FEDERAL RESERVE statistical release



G.17 (419)

INDUSTRIAL PRODUCTION AND CAPACITY UTILIZATION

Industrial production increased 0.3 percent in June after having been unchanged in May. For the second quarter as a whole, industrial production moved up at an annual rate of 0.6 percent. In June, manufacturing production rose 0.3 percent following an increase of 0.2 percent in May. The output at mines advanced

(over)

Industrial Production and Capacity Utilization: Summary

Seasonally adjusted

			2007=	100						Percent	change		
	2013						2013						June '12 to
Industrial production	Jan. ^r	Feb. ^r	Mar. ^r	Apr. ^r	May ^r	June ^p	Jan. ^r	Feb. ^r	Mar. ^r	Apr. ^r	May ^r	June ^p	June '13
Total index	98.2	98.9	99.1	98.8	98.7	99.1	.0	.7	.2	3	.0	.3	2.0
Previous estimates	98.2	98.9	99.1	98.6	98.7	<i>))</i> .1	0.	.7	.2	3 4	0. 0.	.5	2.0
1 revious estimates	90.2	<i>J</i> 0. <i>J</i>	<i>))</i> .1	70.0	90.7		.0	. /	.2	+	.0		
Major market groups													
Final Products	95.7	96.7	97.2	96.9	96.6	97.1	2	1.0	.5	3	3	.5	1.9
Consumer goods	93.3	94.1	94.7	94.4	94.1	94.6	.2	.8	.7	4	3	.5	2.1
Business equipment	100.5	102.3	102.3	102.1	102.0	102.6	-1.2	1.9	.0	2	1	.5	2.2
Nonindustrial supplies	87.5	88.3	88.2	87.7	87.3	87.4	.5	.9	.0	6	4	.1	1.1
Construction	80.9	82.8	81.8	80.9	80.8	80.8	1.0	2.3	-1.2	-1.1	1	.1	3.8
Materials	104.2	104.6	104.7	104.5	104.7	105.0	.1	.5	.0	2	.2	.2	2.3
Major industry groups													
Manufacturing (see note below)	95.2	95.8	95.5	95.2	95.5	95.7	1	.7	3	3	.2	.3	1.8
Previous estimates	95.2	95.8	95.5	95.2	95.3		1	.7	3	4	.1		
Mining	115.0	116.2	115.7	116.4	116.9	117.8	8	1.0	5	.7	.4	.8	4.4
Utilities	97.9	98.9	103.8	102.1	99.3	99.2	2.5	.9	5.0	-1.6	-2.8	1	3
						2							Capacity
		1000	1000	1004	Perce	nt of capa	acity						growth
	Average	1988-	1990-	1994-	2000	2012	2012						T 110 /
	1972-	89	91	95	2009	2012 June	2013 Jan. ^r	Feb. ^r	Mauf	A	Maar	T	June '12 to June '13
Capacity utilization	2012	high	low	high	low	June	Jan.	Feb.	Mar. ^r	Apr. ^r	May ^r	June ^p	June 13
Total industry	80.2	85.2	78.8	85.0	66.9	77.7	77.7	78.2	78.2	77.9	77.7	77.8	1.8
Previous estimates	00.2	05.2	70.0	05.0	00.7	//./	77.7	78.1	78.1	77.7	77.6	77.0	1.0
1 revious estimates							//./	70.1	70.1	//./	77.0		
Manufacturing (see note below)	78.7	85.6	77.3	84.6	64.0	75.9	76.2	76.6	76.3	75.9	76.0	76.1	1.5
Previous estimates	/0./	00.0	11.5	01.0	01.0	10.9	76.2	76.6	76.2	75.8	75.8	/0.1	1.5
Mining	87.3	86.3	83.9	88.6	78.3	87.7	87.3	88.0	87.2	87.6	87.6	87.9	4.1
Utilities	86.2	92.9	84.3	93.3	78.6	78.8	76.9	77.5	81.3	79.9	77.7	77.6	1.2
	00.2			20.0	, 0.0		, 0.9		01.0				
Stage-of-process groups													
Crude	86.3	87.7	84.4	89.7	76.4	86.0	86.2	86.6	86.1	86.2	86.3	86.2	3.0
Primary and semifinished	81.0	86.5	78.0	87.9	64.4	75.5	75.9	76.4	76.9	76.3	75.9	76.0	.5
Finished	77.1	83.4	77.3	80.6	66.8	76.6	76.0	76.5	76.2	75.9	75.9	76.1	3.0
r Revised n Preliminary													

r Revised. p Preliminary.

Note. The statistics in this release cover output, capacity, and capacity utilization in the U.S. industrial sector, which is defined by the Federal Reserve to comprise manufacturing, mining, and electric and gas utilities. Mining is defined as all industries in sector 21 of the North American Industry Classification System (NAICS); electric and gas utilities are those in NAICS sectors 2211 and 2212. Manufacturing comprises NAICS manufacturing industries (sector 31-33) plus the logging industry and the newspaper, periodical, book, and directory publishing industries. Logging and publishing are classified elsewhere in NAICS (under agriculture and information, respectively), but historically they were considered to be manufacturing and were included in the industrial sector under the Standard Industrial Classification (SIC) system. In December 2002 the Federal Reserve reclassified all its industrial output data from the SIC system to NAICS.

0.8 percent in June, while the output of utilities decreased 0.1 percent. At 99.1 percent of its 2007 average, total industrial production was 2.0 percent above its year-earlier level. The rate of capacity utilization for total industry edged up 0.1 percentage point to 77.8 percent, a rate that was 0.1 percentage point above its level of a year earlier but 2.4 percentage points below its long-run (1972–2012) average.

Market Groups

The production of consumer goods increased 0.5 percent in June following a decline of 0.3 percent in May. The output of durable consumer goods advanced 1.1 percent in June. Every major component of consumer durables either increased or was unchanged, with automotive products and home electronics posting the largest gains—1.4 percent and 2.2 percent, respectively. After having decreased 0.4 percent in both April and May, the output of nondurable consumer goods rose 0.3 percent in June. The index for non-energy nondurables stepped up 0.5 percent, driven by gains in the indexes for foods and tobacco and for paper products. The output of consumer energy products declined 0.3 percent, marking the third consecutive monthly decrease for this index. The index for total consumer goods moved up at an annual rate of 1.4 percent in the same as in the fourth quarter of 2012. The smaller increase in the second quarter reflected a deceleration in the output of both durables and non-energy nondurables.

The index for business equipment moved up 0.5 percent in June after having fallen 0.1 percent in May and 0.2 percent in April. The gain in June reflected increases of 0.5 percent for transit equipment and 1.1 percent for the industrial and other equipment category. Conversely, the production of information processing equipment dropped 1.0 percent. For the second quarter as a whole, the output of business equipment rose at an annual rate of 2.2 percent, about half of its rate of increase in the previous quarter. The indexes for information processing equipment and for industrial and other equipment recorded substantially slower gains in the second quarter than in the first quarter. By contrast, the index for transit equipment rose at an annual rate of 6.4 percent last quarter to more than reverse a decrease of 2.9 percent in the first quarter.

The output of defense and space equipment increased 0.1 percent in June, the first monthly gain for the index in 2013. The index decreased at an annual rate of about $3\frac{1}{2}$ percent in both the first and second quarters.

Among nonindustrial supplies, the production of construction supplies edged up in June after having edged down in May; output decreased more than 1 percent in both March and April. The index fell at an annual rate of 4.9 percent in the second quarter after having jumped 14.3 percent in the first quarter and 7.2 percent in the fourth quarter of last year. The index for business supplies edged up 0.1 percent in June, its first increase since March; the index decreased at an annual rate of 1.3 percent in the second quarter to reverse about half of its gain in the previous quarter.

The production of materials to be processed further in the industrial sector advanced 0.2 percent in June, the same rate of increase as in May. The output of durable materials gained 0.4 percent in June, led by an increase of 0.8 percent for equipment parts; the index for consumer parts moved down a little, and the index for other durable materials was up slightly. The production of nondurable materials edged down 0.1 percent, as decreases for paper materials and for chemical materials outweighed the rise for textile materials. The output of energy materials stepped up 0.4 percent. For the second quarter as a whole, energy materials advanced at an annual rate of 5.2 percent after having increased 2.2 percent in the first quarter. In contrast, the indexes for both durable and nondurable materials decreased last quarter after having recorded increases in the previous quarter. The output of total industrial materials increased at an annual rate of 0.9 percent in the first quarter, well below the gain of 3.4 percent in the first quarter.

Industry Groups

Manufacturing output increased 0.3 percent in June after having risen 0.2 percent in May. The index for manufacturing decreased at an annual rate of 0.2 percent in the second quarter, after having advanced 5.1 percent in the first quarter. The factory operating rate inched up to 76.1 percent in June, a rate 2.6 percentage points below its long-run average.

