FEDERAL RESERVE statistical release



June '20 to

G.17 (419)

For release at 9:15 a.m. (EDT) July 15, 2021

Percent change

INDUSTRIAL PRODUCTION AND CAPACITY UTILIZATION

2021

Industrial production increased 0.4 percent in June after moving up 0.7 percent in May. In June, manufacturing output edged down 0.1 percent, as an ongoing shortage of semiconductors contributed to a decrease of 6.6 percent in the production of motor vehicles and parts. Excluding motor vehicles and parts,

(over)

2021

Industrial Production and Capacity Utilization: Summary

Seasonally adjusted

Industrial production	Jan. ^r	Feb. ^r	Mar. ^r	Apr.r	May ^r	June ^p	Jan.	Feb. ^r	Mar. ^r	Apr. ^r	May	June ^p	June '21
T.4.1'.1.	00.4	06.4	00.0	00.0	00.7	100.1	1.1	2.1	2.7	0	7	4	0.0
Total index	99.4 99.3	96.4 96.4	98.9 98.9	99.0 99.0	99.7 99.9	100.1	1.1 1.1	-3.1 -2.9	2.7 2.6	.0 .1	.7 .8	.4	9.8
Previous estimates	99.3	90.4	98.9	99.0	99.9		1.1	-2.9	2.0	.1	.8		
Major market groups													
Final Products	100.1	98.0	99.6	98.7	99.6	99.5	1.3	-2.1	1.6	8	.8	.0	8.8
Consumer goods	100.8	98.6	99.8	99.3	100.0	99.7	.4	-2.2	1.2	5	.7	3	5.4
Business equipment	94.0	91.5	94.0	92.3	93.8	93.2	2.4	-2.6	2.7	-1.8	1.7	6	15.1
Nonindustrial supplies	96.6	94.2	96.7	96.5	96.8	96.9	.6	-2.4	2.7	2	.3	.1	9.7
Construction	101.0	97.0	101.6	100.0	99.3	98.9	1.1	-4.0	4.8	-1.5	7	4	7.8
Materials	99.6	95.4	98.9	99.9	100.6	101.6	1.1	-4.2	3.7	.9	.7	1.0	10.7
Major industry groups													
Manufacturing (see note below)	98.2	94.5	97.5	97.1	97.9	97.9	1.5	-3.7	3.1	4	.9	1	9.8
Previous estimates	98.1	94.6	97.5	97.4	98.2	71.7	1.4	-3.6	3.1	1	.9	• • •	7.0
Mining	103.3	94.2	105.5	105.9	106.7	108.2	2.9	-8.8	11.9	.4	.8	1.4	17.8
Utilities	100.8	108.3	99.0	101.7	100.9	103.6	-2.6	7.4	-8.6	2.8	8	2.7	2.1
													Capacity
		1000	1000	1001	Perce	nt of capa	acity						growth
	Average	1988-	1990-	1994-	2000	2020	2021						T 100
G	1972-	89	91	95	2009	2020	2021	Eli	M 1	А Г	M	T D	June '20 to
Capacity utilization	2020	high	low	high	low	June	Jan. ^r	Feb. ^r	Mar. ^r	Apr. ^r	May	June ^p	June '21
Total industry	79.6	85.2	78.8	85.1	66.6	68.7	75.0	72.7	74.6	74.6	75.1	75.4	.0
Previous estimates							74.9	72.7	74.6	74.6	75.2		
Manufacturing (see note below)	78.2	85.6	77.3	84.7	63.5	68.3	75.6	72.7	75.0	74.7	75.4	75.3	3
Previous estimates							75.5	72.8	75.0	74.9	75.6		
Mining	86.2	86.0	83.8	88.3	78.3	64.0	72.7	66.5	74.5	74.9	75.6	76.7	-1.7
Utilities	85.0	93.1	84.6	93.2	78.0	75.0	73.2	78.5	71.6	73.5	72.7	74.5	2.7
Stage-of-process groups													
Crude	85.4	87.7	84.6	89.7	76.5	67.0	74.4	66.4	73.5	74.5	76.1	77.1	-1.0
Primary and semifinished	80.2	86.5	78.1	87.9	63.5	69.3	74.3	74.0	74.1	74.5	74.5	75.0	.3
Finished	76.8	83.4	77.5	80.7	66.5	68.5	76.0	73.7	75.6	74.7	75.3	75.2	2
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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.

factory output increased 0.4 percent. The output of utilities advanced 2.7 percent, reflecting heightened demand for air conditioning, as much of the country experienced a heat wave in June. The index for mining increased 1.4 percent.

For the second quarter as a whole, total industrial production rose at an annual rate of 5.5 percent. Manufacturing output increased at an annual rate of 3.7 percent despite a drop of 22.5 percent for motor vehicles and parts.

At 100.1 percent of its 2017 average, total industrial production in June was 9.8 percent above its year-earlier level but 1.2 percent below its pre-pandemic (February 2020) level. Capacity utilization for the industrial sector rose 0.3 percentage point in June to 75.4 percent, a rate that is 4.2 percentage points below its long-run (1972–2020) average.

Market Groups

Market groups posted mixed results in June. The drop in motor vehicle output contributed to decreases in consumer goods and business equipment. Defense and space equipment posted the largest gain among market groups, advancing 4.4 percent. The index for materials advanced 1.0 percent as a result of a gain in energy materials.

Industry Groups

In June, manufacturing output edged down 0.1 percent and was 0.8 percent below its pre-pandemic level. Production of durable goods slipped 0.2 percent; in addition to the drop for motor vehicles and parts, declines of more than 1.0 percent were recorded by nonmetallic mineral products and by electrical equipment, appliances, and components. The output of nondurable goods rose 0.2 percent. The largest increases were recorded by printing and support activities and by petroleum and coal products, while the largest decreases were recorded by paper and by apparel and leather. The output of other manufacturing (publishing and logging) declined 0.8 percent.

The index for mining gained 1.4 percent in June and expanded at an annual rate of 25.6 percent in the second quarter. In June, oil and gas extraction increased 2.1 percent, but the index remained 6.0 percent below its pre-pandemic level. The index for utilities rose 2.7 percent in June but fell 2.2 percent in the second quarter.

Capacity utilization for manufacturing declined 0.1 percentage point in June to 75.3 percent. The operating rate for mining increased 1.1 percentage points to 76.7 percent, while the operating rate for utilities rose 1.8 percentage points to 74.5 percent. The rates for all three sectors remained below their long-run averages.

Note: The Federal Reserve typically publishes revised estimates of industrial capacity concurrent with the July release of industrial production and capacity utilization. Revised estimates of industrial capacity will not be published this year because an annual revision to industrial production and capacity utilization was issued on May 28, 2021. The next update to capacity will occur early next year when the Federal Reserve issues preliminary estimates for 2022.

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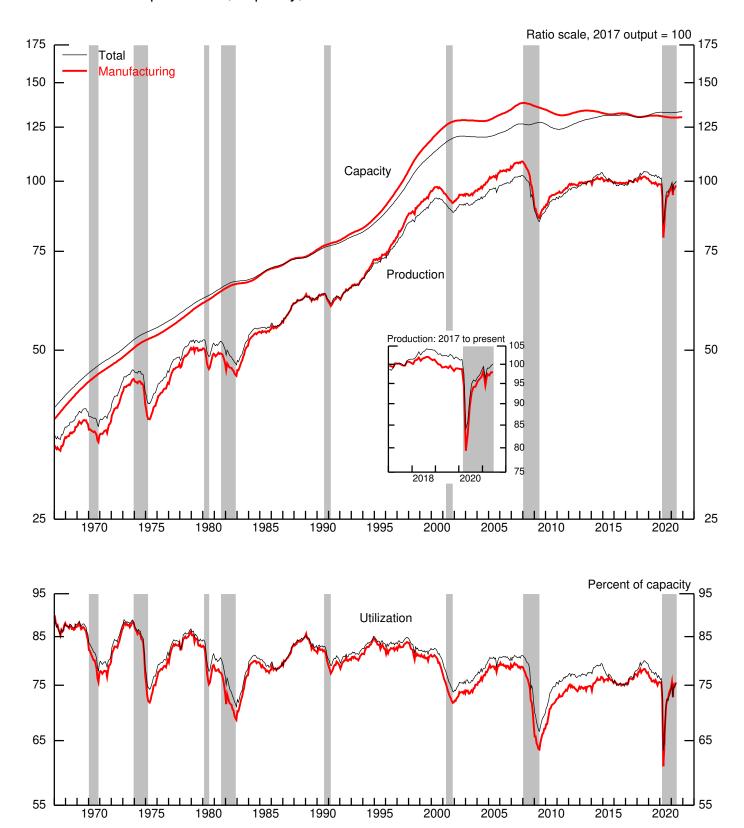
Further detail is available on the Board's website (www.federalreserve.gov/releases/G17/).

Revision of Industrial Production and Capacity Utilization

The Federal Reserve Board issued its annual revision to the indexes of industrial production (IP) and the related measures of capacity utilization on May 28, 2021. The base year for the revised indexes is 2017. New annual benchmark data for manufacturing for 2017 through 2019 were incorporated, as well as other annual data, including information on the mining of metallic and nonmetallic minerals (except fuels). The weights for market-group splits of the industry-level indexes were updated with information from the 2012 benchmark input-output accounts from the U.S. Bureau of Economic Analysis. The updated IP indexes included revisions to the monthly production indicator (either product data or input data) and to seasonal factors for each industry. In addition, the estimation methods for some series were changed. Any modifications to the methods for estimating the output of an industry affected the index from 1972 to the present.

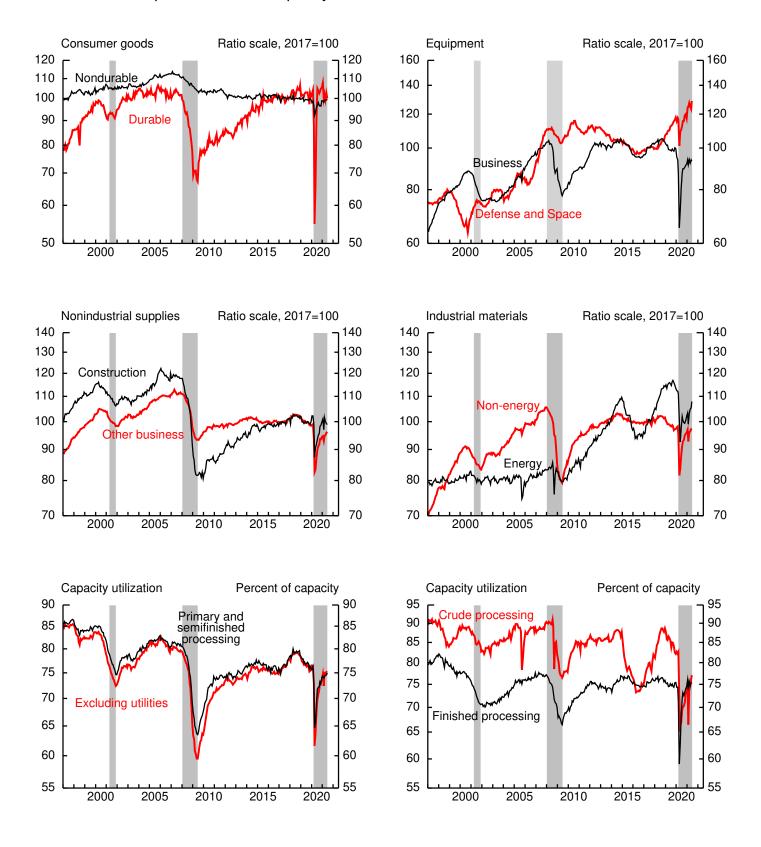
Capacity and capacity utilization were revised to incorporate data for manufacturing through the fourth quarter of 2020 from the U.S. Census Bureau's Quarterly Survey of Plant Capacity Utilization, along with new data on capacity from the U.S. Geological Survey, the U.S. Department of Energy, and other organizations.

1. Industrial production, capacity, and utilization



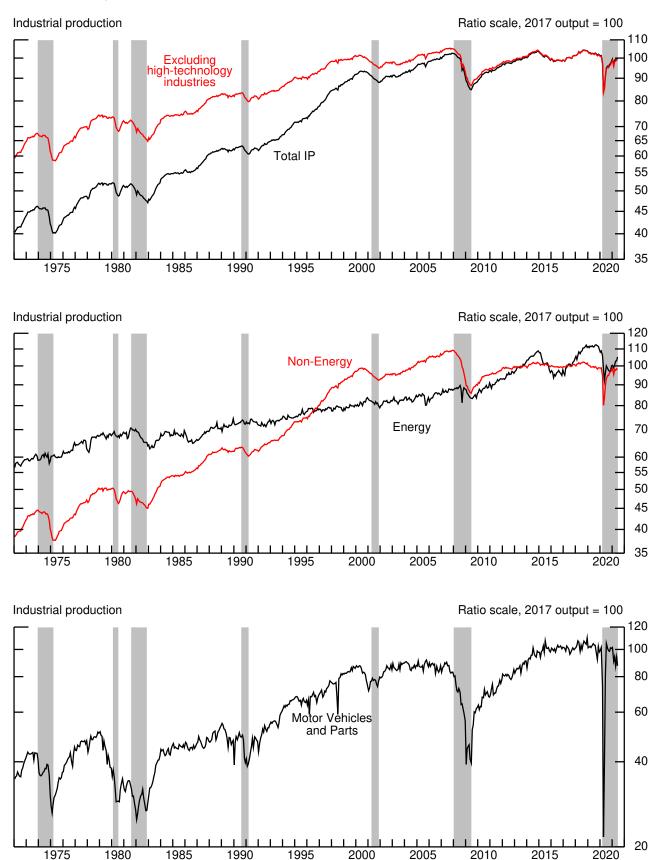
Note: The shaded areas are periods of business recession as defined by the National Bureau of Economic Research (NBER).

2. Industrial production and capacity utilization



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

3. Industrial production 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

Percent change, seasonally adjusted			1	th quart irth quar		Λ,	nnual ra	ta			Month	ly roto			June '20
Item		2020	100	ii iii quai	ici	2020	2021	ic	2021		Monu	ny rate			to
		proportion ¹	2018	2019	2020	Q4	Q1 ^r	Q2 ^p	Jan. ^r	Feb. ^r	Mar. ^r	Apr.r	May ^r	June ^p	June '21
Total IP		100.00	2.7	-2.1	-4.3	8.2	3.6	5.5	1.1	-3.1	2.7	.0	.7	.4	9.8
MARKET GROUPS															
Final products and nonindustrial supplied	es	56.60	1.3	-1.9	-3.4	7.6	5.6	1.3	1.1	-2.2	1.9	7	.7	.0	9.1
Consumer goods		28.38	.7	-1.3	8	1.4	3.2	2	.4	-2.2	1.2	5	.7	3	5.4
Durable Automotive products		6.01 3.24	4.4 5.0	-4.2 -5.2	4.2 5.1	3.1 -5.7	-4.6 -16.5	-9.8 -18.7	2.4	-7.2 -10.3	2.0	-2.8 -5.6	3.5 6.6	-2.6 -5.4	10.9 9.4
Home electronics		.16	19.7	3.4	16.1	28.5	12.0	27.2	.4	-10.3	1.1	3.2	1.5	2.5	25.0
Appliances, furniture, carpeting		.94	-1.7	-2.9	5.2	8.4	14.2	-15.7	8.3	-5.8	-3.0	5	.8	7	6.1
Miscellaneous goods		1.67	5.4	-3.9	.7	19.4	12.0	10.5	2.1	-2.0	3.3	.9	5	1.2	15.2
Nondurable		22.37	3	4	-2.2	.9	5.6	2.7	2	7	.9	.2	1	.4	3.9
Non-energy		16.87	-1.4	.3	8	7.1	4.1	.6	.8	-2.6	2.3	5	.1	3	4.2
Foods and tobacco		9.94	-1.7	1.3	4	8.5	4.2	-3.9	1.3	-4.1	3.2	-1.5	.1	7	1.8
Clothing Chemical products		.20 5.33	-2.7 -1.1	1.9 .0	-1.3 8	29.6 4.1	10.3 4.1	7.6 9.4	2.9 2	-1.5 9	1.2	2 1.9	3.3	-1.3 .8	16.4 7.7
Paper products		.97	-2.8	-6.0	-4.3	4.1	2	4	2	2.3	1.1	-1.6	2	-1.4	2.9
Energy		5.50	2.8	-2.5	-6.6	-17.3	10.2	9.0	-3.1	5.3	-2.9	2.1	6	2.1	2.6
2.10.5)		5.50	2.0	2.0	0.0	17.5	10.2	7.0	0.1	0.0	2.,	2.1	.0	2.1	2.0
Business equipment		9.20	1.4	-4.2	-8.4	10.7	9.7	2	2.4	-2.6	2.7	-1.8	1.7	6	15.1
Transit		2.12	-4.0	-6.1	-23.7	28.4	4.4	-26.3	3.2	-5.2	1.0	-7.1	2.4	-2.3	28.1
Information processing		2.09	4.1	1.5	3.6	-6.6	6.6	17.0	.7	9	2.8	.6	2.6	.4	6.3
Industrial and other		4.99	3.6	-5.3	-4.5	10.8	13.7	8.0	2.7	-1.9	3.5	2	1.0	3	14.4
Defense and space equipment		2.80	5.0	10.9	1.9	15.5	24.3	.7	5.9	.2	2.4	-2.0	-1.3	4.4	16.5
Construction supplies		4.98 10.67	.7	-2.4 -3.0	4 -5.0	19.0 13.0	3.8 1.4	-1.8 6.8	1.1	-4.0 -1.7	4.8 1.7	-1.5	7	4	7.8 10.6
Business supplies									.4			.5	.8	.3	
Materials Non-analysis		43.40 27.45	4.4	-2.5 -4.3	-5.5	9.1	1.1 9	11.3	1.1	-4.2 -4.3	3.7	.9	.7 .9	1.0	10.7 10.5
Non-energy Durable		16.71	2.0	-4.3 -5.1	-1.7 -2.8	14.0 12.1	6.9	7.7 .7	1.1	-4.3 -1.9	2.3	.5 -1.1	.9 .6	.0	11.9
Consumer parts		2.46	2.5	-10.7	1.1	9.7	2.7	-18.6	2.7	-6.2	1.5	-4.5	2.6	-3.1	14.9
Equipment parts		4.86	2.0	-1.6	-1.6	10.3	12.7	5.7	2.5	7	2.4	7	1.1	.0	10.4
Other		9.39	1.9	-5.2	-4.7	13.7	5.3	4.2	.8	-1.2	2.5	4	1	.8	11.8
Nondurable		10.74	-1.3	-3.0	.2	17.1	-12.3	20.0	.3	-8.2	5.5	3.1	1.2	.1	8.4
Textile		.35	.5	-3.8	-4.8	5.6	9.3	23.2	8	.5	4.4	2.3	.0	4	19.1
Paper		1.63	1.4	-1.3	-7.5	21.9	-4.5	1.7	-1.3	-2.0	5.1	-1.5	8	7	4.4
Chemical Energy		5.27 15.95	-3.4 10.4	-5.6 .6	3.0	22.6	-24.6 4.8	42.4 17.5	.6 1.2	-15.2 -4.1	8.4 4.0	7.3 1.7	2.8	.7 2.5	11.2 10.2
INDUSTRY GROUPS															
Manufacturing		75.90	.7	-2.6	-2.5	11.1	2.3	3.7	1.5	-3.7	3.1	4	.9	1	9.8
Manufacturing (NAICS)	31–33	73.88	.8	-2.4	-2.4	11.0	2.4	3.8	1.5	-3.9	3.2	4	.9	.0	9.9
Durable manufacturing		38.14	2.4	-3.3	-2.6	11.0	6.3	-1.4	2.2	-3.1	2.6	-1.6	1.0	2	12.1
Wood products	321 327	1.71 2.29	-3.4	-1.1 -2.2	.2	16.4 17.0	3.6 -5.2	.5 -13.8	3 -1.2	-4.1 -5.0	4.0	-1.0 -1.6	.2 -2.5	7	8.4
Nonmetallic mineral products Primary metals	331	2.29	4.1	-7.5	-6.7	37.8	9.4	22.8	1.5	-3.0	2.5	3.5	-2.3	-1.1 4.0	-1.1 31.7
Fabricated metal products	332	5.95	3.5	-3.9	-5.9	9.3	7.4	2.3	2.0	-2.6	3.9	-1.6	.8	.0	6.6
Machinery	333	5.40	3.8	-6.7	2	13.1	15.4	4.1	4.6	-2.5	2.2	1	1.0	5	15.8
Computer and electronic products	334	4.96	2.2	2.3	4.1	3.3	7.2	15.1	.7	4	2.4	.5	2.3	.4	9.1
Electrical equip., appliances,												_	_		
and components	335	1.85	3.9	-3.3	-2.0	13.7	13.6	1.2	3.5	-2.4 10.7	2.5	.5	5 7.3	-2.2	8.1
Motor vehicles and parts Aerospace and miscellaneous	3361–3	4.89	5.9	-8.4	2.8	-5.4	-17.6	-22.5	.6	-10.7	3.9	-7.3	7.3	-6.6	7.9
transportation equipment	3364–9	4.76	-2.8	3.8	-13.4	25.8	25.3	-10.3	5.6	.1	.6	-3.2	-1.7	3.7	23.9
Furniture and related products	337	1.23	2	-3.9	-5.5	5	1.0	-5.0	2.1	-3.1	9	-1.0	1.8	.6	2.3
Miscellaneous	339	2.82	4.5	-4.7	-1.4	13.4	12.3	4.4	2.3	-2.1	3.0	8	.4	1.2	16.4
Nondurable manufacturing		35.75	-1.0	-1.5	-2.2	10.9	-1.7	9.9	.7	-4.7	3.8	.9	.8	.2	7.4
Food, beverage, and tobacco products	311,2	12.42	-1.0	1.4	3	7.9	3.2	-2.9	1.1	-3.6	3.2	-1.3	.1	7	1.7
Textile and product mills	313,4	.63	1.4	-3.8	-5.6	10.1	14.3	17.9	.8	.1	3.9	1.9	5	1	16.5
Apparel and leather	315,6	.22	-2.9	1.5	9	28.1	11.8	7.6	3.3	-1.5	1.1	.0	3.1	-1.4	16.1
Paper	322	2.40	1.9	-1.4	-3.6	20.1	-4.1	4	-1.8	8	4.0	-1.7	6	9	3.6
Printing and support	323	1.34	3	-3.7	-8.3	24.9	-4.8	18.0	-1.4	-1.7	2.9	.5	2.7	1.7	17.3
Petroleum and coal products	324	3.34	-1.1	-1.2	-12.1	13.6	19.3	26.0	3.6	-6.9	11.0	1.5	-1.0 2.3	1.4	21.3 8.3
Chemicals Plastics and rubber products	325 326	11.85 3.53	-2.7 2.3	-3.1 -5.1	.0 -2.2	10.1 10.5	-13.7 5.1	25.8 -3.5	2 1.8	-7.9 7	4.1 -1.1	4.2 7	.8	.6 .6	8.3
Other manufacturing (non-NAICS)	1133,5111	2.01	-3.9	-7.6	-9.1	15.2	-1.4	-1.3	.0	2.2	2.2	-2.2	.1	8	9.2
Mining	21	12.17	14.1	.5	-16.6	8.8	7.5	25.6	2.9	-8.8	11.9	.4	.8	1.4	17.8
Utilities	2211,2	11.94	3.0	-1.7	-3.2	-9.1	8.7	-2.2	-2.6	7.4	-8.6	2.8	8	2.7	2.1
Electric Natural gas	2211 2212	10.29 1.64	1.5 12.9	-1.3 -4.1	-2.1 -9.9	-6.7 -22.7	9.6 3.3	-3.9 8.5	-2.0 -6.6	6.0 16.5	-6.4 -21.1	.9 15.3	8 9	3.3 -1.2	3.2 -4.1
Tundingus	2212	1.07	12.7	7.1	7.7		5.5	0.5	0.0	10.5	21.1	13.3	,	1.2	1.1

