63.4	63.3	64.3	65.2	65.9	66.1	66.9	66.9	65.2	63.5	65.2	66.6	65.1
2010	67.7	67.6	68.5 72.0	69.2	70.4	70.4	71.0	71.2	71.3	71.5	71.6	72.0	67.9 72.5	70.0	71.1	71.7	70.2
2011	72.2	72.4	73.0	72.7	72.8	72.9	73.5	73.7	74.0	74.4	74.1	74.6	72.5	72.8	73.7	74.4	73.3
2012	75.2	75.3	74.8	75.1	74.7	74.8	74.6	74.4	74.2	73.8	74.3	74.9	75.1	74.9	74.4	74.3	74.7
2013	74.6	74.9	74.8	74.4	74.6	74.7	74.0	74.6	74.7	74.7	74.7	74.7	74.7	74.6	74.4	74.7	74.6
2014 2015	73.8	74.6 75.2	75.2 75.5	75.1 75.5	75.3 75.5	75.5 75.2	75.9 75.8	75.5 75.5	75.5 75.2	75.5 75.1	76.2 74.9	76.0 74.6	74.5 75.5	75.3 75.4	75.6 75.5	75.9 74.9	75.3 75.3
2015	75.1	74.5	73.3	73.3	73.9	73.2	73.8	73.8	74.0	74.2	74.9	74.0	74.6	74.0	73.3	74.9	73.3
	74.9	74.8	74.6	75.4	75.3	75.4	75.2	75.0	74.9	75.9	76.0	76.0	74.8	75.3	75.0	76.0	75.3
2017		76.5	76.5	76.8	76.1	76.5	76.8	77.0	11/10	160	110	·///	(6.)		76.0	77 1	161
2017 2018 2019	75.6	76.5 76.3	76.5 76.2	76.8 75.7	76.1 75.7	76.5 76.0	76.8	77.0	77.0	76.9	77.0	77.4	76.2 76.5	76.5 75.8	76.9	77.1	76.7

Table 14 HISTORICAL STATISTICS FOR INDUSTRIAL PRODUCTION, CAPACITY, AND UTILIZATION: Manufacturing' Excluding Selected High-Technology Industries² Seasonally adjusted

I. The composition of manufacturing is specified in a note for the summary table.
 Selected high-technology industries are computers, communications equipment, and semiconductors and related electronic components.
 Quarterly percentage changes are at annual rates. Annual percentage changes are calculated from annual averages.

Table 15 INDUSTRIAL PRODUCTION: RELIABILITY ESTIMATES Seasonally adjusted

Annualized change 2012=100 Percent change 2019 2019 2019 Q2 Item Q1 Jan. Feb. Mar. Apr. May June Jan. Feb. Mar. May June Apr. Total index 85th percentile -1.69 -.18 110.12 109.64 109.81 109.38 109.97 110.02 -.39 -.44 .20 -.29 .72 .28 -.39 Current estimate -1.91 -1.18110.12 109.58 109.69 109.18 109.64 109.60 -.49 .10 -.47 .42 -.04 15th percentile -2.16 110.12 109.52 109.57 108.99 109.36 109.17 -.39 -.55 .01 .58 .18 -.38 -1.91 Manufacturing (SIC) 85th percentile -1.60 -1.30 105.82 105.33 105.37 104.75 105.03 105.61 -.56 -.46 .07 -.55 .39 .69 Current estimate -1.86 -2.25 105.82 105.26 105.24 105.20 -.56 -.52 104.56 104.77 -.02 -.65 .21 .41 -2.05 104.35 .56 -.58 15th percentile -3.27 105.82 105.20 105.11 104.47 104.70 -.13 -.77 .05 .11 Mining 85th percentile 2.56 12.36 132.06 130.78 130.51 134.16 135.19 135.71 -.97 -.10 1.10 1.17 -.35 3.11 1.98 8.88 132.06 130.61 130.11 133 49 133 71 134.02 -.35 -1.10 Current estimate - 38 2.60.17 23 15th percentile 1.33 5.71 132.06 130.44 129.66 132.72 132.31 132.18 .35 -1.23 -.68 2.21 .56 -.66 Electric and gas utilities 85th percentile -7.90 -1.76 104.40 105.10 106.89 103.92 107.68 103.77 .78 -2.53 4.18 -1.58 .67 1.73 -6.71 Current estimate -8.05 104.40 105.08 106.83 103.27 105.70 101.90 .78 -3.34 2.36 -3.60 .66 1.67 -8.21 104.40 105.06 102.90 15th percentile -8.64 106.75 104.51 100.82 78 .64 1.56 -3.73 .98 -5.37

Note. The reliability measures show the likely range of values for the IP indexes after their fifth and final monthly revision. The 15th (85th) percentile estimate is equal to the current estimate plus an amount such that the equivalent measure revised by a lower (higher) amount for only 15 percent of the months since 2008. More information is available at https://www.federalreserve.gov/releases/g17/g17_technical_qa.htm

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 2012, 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 75 percent of the source data (in value-added terms) are available; the fraction of available source data increases to 85 percent for estimates in the second month that the estimate is published, 94 percent in the third month, 95 percent in the fourth month, 96 percent in the fifth month, and 96 percent in the sixth month. Data availability by data type in 2018 is summarized in the table below:

Availability of Monthly IP Data in Publication Window (Percent of value added in 2018; the numbers may not sum because of rounding.)

iounuing.)									
	Month of estimate								
Type of data	1st	2nd	3rd	4th	5th	6th			
Physical product	34	44	54	54	56	56			
Production-worker hours	40	40	40	40	40	40			
IP data received	75	85	94	95	96	96			
IP data estimated	25	15	6	5	4	4			

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 more than one-half of the series (in terms of value added) that ultimately are based on physical product data (34 percent out of a total of 56 percent). Of the 34 percent, about three-quarters (25 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-13 ARIMA. For series based on production-worker hours, the current seasonal factors were estimated with data through January 2019; for other series, the factors were estimated with data through at least December 2018. 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-13 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

0.28 percent during the 1987–2018 period. The average revision to the *percent change* in total IP, without regard to sign, from the first to the fourth estimates was 0.22 percentage point during the 1987-2018 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 27 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 64 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 9 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 1972–2018 period, the average total industry utilization rate was 79.8 percent; for manufacturing, the average factory operating rate was 78.3 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 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 27, 2019, 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 release on Industrial Production and Capacity Utilization is published at 9:15 a.m. on:

2019: January 18, February 15, March 15, April 16, May 15, June 14, July 16, August 15, September 17, October 17, November 15, December 17.

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