The output of durable goods moved up 0.5 percent in June; for the second quarter, the index increased at an annual rate of 1.5 percent after having improved 6.5 percent in the first quarter. Among its major components, the largest gains in June were for machinery, for miscellaneous manufacturing, and for motor vehicles and parts, which all posted gains of more than 1 percent. The indexes for several other categories also moved up, but those for wood products, primary metals, aerospace and miscellaneous transportation equipment, and furniture and related products all decreased. Capacity utilization for durable goods manufacturing moved up 0.2 percentage point to 76.2 percent, a rate 0.8 percentage point below its long-run average.

The production of nondurable goods was unchanged in June after having edged up 0.1 percent in May. The index fell at an annual rate of 1.5 percent in the second quarter after having advanced 4.5 percent in the first quarter. Among nondurables, the index for food, beverage, and tobacco products increased 0.8 percent and the output of textile and product mills stepped up 1.4 percent in June. These gains were offset by losses of 0.9 percent both in printing and support and in paper as well as a drop of 1.1 percent in petroleum and coal products. The other major nondurables industries posted only small changes, with the indexes for apparel and leather and for plastics and rubber products up slightly and the index for chemicals down a little. Capacity utilization for nondurables remained at 77.5 percent for the third consecutive month, a level 3.2 percentage points below its long-run average.

Production for non-NAICS manufacturing industries (publishing and logging) increased 0.7 percent in June, the first gain realized in 2013; the index fell at an annual rate of 6.4 percent last quarter, a smaller decrease than in the first quarter.

In June, the production at mines advanced 0.8 percent, double its rate of increase in May. For the second quarter, mining output rose at an annual rate of 4.9 percent after having fallen 0.7 percent in the first quarter. In June, the capacity utilization rate for mining increased 0.3 percentage point to 87.9 percent, a rate 0.6 percentage point above its long-run average. The production index for electric utilities edged up 0.1 percent, while the index for natural gas utilities fell 1.0 percent. The operating rate for utilities inched down 0.1 percentage point to 77.6 percent, a rate 8.6 percentage points below its long-run average.

Capacity utilization rates in June for industries grouped by stage of process were as follows: At the crude stage, utilization fell 0.1 percentage point to 86.2 percent, a rate 0.1 percentage point below its long-run average; at the primary and semifinished stages, utilization inched up 0.1 percentage point to 76.0 percent, a rate 5.0 percentage points below its long-run average; and at the finished stage, utilization rose 0.2 percentage point to 76.1 percent, a rate 1.0 percentage point lower than its long-run average.

Note: Revised Estimates of Industrial Capacity

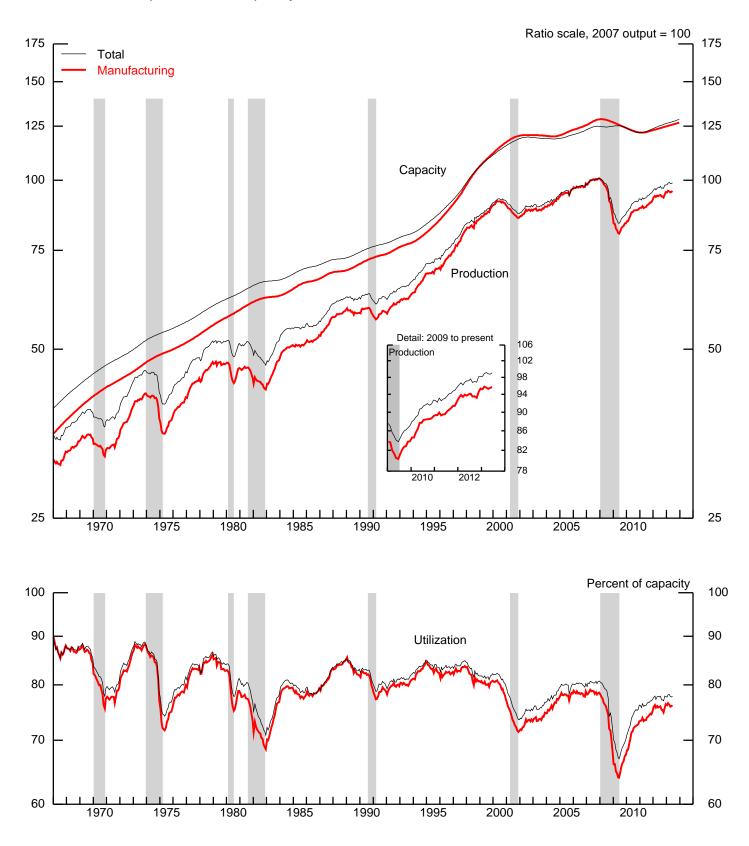
The estimates for industrial capacity in 2013 were revised for this release. The revisions reflect updated measures of physical capacity from various government and trade sources as well as updated estimates of industry capital spending. Capacity for the industrial sector, measured from the fourth quarter of 2012 to the fourth quarter of 2013, is now expected to increase 1.8 percent, a rate that is 0.1 percentage point slower than previously estimated. Manufacturing capacity is expected to rise 1.6 percent in 2013, a pace 0.2 percentage point

less than in previous estimates. Relative to the previous estimates, faster gains in the high-technology and motor vehicles industries have been more than offset by slower gains elsewhere in manufacturing. The increase in mining capacity for 2013 has been revised upward by 0.5 percentage point to 4.4 percent, while the change in capacity for utilities, at 0.9 percent, is 0.2 percentage point faster than previously estimated.

Tables

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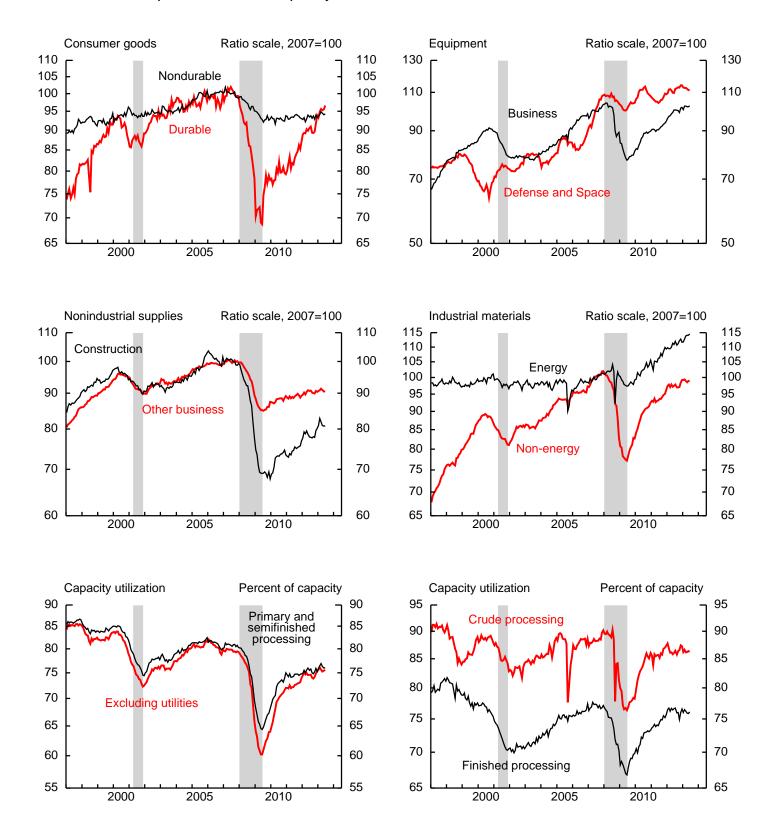
Further detail is available on the Board's website (www.federalreserve.gov/releases/G17/).



1. Industrial production, capacity, and utilization

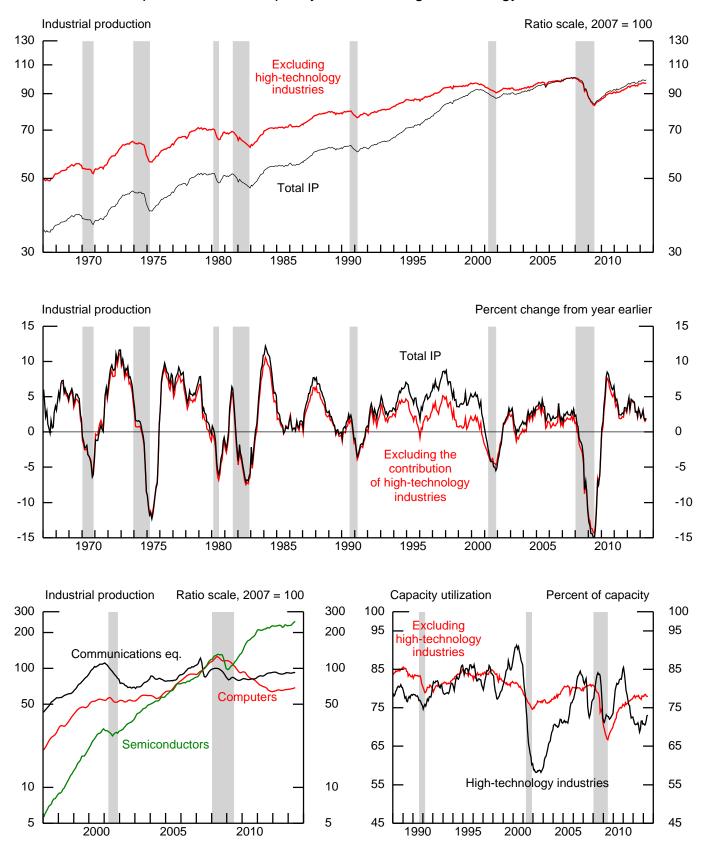
Note: The shaded areas are periods of business recession as defined by the National Bureau of Economic Research (NBER).