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 2017 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/G17/20210715/default.sup.htm). 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						A	nnual rat	e			Month	nly rate			June '20
Item		2020 proportion	2018	2019	2020	2020 Q4	2021 Q1 ^r	Q2 ^p	2021 Jan. ^r	Feb.r	Mar.r	Apr. ^r	May ^r	June ^p	to June '21
Total industry		100.00	2.7	-2.1	-4.3	8.2	3.6	5.5	1.1	-3.1	2.7	.0	.7	.4	9.8
Energy		24.65	8.4	4	-11.8	-2.8	8.3	15.1	.4	-1.5	1.8	2.0	.2	2.3	9.4
Consumer products		5.50	2.8	-2.5	-6.6	-17.3	10.2	9.0	-3.1	5.3	-2.9	2.1	6	2.1	2.6
Commercial products		2.69	2.5	.3	-9.5	6.8	11.7	9.8	1.2	6	7	3.0	6	1.4	12.1
Oil and gas well drilling	213111	.50	27.8	-11.1	-48.3	104.9	135.4	41.5	9.8	5.2	1.2	2.8	4.3	1.9	63.5
Converted fuel	210111	5.11	4.8	-2.7	-4.5	-8.8	7.8	9.2	1	4.4	-8.6	6.3	5	3.0	7.1
Primary energy		10.84	12.7	2.1	-15.9	5.0	3.2	21.6	1.9	-8.2	10.7	3	.9	2.3	12.0
Non-energy		75.35	.7	-2.7	-1.9	11.5	2.3	2.5	1.4	-3.6	2.9	6	.9	2	9.7
Selected high-technology industries		2.17	5.0	6.1	9.2	19.6	14.8	15.7	1.3	1.3	1.7	1.0	1.3	.6	16.0
Computers and peripheral equipment	3341	.28	29.0	12.2	19.0	30.3	10.4	40.6	3	.9	2.7	4.1	2.2	3.1	29.6
Communications equipment	3342	.60	12.2	4.3	13.0	18.0	26.6	13.9	2.6	2.1	1.6	.7	.7	1.2	14.6
Semiconductors and related	33 12	.50	12.2	1.3	15.0	10.0	20.0	13.7	2.0	2.1	1.0	.,	.,	1.2	11.0
electronic components	3344	1.29	7	5.6	5.9	18.1	10.8	11.4	1.0	1.1	1.6	.4	1.5	3	13.7
Excluding selected high-technology industries		73.18	.6	-3.0	-2.3	11.2	1.9	2.1	1.4	-3.7	3.0	7	.9	2	9.5
	2261 2														
Motor vehicles and parts	3361-3	4.89	5.9	-8.4	2.8	-5.4	-17.6	-22.5	.6	-10.7	3.9	-7.3	7.3	-6.6	7.9
Motor vehicles Motor vehicle parts	3361 3363	2.46 2.00	11.0 2.9	-8.5 -8.1	3.3	-14.1 .7	-31.7 -5.6	-27.8 -13.4	6 .4	-16.2 -5.0	7.1 2.3	-9.7 -4.8	10.9 4.0	-9.8 -3.3	5.1 7.7
Excluding motor vehicles and parts		68.29	.1	-2.5	-2.6	12.8	3.6	4.2	1.4	-3.1	2.9	2	.4	.2	9.5
Consumer goods		20.00	8	4	3	8.7	5.3	.5	1.3	-2.7	2.1	4	.2	2	5.8
Business equipment		7.79	8	-4.0	-10.8	11.3	13.6	2.0	2.7	-1.6	2.2	-1.1	.7	.3	15.6
Construction supplies		4.96	.7	-2.4	4	19.0	3.8	-1.8	1.1	-4.0	4.8	-1.5	7	4	7.8
Business supplies		7.58	.4	-4.7	-4.1	14.8	-2.5	5.6	.0	-2.3	2.6	5	1.4	.0	9.9
Materials		25.14	.6	-4.2	-2.1	14.6	9	9.4	1.1	-4.4	3.6	.9	.6	.3	10.2
Measures excluding selected high-technology industries		07.02				7.0	2.4				0.5				0.7
Total industry		97.83	2.6	-2.3	-4.6	7.9	3.4	5.3	1.1	-3.2	2.7	.0	.7	.4	9.7
Manufacturing ¹		73.72	.5	-2.8	-2.9	10.8	2.0	3.4	1.5	-3.9	3.2	5	.9	1	9.7
Durable		36.12	2.2	-3.8	-3.4	10.5	5.8	-2.4	2.3	-3.4	2.6	-1.7	1.0	3	11.9
Measures excluding motor vehicles and parts															
Total industry		95.11	2.5	-1.8	-4.7	9.2	5.0	7.3	1.2	-2.6	2.6	.4	.4	.8	9.8
Manufacturing ¹		71.00	.2	-2.1	-2.9	12.6	4.1	5.9	1.5	-3.2	3.1	.1	.5	.4	9.9
Durable		33.41	1.8	-2.4	-3.4	14.2	10.7	2.1	2.5	-1.9	2.4	7	.1	.7	12.7
Measures excluding selected high-technology industries															
and motor vehicles and parts															
Total industry		92.93	2.4	-2.0	-5.0	8.9	4.8	7.1	1.2	-2.7	2.6	.4	.3	.8	9.7
Manufacturing ¹		68.83	.1	-2.4	-3.3	12.3	3.7	5.6	1.5	-3.3	3.1	.0	.4	.4	9.7
Stage-of-process components of non-energy materials, measures of the input to Finished processors		9.29	2.0	-4.4	-1.9	11.8	6.6	-1.8	1.8	-2.5	2.7	-1.8	1.2	-1.0	10.8
Primary and semifinished processors		18.15	.0	-4.3	-1.5	15.1	-4.6	12.9	.7	-5.3	3.9	1.6	.7	.5	10.3
i iiiiary and seminished processors		10.13	.0	-4.3	-1.3	13.1	-4.0	12.9	. /	-3.3	3.9	1.0	. /		10.5
		1	1			1			1						

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

fillions of units, seasonally adjusted annual rate											
	2020	2020		2021		2021					
Item	average	Q3	Q4	Q1	Q2	Jan.	Feb.	Mar.	Apr.	May	June
Total	8.82	11.25	10.79	9.71	9.08	10.72	8.89	9.53	8.60	9.75	8.91
Autos	1.92	2.44	2.23	1.77	1.56	2.17	1.68	1.45	1.59	1.67	1.41
Trucks	6.90	8.81	8.56	7.95	7.53	8.55	7.21	8.08	7.01	8.08	7.49
Light	6.66	8.53	8.25	7.66	7.26	8.26	6.95	7.77	6.76	7.77	7.26
Medium and heavy	.24	.28	.30	.29	.27	.29	.26	.31	.25	.31	.24
Memo											
Autos and light trucks	8.58	10.97	10.49	9.43	8.82	10.43	8.63	9.22	8.34	9.44	8.67
-											

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

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

Table 4 Industrial Production Indexes: Market and Industry Group Summary

2017 =	100.	seasonally	adi	iusted

2017 = 100, seasonarry adjusted											
Item		2020 proportion	2020 Oct.	Nov.	Dec.	2021 Jan. ^r	Feb.r	Mar. ^r	Apr.r	May ^r	June ^p
nem		proportion	Oct.	NOV.	Dec.	Jan.	reb.	Mai.	Apı.	May	Julie
Total IP		100.00	96.6	97.2	98.3	99.4	96.4	98.9	99.0	99.7	100.1
MARKET GROUPS											
Final products and nonindustrial supplies		56.60	96.3	96.6	98.0	99.1	97.0	98.8	98.1	98.8	98.8
Consumer goods		28.38	98.2	98.3	100.4	100.8	98.6	99.8	99.3	100.0	99.7
Durable		6.01	103.4	104.9	105.3	107.8	100.0	102.1	99.2	102.7	100.0
Automotive products Home electronics		3.24	104.1 150.6	107.1 153.6	106.8 155.5	107.9 156.1	96.7 157.5	99.4 159.2	93.9 164.4	100.1 166.8	94.7 171.0
Appliances, furniture, carpeting		.94	101.0	98.4	100.1	108.4	102.1	99.1	98.6	99.4	98.7
Miscellaneous goods		1.67	99.4	100.1	101.3	103.4	101.3	104.7	105.7	105.2	106.4
Nondurable		22.37	96.7	96.4	99.0	98.8	98.1	99.1	99.3	99.2	99.6
Non-energy		16.87	96.7	97.5	98.9	99.7	97.1	99.3	98.9	99.0	98.7
Foods and tobacco		9.94	97.4	98.8	100.2	101.5	97.4	100.6	99.0	99.1	98.4
Clothing		.20	96.1	94.3	95.5	98.2	96.7	97.9	97.7	100.9	99.6
Chemical products		5.33	97.1	97.3	99.4	99.2	98.3	99.2	101.0	100.8	101.6
Paper products Energy		.97 5.50	88.0 96.2	86.1 92.6	84.6 99.0	84.6 95.9	86.5 100.9	87.5 98.0	86.1 100.1	86.7 99.5	85.5 101.6
Ellergy		3.30	90.2	92.0	99.0	93.9	100.9	96.0	100.1	99.3	101.0
Business equipment		9.20	90.2	91.2	91.7	94.0	91.5	94.0	92.3	93.8	93.2
Transit		2.12	69.1	71.2	71.4	73.6	69.8	70.5	65.5	67.1	65.6
Information processing		2.09 4.99	110.7	112.4	112.5	113.3	112.2	115.4	116.1	119.1	119.5
Industrial and other Defense and space equipment		2.80	95.5 119.0	95.6 120.0	96.5 117.4	99.1 124.3	97.2 124.5	100.6 127.5	100.3 124.9	101.3 123.3	101.0 128.7
Describe and space equipment		2.60	119.0	120.0	117.4	124.3	124.3	127.3	124.7	123.3	120.7
Construction supplies		4.98	98.2	98.7	99.9	101.0	97.0	101.6	100.0	99.3	98.9
Business supplies		10.67	93.5	93.5	94.3	94.6	93.0	94.6	95.0	95.8	96.1
Materials		43.40	97.0	97.7	98.5	99.6	95.4	98.9	99.9	100.6	101.6
Non-energy		27.45	94.9	95.5	95.9	96.9	92.8	96.0	96.4	97.3	97.3
Durable		16.71	94.4	95.1	95.6	97.2	95.3	97.5	96.4	97.0	97.0
Consumer parts		2.46	90.6	91.2	93.4	95.9	89.9	91.2	87.1	89.4	86.6
Equipment parts		4.86	100.0	100.5	100.6	103.1	102.3	104.8	104.1	105.2	105.2
Other Nondurable		9.39 10.74	92.8 95.6	93.5 96.1	93.8 96.3	94.5 96.6	93.4 88.6	95.7 93.5	95.3 96.4	95.2 97.6	96.0 97.7
Textile		.35	91.1	88.0	91.1	90.0	90.9	94.9	97.1	97.0	96.7
Paper		1.63	89.4	89.9	89.3	88.2	86.5	90.9	89.5	88.9	88.2
Chemical		5.27	94.2	94.9	95.2	95.7	81.2	88.0	94.4	97.1	97.8
Energy		15.95	99.4	100.4	102.0	103.3	99.1	103.0	104.8	105.3	107.9
Industry Groups											
Manufacturing		75.90	95.6	96.2	96.8	98.2	94.5	97.5	97.1	97.9	97.9
Manufacturing (NAICS)	31-33	73.88	96.0	96.7	97.3	98.8	95.0	98.0	97.6	98.5	98.4
Durable manufacturing		38.14	96.9	97.9	98.3	100.5	97.3	99.8	98.3	99.3	99.0
Wood products	321	1.71	95.1	95.9	99.4	99.1	95.1	98.9	97.9	98.1	97.4
Nonmetallic mineral products	327	2.29	96.6	97.8	100.9	99.7	94.6	97.1	95.5	93.1	92.1
Primary metals Fabricated metal products	331 332	2.28 5.95	89.1 94.7	91.5 95.5	90.3 95.4	91.6 97.4	91.6 94.8	93.8 98.6	97.1 97.0	95.3 97.7	99.2 97.7
Machinery	333	5.40	99.8	93.5	99.1	103.7	101.1	103.4	103.3	104.3	103.7
Computer and electronic products	334	4.96	110.8	112.1	112.3	113.1	112.7	115.3	115.8	118.5	119.0
Electrical equip., appliances,											
and components	335	1.85	97.4	97.2	98.1	101.5	99.1	101.6	102.1	101.6	99.3
Motor vehicles and parts	3361-3	4.89	98.5	101.2	100.8	101.5	90.6	94.2	87.4	93.8	87.6
Aerospace and miscellaneous	2264.0	4.76	07.0	00.7	00.2	02.1	02.2	02.0	00.0	00.0	00.6
transportation equipment Furniture and related products	3364–9 337	4.76 1.23	87.9 91.0	88.7 90.1	88.2 91.4	93.1 93.3	93.2 90.4	93.8 89.5	90.8 88.6	89.2 90.3	92.6 90.8
Miscellaneous	339	2.82	96.5	98.2	91.4	101.2	90.4	102.0	101.2	101.6	102.8
Nondurable manufacturing	211.0	35.75	94.9	95.2	96.3	96.9	92.4	95.9	96.8	97.5	97.7
Food, beverage, and tobacco products Textile and product mills	311,2 313,4	12.42	98.6 90.0	99.9 88.3	101.0 90.7	102.1 91.4	98.4 91.5	101.5 95.1	100.1 96.9	100.2 96.5	99.4 96.4
Apparel and leather	315,4	.63 .22	96.0	88.3 94.5	90.7 95.5	91.4 98.7	91.5 97.2	95.1 98.3	96.9 98.3	101.3	96.4 99.9
Paper	313,0	2.40	94.6	95.4	93.3	93.2	92.5	96.3	94.5	94.0	93.1
Printing and support	323	1.34	88.0	87.6	88.2	87.0	85.6	88.0	88.4	90.8	92.3
Petroleum and coal products	324	3.34	85.8	85.7	88.5	91.7	85.3	94.7	96.2	95.2	96.5
Chemicals	325	11.85	94.4	94.5	95.2	95.1	87.6	91.2	95.0	97.2	97.8
Plastics and rubber products	326	3.53	96.5	95.7	96.6	98.3	97.6	96.5	95.9	96.7	97.3
	1133,5111	2.01	82.5	80.3	78.4	78.4	80.1	81.8	80.0	80.0	79.4
Other manufacturing (non-NAICS)	1133,3111	1									
Other manufacturing (non-NAICS) Mining	21	12.17	96.9	100.3	100.4	103.3	94.2	105.5	105.9	106.7	108.2
Mining Utilities	21 2211,2	11.94	100.4	97.8	103.5	100.8	108.3	99.0	101.7	100.9	103.6
Mining	21										

 $\label{eq:continuous_preliminary} \overline{r \mbox{ Revised. p Preliminary.}}$ Note. Refer to the notes for table 1.