2. Industrial production and capacity utilization



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

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



Notes: High-technology industries are defined as semiconductors and related electronic components (NAICS 334412-9), computers (NAICS 3341), and communications equipment (NAICS 3342). The shaded areas are periods of business recession as defined by the NBER.

Table 1 INDUSTRIAL PRODUCTION: MARKET AND INDUSTRY GROUP SUMMARY

rcent change, seasonally adjusted				th quarte orth quar		۸	nual rat	e			Month	ly rate			June '12
Item		2012	100	uui yuar		2012	2013		2013		WIOIIII	ny rate			to
		proportion ¹	2010	2011	2012	Q4	Q1 ^r	Q2 ^p	Jan. ^r	Feb. ^r	Mar. ^r	Apr. ^r	May ^r	June ^p	June '13
Total IP		100.00	6.2	3.3	2.8	2.5	4.2	.6	.0	.7	.2	3	.0	.3	2.0
MARKET GROUPS		52.46	0.7	2.4	2.6	1.4	5.0	2		1.0			2		1.7
Final products and nonindustrial supplies	s	53.46	3.7	2.4	2.6	1.4	5.0	.3	.0	1.0	.4	4	3	.4	1.7
Consumer goods		27.14	.3	2.0	1.4	1.2	5.6	1.4	.2	.8	.7	4	3	.5	2.1
Durable		5.81	2.3	7.9	6.4	8.7	13.2	5.1	6	1.8	.8	4	.3	1.1	6.6
Automotive products		2.98	.6	14.7	7.1	12.5	14.4	10.3	-2.1	2.4	1.9	5	.7	1.4	7.9
Home electronics		.14	-20.0	5.7	-1.8	3.8	2.1	10.2	-4.5	4.3	1.7	.3	-1.7	2.2	1.5
Appliances, furniture, carpeting		.78	.7	1.1	3.3	2.1	5.4	2.3	2.4	-1.1	.3	.1	1.0	.0	3.2
Miscellaneous goods Nondurable		1.91 21.33	8.0	1.1	7.3	6.0 7	15.4 3.6	-1.8 .4	.8 .4	1.8 .6	8 .7	5 4	5 4	.9 .3	6.2 .9
		16.04	2	.4 1.0	.1 1	-1.1	3.6	.4 -1.6	2	.0 .4	.7 7	4 3		.5 .5	.9
Non-energy		9.11		.7	2.3	-3.7	6.6	-2.4	2	1.8	-1.3		.1	.5	1.7
Foods and tobacco Clothing		.20	.7	-8.0	-2.4	-3.7	13.9	-2.4	2.4	1.0	-1.5	6 -2.7	2.5	.0 2	3
0		4.87	-3.1	-8.0	-2.4	-1.5	2	-8.2	3	.5 -1.9	-1.8		.2	2	7
Chemical products Paper products		1.36	-4.1	-1.4	-3.0	2.4	-4.4	-5.5	5	-1.9	-1.7	.6 1	2	.0	-4.0
		5.29	-4.1	-1.4	-0.1	.6	-4.4	-5.5	2.3	5	-1.7	1	2	3	2.1
Energy		5.29	1.4	-1.1	./	.0	5.7	0.4	2.5	1.0	5.1	0	-1.0	5	2.1
Business equipment		9.61	12.0	5.0	7.2	1.6	4.3	2.2	-1.2	1.9	.0	2	1	.5	2.2
Transit		2.16	11.4	6.5	13.6	5.8	-2.9	6.4	-1.2	1.9	1.1	2	1	.5	4.5
Information processing		2.16	3.5	0.5	7.8	5.8 6.8	-2.9	0.4 .8	-2.0	1	1.1 6	.3	1	-1.0	3.4
Industrial and other		5.36	16.4	6.0	4.5	-2.1	4.3 7.3	.0 1.0	4	2.8	0	.5 6	5	-1.0	.9
Defense and space equipment		2.29	4.6	2	4.5	-2.1	-3.5	-3.7	-1.2	2.8	2	0	5	1.1 .1	1.5
Detense and space equipment		2.2)	4.0	2	-+.0	4.1	-3.5	5.1	-1.2	.0	.0	4	0	.1	1.5
Construction supplies Business supplies		4.16 9.47	8.1 2.3	2.7 .7	4.2 1.4	7.2 .0	14.3 2.8	-4.9 -1.3	1.0 .3	2.3 .2	-1.2 .5	-1.1 4	1 6	.1 .1	3.8 1
		16 51	9.4	1.2	2.9	20	2.4	0	1	5	0	2	2	2	22
Materials Non-energy		46.54 29.02	9.4	4.3	2.9	3.8 4.2	3.4 4.1	.9 -1.6	.1	.5 .2	.0 6	2 4	.2 .4	.2	2.3
Durable		29.02 17.64	11.0	4.0 7.5	3.0 3.9	4.2 3.7	4.1	-1.0	.1	.2	0 7	4 4	.4 .4	.2 .4	1.0
		2.61	27.8	6.5	13.2	4.2	9.5	-6.0	2	1	-1.4	4	.4	.4 1	3.2
Consumer parts		6.49	27.8	12.1	15.2	2.0	9.3 2.7	-0.0	2	1		7	 1.1	1	.9
Equipment parts Other		8.54	11.7	4.3	2.8	4.9	5.1	-6.5	.1	.5	4 8	-1.2	2	.0	1.1
Nondurable		11.39	2.6	9	1.7	4.9	2.8	-2.1	.4	4	3	-1.2	2	1	2.1
Textile		.44	4.9	-1.3	-1.1	-10.1	1.2	-2.1	4.3	-2.2	5	-2.7	4	2.3	-5.2
Paper		1.98	4.9	-1.3	-2.2	2.1	3.9	-3.2	2	-2.2	5	-2.7	4	-1.2	-3.2
Chemical		5.65	5.0	-1.6	-2.2	10.9	1.4	-2.0	-1.2	1	7	4	.7	-1.2	3.7
Energy		17.51	5.9	4.8	2.7	3.2	2.2	-2.0	-1.2	1 .9	1.0	4	.7	3	3.4
INDUSTRY GROUPS															
Manufacturing		75.46	6.4	3.3	2.8	2.4	5.1	2	1	.7	3	3	.2	.3	1.8
Manufacturing (NAICS)	31-33	72.70	6.9	3.4	3.3	2.7	5.6	.1	1	.7	3	3	.3	.3	2.1
Durable manufacturing	01 00	38.30	12.2	6.3	5.3	3.7	6.5	1.5	3	1.3	3	3	.4	.5	3.0
Wood products	321	.89	4.2	1.2	7.1	21.7	14.8	-1.5	.3	2.1	-1.1	9	1.2	6	8.8
Nonmetallic mineral products	327	1.53	9.5	2	1.4	6.2	10.1	-1.3	3	2.0	5	-2.7	2.6	.9	3.8
Primary metals	331	3.11	12.3	8.8	-2.6	9	3.8	-7.2	1.0	6	-2.3	5	.9	4	6
Fabricated metal products	332	5.64	12.9	6.3	5.8	1.2	10.0	-1.0	.7	2.1	7	4	3	.4	3.0
Machinery	333	5.78	21.2	8.4	2.9	-4.6	10.0	.5	1	2.9	2	7	7	1.5	-1.0
Computer and electronic products	334	6.10	17.8	7.2	5.6	8.6	2.7	9.7	2	.1	.0	1.2	1.6	.1	4.9
Electrical equip., appliances,	551	0.10			2.0	0.0		2.1			.0			.1	,
and components	335	1.84	12.9	2.4	3.6	5.2	.3	-3.2	-1.1	1.6	-1.8	8	.8	.4	1.6
Motor vehicles and parts	3361–3	4.61	15.3	11.7	13.8	9.8	7.1	7.3	-2.6	1.4	1.5	4	.5	1.3	6.0
Aerospace and miscellaneous	0001 0		10.0		10.0	2.0	,,1	110	2.0	2.1	1.0			1.0	0.0
transportation equipment	3364–9	4.59	1.4	6.4	4.8	2.6	.5	-1.0	1	.8	3	.1	4	6	1.5
Furniture and related products	337	1.04	5.2	1.8	3.3	-4.1	11.0	3.4	1.8	.8	.1	1.0	3	7	2.8
Miscellaneous	339	3.17	2.9	1	8.4	7.9	10.3	.3	6	1.0	.1	-1.1	.2	1.4	6.5
	009	0.1.7			2		10.0			1.0					5.0
Nondurable manufacturing		34.39	1.5	.5	1.0	1.5	4.5	-1.5	.1	.1	2	3	.1	.0	1.2
Food, beverage, and tobacco products	311,2	11.08	.2	.5	2.5	-3.5	6.4	-1.9	.3	1.1	9	4	1	.8	1.9
Textile and product mills	313,4	.71	4.0	.2	5	-3.8	-1.6	-8.4	1.9	-1.8	.3	-2.1	3	1.4	-4.4
Apparel and leather	315,6	.26	6.5	-5.3	-2.6	5	14.2	-7.1	2.1	.7	-2.1	-2.6	2.9	.1	.3
Paper	322	2.41	.9	5	-2.3	3.8	3.1	-1.4	.2	.4	-1.3	1	1.1	9	.9
Printing and support	323	1.41	2.2	-3.3	-1.7	-7.2	4.5	-1.5	1	8	1.1	6	.0	9	-3.0
Petroleum and coal products	324	3.95	.7	3.3	-1.3	5.9	10.8	-7.8	2.2	.0	4	-1.7	.0	-1.1	3
Chemicals	325	11.67	1.2	.3	.7	5.6	.7	.1	9	7	.1	.3	1	2	1.2
Chemicals	326	2.90	7.7	.7	4.6	3.7	5.9	4.7	2	5	1.6	1	.6	.1	4.8
Plastics and rubber products						10		<i>c</i> 1	6	-1.0	1.2	(0	-	-6.6
	1133,5111	2.76	-5.6	3	-7.7	-4.9	-7.3	-6.4	0	-1.0	-1.3	6	.0	.7	-0.0
Plastics and rubber products Other manufacturing (non-NAICS)	1133,5111 21	2.76 14.62	-5.6 8.7	3 7.6	-7.7	7.7	-7.3	-6.4 4.9	8	-1.0	5	.7	.0 .4	.7	4.4
Plastics and rubber products Other manufacturing (non-NAICS) Mining Utilities	ŕ		8.7 2.7			7.7 -3.9	7 5.2		8 2.5	1.0 .9	5 5.0	.7 -1.6	.4 -2.8		4.4
Plastics and rubber products	21	14.62	8.7	7.6	4.3	7.7	7	4.9	8	1.0	5	.7	.4	.8	4.4