Table 5
INDUSTRIAL PRODUCTION INDEXES: SPECIAL AGGREGATES

2017 = 100, seasonally adjusted

2017 = 100, scasonarry adjusted											
Item		2020 proportion	2020 Oct.	Nov.	Dec.	2021 Jan. ^r	Feb. ^r	Mar. ^r	Apr.r	May ^r	June ^p
nem		1 1									
Total industry		100.00	96.6	97.2	98.3	99.4	96.4	98.9	99.0	99.7	100.1
Energy		24.65	97.0	96.9	99.9	100.3	98.9	100.6	102.6	102.8	105.1
Consumer products		5.50	96.2	92.6	99.0	95.9	100.9	98.0	100.1	99.5	101.6
Commercial products		2.69	92.8	93.4	96.2	97.4	96.8	96.1	99.0	98.4	99.8
Oil and gas well drilling	213111	.50	58.0	60.5	67.2	73.8	77.6	78.6	80.7	84.2	85.8
Converted fuel		5.11	100.8	97.1	102.1	102.0	106.4	97.3	103.5	103.0	106.1
Primary energy		10.84	98.0	101.4	101.4	103.3	94.8	105.0	104.7	105.6	108.0
Non-energy		75.35	96.2	96.8	97.4	98.7	95.2	98.0	97.4	98.3	98.1
Selected high-technology industries		2.17	126.0	127.2	128.0	129.6	131.3	133.6	134.9	136.7	137.5
Computers and peripheral equipment	3341	.28	165.9	169.8	171.1	170.5	172.1	176.7	183.9	187.9	193.8
Communications equipment	3342	.60	140.7	142.7	144.7	148.5	151.6	154.1	155.1	156.1	158.0
Semiconductors and related											
electronic components	3344	1.29	115.1	115.6	115.9	117.1	118.3	120.2	120.7	122.5	122.1
Excluding selected high-technology											
industries		73.18	95.3	96.0	96.5	97.9	94.2	97.1	96.4	97.2	97.0
Motor vehicles and parts	3361-3	4.89	98.5	101.2	100.8	101.5	90.6	94.2	87.4	93.8	87.6
Motor vehicles	3361	2.46	102.4	106.3	104.8	104.2	87.3	93.5	84.5	93.7	84.5
Motor vehicle parts	3363	2.00	94.6	95.4	96.2	96.5	91.7	93.9	89.4	92.9	89.8
Excluding motor vehicles and parts		68.29	95.0	95.6	96.2	97.6	94.5	97.3	97.1	97.5	97.7
Consumer goods		20.00	97.2	97.9	99.2	100.6	97.8	99.8	99.4	99.7	99.5
Business equipment		7.79	86.4	86.9	87.8	90.1	88.7	90.7	89.7	90.4	90.7
Construction supplies		4.96	98.1	98.5	99.7	100.9	96.8	101.4	99.9	99.2	98.7
Business supplies		7.58	92.5	92.2	92.4	92.4	90.3	92.6	92.2	93.5	93.4
Materials		25.14	94.5	95.1	95.4	96.5	92.3	95.6	96.4	97.0	97.3
Measures excluding selected high-technology											
industries											
Total industry		97.83	96.0	96.5	97.7	98.8	95.7	98.2	98.2	98.9	99.3
Manufacturing ¹		73.72	94.7	95.3	95.9	97.3	93.5	96.5	96.0	96.9	96.8
Durable		36.12	95.3	96.2	96.5	98.8	95.4	97.9	96.2	97.2	96.9
Measures excluding motor vehicles and parts											
Total industry		95.11	96.5	96.9	98.1	99.3	96.7	99.2	99.6	100.0	100.8
Manufacturing ¹		71.00	95.4	95.8	96.4	97.9	94.8	97.7	97.8	98.2	98.6
Durable		33.41	96.6	97.3	97.8	100.2	98.3	100.7	99.9	100.1	100.8
Measures excluding selected high-technology industries and motor vehicles and parts											
Total industry		92.93	95.8	96.2	97.4	98.6	95.9	98.4	98.8	99.2	100.0
Manufacturing ¹		68.83	94.4	94.8	95.5	97.0	93.7	96.7	96.7	97.1	97.5
Stage-of-process components of non-energy materials, measures of the input to											
Finished processors		9.29	95.0	95.4	96.1	97.8	95.4	97.9	96.2	97.3	96.3
Primary and semifinished processors		18.15	94.8	95.5	95.8	96.4	91.4	95.0	96.5	97.2	97.8
Timely and beninimined processors		10.13	71.0	75.5	75.0	70. F	71.7	75.0	70.3	71.2	77.0

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Table 6
DIFFUSION INDEXES OF INDUSTRIAL PRODUCTION

Item	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
One month earlier												
2019	43.6	42.2	48.6	43.2	55.4	52.0	42.9	57.4	43.6	35.1	57.8	53.0
2020	59.8	56.1	25.3	11.8	57.8	72.6	73.6	65.9	60.5	69.3	62.3	60.0
2021	65.9	32.6	75.7	49.5	59.5							
Three months earlier												
2019	39.9	32.8	41.6	38.9	45.6	49.0	46.3	47.0	41.6	44.6	41.9	45.9
2020	63.9	57.4	33.1	13.2	13.2	29.1	75.3	83.1	80.4	74.7	68.6	69.3
2021	70.6	49.3	59.1	54.1	71.3							
Six months earlier												
2019	40.2	34.5	34.1	30.1	40.5	41.6	36.8	45.6	43.6	39.9	42.9	45.3
2020	55.1	53.7	34.8	15.5	17.2	23.3	30.7	33.8	46.3	83.1	87.2	82.4
2021	77.0	60.8	72.0	64.5	63.9							

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.

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

Table 7 CAPACITY UTILIZATION Percent of capacity, seasonally adjusted

			1972-	1994-										
Item		2020	2020	95	2009	2020	2021		2021					
Rem		proportion	ave.	high	low	O4	O1 ^r	$O2^p$	Jan. ^r	Feb.r	Mar. ^r	Apr.r	May ^r	June ^p
		proportion	avc.	mgn	IOW	Ų-i	ŲI	Q2	Jan.	100.	mai.	лрі.	way	June
Total industry		100.00	79.6	85.1	66.6	73.4	74.1	75.0	75.0	72.7	74.6	74.6	75.1	75.4
Manufacturing ¹		77.93	78.2	84.7	63.5	74.0	74.4	75.1	75.6	72.7	75.0	74.7	75.4	75.3
Manufacturing (NAICS)	31-33	75.66	78.1	84.8	63.4	74.2	74.6	75.3	75.8	72.9	75.2	74.9	75.6	75.5
manufacturing (141105)	01 00	75.00	70.1	01.0	05.1	7 1.2	71.0	75.5	75.0	12.7	73.2	7 1.2	75.0	75.5
Durable manufacturing		40.62	76.8	83.8	58.3	73.0	74.2	73.9	75.1	72.8	74.6	73.5	74.2	74.0
Wood products	321	1.49	76.7	86.5	48.0	78.8	79.4	79.5	80.6	77.3	80.4	79.6	79.7	79.1
Nonmetallic mineral products	327	2.42	73.4	82.5	44.5	72.1	71.5	69.2	73.3	69.7	71.6	70.5	68.8	68.1
Primary metals	331	2.61	77.7	94.4	49.6	65.4	67.1	70.8	66.5	66.5	68.2	70.6	69.4	72.2
Fabricated metal products	332	5.94	77.6	84.7	62.2	74.0	75.5	76.0	75.8	73.9	76.8	75.6	76.2	76.2
Machinery	333	5.52	77.6	87.4	59.0	76.2	79.2	80.2	79.9	78.0	79.7	79.7	80.6	80.2
Computer and electronic products	334	5.29	77.4	84.5	70.2	73.5	74.2	76.1	74.1	73.6	75.1	75.1	76.6	76.6
Electrical equip., appliances,		3.27	,,,,	0	7 0.2	75.5	,	7011	,	7510	, , , , ,	7011	, 0.0	70.0
and components	335	1.89	81.6	92.7	66.9	74.5	77.3	77.9	77.8	76.1	78.1	78.7	78.4	76.7
Motor vehicles and parts	3361–3	5.80	75.1	87.7	33.1	73.6	70.1	65.8	74.5	66.6	69.2	64.2	68.9	64.4
Aerospace and miscellaneous	3301 3	3.00	75.1	07.7	33.1	75.0	70.1	05.0	74.5	00.0	07.2	07.2	00.7	04.4
transportation equipment	3364-9	5.67	74.2	71.3	72.4	66.2	70.1	68.3	69.9	70.0	70.4	68.2	67.1	69.6
Furniture and related products	3304-9	1.17	77.1	82.7	56.2	79.6	80.2	79.3	82.0	79.6	78.9	78.2	79.6	80.2
Miscellaneous	339	2.83	76.7	81.0	68.2	77.4	79.4	79.6	79.9	78.0	80.2	79.3	79.0	80.2
Miscenaneous	339	2.63	/0./	01.0	06.2	//.4	13.4	79.0	19.9	76.0	00.2	19.3	17.4	00.1
Nondurable manufacturing		35.04	79.9	86.1	68.8	75.5	75.2	77.0	76.7	73.1	75.8	76.5	77.1	77.2
Food, beverage, and tobacco products	311,2	12.20	80.3	85.3	75.3	76.5	76.9	76.2	78.1	75.2	77.5	76.4	76.4	75.7
Textile and product mills	311,2	.73	78.3	91.7	54.3	65.3	67.6	70.2	66.6	66.7	69.4	70.4	70.4	70.4
Apparel and leather	315,4	.73	76.2	87.8	59.5	74.6	77.1	79.0	77.5	76.5	77.5	70.8	80.2	79.2
* *	313,0	2.14		92.6		84.0	83.1	82.9	82.5		85.0	83.5	82.9	
Paper	322	1.43	86.7 79.4	92.6 85.4	72.7	71.5				81.8 69.7		72.1	74.0	82.1 75.3
Printing and support	323 324		l		58.7		70.7	73.8	70.8		71.7			
Petroleum and coal products	324	3.08 11.91	84.7 76.6	91.2 82.1	76.1 64.8	70.1 73.9	73.5 71.4	77.9 75.8	74.3 74.3	69.3	76.9	78.1 74.4	77.3 76.2	78.3
Chemicals							82.2		83.0	68.5	71.3			76.7
Plastics and rubber products	326	3.32	82.0	93.2	57.1	81.4	82.2	81.2	83.0	82.3	81.4	80.7	81.3	81.6
Other manufacturing (non-NAICS)	1133,5111	2.27	79.5	83.2	65.4	66.7	67.4	68.1	65.7	67.4	69.2	68.0	68.4	68.1
Mining	21	10.52	86.2	88.3	78.3	69.6	71.2	75.7	72.7	66.5	74.5	74.9	75.6	76.7
Utilities	2211.2	11.54	85.0	93.2	78.0	73.4	74.5	73.6	73.2	78.5	71.6	73.5	72.7	74.5
Cinties		11.51	05.0	75.2	70.0	75.1	7 1.5	75.0	75.2	70.5	71.0	73.5	, 2.,	
Selected high-technology industries		2.28	77.4	86.4	71.6	77.9	79.5	80.9	78.8	79.4	80.3	80.6	81.1	81.0
Computers and peripheral equipment	3341	.29	78.0	87.5	84.3	81.8	84.2	91.6	82.9	83.7	86.0	89.4	91.3	94.0
Communications equipment	3342	.71	75.5	86.2	76.6	64.9	67.8	69.2	66.8	67.9	68.7	68.9	69.1	69.6
Semiconductors and related														
electronic components	3344	1.28	78.9	92.0	63.5	84.5	85.1	85.0	84.7	85.0	85.6	85.2	85.5	84.3
Measures excluding selected														
high-technology industries		97.72	79.7	85.0	66.3	72.2	72.0	74.9	74.9	72.5	74.4	74.4	74.0	75.0
Total industry						73.3	73.9			72.5	74.4	74.4	74.9	75.2
Manufacturing ¹		75.65	78.2	84.6	63.0	73.8	74.3	74.9	75.4	72.5	74.9	74.5	75.2	75.1
STAGE-OF-PROCESS GROUPS														
Crude		13.84	85.4	89.7	76.5	72.4	71.4	75.9	74.4	66.4	73.5	74.5	76.1	77.1
Primary and semifinished		45.82	80.2	87.9	63.5	73.3	74.1	74.7	74.4	74.0	74.1	74.5	74.5	75.0
Finished		40.34	76.8	80.7	66.5	73.9	75.1	75.0	76.0	73.7	75.6	74.7	75.3	75.2
i molleu		40.34	/0.0	00.7	00.5	13.7	13.1	13.0	70.0	13.1	13.0	/+./	13.3	13.4

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

Table 8 INDUSTRIAL CAPACITY

Percent change

A 1972- 79	verage an 1980- 88	nual rate 1989-	1995-	Fourth	quarter to	o fourth q	uarter		Annua	l rate		rate
			1995-									
79	88							2020		2021		2021
		94	2021	2018	2019	2020	2021	Q3	Q4	Q1	Q2	June
3.1	1.9	2.3	1.7	.5	1.4	1	.4	2	2	.0	.3	.0
3.2	2.2	2.6	1.6	.1	.2	7	.1	7	5	3	.0	.0
.7 4.4	.2 2.2	6 1.8	1.3 1.7	2.9 .6	7.4 1.7	.3 2.9	-1.1 2.6	-1.0 3.0	-2.0 2.9	-2.0 2.7	-1.5 2.5	1 .2
18.6	16.6	16.1	16.6	6.4	10.4	3.1	8.2	2.1	3.3	5.6	8.0	.7
2.6	1.3	1.6	.5	1	2	8	1	8	7	4	2	.0
1.5 3.0 3.9	.5 1.3 3.2	4 2.5 2.8	1.1 1.8	1.3 3	5.2	.1 1 - 4	5 .6	8 1 5	-1.3 .1	-1.3 .4 - 2	8 .6	.0
	.7 4.4 18.6 2.6	.7 .2 4.4 2.2 18.6 16.6 2.6 1.3 1.5 .5 3.0 1.3	.7 .26 4.4 2.2 1.8 18.6 16.6 16.1 2.6 1.3 1.6 1.5 .54 3.0 1.3 2.5	.7 .26 1.3 4.4 2.2 1.8 1.7 18.6 16.6 16.1 16.6 2.6 1.3 1.6 .5 1.5 .54 1.1 3.0 1.3 2.5 1.8	.7 .2 6 1.3 2.9 4.4 2.2 1.8 1.7 .6 18.6 16.6 16.1 16.6 6.4 2.6 1.3 1.6 .5 1 1.5 .5 4 1.1 1.3 3.0 1.3 2.5 1.8 3	.7 .2 6 1.3 2.9 7.4 4.4 2.2 1.8 1.7 .6 1.7 18.6 16.6 16.1 16.6 6.4 10.4 2.6 1.3 1.6 .5 1 2 1.5 .5 4 1.1 1.3 5.2 3.0 1.3 2.5 1.8 3 .3	.7 .2 6 1.3 2.9 7.4 .3 4.4 2.2 1.8 1.7 .6 1.7 2.9 18.6 16.6 16.1 16.6 6.4 10.4 3.1 2.6 1.3 1.6 .5 1 2 8 1.5 .5 4 1.1 1.3 5.2 .1 3.0 1.3 2.5 1.8 3 .3 1	.7 .2 6 1.3 2.9 7.4 .3 -1.1 4.4 2.2 1.8 1.7 .6 1.7 2.9 2.6 18.6 16.6 16.1 16.6 6.4 10.4 3.1 8.2 2.6 1.3 1.6 .5 1 2 8 1 1.5 .5 4 1.1 1.3 5.2 .1 5 3.0 1.3 2.5 1.8 3 .3 1 .6	.7 .2 6 1.3 2.9 7.4 .3 -1.1 -1.0 4.4 2.2 1.8 1.7 .6 1.7 2.9 2.6 3.0 18.6 16.6 16.1 16.6 6.4 10.4 3.1 8.2 2.1 2.6 1.3 1.6 .5 1 2 8 1 8 1.5 .5 4 1.1 1.3 5.2 .1 5 8 3.0 1.3 2.5 1.8 3 .3 1 .6 1	.7 .2 6 1.3 2.9 7.4 .3 -1.1 -1.0 -2.0 4.4 2.2 1.8 1.7 .6 1.7 2.9 2.6 3.0 2.9 18.6 16.6 16.1 16.6 6.4 10.4 3.1 8.2 2.1 3.3 2.6 1.3 1.6 .5 1 2 8 1 8 7 1.5 .5 4 1.1 1.3 5.2 .1 5 8 -1.3 3.0 1.3 2.5 1.8 3 .3 1 .6 1 .1	.7 .2 6 1.3 2.9 7.4 .3 -1.1 -1.0 -2.0 -2.0 4.4 2.2 1.8 1.7 .6 1.7 2.9 2.6 3.0 2.9 2.7 18.6 16.6 16.1 16.6 6.4 10.4 3.1 8.2 2.1 3.3 5.6 2.6 1.3 1.6 .5 1 2 8 1 8 7 4 1.5 .5 4 1.1 1.3 5.2 .1 5 8 -1.3 -1.3 3.0 1.3 2.5 1.8 3 .3 1 .6 1 .1 .4	.7 .2 6 1.3 2.9 7.4 .3 -1.1 -1.0 -2.0 -2.0 -1.5 4.4 2.2 1.8 1.7 .6 1.7 2.9 2.6 3.0 2.9 2.7 2.5 18.6 16.6 16.1 16.6 6.4 10.4 3.1 8.2 2.1 3.3 5.6 8.0 2.6 1.3 1.6 .5 1 2 8 1 8 7 4 2 1.5 .5 4 1.1 1.3 5.2 .1 5 8 -1.3 -1.3 -1.8 3.0 1.3 2.5 1.8 3 .3 1 .6 1 .1 .4 .6

^{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

			2020	2021		2021					
Item	2012	2020	Q4	Q1 ^r	Q2 ^p	Jan. ^r	Feb.r	Mar.r	Apr.r	May ^r	June ^p
Final products and nonindustrial supplies	4,006.0	3,811.0	3,963.9	3,990.1	4,006.1	4,048.5	3,911.7	4,010.1	3,983.5	4,021.2	4,013.6
Final products	2,985.7	2,831.8	2,962.0	2,980.1	2,979.7	3,024.8	2,922.1	2,993.3	2,959.9	2,994.7	2,984.4
Consumer goods	2,176.0	2,151.9	2,236.9	2,237.0	2,242.8	2,272.8	2,192.8	2,245.5	2,229.1	2,254.8	2,244.4
Durable	415.6	450.5	518.3	493.1	469.2	529.6	468.5	481.1	460.1	486.5	461.1
Automotive products	269.2	302.9	359.6	331.9	310.5	362.4	311.1	322.0	302.0	326.6	303.0
Other durable goods	146.4	150.0	158.0	163.7	162.7	168.0	161.1	162.0	162.8	162.6	162.8
Nondurable	1,760.4	1,703.5	1,707.6	1,737.1	1,770.6	1,731.5	1,720.0	1,759.9	1,767.0	1,763.5	1,781.3
Equipment, total	809.8	683.4	728.2	746.4	739.9	755.3	732.7	751.3	733.7	743.0	743.2
Business and defense	774.5	666.9	716.5	730.3	721.7	740.0	716.4	734.5	716.2	724.7	724.4
Business	645.7	530.1	574.9	579.4	570.8	591.5	566.0	580.6	565.6	577.7	569.1
Defense and space	128.8	134.2	139.2	148.0	147.9	145.9	147.3	150.8	147.5	144.3	151.8
Nonindustrial supplies	1,020.3	979.3	1,003.4	1,011.4	1,026.8	1,025.2	991.0	1,018.0	1,023.8	1,027.1	1,029.6
Construction supplies	243.9	255.6	264.8	267.3	265.8	270.8	259.7	271.3	267.5	265.6	264.4
Business supplies	776.4	721.4	735.7	741.2	758.9	751.4	728.8	743.4	753.8	759.6	763.5
Commercial energy products	274.9	266.3	267.7	277.1	286.4	283.1	273.0	275.2	285.8	284.8	288.7

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

Percent change, seasonally adjusted														
		Fou	rth quarte	er to										
		fo	urth quar	ter		Annual ra	ate			Month	nly rate			June '20
Item	2020				2020	2021		2021						to
	gross value ¹	2018	2019	2020	Q4	Q1 ^r	$Q2^p$	Jan. ^r	Feb.r	Mar.r	Apr.r	May ^r	June ^p	June '21
Finished	2,120.7	2.2	-1.4	-2.3	5.3	1.0	-4.6	1.7	-4.7	2.8	-2.1	1.7	-1.4	9.6
Semifinished	1,856.5	1.4	-3.0	-2.6	7.5	7.0	-3.2	.4	2	.8	-1.4	.2	.1	7.3
Primary	1,713.8	1.2	-3.7	-8.1	3.2	2.4	20.9	.9	-2.8	1.9	4.2	6	2.1	11.3
Crude	874.2	7.2	-2.5	-7.9	14.7	-13.8	26.4	.7	-11.9	10.0	1.6	3.0	.8	12.4

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^{1.} Billions of 2012 dollars.

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

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
IP (percent																	
change) ¹																	
1999	.4	.6	.2	.2	.6	1	.6	.4	4	1.3	.5	.8	4.6	3.8	3.6	7.3	4.4
2000	1	.4	.4	.6	.3	.1	2	3	.4	4	.0	3	4.1	5.0	4	-1.1	3.8
2001	6	7	2	3	6	6	6	1	5	3	6	.0	-5.1	-5.0	-5.5	-4.3	-3.1
2002	.7	.0	.8	.5	.4	.8	.0	1	.1	3	.6	5	2.9	6.4	2.5	2	.3
2003	.8	.1	3	6	.0	.1	.5	2	.7	.1	.7	.1	2.5	-3.0	2.8	3.9	1.3
2004	.2	.6	4	.4	.7	8	.7	.1	.1	.9	.2	.7	2.8	2.3	2.3	5.8	2.7
2005 2006	.4	.7	2	.2	.1	.4	3 1	.4	-1.9 2	1.2 1	1.1 1	.5 1.0	5.8 3.8	2.2	-1.7 1.5	3.6	3.4
2007	4	1.0	.2	.3 .7	.0	.0	1 1	.2	.2	1	1 .6	.0	4.0	5.0	.6	1.2	2.6
2008	1	4	3	7	6	2	5	-1.6	-4.3	.9	-1.3	-2.8	-1.3	-5.8	-12.4	-16.1	-3.5
2009	-2.5	7	-1.6	8	-1.0	3	1.1	1.1	.8	.3	.4	.3	-20.8	-10.8	6.5	6.4	-11.5
2010	1.1	.3	.7	.4	1.4	.2	.4	.3	.2	2	.0	1.0	8.0	8.2	5.4	1.6	5.5
2011	2	4	1.0	3	.2	.3	.5	.6	1	.6	.0	.5	2.1	1.5	4.6	4.0	3.1
2012	.6	.3	5	.8	.2	.0	.2	4	1	.3	.5	.2	3.9	2.6	1	2.1	3.0
2013	.0	.5	.4	1	.1	.1	3	.6	.6	1	.3	.2	2.9	1.9	1.6	2.7	2.0
2014	3	.8	1.0	.1	.4	.3	.3	2	.3	.0	.7	1	2.9	5.4	2.4	2.3	3.0
2015	7	6	3	6	4	3	.7	3	3	4	7	6	-4.2	-5.5	.0	-5.5	-1.4
2016	.7	5	8	.3	2	.4	.2	2	1	.1	4	.7	-2.3	-1.6	1.0	6	-2.2
2017	2	4	.8	.9	.1	.2	1	5	.0	1.2	.3	.1	.6	5.9	-1.1	5.4	1.3
2018	.0	.3	.6	1.1	8	.7	.2	.6	.0	1	1	.0	2.2	5.3	3.4	1	3.2
2019	5	6	.1	6	.2	1	3	.6	4	8	.5	4	-3.6	-2.3	.0	-2.6	8
2020	5	.2	-3.8	-13.6	1.9	6.2	4.1	1.1	3	1.1	.5	1.2	-6.7	-42.4	44.5	8.2	-7.2
2021	1.1	-3.1	2.7	.0	.7	.4							3.6	5.5			
IP (2017=100)																	
2019	103.3	102.7	102.9	102.3	102.5	102.4	102.1	102.7	102.3	101.5	102.0	101.6	103.0	102.4	102.4	101.7	102.3
2020 2021	101.1 99.4	101.3 96.4	97.4 98.9	84.2 99.0	85.8 99.7	91.2 100.1	94.9	95.9	95.6	96.6	97.2	98.3	100.0 98.2	87.1 99.6	95.5	97.4	95.0
Capacity (percent of 2017 output)	121.2	121 5	121.7	121.0	122.1	122.2	122.4	122.5	122.6	122.7	122.7	122.0	121.5	122.1	122.5	122.7	122.2
2019 2020	131.3	131.5	131.7 132.8	131.9	132.1	132.2	132.4	132.5	132.6	132.7	132.7	132.8	131.5	132.1 132.8	132.5	132.7	132.2
2020	132.8 132.6	132.8 132.6	132.8	132.8 132.7	132.8 132.7	132.7 132.8	132.7	132.7	132.7	132.6	132.6	132.6	132.8 132.6	132.8	132.7	132.6	132.7
Utilization																	
(percent)				01.0	82.0	81.6	01.0	81.9	81.2	82.0	00.1						
	82.0	82.1	81.9	81.8	02.0	01.0	81.8	01.7	01.2	02.0	82.1	82.5	82.0	81.8	81.6	82.2	81.9
(<i>percent</i>) 1999 2000	82.0 82.2	82.1 82.2	81.9 82.2	81.8 82.4	82.4	82.2	81.8	81.3	81.3	80.8	82.1	82.5 80.0	82.0 82.2	81.8 82.3	81.6 81.4	82.2 80.4	81.9 81.6
1999 2000 2001	82.2 79.3	82.2 78.5	82.2 78.1	82.4 77.6	82.4 76.9	82.2 76.3	81.7 75.6	81.3 75.3	81.3 74.8	80.8 74.4	80.5 73.8	80.0 73.7	82.2 78.6	82.3 76.9	81.4 75.3	80.4 74.0	81.6 76.2
1999 2000 2001 2002	82.2 79.3 74.0	82.2 78.5 73.9	82.2 78.1 74.4	82.4 77.6 74.7	82.4 76.9 75.0	82.2 76.3 75.5	81.7 75.6 75.5	81.3 75.3 75.4	81.3 74.8 75.5	80.8 74.4 75.3	80.5 73.8 75.7	80.0 73.7 75.3	82.2 78.6 74.1	82.3 76.9 75.1	81.4 75.3 75.5	80.4 74.0 75.4	81.6 76.2 75.0
1999 2000 2001 2002	82.2 79.3	82.2 78.5	82.2 78.1	82.4 77.6	82.4 76.9	82.2 76.3	81.7 75.6	81.3 75.3	81.3 74.8	80.8 74.4	80.5 73.8	80.0 73.7	82.2 78.6	82.3 76.9	81.4 75.3	80.4 74.0	81.6 76.2 75.0
1999 2000 2001 2002 2003 2004	82.2 79.3 74.0 75.9 77.1	82.2 78.5 73.9 76.1 77.6	82.2 78.1 74.4 75.9 77.3	82.4 77.6 74.7 75.4 77.7	82.4 76.9 75.0 75.4 78.2	82.2 76.3 75.5 75.5	81.7 75.6 75.5 75.9 78.2	81.3 75.3 75.4 75.8 78.3	81.3 74.8 75.5 76.3	80.8 74.4 75.3 76.4 79.1	80.5 73.8 75.7 76.9	80.0 73.7 75.3 77.0	82.2 78.6 74.1 76.0	82.3 76.9 75.1 75.4 77.8	81.4 75.3 75.5 76.0	80.4 74.0 75.4 76.8	81.6 76.2 75.0 76.0 78.2
1999 2000 2001 2002 2003 2004 2005	82.2 79.3 74.0 75.9 77.1 80.0	82.2 78.5 73.9 76.1 77.6 80.5	82.2 78.1 74.4 75.9 77.3 80.3	82.4 77.6 74.7 75.4 77.7 80.4	82.4 76.9 75.0 75.4 78.2 80.4	82.2 76.3 75.5 75.5 77.6 80.6	81.7 75.6 75.5 75.9 78.2 80.2	81.3 75.3 75.4 75.8 78.3 80.4	81.3 74.8 75.5 76.3 78.4 78.7	80.8 74.4 75.3 76.4 79.1 79.6	80.5 73.8 75.7 76.9 79.2 80.3	80.0 73.7 75.3 77.0 79.8 80.6	82.2 78.6 74.1 76.0 77.4 80.3	82.3 76.9 75.1 75.4 77.8 80.5	81.4 75.3 75.5 76.0 78.3 79.8	80.4 74.0 75.4 76.8 79.4 80.2	81.6 76.2 75.0 76.0 78.2 80.2
1999 2000 2001 2002 2003 2004 2005 2006	82.2 79.3 74.0 75.9 77.1 80.0 80.6	82.2 78.5 73.9 76.1 77.6 80.5 80.5	82.2 78.1 74.4 75.9 77.3 80.3 80.6	82.4 77.6 74.7 75.4 77.7 80.4 80.8	82.4 76.9 75.0 75.4 78.2 80.4 80.6	82.2 76.3 75.5 75.5 77.6 80.6 80.7	81.7 75.6 75.5 75.9 78.2 80.2 80.5	81.3 75.3 75.4 75.8 78.3 80.4 80.7	81.3 74.8 75.5 76.3 78.4 78.7 80.4	80.8 74.4 75.3 76.4 79.1 79.6 80.1	80.5 73.8 75.7 76.9 79.2 80.3 79.9	80.0 73.7 75.3 77.0 79.8 80.6 80.5	82.2 78.6 74.1 76.0 77.4 80.3 80.6	82.3 76.9 75.1 75.4 77.8 80.5 80.7	81.4 75.3 75.5 76.0 78.3 79.8 80.6	80.4 74.0 75.4 76.8 79.4 80.2 80.2	81.6 76.2 75.0 76.0 78.2 80.2 80.5
1999 2000 2001 2002 2003 2004 2005 2006 2007	82.2 79.3 74.0 75.9 77.1 80.0	82.2 78.5 73.9 76.1 77.6 80.5	82.2 78.1 74.4 75.9 77.3 80.3	82.4 77.6 74.7 75.4 77.7 80.4	82.4 76.9 75.0 75.4 78.2 80.4	82.2 76.3 75.5 75.5 77.6 80.6	81.7 75.6 75.5 75.9 78.2 80.2	81.3 75.3 75.4 75.8 78.3 80.4	81.3 74.8 75.5 76.3 78.4 78.7	80.8 74.4 75.3 76.4 79.1 79.6	80.5 73.8 75.7 76.9 79.2 80.3	80.0 73.7 75.3 77.0 79.8 80.6	82.2 78.6 74.1 76.0 77.4 80.3	82.3 76.9 75.1 75.4 77.8 80.5	81.4 75.3 75.5 76.0 78.3 79.8	80.4 74.0 75.4 76.8 79.4 80.2	81.6 76.2 75.0 76.0 78.2 80.2 80.5 80.6
1999 2000 2001 2002 2002 2003 2004 2005 2006 2007 2008	82.2 79.3 74.0 75.9 77.1 80.0 80.6 80.0 80.9	82.2 78.5 73.9 76.1 77.6 80.5 80.5 80.6	82.2 78.1 74.4 75.9 77.3 80.3 80.6 80.5 80.4	82.4 77.6 74.7 75.4 77.7 80.4 80.8 80.9 79.9	82.4 76.9 75.0 75.4 78.2 80.4 80.6 80.8 79.5	82.2 76.3 75.5 75.5 77.6 80.6 80.7 80.7 79.3	81.7 75.6 75.5 75.9 78.2 80.2 80.5 80.5 79.0	81.3 75.3 75.4 75.8 78.3 80.4 80.7 80.6 77.7	81.3 74.8 75.5 76.3 78.4 78.7 80.4 80.7 74.3	80.8 74.4 75.3 76.4 79.1 79.6 80.1 80.5 74.9	80.5 73.8 75.7 76.9 79.2 80.3 79.9 80.9 73.9	80.0 73.7 75.3 77.0 79.8 80.6 80.5 80.9 71.7	82.2 78.6 74.1 76.0 77.4 80.3 80.6 80.4 80.6	82.3 76.9 75.1 75.4 77.8 80.5 80.7 80.8 79.6	81.4 75.3 75.5 76.0 78.3 79.8 80.6 80.6 77.0	80.4 74.0 75.4 76.8 79.4 80.2 80.2 80.8 73.5	81.6 76.2 75.0 76.0 78.2 80.2 80.5 80.6 77.7
1999 2000 2001 2002 2003 2004 2005 2006 2007 2008	82.2 79.3 74.0 75.9 77.1 80.0 80.6 80.0 80.9	82.2 78.5 73.9 76.1 77.6 80.5 80.5 80.6 80.6	82.2 78.1 74.4 75.9 77.3 80.3 80.6 80.5 80.4	82.4 77.6 74.7 75.4 77.7 80.4 80.8 80.9 79.9	82.4 76.9 75.0 75.4 78.2 80.4 80.6 80.8 79.5	82.2 76.3 75.5 75.5 77.6 80.6 80.7 80.7 79.3	81.7 75.6 75.5 75.9 78.2 80.2 80.5 80.5 79.0	81.3 75.3 75.4 75.8 78.3 80.4 80.7 80.6 77.7	81.3 74.8 75.5 76.3 78.4 78.7 80.4 80.7 74.3	80.8 74.4 75.3 76.4 79.1 79.6 80.1 80.5 74.9	80.5 73.8 75.7 76.9 79.2 80.3 79.9 80.9 73.9	80.0 73.7 75.3 77.0 79.8 80.6 80.5 80.9 71.7	82.2 78.6 74.1 76.0 77.4 80.3 80.6 80.4 80.6	82.3 76.9 75.1 75.4 77.8 80.5 80.7 80.8 79.6	81.4 75.3 75.5 76.0 78.3 79.8 80.6 80.6 77.0	80.4 74.0 75.4 76.8 79.4 80.2 80.2 80.8 73.5	81.6 76.2 75.0 76.0 78.2 80.2 80.5 80.6 77.7
1999 2000 2001 2002 2003 2004 2005 2006 2007 2008	82.2 79.3 74.0 75.9 77.1 80.0 80.6 80.0 80.9	82.2 78.5 73.9 76.1 77.6 80.5 80.5 80.6 80.6	82.2 78.1 74.4 75.9 77.3 80.3 80.6 80.5 80.4	82.4 77.6 74.7 75.4 77.7 80.4 80.8 80.9 79.9 67.5 72.1	82.4 76.9 75.0 75.4 78.2 80.4 80.6 80.8 79.5	82.2 76.3 75.5 75.5 77.6 80.6 80.7 80.7 79.3	81.7 75.6 75.5 75.9 78.2 80.2 80.5 80.5 79.0 67.3 74.1	81.3 75.3 75.4 75.8 78.3 80.4 80.7 80.6 77.7	81.3 74.8 75.5 76.3 78.4 78.7 80.4 80.7 74.3	80.8 74.4 75.3 76.4 79.1 79.6 80.1 80.5 74.9 69.0 74.7	80.5 73.8 75.7 76.9 79.2 80.3 79.9 80.9 73.9 69.4 74.8	80.0 73.7 75.3 77.0 79.8 80.6 80.5 80.9 71.7 69.7 75.6	82.2 78.6 74.1 76.0 77.4 80.3 80.6 80.4 80.6	82.3 76.9 75.1 75.4 77.8 80.5 80.7 80.8 79.6	81.4 75.3 75.5 76.0 78.3 79.8 80.6 80.6 77.0	80.4 74.0 75.4 76.8 79.4 80.2 80.2 80.8 73.5	81.6 76.2 75.0 76.0 78.2 80.2 80.5 80.6 77.7 68.4 73.4
1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011	82.2 79.3 74.0 75.9 77.1 80.0 80.6 80.0 80.9	82.2 78.5 73.9 76.1 77.6 80.5 80.6 80.6 69.3 71.0 75.1	82.2 78.1 74.4 75.9 77.3 80.3 80.6 80.5 80.4 68.1 71.7 75.9	82.4 77.6 74.7 75.4 77.7 80.4 80.8 80.9 79.9 67.5 72.1 75.6	82.4 76.9 75.0 75.4 78.2 80.4 80.8 79.5 66.8 73.3 75.7	82.2 76.3 75.5 75.5 77.6 80.6 80.7 80.7 79.3 66.6 73.6 75.8	81.7 75.6 75.5 75.9 78.2 80.2 80.5 80.5 79.0 67.3 74.1 76.2	81.3 75.3 75.4 75.8 78.3 80.4 80.7 80.6 77.7	81.3 74.8 75.5 76.3 78.4 78.7 80.4 80.7 74.3 68.7 74.7	80.8 74.4 75.3 76.4 79.1 79.6 80.1 80.5 74.9 69.0 74.7 76.7	80.5 73.8 75.7 76.9 79.2 80.3 79.9 80.9 73.9 69.4 74.8 76.6	80.0 73.7 75.3 77.0 79.8 80.6 80.5 80.9 71.7 69.7 75.6 76.9	82.2 78.6 74.1 76.0 77.4 80.3 80.6 80.4 80.6	82.3 76.9 75.1 75.4 77.8 80.5 80.7 80.8 79.6 67.0 73.0 75.7	81.4 75.3 75.5 76.0 78.3 79.8 80.6 80.6 77.0 68.1 74.4 76.4	80.4 74.0 75.4 76.8 79.4 80.2 80.2 80.8 73.5 69.4 75.0 76.7	81.6 76.2 75.0 76.0 78.2 80.2 80.5 80.6 77.7 68.4 73.4
1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012	82.2 79.3 74.0 75.9 77.1 80.0 80.6 80.0 80.9	82.2 78.5 73.9 76.1 77.6 80.5 80.5 80.6 80.6	82.2 78.1 74.4 75.9 77.3 80.3 80.6 80.5 80.4	82.4 77.6 74.7 75.4 77.7 80.4 80.8 80.9 79.9 67.5 72.1	82.4 76.9 75.0 75.4 78.2 80.4 80.6 80.8 79.5	82.2 76.3 75.5 75.5 77.6 80.6 80.7 80.7 79.3	81.7 75.6 75.5 75.9 78.2 80.2 80.5 80.5 79.0 67.3 74.1	81.3 75.3 75.4 75.8 78.3 80.4 80.7 80.6 77.7	81.3 74.8 75.5 76.3 78.4 78.7 80.4 80.7 74.3	80.8 74.4 75.3 76.4 79.1 79.6 80.1 80.5 74.9 69.0 74.7	80.5 73.8 75.7 76.9 79.2 80.3 79.9 80.9 73.9 69.4 74.8	80.0 73.7 75.3 77.0 79.8 80.6 80.5 80.9 71.7 69.7 75.6	82.2 78.6 74.1 76.0 77.4 80.3 80.6 80.4 80.6	82.3 76.9 75.1 75.4 77.8 80.5 80.7 80.8 79.6	81.4 75.3 75.5 76.0 78.3 79.8 80.6 80.6 77.0	80.4 74.0 75.4 76.8 79.4 80.2 80.2 80.8 73.5	81.6 76.2 75.0 76.0 78.2 80.2 80.5 80.6 77.7 68.4 73.4 76.1