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NOTE. Under the industry groups, the figures to the right of the series descriptions are 2002 North American Industry Classification System (NAICS) codes. The abbreviation pt denotes part of a NAICS code. Additional industry detail is available on the Board's web site (www.federalreserve.gov/releases/G17). Under market groups, in the products category, miscellaneous consumer nondurables, oil and gas drilling, and manufactured homes are not shown separately; in the nondurable materials category, containers and miscellaneous nondurable materials are not shown separately.

1. The proportion data are the relative weights for the rates of change for each series in the computation of the change in total industrial production in the following year. $\frac{8}{8}$

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

reicent change, seasonany aujusteu			1	rth quarte urth quar		А	nnual rat	e			Month	nly rate			June '12
Item		2012 proportion	2010	2011	2012	2012 Q4	2013 Q1 ^r	Q2 ^p	2013 Jan. ^r	Feb. ^r	Mar. ^r	Apr. ^r	May ^r	June ^p	to June '13
Total industry		100.00	6.2	3.3	2.8	2.5	4.2	.6	.0	.7	.2	3	.0	.3	2.0
Energy		26.50	5.1	3.3	1.9	1.6	2.3	4.3	.7	.9	1.8	1	6	.2	2.2
Consumer products		5.29	1.4	-1.1	.7	.6	3.7	6.4	2.3	1.0	5.1	8	-1.8	3	2.1
Commercial products	012111	2.95	1.7	2	1.4	8	2.9	-3.8	2.1	.5	1.3	3	-2.4	4	-1.5
Oil and gas well drilling Converted fuel	213111	.75 3.98	45.2	21.3 -1.3	-7.6 .1	-17.9 -4.8	-7.8 4.4	8 -5.9	-1.2	.8 2.9	.0 5.2	7 -5.0	.1 -1.0	.5	-9.1 -3.5
Primary energy		13.53	7.0	6.6	3.5	5.7	1.6	8.6	.0	.3	2	1.8	.3	.5	5.4
Non-energy		73.50	6.6	3.3	3.1	2.8	4.9	7	2	.7	4	4	.2	.4	1.9
Selected high-technology industries		3.22	27.2	9.7	2.3	10.0	1	19.6	.7	2	.5	2.3	2.3	1.2	6.2
Computers and peripheral equipment	3341	.33	-15.2	-18.4	3.6	5.6	3.7	8.1	.4	.4	.4	.8	.8	.7	4.6
Communications equipment	3342	.57	3.3	11.6	4	7.2	1	2.7	3	1	.1	.4	.3	.2	2.6
Semiconductors and related electronic components	334412–9	2.32	49.3	14.7	2.8	11.4	6	25.6	.9	3	.7	2.9	3.0	1.4	7.3
Excluding selected high-technology industries		70.28	5.6	3.0	3.1	2.5	5.2	-1.6	3	.7	4	5	.1	.3	1.7
Motor vehicles and parts	3361-3	4.61	15.3	11.7	13.8	9.8	7.1	7.3	-2.6	1.4	1.5	4	.5	1.3	6.0
Motor vehicles	3361	2.20	9.8	17.2	13.3	12.8	8.1	16.2	-5.4	2.9	2.8	3	.5	2.8	8.1
Motor vehicle parts	3363	2.11	23.0	6.5	14.3	3.7	7.2	5	.0	.1	.5	6	.3	5	3.3
Excluding motor vehicles and parts	1	65.67	4.9	2.4	2.4	2.0	5.0	-2.2	1	.7	6	5	.0	.3	1.4
Consumer goods		19.28	.0	1.3	.8	4	5.0	-1.4	.0	.6	6	3	0.	.5	1.3
Business equipment Construction supplies		8.26 4.14	11.9 8.2	5.9 2.7	6.6 4.2	1.4	6.9 14.4	1.6 -4.9	7 1.0	2.0 2.3	1 -1.2	3	.0	.3	2.5 3.8
Business supplies		6.23	.9	.4	1.3	2	2.9	-4.9	5	.1	-1.2	-1.1	1	.1	.2
Materials		25.44	7.5	2.9	2.1	3.5	4.2	-3.6	.0	.2	7	7	.2	.1	1.0
Measures excluding selected high-technology industries		0.6 70						0		0				0	
Total industry		96.78	5.5	3.1	2.8	2.2	4.4	.0	.0	.8	.2	4	1	.3	1.8
Manufacturing ¹ Durable		72.24 35.23	5.3 10.6	3.0 5.9	2.9 5.6	2.1 3.1	5.3 7.1	-1.0 .0	2 4	.7 1.4	3 3	4 5	.1 .2	.2 .4	1.6 2.6
Measures excluding motor vehicles and parts															
Total industry		95.39	5.8	3.0	2.3	2.2	4.1	.3	.2	.7	.1	3	1	.3	1.8
Manufacturing ¹ Durable		70.85 33.84	5.8 11.7	2.8 5.6	2.2 4.2	2.0 2.9	5.0 6.4	6 .7	0. 0.	.6 1.3	4 5	3 3	.2 .4	.2 .4	1.5 2.5
Measures excluding selected high-technology industries															
and motor vehicles and parts		92.17	4.9	27	2.2	1.9	4.2	3	1	7	1	. 1	2	.2	16
Total industry Manufacturing ¹		67.63	4.9	2.7	2.2	1.9	4.2 5.2	-1.5	.0	.7	.1 4	4	2	.2	1.6 1.3
Stage-of-process components of non-energy materials, measures of the input to Finished processors		11.52	18.8	7.8	3.4	2.0	4.4	2.1	.1	.5	6	.1	.8	.3	.9
Primary and semifinished processors		17.51	6.9	1.6	2.8	5.6	3.9	-3.9	.1	.0	5	8	.2	.0	2.1
						1			1						

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

minons of units, seasonarry adjusted unite											
	2012	2012		2013		2013					
Item	average	Q3	Q4	Q1	Q2	Jan.	Feb.	Mar.	Apr.	May	June
71 -4-1	10.22	10.21	10.46	10.71	11.00	10.45	10.70	10.00	10.00	11.02	11.00
Total	10.33	10.31	10.46	10.71	11.09	10.45	10.72	10.96	10.99	11.03	11.26
Autos	4.11	4.26	4.13	4.37	4.44	4.31	4.32	4.48	4.37	4.40	4.54
Trucks	6.23	6.05	6.32	6.34	6.66	6.14	6.41	6.48	6.62	6.63	6.71
Light	5.96	5.79	6.08	6.11	6.39	5.92	6.18	6.24	6.37	6.38	6.44
Medium and heavy	.27	.26	.24	.23	.26	.22	.23	.24	.26	.26	.27
Memo											
Autos and light trucks	10.06	10.05	10.21	10.48	10.83	10.23	10.49	10.72	10.74	10.77	10.98