1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013	82.2 79.3 74.0 75.9 77.1 80.0 80.6 80.0 80.9 69.8 70.6 75.5 77.2	82.2 78.5 73.9 76.1 77.6 80.5 80.6 80.6 69.3 71.0 75.1 77.3	82.2 78.1 74.4 75.9 77.3 80.3 80.6 80.5 80.4 68.1 71.7 75.9 76.8	82.4 77.6 74.7 75.4 77.7 80.4 80.8 80.9 79.9 67.5 72.1 75.6 77.2	82.4 76.9 75.0 75.4 78.2 80.4 80.6 80.8 79.5 66.8 73.3 75.7 77.2	82.2 76.3 75.5 75.5 77.6 80.6 80.7 80.7 79.3 66.6 73.6 75.8	81.7 75.6 75.5 75.9 78.2 80.2 80.5 80.5 79.0 67.3 74.1 76.2 77.1	81.3 75.3 75.4 75.8 78.3 80.4 80.7 80.6 77.7 68.1 74.5 76.5	81.3 74.8 75.5 76.3 78.4 78.7 80.4 80.7 74.3 68.7 74.7 76.4 76.5	80.8 74.4 75.3 76.4 79.1 79.6 80.1 80.5 74.9 69.0 74.7 76.7	80.5 73.8 75.7 76.9 79.2 80.3 79.9 80.9 73.9 69.4 74.8 76.6 76.8	80.0 73.7 75.3 77.0 79.8 80.6 80.5 80.9 71.7 69.7 75.6 76.9	82.2 78.6 74.1 76.0 77.4 80.3 80.6 80.4 80.6 69.1 71.1 75.5 77.1	82.3 76.9 75.1 75.4 77.8 80.5 80.7 80.8 79.6 67.0 73.0 75.7 77.1	81.4 75.3 75.5 76.0 78.3 79.8 80.6 80.6 77.0 68.1 74.4 76.4	80.4 74.0 75.4 76.8 79.4 80.2 80.2 80.8 73.5 69.4 75.0 76.7 76.8	81.6 76.2 75.0 78.2 80.2 80.5 80.6 77.7 68.4 73.4 76.1 76.9
1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013	82.2 79.3 74.0 75.9 77.1 80.0 80.6 80.0 80.9 69.8 70.6 75.5 77.2 76.7	82.2 78.5 73.9 76.1 77.6 80.5 80.6 80.6 69.3 71.0 75.1 77.3 77.0	82.2 78.1 74.4 75.9 77.3 80.3 80.6 80.5 80.4 68.1 71.7 75.9 76.8 77.2	82.4 77.6 74.7 75.4 77.7 80.4 80.8 80.9 79.9 67.5 72.1 75.6 77.2	82.4 76.9 75.0 75.4 78.2 80.4 80.6 80.8 79.5 66.8 73.3 75.7 77.2 77.0	82.2 76.3 75.5 75.5 77.6 80.6 80.7 80.7 79.3 66.6 73.6 75.8 77.0	81.7 75.6 75.5 75.9 78.2 80.2 80.5 79.0 67.3 74.1 76.2 77.1	81.3 75.3 75.4 75.8 78.3 80.4 80.7 80.6 77.7 68.1 74.5 76.6 77.2	81.3 74.8 75.5 76.3 78.4 78.7 80.4 80.7 74.3 68.7 74.7 76.5 77.5	80.8 74.4 75.3 76.4 79.1 79.6 80.1 80.5 74.9 69.0 74.7 76.6 77.3	80.5 73.8 75.7 76.9 79.2 80.3 79.9 80.9 73.9 69.4 74.8 76.8 77.5	80.0 73.7 75.3 77.0 79.8 80.6 80.5 80.9 71.7 69.7 75.6 76.9 77.6	82.2 78.6 74.1 76.0 77.4 80.3 80.6 80.4 80.6 69.1 71.1 75.5 77.1	82.3 76.9 75.1 75.4 77.8 80.5 80.7 80.8 79.6 67.0 73.0 75.7 77.1	81.4 75.3 75.5 76.0 78.3 79.8 80.6 80.6 77.0 68.1 74.4 76.7 77.1	80.4 74.0 75.4 76.8 79.4 80.2 80.2 80.8 73.5 69.4 75.0 76.8 77.5	81.6 76.2 75.0 78.2 80.2 80.5 80.6 77.7 68.4 76.1 76.9 77.2
1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015	82.2 79.3 74.0 75.9 77.1 80.0 80.6 80.0 80.9 69.8 70.6 75.5 77.2 76.7	82.2 78.5 73.9 76.1 77.6 80.5 80.6 80.6 69.3 71.0 75.1 77.3 77.0	82.2 78.1 74.4 75.9 77.3 80.3 80.6 80.5 80.4 68.1 71.7 75.9 76.8 77.2	82.4 77.6 74.7 75.4 77.7 80.4 80.8 80.9 79.9 67.5 72.1 75.6 77.2 77.1	82.4 76.9 75.0 75.4 78.2 80.4 80.6 80.8 79.5 66.8 73.3 75.7 77.2 77.0	82.2 76.3 75.5 75.5 77.6 80.6 80.7 80.7 79.3 66.6 73.6 77.0 77.1	81.7 75.6 75.5 75.9 78.2 80.2 80.5 80.5 79.0 67.3 74.1 76.2 77.1 76.8	81.3 75.3 75.4 75.8 78.3 80.4 80.7 80.6 77.7 68.1 74.5 76.5 76.6 77.2	81.3 74.8 75.5 76.3 78.4 78.7 80.4 80.7 74.3 68.7 74.7 76.4 76.5 77.5	80.8 74.4 75.3 76.4 79.1 79.6 80.1 80.5 74.9 69.0 74.7 76.7 76.6 77.3	80.5 73.8 75.7 76.9 79.2 80.3 79.9 80.9 73.9 69.4 74.8 76.6 76.8 77.5	80.0 73.7 75.3 77.0 79.8 80.6 80.5 80.9 71.7 69.7 75.6 76.9 77.6	82.2 78.6 74.1 76.0 77.4 80.3 80.6 80.4 80.6 69.1 71.1 75.5 77.1 77.0	82.3 76.9 75.1 75.4 77.8 80.5 80.7 80.8 79.6 67.0 73.0 75.7 77.1 77.1	81.4 75.3 75.5 76.0 78.3 79.8 80.6 80.6 77.0 68.1 74.4 76.7 77.1	80.4 74.0 75.4 76.8 79.4 80.2 80.2 80.8 73.5 69.4 75.0 76.7 76.8 77.5	81.6 76.2 75.0 78.2 80.2 80.5 80.6 77.7 68.4 76.1 76.9 77.2
1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2011 2012 2013 2014 2015 2016 2017	82.2 79.3 74.0 75.9 77.1 80.0 80.6 80.0 80.9 69.8 70.6 75.5 77.2 76.7	82.2 78.5 73.9 76.1 77.6 80.5 80.6 80.6 69.3 71.0 75.1 77.3 77.0	82.2 78.1 74.4 75.9 77.3 80.3 80.6 80.5 80.4 68.1 71.7 75.9 76.8 77.2 78.5 77.8 74.9	82.4 77.6 74.7 75.4 77.7 80.4 80.8 80.9 79.9 67.5 72.1 75.6 77.2 77.1	82.4 76.9 75.0 75.4 78.2 80.4 80.6 80.8 79.5 66.8 73.3 75.7 77.2 77.0	82.2 76.3 75.5 75.5 77.6 80.6 80.7 80.7 79.3 66.6 73.6 75.8 77.0 77.1	81.7 75.6 75.5 75.9 78.2 80.2 80.5 80.5 79.0 67.3 74.1 76.2 77.1 76.8	81.3 75.3 75.4 75.8 78.3 80.4 80.7 80.6 77.7 68.1 74.5 76.5 76.6 77.2 78.8 77.0 75.2 76.3	81.3 74.8 75.5 76.3 78.4 78.7 80.4 80.7 74.3 68.7 74.7 76.4 76.5 77.5	80.8 74.4 75.3 76.4 79.1 79.6 80.1 80.5 74.9 69.0 74.7 76.6 77.3	80.5 73.8 75.7 76.9 79.2 80.3 79.9 80.9 73.9 69.4 74.8 76.6 76.8 77.5	80.0 73.7 75.3 77.0 79.8 80.6 80.5 80.9 71.7 69.7 75.6 76.9 77.6	82.2 78.6 74.1 76.0 77.4 80.3 80.6 80.4 80.6 69.1 71.1 75.5 77.1 77.0	82.3 76.9 75.1 75.4 77.8 80.5 80.7 80.8 79.6 67.0 73.0 75.7 77.1 77.1 78.7 76.9 75.1 76.5	81.4 75.3 75.5 76.0 78.3 79.8 80.6 80.6 77.0 68.1 74.4 76.4 76.7 77.1	80.4 74.0 75.4 76.8 79.4 80.2 80.2 80.8 73.5 69.4 75.0 76.7 76.8 77.5	81.6 76.2 75.0 78.2 80.2 80.5 80.6 77.7 68.4 76.1 76.9 77.2
1999 2000 2001 2001 2002 2003 2004 2005 2006 2007 2008 2010 2011 2011 2012 2013 2014 2015 2016 2017	82.2 79.3 74.0 75.9 77.1 80.0 80.6 80.0 80.9 69.8 70.6 75.5 77.2 76.7	82.2 78.5 73.9 76.1 77.6 80.5 80.6 80.6 69.3 71.0 75.1 77.3 77.0	82.2 78.1 74.4 75.9 77.3 80.3 80.6 80.5 80.4 68.1 71.7 75.9 76.8 77.2 78.5 77.8 74.9	82.4 77.6 74.7 75.4 77.7 80.4 80.8 80.9 79.9 67.5 72.1 75.6 77.2 77.1	82.4 76.9 75.0 75.4 80.6 80.8 79.5 66.8 73.3 75.7 77.2 77.0 78.7 76.9 74.9	82.2 76.3 75.5 75.5 77.6 80.6 80.7 80.7 79.3 66.6 73.6 75.8 77.0 77.1	81.7 75.6 75.5 75.9 78.2 80.2 80.5 80.5 79.0 67.3 74.1 76.2 77.1 76.8	81.3 75.3 75.4 75.8 78.3 80.4 80.7 80.6 77.7 68.1 74.5 76.5 76.6 77.2	81.3 74.8 75.5 76.3 78.4 78.7 80.4 80.7 74.3 68.7 74.7 76.4 76.5 77.5	80.8 74.4 75.3 76.4 79.1 79.6 80.1 80.5 74.9 69.0 74.7 76.6 77.3 78.9 76.4 75.1	80.5 73.8 75.7 76.9 79.2 80.3 79.9 80.9 73.9 69.4 74.8 76.6 76.8 77.5	80.0 73.7 75.3 77.0 79.8 80.6 80.5 80.9 71.7 69.7 75.6 76.9 77.6 79.2 75.4 75.3	82.2 78.6 74.1 76.0 77.4 80.3 80.6 80.4 80.6 69.1 71.1 75.5 77.1 77.0	82.3 76.9 75.1 75.4 77.8 80.5 80.7 80.8 79.6 67.0 73.0 75.7 77.1 77.1 78.7 76.9 75.1	81.4 75.3 75.5 76.0 78.3 79.8 80.6 80.6 77.0 68.1 74.4 76.4 76.7 77.1	80.4 74.0 75.4 76.8 79.4 80.2 80.2 80.8 73.5 69.4 75.0 76.7 76.8 77.5	81.6 76.2 75.0 78.2 80.2 80.5 80.6 77.7 68.4 76.1 76.9 77.2 78.6 77.0 75.2 76.5
1999 2000 2001 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018	82.2 79.3 74.0 75.9 77.1 80.0 80.6 80.0 80.9 69.8 70.6 75.5 77.2 76.7	82.2 78.5 73.9 76.1 77.6 80.5 80.6 80.6 69.3 71.0 75.1 77.3 77.0	82.2 78.1 74.4 75.9 77.3 80.3 80.6 80.5 80.4 68.1 71.7 75.9 76.8 77.2 78.5 77.8 74.9	82.4 77.6 74.7 75.4 77.7 80.4 80.8 80.9 79.9 67.5 72.1 75.6 77.2 77.1	82.4 76.9 75.0 75.4 80.4 80.6 80.8 79.5 66.8 73.3 75.7 77.2 77.0 78.7 76.9 74.9	82.2 76.3 75.5 75.5 77.6 80.6 80.7 80.7 79.3 66.6 73.6 75.8 77.0 77.1	81.7 75.6 75.5 75.9 78.2 80.2 80.5 80.5 79.0 67.3 74.1 76.2 77.1 76.8	81.3 75.3 75.4 75.8 78.3 80.4 80.7 80.6 77.7 68.1 74.5 76.5 76.6 77.2 78.8 77.0 75.2 76.3	81.3 74.8 75.5 76.3 78.4 78.7 80.4 80.7 74.3 68.7 74.7 76.4 76.5 77.5	80.8 74.4 75.3 76.4 79.1 79.6 80.1 80.5 74.9 69.0 74.7 76.6 77.3 78.9 76.4 75.1	80.5 73.8 75.7 76.9 79.2 80.3 79.9 80.9 73.9 69.4 74.8 76.6 76.8 77.5	80.0 73.7 75.3 77.0 79.8 80.6 80.5 80.9 71.7 69.7 75.6 76.9 77.6 79.2 75.4 75.3 77.9	82.2 78.6 74.1 76.0 77.4 80.3 80.6 80.4 80.6 69.1 71.1 75.5 77.1 77.0	82.3 76.9 75.1 75.4 77.8 80.5 80.7 80.8 79.6 67.0 73.0 75.7 77.1 77.1 78.7 76.9 75.1 76.5	81.4 75.3 75.5 76.0 78.3 79.8 80.6 80.6 77.0 68.1 74.4 76.7 77.1 78.9 76.9 75.2	80.4 74.0 75.4 76.8 79.4 80.2 80.2 80.8 73.5 69.4 75.0 76.7 76.8 77.5 79.1 75.9 75.1	81.6 76.2 75.0 76.0 78.2 80.2 80.5 80.6 77.7 68.4 73.4
1999	82.2 79.3 74.0 75.9 77.1 80.0 80.6 80.0 80.9 69.8 70.6 75.5 77.2 76.7 77.3 78.6 75.9 77.9	82.2 78.5 73.9 76.1 77.6 80.5 80.6 80.6 69.3 71.0 75.1 77.3 77.0	82.2 78.1 74.4 75.9 77.3 80.3 80.6 80.5 80.4 68.1 71.7 75.9 76.8 77.2 78.5 77.8 74.9 75.5	82.4 77.6 74.7 75.4 77.7 80.4 80.8 80.9 79.9 67.5 72.1 75.6 77.2 77.1 78.5 77.3 75.1 76.3	82.4 76.9 75.0 75.4 80.4 80.6 80.8 79.5 66.8 73.3 75.7 77.2 77.0 78.7 76.9 74.9 76.5 78.8	82.2 76.3 75.5 75.5 77.6 80.6 80.7 80.7 79.3 66.6 73.6 75.8 77.1 78.9 76.6 75.2 76.6 75.4	81.7 75.6 75.5 75.9 78.2 80.2 80.5 80.5 79.0 67.3 74.1 76.2 77.1 76.8	81.3 75.3 75.4 75.8 78.3 80.4 80.7 80.6 77.7 68.1 74.5 76.5 76.5 77.2 78.8 77.0 75.2 76.3	81.3 74.8 75.5 76.3 78.4 78.7 80.4 80.7 74.3 68.7 74.7 76.4 76.5 77.5	80.8 74.4 75.3 76.4 79.1 79.6 80.1 80.5 74.9 69.0 74.7 76.7 76.6 77.3	80.5 73.8 75.7 76.9 79.2 80.3 79.9 80.9 73.9 69.4 74.8 76.6 76.8 77.5	80.0 73.7 75.3 77.0 79.8 80.6 80.5 80.9 71.7 69.7 75.6 76.9 77.6 79.2 75.4 75.3 77.9	82.2 78.6 74.1 76.0 77.4 80.3 80.6 80.4 80.6 69.1 71.1 75.5 77.1 77.0 77.8 78.1 75.2 78.3	82.3 76.9 75.1 75.4 77.8 80.5 80.7 80.8 79.6 67.0 73.0 75.7 77.1 77.1 76.9 75.1 76.5 79.3	81.4 75.3 75.5 76.0 78.3 79.8 80.6 80.6 77.0 68.1 74.4 76.7 77.1 78.9 76.9 75.2 76.5	80.4 74.0 75.4 76.8 79.4 80.2 80.2 80.8 73.5 69.4 75.0 76.7 76.8 77.5	81.6 76.2 75.0 78.2 80.2 80.5 80.6 77.7 68.4 76.1 76.9 77.2 78.6 77.0 75.2 76.5

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

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

| Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally adjusted | Seasonally

Year							Y 1	A	α .	0 .	N.T.	- D	0.1	00	0.2		
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annu
IP (percent																	
change) ²																	
1999	.3	.9	.0	.3	.8	2	.4	.6	4	1.5	.7	.7	5.2	4.3	3.2	8.7	5
2000	.0	.3	.6	.6	.0	.2	.1	6	.5	4	3	6	4.5	4.9	4	-2.7	4
2001	5	7	2	4	6	6	5	4	4	5	4	.2	-5.9	-5.3	-5.9	-4.0	-3
2002	.6	.0	.7	.3	.5	1.0	1	.1	.1	4	.5	6	3.5	5.9	3.3	5	
2003	.8	1	.1	8	.0	.5	.3	4	.9	.1	.8	.0	2.0	-2.4	2.5	4.4	1
2004	1	.7	.0	.3	.7	7	.9	.5	.0	1.0	.0	.7	2.6	3.3	4.0	5.5	3
2005	.7	.9	5	.4	.3	.1	3	.6	-1.1	1.4	.9	.1	6.4	2.5	6	6.1	4
006	.8	3	.0	.4	3	.3	3	.7	.1	5	.1	1.5	3.9	.8	1.0	1.5	1
007	4	.3	.9	.7	1	.3	.0	3	.3	2	.5	.1	4.4	5.8	.4	1.2	1
008	2	7	4	-1.0	6	7	-1.1	-1.2	-3.4	7	-2.5	-3.3	-2.5	-8.2	-13.7	-21.9	
009	-3.2	1	-1.9	7	-1.1	2	1.6	1.1	1.0	.1	1.0	2	-24.7	-10.5	8.6	7.1	-1:
010	1.1	1	1.3	.8	1.3	.0	.6	.1	.0	.1	.1	.5	6.7	10.5	4.3	1.5	
2011	.1	.2	.6	5	.0	.1	.6	.5	.3	.5	2	.7	2.9	2	4.4	3.8	-
012	.8	.3	5	.5	4	.3	2	1	2	2	.6	.7	5.3	.6	-1.3	1.1	
013	3	.4	1	3	.3	.1	8	.9	.1	.1	.0	2	2.6	.1	.1	1.6	
014	-1.0	.9	.8	.0	.3	.3	.5	6	.0	1	.7	2	-1.0	4.6	1.6	.2	
015	5	7	.3	.0	.0	4	.8	5	3	1	3	3	-3.2	7	.6	-2.9	
016	.5	3	1	2	.0	.2	.2	5	.2	.1	1	.0	3	-1.3	.1	.1	
017	.3	1	3	1.1	1	.0	2	3	.0	1.0	.0	2	.3	3.2	-1.8	3.6	
018	4	.9	.1	.6	8	.5	.2	.2	.0	5	4	.2	.5	2.7	1.9	-2.4	
019	7	5	1	8	.1	.2	4	.5	6	7	.7	.0	-4.3	-3.5	5	-1.9	-
020	2	.0	-4.4	-15.8	4.6	7.3	4.0	1.6	.1	1.5	.6	.6	-5.7	-44.7	55.8	11.1	-
021	1.5	-3.7	3.1	4	.9	1							2.3	3.7			
P (2017=100)		1000															
019	100.6	100.0	99.9	99.2	99.2	99.4	99.0	99.5	98.9	98.2	98.9	98.9	100.2	99.3	99.2	98.7	9
020	98.7	98.7	94.3	79.4	83.1	89.1	92.7	94.1	94.2	95.6	96.2	96.8	97.2	83.8	93.7	96.2	9
021	98.2	94.5	97.5	97.1	97.9	97.9							96.7	97.6			
Capacity																	
percent of (017 output)	120.0	120.0	121.0	121.0	121.0	121.0	121.0	121.0	121.0	121.0	120.0	120.0	120.0	121.0	121.0	120.0	12
percent of 017 output) 019	130.9	130.9	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0	130.9	130.8	130.9	131.0	131.0	130.9	13
percent of	130.9 130.8 130.0	130.9 130.7 129.9	131.0 130.6 129.9	131.0 130.5 129.9	131.0 130.4 129.9	131.0 130.4 130.0	131.0 130.3	131.0 130.2	131.0 130.1	131.0 130.1	130.9 130.0	130.8 130.0	130.9 130.7 129.9	131.0 130.4 129.9	131.0 130.2	130.9 130.0	
percent of 017 output) 019 020 021 Utilization	130.8	130.7	130.6	130.5	130.4	130.4							130.7	130.4			
percent of 017 output) 019 020 021 tilization percent)	130.8 130.0	130.7 129.9	130.6 129.9	130.5 129.9	130.4 129.9	130.4 130.0	130.3	130.2	130.1	130.1	130.0	130.0	130.7 129.9	130.4 129.9	130.2	130.0	13
percent of 217 output) 219 220 221 (tilization percent) 299	130.8 130.0	130.7	130.6 129.9 80.7	130.5 129.9 80.6	130.4 129.9 80.9	130.4 130.0	130.3		130.1 79.8	130.1 80.7	130.0 80.9		130.7 129.9 80.9	130.4 129.9 80.6	130.2	130.0	13
percent of (2) 27 output) (2) 19 (2) (2) (2) (2) (3) (4) (4) (5) (6) (6) (6) (6) (6) (6) (6) (6) (6) (6	130.8 130.0	130.7 129.9 81.1	130.6 129.9	130.5 129.9	130.4 129.9	130.4 130.0	130.3	130.2	130.1	130.1	130.0	130.0 81.1	130.7 129.9	130.4 129.9	130.2	130.0	13 8 7
percent of (2) 27 output) (2) 19 (2) (2) (2) (2) (2) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	130.8 130.0 80.8 80.8	130.7 129.9 81.1 80.7	130.6 129.9 80.7 80.9	130.5 129.9 80.6 81.0	130.4 129.9 80.9 80.7	130.4 130.0 80.3 80.5	80.3 80.3	80.5 79.4	79.8 79.5	80.7 78.9	80.9 78.4	81.1 77.6	130.7 129.9 80.9 80.8	130.4 129.9 80.6 80.8	80.2 79.7	80.9 78.3	13 8 7
ercent of 017 output) 119 120 121 tilization ercent) 1999 1000 1001	130.8 130.0 80.8 80.8 76.9	130.7 129.9 81.1 80.7 76.1	130.6 129.9 80.7 80.9 75.7	130.5 129.9 80.6 81.0 75.2	130.4 129.9 80.9 80.7 74.5	130.4 130.0 80.3 80.5 73.9	80.3 80.3 73.3	80.5 79.4 72.9	79.8 79.5 72.5	80.7 78.9 72.0	80.9 78.4 71.6	81.1 77.6 71.7	130.7 129.9 80.9 80.8 76.3	130.4 129.9 80.6 80.8 74.5	80.2 79.7 72.9	80.9 78.3 71.8	13 88 77
percent of 017 output) 019 020 021 019 020 021 019 020 021 019 020 020 020 020 020 020 020 020 020 02	80.8 80.8 80.8 76.9 72.1	130.7 129.9 81.1 80.7 76.1 72.0	80.7 80.9 75.7 72.4	80.6 81.0 75.2 72.6	80.9 80.7 74.5 73.0	80.3 80.5 73.9 73.7	80.3 80.3 73.3 73.6	80.5 79.4 72.9 73.6	79.8 79.5 72.5 73.7	80.7 78.9 72.0 73.4	80.9 78.4 71.6 73.8	81.1 77.6 71.7 73.4	80.9 80.8 76.3 72.2	130.4 129.9 80.6 80.8 74.5 73.1	80.2 79.7 72.9 73.6	80.9 78.3 71.8 73.5	88 7 7 7
percent of 017 output) 019 020 021 021 021 021 021 021 021 021 021	80.8 80.8 76.9 72.1 74.0	81.1 80.7 76.1 72.0 73.9	80.7 80.9 75.7 72.4 73.9	80.6 81.0 75.2 72.6 73.4	80.9 80.7 74.5 73.0 73.4	80.3 80.5 73.9 73.7 73.7	80.3 80.3 73.3 73.6 74.0	80.5 79.4 72.9 73.6 73.7	79.8 79.5 72.5 73.7 74.3	80.7 78.9 72.0 73.4 74.4	80.9 78.4 71.6 73.8 75.1	81.1 77.6 71.7 73.4 75.1	80.9 80.8 76.3 72.2 73.9	80.6 80.8 74.5 73.1 73.5	80.2 79.7 72.9 73.6 74.0	80.9 78.3 71.8 73.5 74.9	88 7 7 7 7
tilization percent) 999 900 901 902 900 901 900 901 900 901 900 901 900 900	80.8 80.8 76.9 72.1 74.0	81.1 80.7 76.1 72.0 73.9 75.6	80.7 80.9 75.7 72.4 73.9 75.6	80.6 81.0 75.2 72.6 73.4	80.9 80.7 74.5 73.0 73.4 76.5	80.3 80.5 73.9 73.7 76.0	80.3 80.3 73.3 73.6 74.0 76.6	80.5 79.4 72.9 73.6 73.7 77.0	79.8 79.5 72.5 73.7 74.3 76.9	80.7 78.9 72.0 73.4 74.4 77.6	80.9 78.4 71.6 73.8 75.1 77.5	81.1 77.6 71.7 73.4 75.1 78.0	80.9 80.8 76.3 72.2 73.9	80.6 80.8 74.5 73.1 73.5	80.2 79.7 72.9 73.6 74.0 76.9	80.9 78.3 71.8 73.5 74.9	88 7 7 7 7 7
ercent of 017 output) 019 020 021 tilization ercent) 099 000 001 002 003 004 005	80.8 80.8 80.8 76.9 72.1 74.0 75.0 78.4	81.1 80.7 76.1 72.0 73.9 75.6 79.0	80.7 80.9 75.7 72.4 73.9 75.6 78.5	80.6 81.0 75.2 72.6 73.4 75.9 78.7	130.4 129.9 80.9 80.7 74.5 73.0 73.4 76.5 78.7 78.8 79.1	130.4 130.0 80.3 80.5 73.9 73.7 73.7 76.0 78.7 78.9 79.1	80.3 80.3 73.3 73.6 74.0 76.6 78.3	80.5 79.4 72.9 73.6 73.7 77.0 78.5 78.9 78.5	79.8 79.5 72.5 73.7 74.3 76.9 77.5 78.8 78.6	80.7 78.9 72.0 73.4 74.4 77.6 78.5	80.9 78.4 71.6 73.8 75.1 77.5 79.0 78.1 78.7	81.1 77.6 71.7 73.4 75.1 78.0 78.9	80.9 80.8 76.3 72.2 73.9 75.4 78.6	80.6 80.8 74.5 73.1 73.5 76.1 78.7	80.2 79.7 72.9 73.6 74.0 76.9 78.1 78.7	80.9 78.3 71.8 73.5 74.9 77.7 78.8	88 7 7 7 7 7
percent of 017 output) 019 020 021 (tilization percent) 999 000 0001 0002 0003 0004 0005 0006 0007	130.8 130.0 80.8 80.8 76.9 72.1 74.0 75.0 78.4 79.4	81.1 80.7 76.1 72.0 73.9 75.6 79.0 79.1	80.7 80.9 75.7 72.4 73.9 75.6 78.5 79.0	80.6 81.0 75.2 72.6 73.4 75.9 78.7 79.1	80.9 80.7 74.5 73.0 73.4 76.5 78.7 78.8	130.4 130.0 80.3 80.5 73.9 73.7 76.0 78.7 78.9	80.3 80.3 73.6 74.0 76.6 78.3 78.5	80.5 79.4 72.9 73.6 73.7 77.0 78.5 78.9	79.8 79.5 72.5 73.7 74.3 76.9 77.5 78.8	80.7 78.9 72.0 73.4 74.4 77.6 78.5 78.2	80.9 78.4 71.6 73.8 75.1 77.5 79.0 78.1	81.1 77.6 71.7 73.4 75.1 78.0 78.9 79.1	130.7 129.9 80.9 80.8 76.3 72.2 73.9 75.4 78.6 79.2	80.6 80.8 74.5 73.1 73.5 76.1 78.7 78.9	80.2 79.7 72.9 73.6 74.0 76.9 78.1 78.7	80.9 78.3 71.8 73.5 74.9 77.7 78.8 78.5	88 77 77 77 77
percent of 017 output) 019 020 021 021 021 021 022 020 021 021 022 023 024 025 026 026 027 028 029 020 020 020 020 020 020 020 020 020	130.8 130.0 80.8 80.8 76.9 72.1 74.0 75.0 78.4 79.4 78.5 78.4	130.7 129.9 81.1 80.7 76.1 72.0 73.9 75.6 79.0 79.1 78.6 77.9	130.6 129.9 80.7 80.9 75.7 72.4 73.9 75.6 78.5 79.0 77.6	30.5 129.9 80.6 81.0 75.2 72.6 73.4 75.9 78.7 79.1 79.4 76.9	80.9 80.7 74.5 73.0 73.4 76.5 78.7 76.5 63.6	130.4 130.0 80.3 80.5 73.9 73.7 76.0 78.7 78.9 79.1 76.0 63.5	80.3 80.3 73.3 73.6 74.0 76.6 78.3 78.5 78.9 75.3	80.5 79.4 72.9 73.6 73.7 77.0 78.5 78.9 74.5	79.8 79.5 72.5 73.7 74.3 76.9 77.5 78.8 78.6 72.1	80.7 78.9 72.0 73.4 74.4 77.6 78.5 78.2 78.4 71.7	80.9 78.4 71.6 73.8 75.1 77.5 79.0 78.1 78.7 70.0	81.1 77.6 71.7 73.4 75.1 78.0 78.9 79.1 78.7 67.7	130.7 129.9 80.9 80.8 76.3 72.2 73.9 75.4 78.6 79.2 78.7 78.0	130.4 129.9 80.6 80.8 74.5 73.1 73.5 76.1 78.7 79.2 76.5	80.2 79.7 72.9 73.6 74.0 76.9 78.1 78.7 73.9 65.4	80.9 78.3 71.8 73.5 74.9 77.7 78.8 78.5 78.6 69.8	13 88 77 77 77 77 77 77 77
percent of 017 output) 019 022 020 021 1tilization percent) 0999 0000 001 0002 0003 0004 0005 0006 0007 0008 0009 0110	130.8 130.0 80.8 80.8 76.9 72.1 74.0 75.0 78.4 79.4 78.5 78.4	130.7 129.9 81.1 80.7 76.1 72.0 73.9 75.6 79.0 79.1 78.6 77.9	130.6 129.9 80.7 80.9 75.7 72.4 73.9 75.6 78.5 79.0 77.6	130.5 129.9 80.6 81.0 75.2 72.6 73.4 75.9 78.7 79.1 79.4 76.9	130.4 129.9 80.9 80.7 74.5 73.0 73.4 76.5 78.7 78.8 79.1 76.5 63.6 70.5	130.4 130.0 80.3 80.5 73.9 73.7 76.0 78.7 76.0 63.5 70.6	80.3 80.3 73.3 73.6 74.0 76.6 78.3 78.5 78.9 75.3 64.6 71.2	80.5 79.4 72.9 73.6 73.7 77.0 78.5 78.9 78.5 74.5	79.8 79.5 72.5 73.7 74.3 76.9 77.5 78.8 78.6 72.1 66.1 71.5	80.7 78.9 72.0 73.4 74.4 77.6 78.5 78.2 78.4 71.7	80.9 78.4 71.6 73.8 75.1 77.5 79.0 78.1 78.7 70.0 67.0 71.9	81.1 77.6 71.7 73.4 75.1 78.0 78.9 79.1 78.7 67.7	130.7 129.9 80.9 80.8 76.3 72.2 73.9 75.4 78.6 79.2 78.7 78.0 65.3 68.1	130.4 129.9 80.6 80.8 74.5 73.1 73.5 76.1 78.7 79.2 76.5 63.8 70.2	80.2 79.7 72.9 73.6 74.0 76.9 78.1 78.7 78.7	80.9 78.3 71.8 73.5 74.9 77.7 78.8 78.6 69.8	13 8 7 7 7 7 7 7 7 7 7
ercent of 017 output) 119 020 021 111 111 111 111 111 111 111 111	130.8 130.0 80.8 80.8 76.9 72.1 74.0 75.0 78.4 79.4 78.5 78.4 65.7 67.8	130.7 129.9 81.1 80.7 76.1 72.0 73.9 75.6 79.0 79.1 78.6 77.9 65.7 67.8	130.6 129.9 80.7 80.9 75.7 72.4 73.9 75.6 78.5 79.0 77.6 64.5 68.8 73.1	130.5 129.9 80.6 81.0 75.2 72.6 73.4 75.9 78.7 79.1 79.4 76.9 64.2 69.5 72.8	130.4 129.9 80.9 80.7 74.5 73.0 73.4 76.5 78.7 78.8 79.1 76.5 63.6 70.5 72.8	130.4 130.0 80.3 80.5 73.9 73.7 76.0 78.7 78.9 79.1 76.0 63.5 70.6 72.9	80.3 80.3 73.3 73.6 74.0 76.6 78.3 78.5 78.9 75.3 64.6 71.2	80.5 79.4 72.9 73.6 73.7 77.0 78.5 78.9 78.5 74.5 65.4 71.4	79.8 79.5 72.5 73.7 74.3 76.9 77.5 78.8 78.6 72.1 66.1 71.5	80.7 78.9 72.0 73.4 74.4 77.6 78.5 78.2 78.4 71.7 66.2 71.7	80.9 78.4 71.6 73.8 75.1 77.5 79.0 78.1 78.7 70.0 67.0 71.9	81.1 77.6 71.7 73.4 75.1 78.0 78.9 79.1 78.7 67.7 67.0 72.3	130.7 129.9 80.9 80.8 76.3 72.2 73.9 75.4 78.6 79.2 78.7 78.0 65.3 68.1	130.4 129.9 80.6 80.8 74.5 73.1 73.5 76.1 78.7 78.9 79.2 76.5 63.8 70.2	80.2 79.7 72.9 73.6 74.0 76.9 78.1 78.7 73.9 65.4 71.3	80.9 78.3 71.8 73.5 74.9 77.7 78.8 78.5 78.6 69.8 66.7 71.9	88 77 77 77 77 77 77 77 77 77
ercent of 017 output) 019 020 021 tilization ercent) 099 000 001 002 003 004 005 006 007 008	130.8 130.0 80.8 80.8 76.9 72.1 74.0 75.0 78.4 79.4 78.5 78.4 65.7 67.8 72.4 74.9	130.7 129.9 81.1 80.7 76.1 72.0 73.9 75.6 79.0 79.1 78.6 77.9 65.7 67.8 72.6 75.1	130.6 129.9 80.7 80.9 75.7 72.4 73.9 75.6 78.5 79.0 79.0 77.6 64.5 68.8 73.1 74.6	130.5 129.9 80.6 81.0 75.2 72.6 73.4 75.9 78.7 79.1 79.4 76.9 64.2 69.5 72.8 74.9	130.4 129.9 80.9 80.7 74.5 73.0 73.4 76.5 78.8 79.1 76.5 63.6 70.5 72.8 74.6	130.4 130.0 80.3 80.5 73.9 73.7 76.0 78.7 78.9 79.1 76.0 63.5 70.6 72.9 74.7	80.3 80.3 73.3 73.6 74.0 76.6 78.3 78.5 78.9 75.3 64.6 71.2 73.3 74.4	80.5 79.4 72.9 73.6 73.7 77.0 78.5 78.9 78.5 74.5 65.4 71.4 73.6 74.2	79.8 79.5 72.5 73.7 74.3 76.9 77.5 78.8 78.6 72.1 66.1 71.5 73.8 74.0	80.7 78.9 72.0 73.4 74.4 77.6 78.5 78.2 78.4 71.7 66.2 71.7 74.1 73.8	80.9 78.4 71.6 73.8 75.1 77.5 79.0 78.1 78.7 70.0 67.0 71.9 73.9 74.2	81.1 77.6 71.7 73.4 75.1 78.0 78.9 79.1 78.7 67.7 67.0 72.3 74.4 74.6	130.7 129.9 80.9 80.8 76.3 72.2 73.9 75.4 78.6 79.2 78.7 78.0 65.3 68.1 72.7 74.9	130.4 129.9 80.6 80.8 74.5 73.1 73.5 76.1 78.7 78.9 79.2 76.5 63.8 70.2 72.8 74.7	80.2 79.7 72.9 73.6 74.0 76.9 78.1 78.7 73.9 65.4 71.3 73.6 74.2	130.0 80.9 78.3 71.8 73.5 74.9 77.7 78.8 78.5 78.6 69.8 66.7 71.9 74.1 74.2	133 88 77 77 77 77 77 77 77 77 77 77