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

007 = 100, seasonally adjusted											
Item		2012 proportion	2012 Oct.	Nov.	Dec.	2013 Jan. ^r	Feb. ^r	Mar. ^r	Apr. ^r	May ^r	June ^p
Total IP		100.00	96.8	98.1	98.2	98.2	98.9	99.1	98.8	98.7	99.1
M											
MARKET GROUPS		53.46	92.1	93.5	93.5	93.5	94.4	94.7	94.3	94.0	94.4
Final products and nonindustrial supplies Consumer goods		27.14	92.1	93.5 93.2	93.5	93.3	94.4 94.1	94.7	94.5	94.0 94.1	94.4
Durable		5.81	89.6	93.2	93.9	93.3	94.1	94.7 95.7	94.4 95.3	94.1 95.5	96.6
Automotive products		2.98	99.6	102.4	106.2	103.9	106.4	108.4	107.9	108.6	110.1
Home electronics		.14	58.4	61.4	61.5	58.7	61.2	62.3	62.5	61.4	62.8
Appliances, furniture, carpeting		.78	67.7	68.7	67.8	69.4	68.6	68.8	68.9	69.6	69.6
Miscellaneous goods		1.91	88.1	89.9	91.5	92.2	93.9	93.2	92.7	92.2	93.1
Nondurable		21.33	92.9	94.0	93.3	93.7	94.2	94.8	94.5	94.1	94.4
Non-energy		16.04	90.0	91.2	92.0	91.9	92.2	91.5	91.3	91.4	91.8
Foods and tobacco		9.11	97.4	99.0	99.5	99.5	101.2	99.9	99.4	99.3	100.1
Clothing		.20	56.1	57.6	57.9	59.3	59.5	58.5	56.9	58.3	58.2
Chemical products		4.87	83.3	83.9	85.4	85.1	83.5	83.8	84.3	84.4	84.4
Paper products		1.36	74.5	75.4	75.2	74.9	74.5	73.3	73.2	73.0	73.3
Energy		5.29	103.0	103.5	97.7	99.9	100.9	106.1	105.3	103.3	103.0
Business equipment		9.61	98.9	101.3	101.7	100.5	102.3	102.3	102.1	102.0	102.6
Transit		2.16	100.6	101.3	101.7	100.5	102.5	102.3	102.1	102.0	102.0
Information processing		2.10	97.5	99.8	103.9	101.2	102.5	100.3	103.9	103.9	104.4
Industrial and other		5.36	98.1	99.5	101.5	99.2	100.8	100.5	100.5	101.5	100.5
Defense and space equipment		2.29	112.8	114.0	114.1	112.7	112.7	112.6	112.1	111.3	111.4
Construction supplies Business supplies		4.16 9.47	77.8 89.9	79.6 90.7	80.1 90.4	80.9 90.7	82.8 90.9	81.8 91.4	80.9 91.0	80.8 90.5	80.8 90.6
Materials		46.54	102.8	103.9	104.1	104.2	104.6	104.7	104.5	104.7	105.0
Non-energy		29.02	97.1	98.4	99.2	99.3	99.5	98.9	98.5	98.9	99.1
Durable		17.64	103.3	105.1	105.5	105.7	106.4	105.6	105.2	105.6	105.9
Consumer parts		2.61	92.5	95.4	98.4	98.1	98.0	96.6	96.0	96.2	96.2
Equipment parts		6.49	129.5	130.0	129.8	129.9	131.3	130.7	131.9	133.4	134.5
Other		8.54	89.6	91.8	91.8	92.1	92.6	91.9	90.7	90.6	90.7
Nondurable		11.39	88.5	89.3	90.4	90.4	90.0	89.7	89.3	89.7	89.6
Textile		.44	80.2	77.7	76.0	79.3	77.5	77.9	75.9	75.5	77.3
Paper		1.98	82.0	82.3	83.5	83.4	83.6	83.2	82.7	83.2	82.3
Chemical		5.65	88.2	89.4	91.3	90.2	90.1	89.5	89.2	89.8	89.5
Energy		17.51	112.1	112.7	111.6	111.7	112.8	113.9	114.1	114.1	114.5
INDUSTRY GROUPS											
Manufacturing		75.46	93.2	94.5	95.3	95.2	95.8	95.5	95.2	95.5	95.7
Manufacturing (NAICS)	31-33	72.70	94.4	95.8	96.6	96.5	97.2	97.0	96.7	96.9	97.2
Durable manufacturing		38.30	99.3	101.3	102.0	101.7	103.0	102.7	102.4	102.8	103.3
Wood products	321	.89	72.3	73.9	75.5	75.7	77.3	76.4	75.7	76.6	76.2
Nonmetallic mineral products	327	1.53	70.0	71.2	72.3	72.1	73.5	73.2	71.2	73.0	73.7
Primary metals	331	3.11	96.1	98.9	99.1	100.2	99.5	97.3	96.7	97.6	97.2
Fabricated metal products	332	5.64	91.6	92.6	92.9	93.6	95.5	94.8	94.5	94.2	94.6
Machinery	333	5.78	99.8	100.9	101.5	101.4	104.3	104.1	103.3	102.6	104.2
Computer and electronic products	334	6.10	131.0	132.9	133.5	133.2	133.4	133.5	135.0	137.2	137.3
Electrical equip., appliances,											
and components	335	1.84	85.7	88.2	87.9	86.9	88.3	86.7	86.0	86.7	87.1
Motor vehicles and parts	3361-3	4.61	98.1	103.2	105.3	102.6	104.0	105.5	105.1	105.6	106.9
Aerospace and miscellaneous											
transportation equipment	3364–9	4.59	103.7	103.6	103.3	103.2	104.0	103.8	103.8	103.5	102.9
Furniture and related products	337	1.04	68.9	69.3	69.4	70.6	71.2	71.3	72.0	71.7	71.2
Miscellaneous	339	3.17	103.5	107.4	109.2	108.5	109.6	110.0	108.8	109.0	110.5
Nondurable manufacturing		34.39	89.3	90.1	91.1	91.2	91.3	91.0	90.7	90.9	90.8
Food, beverage, and tobacco products	311,2	11.08	98.7	100.1	100.7	101.0	102.1	101.2	100.7	100.6	101.4
Textile and product mills	313,4	.71	75.3	74.2	73.5	74.9	73.5	73.8	72.2	72.0	73.0
Apparel and leather	315,6	.26	55.0	56.7	57.1	58.3	58.7	57.5	56.0	57.6	57.7
	322	2.41	84.5	84.7	85.4	85.7	86.0	84.9	84.8	85.8	85.0
Paper		1.41	74.9	74.8	76.4	76.4	75.8	76.6	76.2	76.2	75.5
Paper Printing and support	323			94.8	95.8	97.8	98.3	97.8	96.2	96.4	95.4
Printing and support Petroleum and coal products	324	3.95	96.0	94.8		11.0					0 - 0
Printing and support			96.0 85.8	94.8 86.7	88.3	87.5	86.9	86.9	87.2	87.2	87.0
Printing and support Petroleum and coal products	324	3.95						86.9 90.1	87.2 90.0	87.2 90.5	
Printing and support Petroleum and coal products Chemicals	324 325	3.95 11.67	85.8	86.7	88.3	87.5	86.9				87.0 90.5 67.3
Printing and support Petroleum and coal products Chemicals Plastics and rubber products Other manufacturing (non-NAICS)	324 325 326	3.95 11.67 2.90	85.8 86.7	86.7 88.1	88.3 89.3	87.5 89.1	86.9 88.7	90.1	90.0	90.5	90.5 67.3
Printing and support Petroleum and coal products Chemicals Plastics and rubber products Other manufacturing (non-NAICS)	324 325 326 1133,5111	3.95 11.67 2.90 2.76	85.8 86.7 69.3	86.7 88.1 69.7	88.3 89.3 69.3	87.5 89.1 68.9	86.9 88.7 68.2	90.1 67.3	90.0 66.9	90.5 66.9	90.5 67.3 117.8
Printing and support Petroleum and coal products Chemicals Plastics and rubber products Other manufacturing (non-NAICS) Mining	324 325 326 1133,5111 21	3.95 11.67 2.90 2.76 14.62	85.8 86.7 69.3 115.1	86.7 88.1 69.7 116.5	88.3 89.3 69.3 115.9	87.5 89.1 68.9 115.0	86.9 88.7 68.2 116.2	90.1 67.3 115.7	90.0 66.9 116.4	90.5 66.9 116.9	90.5

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

Table 5 INDUSTRIAL PRODUCTION INDEXES: SPECIAL AGGREGATES 2007 = 100, seasonally adjusted

107 = 100, seasonally adjusted		2012	2012			2012					
Item		2012 proportion	2012 Oct.	Nov.	Dec.	2013 Jan. ^r	Feb. ^r	Mar. ^r	Apr. ^r	May ^r	June ^p
Fotal industry		100.00	96.8	98.1	98.2	98.2	98.9	99.1	98.8	98.7	99.1
-		26.50	100.7	100.2	106.0	107.5	100 5	110.5	110.4	100 7	100.0
Energy		26.50	108.7	109.2	106.8	107.5	108.5	110.5	110.4	109.7	109.9
Consumer products		5.29	103.0	103.5	97.7	99.9	100.9	106.1	105.3	103.3	103.0
Commercial products	213111	2.95 .75	102.2 99.9	102.4 98.8	99.2 97.3	101.2 96.1	101.7 96.9	103.1 96.9	102.8 96.3	100.4 96.3	100.0
Oil and gas well drilling Converted fuel	215111	3.98	99.9	98.8 99.0	97.5	96.1	96.9 97.7	96.9	96.3 97.6	96.3 96.6	96.5
Primary energy		13.53	116.6	117.2	117.3	117.3	117.7	117.5	119.5	119.9	120.5
Non-energy		73.50	92.9	94.4	95.2	95.0	95.7	95.3	94.9	95.1	95.5
Selected high-technology industries		3.22	155.1	155.2	153.5	154.5	154.2	155.0	158.6	162.2	164.1
Computers and peripheral equipment	3341	.33	66.1	66.5	66.4	66.7	67.0	67.2	67.7	68.3	68.8
Communications equipment	3342	.57	90.3	92.2	91.7	91.5	91.3	91.4	91.8	92.1	92.2
Semiconductors and related											
electronic components	334412–9	2.32	231.9	230.9	227.7	229.8	229.1	230.6	237.4	244.5	248.0
Excluding selected high-technology											
industries		70.28	90.1	91.7	92.5	92.3	93.0	92.6	92.1	92.2	92.5
Motor vehicles and parts	3361-3	4.61	98.1	103.2	105.3	102.6	104.0	105.5	105.1	105.6	106.9
Motor vehicles	3361	2.20	97.8	105.2	108.9	103.0	106.1	109.0	108.7	109.2	112.3
Motor vehicle parts	3363	2.11	101.5	104.0	105.0	105.0	105.1	105.7	105.1	105.4	104.9
Excluding motor vehicles and parts		65.67	89.6	90.9	91.7	91.6	92.2	91.7	91.2	91.3	91.5
Consumer goods		19.28	88.2	89.5	90.2	90.2	90.8	90.2	89.9	89.9	90.4
Business equipment		8.26	100.9	102.4	103.2	102.5	104.6	104.5	104.2	104.2	104.5
Construction supplies		4.14	77.7	79.4	80.0	80.8	82.7	81.7	80.8	80.7	80.7
Business supplies		6.23	82.2	83.2	84.1	83.7	83.7	83.8	83.3	83.4	83.7
Materials		25.44	90.2	91.5	92.3	92.3	92.6	91.9	91.3	91.4	91.5
Measures excluding selected high-technology											
industries											
Fotal industry		96.78	94.9	96.2	96.3	96.3	97.0	97.2	96.8	96.7	97.0
Manufacturing ¹		72.24	90.5	91.8	92.7	92.5	93.2	92.9	92.5	92.6	92.8
Durable		35.23	94.0	96.0	96.8	96.4	97.8	97.5	97.0	97.2	97.6
Measures excluding motor vehicles and parts											
Fotal industry		95.39	96.7	97.8	97.8	97.9	98.6	98.8	98.5	98.4	98.7
Manufacturing ¹		70.85	92.9	93.9	94.7	94.7	95.3	94.9	94.6	94.8	95.0
Durable		33.84	99.3	100.8	101.3	101.4	102.7	102.2	101.9	102.2	102.6
Measures excluding selected high-technology industries and motor vehicles and parts											
Total industry		92.17	94.7	95.8	95.8	95.9	96.6	96.7	96.4	96.2	96.4
Manufacturing ¹		67.63	90.0	91.1	91.8	91.9	92.5	92.0	91.6	91.8	91.9
Stage-of-process components of non-energy materials, measures of the input to Finished processors		11.52	108.3	109.2	110.1	110.2	110.8	110.1	110.3	111.1	111.5

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

Table 6 DIFFUSION INDEXES OF INDUSTRIAL PRODUCTION Percent

Percent	T	F 1				T	T 1		<u> </u>	0.1		D
Item	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
One month earlier												
2011	52.6	51.0	60.3	46.2	54.8	51.3	57.7	53.8	56.1	56.7	50.3	63.5
2012	62.2	64.4	46.8	63.8	54.2	58.3	52.2	43.6	53.2	48.4	71.2	61.9
2013	52.9	61.4	46.0	47.8	56.1							
Three months earlier												
2011	59.6	58.3	61.5	50.3	54.5	49.0	53.8	53.8	58.3	60.6	61.5	61.5
2012	66.7	74.0	61.9	58.7	51.0	61.9	54.5	51.3	47.4	42.3	62.5	63.8
2013	66.3	64.4	53.4	49.4	45.5							
Six months earlier												
2011	58.0	56.1	62.2	58.7	59.3	53.8	56.1	54.2	51.9	61.9	58.0	63.5
2012	71.5	71.5	65.7	65.4	64.4	60.3	58.7	53.8	59.0	51.9	55.1	59.9
2013	57.1	67.0	63.1	64.1	55.4							

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.

Item		2012	1972- 2012	1994- 95	2009	2012	2013		2013					
nem		2012 proportion	2012 ave.	95 high	2009 low	2012 04	2013 01 ^r	O2 ^p	Jan. ^r	Feb. ^r	Mar. ^r	Apr. ^r	May ^r	June
Total industry		100.00	80.2	85.0	66.9	77.5	78.0	77.8	77.7	78.2	78.2	77.9	77.7	77.
Manufacturing ¹		77.44	78.7	84.6	64.0	75.7	76.4	76.0	76.2	76.6	76.3	75.9	76.0	76.
Manufacturing (NAICS)	31–33	74.05	78.6	84.7	63.7	76.3	77.1	76.8	76.9	77.3	77.0	76.7	76.8	76.
Durable manufacturing		39.70	77.0	83.7	58.4	75.5	76.3	76.1	75.8	76.7	76.3	75.9	76.0	76.2
Wood products	321	1.09	76.8	86.5	49.4	67.0	69.4	69.1	68.7	70.1	69.3	68.7	69.5	69.0
Nonmetallic mineral products	327	2.16	74.8	82.7	44.4	56.3	58.1	58.3	57.3	58.5	58.4	57.0	58.6	59.2
Primary metals	331	3.19	79.1	94.1	48.8	74.0	74.9	73.7	75.7	75.3	73.7	73.3	74.0	73.
Fabricated metal products	332	5.31	77.4	85.4	61.5	83.0	84.9	84.6	84.0	85.7	85.0	84.7	84.4	84.
Machinery	333	5.45	78.1	87.6	59.4	80.1	81.5	81.1	80.2	82.3	82.0	81.2	80.5	81.0
Computer and electronic products Electrical equip., appliances,	334	6.59	78.1	84.2	70.2	74.6	74.2	74.6	74.4	74.2	73.9	74.2	74.9	74.5
and components	335	1.75	82.5	92.6	66.2	82.0	81.7	80.7	81.4	82.6	81.0	80.2	80.8	81.0
Motor vehicles and parts	3361–3	4.97	82.3 75.0	92.6	35.0	73.8	74.5	75.4	73.7	82.6 74.5	75.4	74.9	75.2	76.0
Aerospace and miscellaneous	5501-5	4.7/	15.0	07.0	55.0	15.0	74.5	13.4	13.1	74.3	73.4	/ 4.7	13.4	70.0
transportation equipment	3364–9	4.86	73.0	69.1	71.0	73.5	73.1	72.4	72.9	73.3	73.0	72.9	72.4	71.9
Furniture and related products	337	1.14	76.8	82.5	56.6	70.6	72.7	73.4	72.3	72.9	73.0	73.8	73.5	73.0
Miscellaneous	339	3.20	76.0	80.5	68.2	77.8	78.7	77.8	78.4	78.9	78.8	77.6	77.5	78.
Nondurable manufacturing		34.35	80.7	86.0	69.3	77.3	78.0	77.5	78.0	78.0	77.8	77.5	77.5	77.
Food, beverage, and tobacco products	311,2	10.64	81.0	85.5	75.2	80.4	81.4	80.8	81.1	81.9	81.1	80.7	80.5	81.
Textile and product mills	313,4	.79	80.0	91.7	53.7	70.2	70.7	69.9	71.2	70.2	70.7	69.5	69.5	70.
Apparel and leather	315,6	.30	77.7	87.5	57.5	67.2	70.2	69.8	70.1	70.9	69.7	68.1	70.4	70.
Paper	322	2.31	86.8	92.6	72.6	81.3	82.3	82.3	82.3	82.8	81.8	81.8	82.8	82.
Printing and support	323	1.65	81.0	85.1	60.5	66.0	67.2	67.4	67.1	66.8	67.6	67.4	67.6	67.
Petroleum and coal products	324	3.68	85.6	91.0	76.3	83.3	85.2	83.1	85.2	85.5	85.0	83.4	83.5	82.5
Chemicals	325	11.93	77.6	81.9	65.1	75.0	74.8	74.6	75.3	74.6	74.6	74.7	74.6	74.4
Plastics and rubber products	326	3.05	82.2	93.2	59.1	73.8	74.3	74.6	74.4	73.8	74.8	74.5	74.7	74.0
Other manufacturing (non-NAICS)	1133,5111	3.39	82.3	83.2	69.5	61.4	60.6	59.9	61.1	60.6	60.0	59.7	59.8	60.3
Mining	21	12.69	87.3	88.6	78.3	88.6	87.5	87.7	87.3	88.0	87.2	87.6	87.6	87.9
Utilities	2211,2	9.87	86.2	93.3	78.6	77.8	78.5	78.4	76.9	77.5	81.3	79.9	77.7	77.6
Selected high-technology industries		3.71	78.0	86.2	71.2	71.3	70.6	72.6	70.8	70.5	70.6	71.7	72.8	73.1
Computers and peripheral equipment	3341	.39	78.2	87.7	80.6	67.8	68.4	70.3	68.1	68.4	68.7	69.4	70.3	71.1
Communications equipment	3342	.61	76.7	84.2	77.3	77.7	78.2	78.7	78.1	78.2	78.4	78.6	78.7	78.7
Semiconductors and related	00.2											. 5.0		,
electronic components	334412–9	2.71	79.9	92.1	62.8	70.4	69.4	71.6	69.7	69.2	69.2	70.6	72.0	72.3
Measures excluding selected														
high-technology industries		96.29	80.3	84.9	66.7	77.8	78.3	78.0	77.9	78.4	78.5	78.1	77.9	78.0
8 8						750	76.7	76.3	76.5	76.9	76.6	76.2	76.2	76.3
high-technology industries Total industry Manufacturing ¹		73.73	78.8	84.5	63.5	75.9	/0./	/0.5	/ 0.5	70.7	70.0	70.2	70.2	701
Total industry Manufacturing ¹			78.8	84.5	63.5	/5.9	/0./	/0.3	70.5	70.9	70.0	70.2	70.2	
Total industry Manufacturing ¹ STAGE-OF-PROCESS GROUPS		73.73												
Total industry			78.8 86.3 81.0	84.5 89.7 87.9	63.5 76.4 64.4	87.0 75.4	86.3	86.2 76.1	86.2 75.9	86.6 76.4	86.1 76.9	86.2 76.3	86.3 75.9	86.2