percent of 017 output) 019 020 021 021 021 021 021 021 021 021 021	130.8 130.0 80.8 80.8 76.9 72.1 74.0 75.0 78.4 79.4 78.5 78.4 65.7 67.8	130.7 129.9 81.1 80.7 76.1 72.0 73.9 75.6 79.0 79.1 78.6 77.9 65.7 67.8	130.6 129.9 80.7 80.9 75.7 72.4 73.9 75.6 78.5 79.0 77.6 64.5 68.8 73.1	130.5 129.9 80.6 81.0 75.2 72.6 73.4 75.9 78.7 79.1 79.4 76.9 64.2 69.5 72.8	130.4 129.9 80.9 80.7 74.5 73.0 73.4 76.5 78.7 78.8 79.1 76.5 63.6 70.5 72.8	130.4 130.0 80.3 80.5 73.9 73.7 76.0 78.7 78.9 79.1 76.0 63.5 70.6 72.9	80.3 80.3 73.3 73.6 74.0 76.6 78.3 78.5 78.9 75.3 64.6 71.2	80.5 79.4 72.9 73.6 73.7 77.0 78.5 78.9 78.5 74.5 65.4 71.4	79.8 79.5 72.5 73.7 74.3 76.9 77.5 78.8 78.6 72.1 66.1 71.5	80.7 78.9 72.0 73.4 74.4 77.6 78.5 78.2 78.4 71.7 66.2 71.7	80.9 78.4 71.6 73.8 75.1 77.5 79.0 78.1 78.7 70.0 67.0 71.9	81.1 77.6 71.7 73.4 75.1 78.0 78.9 79.1 78.7 67.7 67.0 72.3	130.7 129.9 80.9 80.8 76.3 72.2 73.9 75.4 78.6 79.2 78.7 78.0 65.3 68.1	130.4 129.9 80.6 80.8 74.5 73.1 73.5 76.1 78.7 78.9 79.2 76.5 63.8 70.2	80.2 79.7 72.9 73.6 74.0 76.9 78.1 78.7 73.9 65.4 71.3	80.9 78.3 71.8 73.5 74.9 77.7 78.8 78.5 78.6 69.8 66.7 71.9	133 88 77 77 77 77 77 77 77 77 77 77
percent of 017 output) 019 020 020 020 021 (tilization percent) 999 000 000 0001 0002 0003 0004 0005 0006 0007 0008 0009 0110 0111 012 013 0014	130.8 130.0 80.8 80.8 76.9 72.1 74.0 75.0 78.4 79.4 78.5 78.4 65.7 67.8 72.4 74.9 74.4	130.7 129.9 81.1 80.7 76.1 72.0 73.9 75.6 79.0 79.1 78.6 77.9 65.7 67.8 72.6 75.1 74.6	130.6 129.9 80.7 80.9 75.7 72.4 73.9 75.6 78.5 79.0 77.6 64.5 68.8 73.1 74.6 74.5	130.5 129.9 80.6 81.0 75.2 72.6 73.4 75.9 78.7 79.1 79.4 76.9 64.2 69.5 72.8 74.9 74.3	130.4 129.9 80.9 80.7 74.5 73.0 73.4 76.5 78.8 79.1 76.5 63.6 70.5 72.8 74.6 74.5	130.4 130.0 80.3 80.5 73.9 73.7 76.0 78.7 76.0 63.5 70.6 72.9 74.7 74.6	80.3 80.3 73.3 73.6 74.0 76.6 78.3 78.5 78.9 75.3 64.6 71.2 73.3 74.4 74.0	80.5 79.4 72.9 73.6 73.7 77.0 78.5 78.9 78.5 74.5 65.4 71.4 73.6 74.2 74.6	79.8 79.5 72.5 73.7 74.3 76.9 77.5 78.8 78.6 72.1 66.1 71.5 73.8 74.0 74.7	80.7 78.9 72.0 73.4 74.4 77.6 78.5 78.2 78.4 71.7 66.2 71.7 74.1 73.8 74.8	80.9 78.4 71.6 73.8 75.1 77.5 79.0 78.1 78.7 70.0 67.0 71.9 73.9 74.2 74.8	81.1 77.6 71.7 73.4 75.1 78.0 78.9 79.1 78.7 67.7 67.0 72.3 74.4 74.6 74.7	130.7 129.9 80.9 80.8 76.3 72.2 73.9 75.4 78.6 79.2 78.7 78.0 65.3 68.1 72.7 74.9 74.5	130.4 129.9 80.6 80.8 74.5 73.1 73.5 76.1 78.9 79.2 76.5 63.8 70.2 72.8 74.7 74.5	80.2 79.7 72.9 73.6 74.0 76.9 78.1 78.7 73.9 65.4 71.3 73.6 74.2 74.5	80.9 78.3 71.8 73.5 74.9 77.7 78.8 78.5 78.6 69.8 66.7 71.9 74.1 74.2 74.8	88 77 77 77 77 77 77 77 77
percent of 017 output) 019 020 020 021 tilization percent) 0999 000 001 002 003 004 005 006 007 008 009 011 011 012 013 014 0015	130.8 130.0 80.8 80.8 76.9 72.1 74.0 75.0 78.4 79.4 78.5 78.4 65.7 67.8 72.4 74.9 74.4	130.7 129.9 81.1 80.7 76.1 72.0 73.9 75.6 79.0 79.1 78.6 77.9 65.7 67.8 72.6 75.1 74.6	130.6 129.9 80.7 80.9 75.7 72.4 73.9 75.6 78.5 79.0 77.6 64.5 68.8 73.1 74.6 74.5	130.5 129.9 80.6 81.0 75.2 72.6 73.4 75.9 78.7 79.1 79.4 76.9 64.2 69.5 72.8 74.9 74.3	130.4 129.9 80.9 80.7 74.5 73.0 73.4 76.5 78.8 79.1 76.5 63.6 70.5 72.8 74.6 74.5 75.6	130.4 130.0 80.3 80.5 73.9 73.7 76.0 78.7 76.0 63.5 70.6 72.9 74.7 74.6	80.3 80.3 73.3 73.6 74.0 76.6 78.3 78.5 78.9 75.3 64.6 71.2 73.3 74.4 74.0	80.5 79.4 72.9 73.6 73.7 77.0 78.5 78.9 78.5 74.5 65.4 71.4 73.6 74.2 74.6	79.8 79.5 72.5 73.7 74.3 76.9 77.5 78.8 78.6 72.1 66.1 71.5 73.8 74.0 74.7	80.7 78.9 72.0 73.4 74.4 77.6 78.5 78.2 78.4 71.7 66.2 71.7 74.1 73.8 74.8	80.9 78.4 71.6 73.8 75.1 77.5 79.0 78.1 78.7 70.0 67.0 71.9 73.9 74.2 74.8	81.1 77.6 71.7 73.4 75.1 78.0 78.9 79.1 78.7 67.7 67.0 72.3 74.4 74.6 74.7	130.7 129.9 80.9 80.8 76.3 72.2 73.9 75.4 78.6 79.2 78.7 78.0 65.3 68.1 72.7 74.9 74.5	130.4 129.9 80.6 80.8 74.5 73.1 73.5 76.1 78.7 79.2 76.5 63.8 70.2 72.8 74.7 74.5 75.6 76.1	80.2 79.7 72.9 73.6 74.0 76.9 78.1 78.7 73.9 65.4 71.3 73.6 74.2 74.5	80.9 78.3 71.8 73.5 74.9 77.7 78.8 78.5 78.6 69.8 66.7 71.9 74.1 74.2 74.8 76.4 75.7	88 77 77 77 77 77 77 77 77 77
percent of 017 output) 019 020 021 021 021 021 021 021 021 022 023 024 025 026 027 028 029 021 021 021 021 021 021 021 021 021 021	130.8 130.0 80.8 80.8 76.9 72.1 74.0 75.0 78.4 79.4 78.5 78.4 65.7 67.8 72.4 74.9 74.4 74.0 76.2 75.8	130.7 129.9 81.1 80.7 76.1 72.0 73.9 75.6 79.0 79.1 78.6 77.9 65.7 67.8 72.6 75.1 74.6	130.6 129.9 80.7 80.9 75.7 72.4 73.9 75.6 78.5 79.0 77.6 64.5 68.8 73.1 74.6 74.5	130.5 129.9 80.6 81.0 75.2 72.6 73.4 75.9 78.7 79.1 79.4 76.9 64.2 69.5 72.8 74.9 74.3	130.4 129.9 80.9 80.7 74.5 73.0 73.4 76.5 78.7 78.8 79.1 76.5 63.6 70.5 72.8 74.6 74.5	130.4 130.0 80.3 80.5 73.9 73.7 76.0 78.7 76.0 63.5 70.6 72.9 74.7 74.6	80.3 80.3 73.3 73.6 74.0 76.6 78.3 78.5 78.9 75.3 64.6 71.2 73.3 74.4 74.0	80.5 79.4 72.9 73.6 73.7 77.0 78.5 78.9 78.5 74.5 65.4 71.4 73.6 74.2 74.6	79.8 79.5 72.5 73.7 74.3 76.9 77.5 78.8 78.6 72.1 66.1 71.5 73.8 74.0 74.7	80.7 78.9 72.0 73.4 74.4 77.6 78.5 78.2 78.4 71.7 66.2 71.7 74.1 73.8 74.8	80.9 78.4 71.6 73.8 75.1 77.5 79.0 78.1 78.7 70.0 67.0 71.9 73.9 74.2 74.8	81.1 77.6 71.7 73.4 75.1 78.0 78.9 79.1 78.7 67.7 67.0 72.3 74.4 74.6 74.7 76.5 75.4 75.2	130.7 129.9 80.9 80.8 76.3 72.2 73.9 75.4 78.6 79.2 78.7 78.0 65.3 68.1 72.7 74.9 74.5	130.4 129.9 80.6 80.8 74.5 73.1 73.5 76.1 78.7 78.9 79.2 76.5 63.8 70.2 72.8 74.7 74.5 75.6 76.1 75.2	80.2 79.7 72.9 73.6 74.0 76.9 78.1 78.7 73.9 65.4 71.3 73.6 74.2 74.5	80.9 78.3 71.8 73.5 74.9 77.7 78.8 78.5 78.6 69.8 66.7 71.9 74.1 74.2 74.8 76.4 75.7 75.1	88 77 77 77 77 77 77 77 77 77 77 77 77 7
percent of 017 output) 019 020 021 (tilization percent) 999 000 000 000 000 000 000 000 000 00	130.8 130.0 80.8 80.8 76.9 72.1 74.0 75.0 78.4 79.4 78.5 78.4 65.7 67.8 72.4 74.9 74.4 74.0 76.2 75.8	130.7 129.9 81.1 80.7 76.1 72.0 73.9 75.6 79.0 79.1 78.6 77.9 65.7 67.8 72.6 75.1 74.6 74.7 75.7 75.5	130.6 129.9 80.7 80.9 75.7 72.4 73.9 75.6 78.5 79.0 77.6 64.5 68.8 73.1 74.6 74.5 75.4 76.0 75.4	130.5 129.9 80.6 81.0 75.2 72.6 73.4 75.9 78.7 79.1 79.4 76.9 64.2 69.5 72.8 74.9 74.3 75.4 76.1 75.2	130.4 129.9 80.9 80.7 74.5 73.0 73.4 76.5 78.7 78.8 79.1 76.5 63.6 74.5 74.6 74.5 75.6 76.2 75.1	130.4 130.0 80.3 80.5 73.7 73.7 76.0 78.7 79.1 76.0 63.5 70.6 72.9 74.7 74.6 75.9 75.2 76.3	80.3 80.3 73.6 74.0 76.6 78.3 75.3 64.6 71.2 73.3 74.4 74.0 76.4 76.6 75.3 76.2	80.5 79.4 72.9 73.6 73.7 77.0 78.5 78.9 78.5 74.5 65.4 71.4 73.6 74.2 74.6 76.0 76.2 74.9	79.8 79.5 72.5 73.7 74.3 76.9 77.5 78.8 78.6 72.1 66.1 71.5 73.8 74.0 74.7 76.0 75.0	80.7 78.9 72.0 73.4 74.4 77.6 78.5 78.2 78.4 71.7 74.1 73.8 74.8 76.0 75.9 75.1 77.1	80.9 78.4 71.6 73.8 75.1 77.5 79.0 78.1 78.7 70.0 67.0 71.9 73.9 74.2 74.8 76.6 75.7 75.1 77.2	81.1 77.6 71.7 73.4 75.1 78.0 78.9 79.1 78.7 67.7 67.0 72.3 74.4 74.6 74.7 76.5 75.4 75.2	130.7 129.9 80.9 80.8 76.3 72.2 73.9 75.4 78.6 79.2 78.7 78.0 65.3 68.1 72.7 74.9 74.5 74.7 76.0 75.5	130.4 129.9 80.6 80.8 74.5 73.1 73.5 76.1 78.7 79.2 76.5 63.8 70.2 72.8 74.7 74.5 75.6 76.1 75.2	80.2 79.7 72.9 73.6 74.0 76.9 78.1 78.7 73.9 65.4 71.3 73.6 74.2 74.5 76.1 76.3 75.1	80.9 78.3 71.8 73.5 74.9 77.7 78.8 78.6 69.8 66.7 71.9 74.1 74.2 74.8 76.4 75.7 75.1	88 77 77 77 77 77 77 77 77 77 77
percent of 017 output) 019 020 021 (tilization percent) 999 000 000 000 000 000 000 000 000 00	130.8 130.0 80.8 80.8 76.9 72.1 74.0 75.0 78.4 79.4 78.5 78.4 65.7 67.8 72.4 74.9 74.4 74.0 76.2 75.8	130.7 129.9 81.1 80.7 76.1 72.0 73.9 75.6 79.0 79.1 78.6 77.9 65.7 67.8 72.6 75.1 74.6	130.6 129.9 80.7 80.9 75.7 72.4 73.9 75.6 78.5 79.0 77.6 64.5 68.8 73.1 74.6 74.5	130.5 129.9 80.6 81.0 75.2 72.6 73.4 75.9 78.7 79.1 79.4 76.9 64.2 69.5 72.8 74.9 74.3	130.4 129.9 80.9 80.7 74.5 73.0 73.4 76.5 78.7 78.8 79.1 76.5 63.6 70.5 72.8 74.6 74.5	130.4 130.0 80.3 80.5 73.9 73.7 76.0 78.7 76.0 63.5 70.6 72.9 74.7 74.6	80.3 80.3 73.3 73.6 74.0 76.6 78.3 78.5 78.9 75.3 64.6 71.2 73.3 74.4 74.0	80.5 79.4 72.9 73.6 73.7 77.0 78.5 78.9 78.5 74.5 65.4 71.4 73.6 74.2 74.6	79.8 79.5 72.5 73.7 74.3 76.9 77.5 78.8 78.6 72.1 66.1 71.5 73.8 74.0 74.7	80.7 78.9 72.0 73.4 74.4 77.6 78.5 78.2 78.4 71.7 66.2 71.7 74.1 73.8 74.8	80.9 78.4 71.6 73.8 75.1 77.5 79.0 78.1 78.7 70.0 67.0 71.9 73.9 74.2 74.8	81.1 77.6 71.7 73.4 75.1 78.0 78.9 79.1 78.7 67.7 67.0 72.3 74.4 74.6 74.7 76.5 75.4 75.2	130.7 129.9 80.9 80.8 76.3 72.2 73.9 75.4 78.6 79.2 78.7 78.0 65.3 68.1 72.7 74.9 74.5	130.4 129.9 80.6 80.8 74.5 73.1 73.5 76.1 78.7 78.9 79.2 76.5 63.8 70.2 72.8 74.7 74.5 75.6 76.1 75.2	80.2 79.7 72.9 73.6 74.0 76.9 78.1 78.7 73.9 65.4 71.3 73.6 74.2 74.5	80.9 78.3 71.8 73.5 74.9 77.7 78.8 78.5 78.6 69.8 66.7 71.9 74.1 74.2 74.8 76.4 75.7 75.1	88 77 77 77 77 77 77 77 77 77 77
percent of 017 output) 019 020 020 020 021 (tilization percent) 999 000 000 0001 0002 0003 0004 0005 0006 0007 0008 0011 0112 0113 0014 0015 016 0017 0018 0019 0119 0119 0119	130.8 130.0 80.8 80.8 76.9 72.1 74.0 75.0 78.4 79.4 78.5 78.4 74.9 74.4 74.9 74.4 76.2 75.8 75.4 76.8	130.7 129.9 81.1 80.7 76.1 72.0 73.9 75.6 79.0 79.1 78.6 77.9 65.7 67.8 72.6 75.1 74.6 74.7 75.7 75.4 77.5	130.6 129.9 80.7 80.9 75.7 72.4 73.9 75.6 78.5 79.0 77.6 64.5 68.8 73.1 74.6 74.5 75.4 76.0 75.4 76.0 75.4 76.0 75.4 76.0	130.5 129.9 80.6 81.0 75.2 72.6 73.4 75.9 78.7 79.1 79.4 76.9 64.2 69.5 72.8 74.9 74.3 75.4 76.1 75.2 76.2 78.1	130.4 129.9 80.9 80.7 74.5 73.0 73.4 76.5 78.8 79.1 76.5 63.6 70.5 72.8 74.6 74.5 75.6 76.2 75.1 76.2 77.5	130.4 130.0 80.3 80.5 73.9 73.7 76.0 78.7 76.0 63.5 70.6 72.9 74.7 74.6 75.9 75.2 76.3 77.9	80.3 80.3 73.3 73.6 74.0 76.6 78.3 78.5 78.9 75.3 64.6 71.2 73.3 74.4 74.0 76.6 75.3 76.2 78.0	80.5 79.4 72.9 73.6 73.7 77.0 78.5 78.9 78.5 74.5 65.4 71.4 73.6 74.2 74.6 76.0 76.2 74.9 76.1 78.2 76.0	79.8 79.5 72.5 73.7 74.3 76.9 77.5 78.8 78.6 72.1 66.1 71.5 73.8 74.0 74.7 76.0 76.0 75.0 76.2 78.1	80.7 78.9 72.0 73.4 74.4 77.6 78.5 78.2 78.4 71.7 66.2 71.7 74.1 73.8 74.8 76.0 75.9 75.1 77.7 75.0	80.9 78.4 71.6 73.8 75.1 77.5 79.0 78.1 78.7 70.0 67.0 71.9 73.9 74.2 74.8 76.6 75.7 75.1 77.2 77.3	81.1 77.6 71.7 73.4 75.1 78.0 78.9 79.1 78.7 67.7 67.7 67.0 72.3 74.4 74.6 74.7 76.5 75.4 75.2 77.0 77.5	130.7 129.9 80.9 80.8 76.3 72.2 73.9 75.4 78.6 79.2 78.7 78.0 65.3 68.1 72.7 74.5 74.5 75.4 77.3	130.4 129.9 80.6 80.8 74.5 73.1 73.5 76.1 78.9 79.2 76.5 63.8 70.2 72.8 74.7 74.5 75.6 76.1 75.2 76.2 77.8	80.2 79.7 72.9 73.6 74.0 76.9 78.1 78.7 73.9 65.4 71.3 73.6 74.2 74.5 76.1 76.3 75.1 76.2 78.1	80.9 78.3 71.8 73.5 74.9 77.7 78.8 78.5 78.6 69.8 66.7 71.9 74.1 74.2 74.8 76.4 75.7 77.1 77.5	88 77 77 77 77 77 77 77 77 77 77 77 77 7
percent of 017 output) 019 020	130.8 130.0 80.8 80.8 76.9 72.1 74.0 75.0 78.4 79.4 78.5 78.4 65.7 67.8 72.4 74.9 74.9 74.0 76.2 75.8 75.4	130.7 129.9 81.1 80.7 76.1 72.0 73.9 75.6 79.0 79.1 78.6 77.9 65.7 67.8 72.6 75.1 74.6	130.6 129.9 80.7 80.9 75.7 72.4 73.9 75.6 78.5 79.0 77.6 64.5 68.8 73.1 74.5 75.4 76.0 75.4 76.0 75.3 77.6	130.5 129.9 80.6 81.0 75.2 72.6 73.4 75.9 78.7 79.1 79.4 76.9 64.2 69.5 72.8 74.3 75.4 76.1 75.2 76.2 76.2	130.4 129.9 80.9 80.7 74.5 73.0 73.4 76.5 78.8 79.1 76.5 63.6 70.5 72.8 74.5 75.6 76.2 75.1 76.2	130.4 130.0 80.3 80.5 73.9 73.7 76.0 78.7 76.0 63.5 70.6 72.9 74.7 74.6 75.9 75.9 75.9 75.9 75.9	80.3 80.3 73.3 73.6 74.0 76.6 78.3 78.5 78.9 75.3 64.6 71.2 73.3 74.4 74.0 76.4 76.6 75.3 76.4 76.6 77.3	80.5 79.4 72.9 73.6 73.7 77.0 78.5 74.5 65.4 71.4 73.6 74.2 74.6 76.0 76.2 74.9 76.1 78.2	79.8 79.5 72.5 73.7 74.3 76.9 77.5 78.8 78.6 72.1 66.1 71.5 73.8 74.0 74.7 76.0 76.0 75.0 76.2 78.1	80.7 78.9 72.0 73.4 74.4 77.6 78.5 78.2 78.4 71.7 66.2 71.7 74.1 73.8 74.8 76.0 75.9 75.1 77.1	80.9 78.4 71.6 73.8 75.1 77.5 79.0 78.1 78.7 70.0 67.0 71.9 73.9 74.2 74.8 76.6 75.1 77.2 77.3	81.1 77.6 71.7 73.4 75.1 78.0 78.9 79.1 78.7 67.7 67.7 67.4 74.4 74.5 75.4 75.4 75.5 75.4 75.5	130.7 129.9 80.9 80.8 76.3 72.2 73.9 75.4 78.6 79.2 78.7 78.0 65.3 68.1 72.7 74.5 74.5 74.7 76.0 75.4 77.3	130.4 129.9 80.6 80.8 74.5 73.1 73.5 76.1 78.7 79.2 76.5 63.8 70.2 72.8 74.7 74.5 75.6 76.1 75.2 76.2	80.2 79.7 72.9 73.6 74.0 76.9 78.1 78.7 73.9 65.4 71.3 73.6 74.5 76.1 76.3 75.1 76.2 78.1	80.9 78.3 71.8 73.5 74.9 77.7 78.8 78.5 78.6 69.8 66.7 71.9 74.1 74.2 74.8 76.4 75.7 75.1 77.1	88 7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7