Table 7 CAPACITY UTILIZATION Percent of capacity, seasonally adjusted

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

Table 8 INDUSTRIAL CAPACITY Percent change

		Average a	nnual rate		Fourth	auarter to	o fourth c	warter		Annua	l rate		Monthly rate
Item	1972-	1980-	1989-	1995-	Tourui	quarter to	5 Iourur ç	uartei	2012	7 timue	2013		2013
item	79	88	94	2013	2010	2011	2012	2013	Q3	Q4	Q1	Q2	June
Total industry	3.1	1.9	2.3	2.3	-2.1	1.3	2.2	1.8	2.0	1.9	1.7	1.7	.1
Manufacturing ¹	3.3	2.2	2.5	2.4	-2.0	.6	1.6	1.6	1.6	1.6	1.5	1.5	.1
Mining Utilities	.7 4.2	.1 2.1	7 1.8	.7 2.0	-1.0 1.0	4.6 2.0	4.7 1.9	4.4 .9	4.4 1.9	4.0 1.5	4.1 1.2	4.2 .9	.4 .1
Selected high-technology industries	19.6	17.3	15.8	20.2	11.1	26.4	4.1	7.7	3	3	3.7	7.4	.8
Manufacturing ¹ ex. selected high-technology industries	2.6	1.3	1.6	1.0	-2.7	5	1.5	1.2	1.7	1.6	1.3	1.2	.1
STAGE-OF-PROCESS GROUPS Crude	1.6	.4	5	.7	-1.5	3.4	3.2	3.5	2.9	2.7	3.0	3.3	.3
Primary and semifinished	3.0	1.3	2.5	2.7	-1.1	1.4	.7	.7	.4	.3	.4	.6	.1
Finished	3.9	3.3	2.7	2.3	-2.1	.4	3.3	2.5	3.6	3.5	2.9	2.5	.2

1. Refer to note on cover page.

Table 9 GROSS VALUE OF FINAL PRODUCTS AND NONINDUSTRIAL SUPPLIES Billions of 2005 dollars at annual rate, seasonally adjusted 2012 2013

			2012	2013		2013					
Item	2005	2012	Q4	Q1 ^r	Q2 ^p	Jan. ^r	Feb. ^r	Mar. ^r	Apr. ^r	May ^r	June ^p
Final products and nonindustrial supplies	3,332.3	3,275.6	3,296.9	3,337.6	3,346.4	3,313.5	3,341.9	3,357.4	3,346.7	3,340.8	3,351.8
Final products	2,474.8	2,517.2	2,536.1	2,565.2	2,579.4	2,543.7	2,568.0	2,583.9	2,576.5	2,574.9	2,586.8
Consumer goods	1,834.0	1,795.6	1,807.2	1,833.3	1,843.4	1,819.3	1,832.7	1,847.7	1,840.6	1,841.5	1,848.2
Durable	495.2	464.7	472.4	488.0	496.8	480.0	489.0	494.9	492.9	495.4	502.1
Automotive products	288.4	307.3	312.4	323.7	332.6	316.6	324.0	330.6	329.1	331.5	337.2
Other durable goods	206.8	158.0	160.5	164.9	165.0	164.0	165.6	165.1	164.6	164.7	165.8
Nondurable	1,338.8	1,332.0	1,336.9	1,349.3	1,352.0	1,342.3	1,348.0	1,357.5	1,352.4	1,351.3	1,352.4
Equipment, total	640.9	727.6	735.4	737.4	741.5	729.5	741.3	741.5	741.5	738.6	744.3
Business and defense	617.5	705.0	714.1	716.2	720.4	708.3	719.8	720.3	720.4	717.6	723.1
Business	537.6	599.0	606.5	609.8	615.5	601.7	613.6	614.2	614.8	613.1	618.6
Defense and space	79.9	105.1	106.6	105.6	104.4	105.6	105.5	105.5	105.0	104.0	104.1
Nonindustrial supplies	857.4	761.7	764.2	775.7	770.7	773.0	777.2	777.0	773.7	769.6	768.8
Construction supplies	270.0	216.5	218.0	226.4	223.1	224.2	228.6	226.6	223.2	223.1	222.8
Business supplies	587.4	545.3	546.3	549.5	547.8	549.0	548.7	550.6	550.6	546.6	546.1
Commercial energy products	210.9	211.5	212.3	213.2	210.9	213.3	212.2	214.0	214.5	209.9	208.3

r Revised. p Preliminary.

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

Percent change, seasonally adjusted

		Fou	rth quarte	er to										
		fo	urth quar	ter		Annual ra	ate			Month	nly rate			June '12
Item	2012				2012	2013		2013						to
	gross value1	2010	2011	2012	Q4	Q1 ^r	Q2 ^p	Jan. ^r	Feb. ^r	Mar. ^r	Apr. ^r	May ^r	June ^p	June '13
Finished	1,992.6	4.1	4.7	4.4	2.0	5.6	2.2	8	1.1	.2	3	.2	.7	3.0
Semifinished	1,706.9	9.2	2.9	3.2	1.4	6.7	-1.2	.9	.6	.6	6	7	.3	1.1
Primary	1,328.1	3.9	1.4	.0	1.9	4.4	8	1.2	.2	.7	7	.2	3	.4
Crude	670.3	6.5	3.0	1.8	7.6	-1.0	1.0	-1.3	.8	3	3	.7	1	2.7

r Revised. p Preliminary.