The composition of manufacturing is specified in a note for the summary table.
 Quarterly percentage changes are at annual rates. Annual percentage changes are calculated from annual averages.

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

Seasonally adjusted Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
IP (percent																	
change)2																	
1999	.1	.2	1	1	.4	4	.2	.4	5	1.2	.3	.6	.8	.1	.9	5.6	1.2
2000	4	.1	.1	.4	.0	1	5	4	.3	5	2	5	.5	1.5	-3.2	-2.8	1.0
2001	6	6	3	2	5	4	4	1	5	4	6	1	-5.7	-4.2	-4.4	-4.5	-3.9
2002	.7	1	.8	.5	.4	.8	1	2	.1	3	.5	6	2.6	6.1	2.0	7	.2
2003	.8	1	4	8	2	.0	.3	3	.6	.0	.6	.0	1.5	-4.7	.8	2.6	.2
2004	.1	.5	5	.4	.7	8	.8	.0	.0	.9	.2	.7	1.9	2.1	2.0	5.4	1.7
2005	.3	.6	2	.1	.0	.4	4	.2	-2.2	1.1	1.1	.5	4.7	1.3	-2.9	2.4	2.6
2006	.1	1	.2	.3	1	.2	1	.3	3	2	1	1.0	3.2	1.8	.7	.1	1.4
2007	5	.9	.0	.6	.1	.1	1	.2	.1	5	.4	1	3.2	4.0	.6	5	1.8
2008	2	5	5	8	7	2	4	-1.6	-4.4	1.2	-1.1	-2.7	-2.5	-6.8	-12.5	-15.0	-4.3
2009	-2.5	7	-1.7	8	-1.1	4	1.1	1.2	.8	.2	.3	.3	-20.6	-11.6	6.4	6.0	-11.4
2010	1.0	.2	.6	.3	1.4	.2	.4	.3	.2	3	.0	.9	6.9	7.4	5.1	1.0	4.9
2011	2	5	1.1	3	.1	.2	.6	.6	1	.7	.0	.5	1.6	1.6	4.5	3.9	2.8
2012	.6	.2	5	.7	.1	1	.2	4	1	.3	.5	.2	3.6	2.1	2	1.8	2.8
2013	1	.5	.4	1	.0	.1	3	.6	.6	2	.2	.2	2.9	1.6	1.3	2.5	1.8
2014	3	.7	1.0	.0	.4	.3	.3	2	.3	.0	.7	.0	2.8	5.1	2.3	2.3	2.8
2015	8	6	3	6	4	3	.7	3	4	4	7	6	-4.3	-5.8	.1	-5.7	-1.5
2016	.6	5	8	.3	2	.4	.2	2	2	.0	5	0	-2.6	-1.7	.8	-1.0	-2.4
2017	1	4	.8	.9	.1	.2	1	5	.0	1.2	.3	.1	.6	5.7	-1.2	5.1	1.1
2018	.0	.3	.6	1.1	9	.7	.2	.6	.0	1	.0	.0	2.2	5.1	3.2	.1	3.0
2019	6	6	.1	6	.2	1	3	.6	4	8	.5	4	-3.8	-2.5	3	-2.8	9
2020	5	.2	-3.9	-13.9	2.0	6.3	4.1	1.1	4	1.1	.5	1.2	-7.0	-43.2	45.4	7.9	-7.5
2021	1.1	-3.2	2.7	.0	.7	.4	7.1	1.1		1.1	.5	1.2	3.4	5.3	73.7	1.5	-7.5
IP (2017=100)																	
2019	103.1	102.5	102.7	102.0	102.2	102.2	101.8	102.4	102.0	101.2	101.7	101.3	102.8	102.1	102.1	101.4	102.1
2020	100.7	101.0	97.0	83.5	85.2	90.6	94.3	95.4	95.0	96.0	96.5	97.7	99.5	86.4	94.9	96.7	94.4
2021	98.8	95.7	98.2	98.2	98.9	99.3	74.3	73.4	93.0	90.0	90.5	91.1	97.5	98.8	94.9	90.7	94.4
Capacity (percent of 2017 output) 2019	131.0	131.2	131.3	131.5	131.6	131.8	131.9	132.0	132.1	132.1	132.2	132.2	131.2	131.6	132.0	132.2	131.7
2020	132.2	132.2	132.2	132.2	132.1	132.1	132.1	132.0	132.0	132.0	132.0	131.9	132.2	132.1	132.0	132.0	132.1
2021	131.9	131.9	132.0	132.0	132.0	132.0							131.9	132.0			
Utilization																	
(percent) 1999	82.0	82.0	81.7	81.4	81.6	81.2	81.2	81.4	80.8	81.7	81.8	82.1	81.9	81.4	81.1	81.9	81.6
2000	81.7	81.6	81.6	81.8	81.7	81.5	81.0	80.5	80.7	80.2	80.0	79.5	81.7	81.7	80.7	79.9	81.0
2000	79.0	78.4	78.0	77.8	77.3	76.9	76.4	76.3	75.8	75.5	75.0	74.8	78.5	77.3	76.2	75.1	76.8
2002	75.3	75.1	75.7	76.0	76.3	76.9	76.4	76.7	76.8	76.6	77.0	76.6	75.4	76.4	76.2	76.7	76.3
2003	77.3	77.3	77.0	76.5	76.4	76.4	76.7	76.5	77.0	77.0	77.5	77.5	77.2	76.4	76.7	77.3	76.9
2004	77.6	78.0	77.7	78.1	78.7	78.1	78.7	78.8	78.8	79.6	79.7	80.3	77.8	78.3	78.8	79.9	78.7
2004	80.5	81.0	80.8	80.8	80.8	81.1	80.6	80.8	78.9	79.7	80.5	80.8	80.8	80.9	80.1	80.3	80.5
2006	80.8	80.6	80.6	80.8	80.6	80.6	80.4	80.6	80.2	79.9	79.7	80.4	80.7	80.7	80.4	80.0	80.3
2007	79.9	80.5	80.5	80.8	80.9	80.9	80.4	81.0	81.1	80.7	81.1	81.1	80.7	80.7	81.0	81.0	80.4
2008	81.0	80.7	80.4	79.8	79.3	79.1	78.7	77.4	73.9	74.7	73.7	71.6	80.7	79.4	76.7	73.3	77.5
2009	69.7	69.2	67.9	67.3	66.5	66.3	67.1	67.9	68.5	68.8	69.2	69.6	68.9	66.7	67.8	69.2	68.2
2010	70.4	70.8	71.4	71.8	73.0	73.4	73.8	74.2	74.5	74.4	74.5	75.3	70.9	72.7	74.2	74.8	73.1
2010	75.2	74.9	75.8	75.5	75.6	75.8	76.2	76.5	76.4	76.8	76.7	77.0	75.3	75.6	76.4	76.8	76.0
2012	77.3	77.4	76.9	77.3	77.3	77.1	77.2	76.8	76.6	76.7	77.0	77.1	77.2	77.3	76.9	76.9	77.1
2013	76.9	77.2	77.5	77.3	77.3	77.3	77.0	77.4	77.8	77.6	77.7	77.8	77.2	77.3	77.4	77.7	77.4
2014	77.5	78.0	78.7	78.7	78.9	79.1	79.2	79.0	79.1	79.0	79.5	79.4	78.1	78.9	79.1	79.3	78.8
2015	78.7	78.2	77.9	77.4	77.0	76.7	77.3	77.1	76.8	76.5	76.0	75.5	78.3	77.0	77.1	76.0	77.1
	76.0	75.6	75.0	75.3	75.1	75.4	75.5	75.4	75.3	75.3	74.9	75.4	75.6	75.3	75.4	75.2	75.4
2016	75.3	75.1	75.7	76.4	76.5	76.7	76.7	76.4	76.5	77.5	77.8	77.9	75.4	76.6	76.5	77.7	76.5
2016	10.0	78.2	78.7	79.5	78.8	79.4	79.5	79.9	79.8	79.6	79.4	79.3	78.3	79.2	79.7	79.4	79.2
2016 2017 2018	77.9	70.2											1				
2017 2018			78.2	77.6	77 7	77.5	77.2	77.6	77.3	76.6	76.0	76.6	78.4	77.6	77.3	76.7	77.5
2017 2018 2019	78.7	78.2	78.2	77.6	77.7 64.5	77.5 68.6	77.2	77.6	77.3	76.6 72.8	76.9 73.1	76.6	78.4 75.3	77.6	77.3	76.7	77.5
2017 2018			78.2 73.4 74.4	77.6 63.2 74.4	77.7 64.5 74.9	77.5 68.6 75.2	77.2 71.4	77.6 72.2	77.3 72.0	76.6 72.8	76.9 73.1	76.6 74.0	78.4 75.3 73.9	77.6 65.4 74.9	77.3 71.9	76.7 73.3	77.5 71.5

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

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

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

Seasonally adjusted Year Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec. Q1 Q2 Q3 Q4 Annual IP (percent change)3 1999 6.9 1.3 .4 -.4 -.5 -.1 -.7 .3 .3 -.2 -.4 -.5 -.3 -.3 .4 -.4 -.6 -.5 -.6 -.3 -3.8 -4.5 -4.9 2000 .0 -.9 -.8 .3 .8 .7 -6.8 -47 2001 - 5 - 4 -44 -42 -1 2002 -.2 .7 .3 .5 1.0 -.2 .0 .0 .5 3.2 5.6 2.7 -1.1 .4 -.4 -.7 2003 -.3 -.9 -4.3 .0 -.6 .8 -.1 .8 .9 .7 2004 - 2 7 7 - 7 1.0 1 5 3.2 49 2.0 - 1 4 4 - 1 - 1 3.8 2005 .5 .8 -.6 .3 .2 -.5 .4 -1.31.3 .8 .0 5.1 1.4 -2.0 4.7 3.1 2006 .0 .0 1.5 3.2 1.5 .8 -.4 .4 -.4 -.4 .6 -.6 .1 -.1 -.1 .6 2007 -.5 .5 .0 .2 -.5 .0 3.5 4.5 1.8 .6 -.4 .3 -1.120.8 -.9 3.5 2.3 -4.1 -9.7 14.0 -5.9 2008 -.3 -.6 1.1 -.7 1.0 1.3 -.4 -3.2 -.7 2009 -3.3 -2.0-.8 -1.21.6 1.1 0. 1.0 -.2 -24.7 -11.68.5 6.5 -13.92010 9 -.3 1.2 .8 1.3 .0 .5 .0 .0 0. .0 .3 5.2 9.6 3.7 5.1 2011 2.3 2.5 .0 .2 .7 -.6 .0 .1 .6 .4 .3 -.2 .6 -.1 4.2 3.8 2012 .9 .5 .7 .7 4.9 -1.5 2.3 .3 .2 -.2 -.3 -.6 -.4 -.1 -.3 -.1 .6 -.9 .9 .0 -.4 2013 -.3 .4 -.4 .3 .1 -.2 2.5 1.3 .5 -.1 .1 .1 -.4 2014 1.1 -.1 -.2 4.2 1.4 .8 -.5 .5 2015 -.8 .4 .0 -.3 -.4 -3.4 -3.0 -.5 -.3 -.1 -.1 -.2 2016 -.2 .2 .2 -.5 .0 -.5 -1.0 -.4 -.1 -.1 .1 -.1 -1.5-.4 .1 2017 1.1 -1.9 .3 -.1 -.3 -.1 .0 -.2 -.3 .0 1.0 .0 -.3 .3 2.8 3.1 .4 2018 -.4 .9 .1 .6 -.8 .5 .2 .2 .0 -.5 -.4 .2 .4 2.4 1.5 -2.2 1.1 2019 -.8 -.6 -.1 -.8 .1 .2 -.5 .5 -.6 -.7 7 .0 -4.6 -3.7 -.8 -2.2 -2.2 7.5 4.6 4.1 1.4 45.7 10.8 -7.0 2020 .0 16.3 4.8 1.6 .0 .6 .6 -6.1 57.5 2021 1.5 -3.9 3.2 -.5 2.0 3.4 **IP** (2017=100) 2019 100.3 99.7 99.6 98.8 98.9 99.1 98.6 99.1 98.5 97.7 98.4 98.4 99.9 98.7 98.2 98.9 98.9 98 1 936 78.4 82.2 88.3 91.9 93.4 93.4 95.3 95.9 96.6 82.9 92.9 95.3 91.9 2020 98 2 94.7 97.3 2021 93.5 96.5 96.0 96.9 96.8 95.8 96.6 Capacity (percent of 2017 output) 2019 130.4 130.4 130.4 130.4 130.4 130.4 130.4 130.3 130.3 130.2 130.1 130.0 130.4 130.4 130.3 130.1 130.3 2020 129.9 129.9 129.8 129.7 129.6 129.5 129.4 129.3 129.2 129.1 129.1 129.9 129.6 129.3 129.1 129.4 129.0 2021 129.0 128.9 128.9 128.9 128.9 128.9 129.0 Utilization (percent) 1999 80.7 80.9 80.3 80.1 80.3 79.7 80.2 80.4 80.6 80.6 80.1 79.8 80.4 2000 79.2 79.0 80.1 79.9 80.0 80.2 79.7 79.6 78.4 78.6 78.1 77.5 76.8 80.0 79.8 78.7 77.5 2001 76.3 75.8 75.5 75.3 74.8 73.8 73.4 73.0 72.8 72.9 75.9 74.8 72.9 74.3 74.4 74.1 73.8 2002 73.4 73.2 73.7 74.0 74.3 75.1 75.0 75.0 75.1 74.8 75 2 74.7 73.4 74.5 75.0 74.9 74.5 2003 75.3 75.1 75.1 74.5 74.4 74.7 74.8 74.3 75.0 75.0 75.6 75.5 75.2 74.5 74.7 75.4 74.9 75.4 2004 76.0 76.0 76.3 76.9 76.4 77.1 77.5 77.4 78.1 78.1 78.6 75.8 76.5 77.3 78 3 77.0 2005 2006 78.9 79.5 78.9 79.1 79.2 79.1 78.9 78.6 79.1 79.0 79.1 79.1 78.4 78.9 78.9 78.677.7 79.5 79.0 79.2 78.9 79.0 78.6 78.6 78.2 78.6 78 4 77 9 77.8 78 9 78.8 78 4 78.2 78.6 2007 78.4 78.4 78.8 79.1 79.0 79.3 79.2 78.9 79.0 78.6 78.8 78.8 78.6 79.2 79.0 78.7 78.9 2008 78.5 69.4 74.2 77.8 77.4 76.5 76.0 75.5 74.8 73.9 71.4 71.2 69.6 67.5 77.9 76.0 2009 65.3 64 1 63.7 63.1 63.0 64.2 65.0 65.7 65 9 66.7 64 9 63 3 65.0 64 9 65 4 66.7 66.4 70.7 2010 67.4 68.3 69.0 70.1 70.9 71.8 67.7 69.7 715 70.0 67.4 70.2 71.0 71.2 714 70.9 2011 71.9 72.2 72.8 72.5 72.6 72.7 73.2 73.5 74.1 73.9 74.4 72.3 72.6 74.1 73.1 73.7 73.5 2012 75.0 75.1 74.7 75.0 74.6 74.7 74.5 74.4 74.1 73.8 74.3 74.8 74.9 74.8 74.3 74.3 74.6 2013 74.5 74.9 74.8 74.5 74.7 74.8 74.2 74.8 74.9 75.0 75.0 75.0 74.7 74.7 74.7 75.0 74.8 2014 74.2 74.9 74.9 75.9

75.8

75.7

75.6

77.5

76.4

75.6

72.5

76.4

76.0

75.6

76.7

76.9

75.5

75.4

2015

2016

2017

2018

2019

2020

2021

75.6

76.2

75.6

75.4

77.6

76.4

72.1

74.9

75.8

76.3

75.3

76.3

77.4

75.8

63.4

75.2

76.1

76.0

75.4

76.4

77.8

76.0

68.2

75.1

76.5

76.7

75.5

76.3

78.0

75.6

71.0

76.1

76.4

75.1

76.2

78.1

76.0

72.2

76.2

76.2

75.2

76.2

78.1

75.6

72.3

76.2

76.1

75.3

77.1

77.7

75.1

73.4

76.8

75.9

75.3

77.1

77.4

75.6

73.8

76.7

75.6

75.3

77.0

77.5

75.6

74.3

76.1

75.7

75.5

77.3

76.6

74.4

74.3

75.8

76.2

75.4

76.3

77.8

75.8

64.0

74.9

76.3

76.4

75.3

76.2

78.0

75.7

71.9

76.5

75.9

75.3

77.1

77.5

75.4

73.8

76.1

75.4

77.7

75.9

71.0

76.3

75.6

76.2

75.4

76.3

78.1

75.8

60.4

74.5

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

^{2.} Selected high-technology industries are computers, communications equipment, and semiconductors and related electronic components.

^{3.} Quarterly percentage changes are at annual rates. Annual percentage changes are calculated from annual averages.

Table 15 INDUSTRIAL PRODUCTION: RELIABILITY ESTIMATES Seasonally adjusted

		alized												
		nge			2017:	=100					Percent of	change		
	2021		2021						2021					
Item	Q1	Q2	Jan.	Feb.	Mar.	Apr.	May	June	Jan.	Feb.	Mar.	Apr.	May	June
Total index														
85th percentile	3.87	6.58	99.41	96.43	99.05	99.15	100.03	100.50	1.14	-3.00	2.76	.19	1.01	.84
Current estimate	3.65	5.53	99.41	96.37	98.94	98.97	99.65	100.10	1.14	-3.05	2.66	.03	.69	.44
15th percentile	3.45	4.75	99.41	96.33	98.85	98.81	99.40	99.71	1.14	-3.09	2.59	08	.46	.10
Manufacturing (SIC)														
85th percentile	2.61	4.74	98.18	94.58	97.61	97.25	98.22	98.28	1.47	-3.67	3.23	33	1.09	.22
Current estimate	2.34	3.71	98.18	94.52	97.48	97.05	97.93	97.86	1.47	-3.73	3.14	44	.90	07
15th percentile	2.16	2.69	98.18	94.47	97.39	96.87	97.66	97.46	1.47	-3.79	3.04	55	.75	36
Mining														
85th percentile	8.11	29.04	103.32	94.36	105.76	106.36	107.88	109.55	2.89	-8.67	12.17	.81	1.71	2.33
Current estimate	7.54	25.61	103.32	94.25	105.48	105.86	106.74	108.23	2.89	-8.78	11.92	.36	.83	1.39
15th percentile	7.08	22.64	103.32	94.12	105.16	105.38	105.70	106.87	2.89	-8.91	11.63	.01	.11	.50
Electric and gas utilities														
85th percentile	8.78	2.72	100.79	108.27	99.04	102.33	102.85	105.41	-2.63	7.42	-8.51	3.41	1.09	4.48
Current estimate	8.66	-2.23	100.79	108.25	98.99	101.74	100.94	103.61	-2.63	7.41	-8.56	2.78	79	2.65
15th percentile	8.50	-4.36	100.79	108.24	98.90	101.48	99.78	102.50	-2.63	7.39	-8.65	2.57	-2.15	.88

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#reliability

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 2017. 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 296 individual series based on the 2017 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 $(0.06 \times 10\% = 0.6\%)$. To assist users with calculations, the Federal Reserve's website provides supplemental monthly statistics that represent the exact proportionate contribution of a monthly change in a component index to the monthly change in the total index (www.federalreserve.gov/releases/G17/ipdisk/ipweightssa.txt).

Timing. The first estimate of output for a month is published around the 15th of the following month. The estimate is preliminary (denoted by the superscript "p" in tables) and subject to revision in each of the subsequent five months as new source data become available. (Revised estimates are denoted by the superscript "r" in tables.) For the first estimate of output for a given month, about 74 percent of the source data (in value-added terms) are available; the fraction of available source data increases to 83 percent for estimates in the second month that the estimate is published, 93 percent in the third month, 97 percent in the fourth month, 98 percent in the fifth month, and 98 percent in the sixth month. Data availability by data type in 2020 is summarized in the table below:

Availability of Monthly IP Data in Publication Window (Percent of value added in 2020; the numbers may not sum because of rounding.)

	Month of estimate											
Type of data	1st	2nd	3rd	4th	5th	6th						
Physical product	31	40	50	54	55	55						
Production-worker hours	43	43	43	43	43	43						
IP data received	74	83	93	97	98	98						
IP data estimated	26	17	7	3	2	2						

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 (31 percent out of a total of 55 percent). Of the 31 percent, about three-quarters (26 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 2021; for other series, the factors were estimated with data through at least December 2020. 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

0.29 percent during the 1987–2020 period. The average revision to the *percent change* in total IP, without regard to sign, from the first to the fourth estimates was 0.23 percentage point during the 1987–2020 period. In most cases (about 86 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 26 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 68 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 6 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 1972–2020 period, the average total industry utilization rate was 79.6 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 May 28, 2021, 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:

2021: January 15, February 17, March 16, April 15, May 14, June 15, July 15, August 17, September 15, October 18, November 16, December 16.

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