1. Billions of 2005 dollars.

Seasonally adjusted Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
	5411.	100.	Wiai.	npi.	widy	June	July	nug.	Sept.	001.	1101.	Dec.	Q1	Q2	Q3	<u>ب</u> ک	7 tiniuar
IP (percent																	
change) ¹ 1991	4	6	5	.2	1.0	1.0	.0	.1	.9	2	1	4	-7.4	2.4	5.5	.9	-1.5
1992	6	.8	.8	.2	.4	.0	.9	5	.2	.8	.4	.0	5	7.2	2.9	4.3	2.8
1993	.5	.4	.0	.3	4	.2	.3	.0	.5	.7	.4	.5	3.6	.9	1.9	6.1	3.3
1994	.4	.1	1.0	.5	.5	.7	.2	.6	.3	.9	.6	1.0	5.1	7.5	5.2	8.5	5.3
1995	.2	1	.2	.0	.3	.4	4	1.3	.4	2	.3	.4	4.5	1.4	3.8	3.3	4.7
1996	7	1.6	2	.8	.7	.9	1	.7	.5	.0	.8	.6	2.8	8.4	5.3	5.5	4.4
1997	.1	1.2	.8	.0	.7	.5	.6	1.3	.9	.7	.9	.4	7.8	6.5	9.7	10.1	7.2
1998	.5	.1	.1	.4	.7	6	4	2.1	3	.8	1	.4	4.5	2.9	2.9	5.5	5.8
1999 2000	.4	.4 .4	.2	.2	.7	2	.7 2	.4 3	3 .5	1.3 4	.5	.8	4.1	3.9 4.6	4.0	7.6 -1.3	4.3
2000							.2	10	10			10	,		.0	110	
2001	7	6	3	3	7	7	4	3	3	5	5	.0	-5.6	-5.3	-5.5	-4.5	-3.4
2002 2003	.6 .7	.0 .4	.7 2	.4 8	.5	1.0	3 .4	.1 1	.1	3	.5 .8	5 1	2.7	6.5 -3.3	2.4 1.9	2 3.3	.2
2003	.3	.4	5	.4	.0	8	.4	.2	.0	1.0	.0	.7	2.8	1.8	2.5	5.7	2.3
2005	.4	.6	1	.1	.2	.4	1	.1	-2.0	1.2	1.0	.6	5.4	2.1	-1.5	3.2	3.2
2006	.1	.1	.3	.4	1	.4	.0	.2	1	1	1	1.0	3.8	2.6	1.5	.6	2.2
2000	5	1.1	.1	.7	.1	.0	.0	.1	.4	5	.6	.0	3.8	4.8	1.1	1.0	2.5
2008	3	2	3	8	5	2	5	-1.6	-4.2	.8	-1.2	-2.8	-1.4	-5.5	-12.1	-15.9	-3.4
2009	-2.2	6	-1.5	8	-1.0	4	.9	1.1	.7	.3	.5	.5	-19.8	-10.9	4.9	6.6	-11.3
2010	1.1	.4	.8	.3	1.6	.2	.6	.3	.3	3	.3	1.0	8.5	8.7	6.2	1.7	5.7
2011	1	5	1.0	6	.4	.2	.6	.5	.1	.6	.2	.6	2.6	1.0	5.0	4.7	3.4
2012	.7 .0	.5 .7	5 .2	.7 3	.3	.0 .3	.4	8	.2	1	1.3	.0	5.4	2.9	.3	2.5	3.6
2013	.0	./	.2	3	.0	.3							4.2	.6			
IP (2007=100)																	
2011 2012	92.6 96.2	92.2 96.7	93.1 96.1	92.6 96.9	92.9 97.1	93.1 97.1	93.6 97.6	94.1 96.8	94.2 97.0	94.7 96.8	95.0 98.1	95.5 98.2	92.6 96.3	92.9 97.0	94.0 97.1	95.1 97.7	93.6 97.0
2012	90.2 98.2	90.7 98.9	90.1 99.1	90.9 98.8	97.1 98.7	97.1 99.1	97.0	90.8	97.0	90.8	96.1	96.2	90.5	97.0 98.9	97.1	97.7	97.0
Capacity (percent of 2007 output)																	
2011 2012	121.6 123.9	121.7 124.1	121.8 124.3	121.9 124.6	122.0 124.8	122.2 125.0	122.4 125.2	122.6 125.4	122.8 125.6	123.1 125.8	123.3 126.0	123.6 126.2	121.7 124.1	122.0 124.8	122.6 125.4	123.3 126.0	122.4 125.1
2012	125.9	124.1	124.3	124.0	124.8	123.0	123.2	123.4	123.0	123.8	120.0	120.2	124.1	124.8	123.4	120.0	123.1
Utilization																	
(percent) 1991	79.9	79.3	78.8	78.8	79.5	80.2	80.1	80.1	80.7	80.5	80.3	79.9	79.3	79.5	80.3	80.2	79.8
1992	79.3	79.8	80.3	80.7	80.8	80.6	81.2	80.6	80.6	81.0	81.2	81.0	79.8	80.7	80.8	81.1	80.6
1993	81.3	81.5	81.3	81.4	81.0	81.1	81.2	81.1	81.4	81.8	82.0	82.3	81.3	81.2	81.2	82.0	81.4
1994 1995	82.4 84.9	82.3 84.5	82.9 84.4	83.2 84.0	83.4 83.9	83.7 83.9	83.6 83.3	83.8 84.1	83.7 84.1	84.2 83.6	84.4 83.5	85.0 83.4	82.6 84.6	83.4 84.0	83.7 83.8	84.5 83.5	83.6 84.0
	01.7	01.5	01.7	01.0	00.7	55.7	00.0	01.1	01.1	05.0	00.0	0.5.7		51.0	00.0	00.0	01.0
1996	82.5	83.5	83.0	83.3	83.5	83.9	83.4	83.6	83.6	83.2	83.5	83.6	83.0	83.6	83.5	83.5	83.4
1997 1998	83.3 84.4	83.9 84.0	84.1 83.5	83.7 83.3	83.9 83.3	83.8 82.3	83.8 81.5	84.4 82.8	84.6 82.1	84.6 82.3	84.8 81.9	84.6 81.8	83.8 84.0	83.8 82.9	84.3 82.1	84.7 82.0	84.1 82.8
1998	81.8	84.0 81.8	83.5 81.6	83.5 81.5	81.8	82.5	81.5	81.6	81.0	81.8	81.9	82.2	81.7	82.9 81.5	81.4	82.0 82.0	81.6
2000	82.0	82.0	82.1	82.3	82.2	81.9	81.5	81.0	81.2	80.6	80.3	79.8	82.0	82.1	81.2	80.2	81.4
2001	79.0	78.3	77.9	77.5	76.7	76.0	75.5	75.1	74.7	74.2	73.6	73.5	78.4	76.7	75.1	73.8	76.0
2001 2002	73.9	78.3	74.2	74.4	74.8	75.5	75.2	75.3	75.3	74.2	75.5	75.2	73.9	74.9	75.3	75.3	74.8
2003	75.8	76.1	76.0	75.4	75.4	75.5	75.8	75.7	76.2	76.2	76.8	76.7	76.0	75.4	75.9	76.5	76.0
2004	77.0	77.4	77.0	77.4	77.9	77.3	77.9	78.1	78.1	78.8	78.9	79.4	77.1	77.5	78.0	79.1	77.9
2005	79.7	80.1	80.0	80.0	80.0	80.2	80.0	80.0	78.3	79.2	79.8	80.2	79.9	80.1	79.4	79.7	79.8
2006	80.2	80.1	80.2	80.4	80.2	80.4	80.3	80.3	80.1	79.9	79.6	80.2	80.2	80.3	80.3	79.9	80.2
2007	79.7	80.4	80.3	80.7	80.6	80.5	80.4	80.4	80.7	80.3	80.7	80.8	80.1	80.6	80.5	80.6	80.5
2008 2009	80.5 70.0	80.4 69.6	80.2 68.5	79.6 67.9	79.3 67.2	79.2 66.9	78.8 67.6	77.5 68.3	74.2 68.9	74.8 69.2	73.9 69.7	71.7 70.1	80.4 69.4	79.4 67.3	76.8 68.3	73.5 69.7	77.5
2009	70.0	71.5	72.2	72.6	73.9	74.2	74.8	75.1	75.4	75.2	75.5	76.2	71.6	73.6	75.1	75.6	74.0
2011	76.1	75.7	76.5	76.0	76.1	76.2	76.5	76.8	76.7	77.0	77.0	77.3	76.1	76.1	76.7	77.1	76.5
2012 2013	77.7 77.7	77.9 78.2	77.3 78.2	77.7 77.9	77.8 77.7	77.7 77.8	77.9	77.2	77.2	77.0	77.9	77.8	77.6	77.7 77.8	77.4	77.5	77.6
		unal rotac															

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

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

Seasonally adjusted																	
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
IP $(percent change)^2$																	
1991	8	6	7	.3	.7	1.1	.2	.3	1.1	2	2	1	-8.8	1.9	7.2	1.6	-2.0
1992	6	.9	1.0	.5	.6	.3	.9	4	.0	.7	.4	2	.5	8.2	4.0	3.1	3.6
1993	1.0	.2	2	.5	1	2	.3	1	.6	.8	.4	.5	4.5	1.4	1.0	6.9	3.5
1994	.2	.1	1.3	.8	.7	.3	.4	.8	.4	1.0	.8	1.1	4.9	9.6	6.1	10.3	5.9
1995	.2	2	.2	1	.1	.5	6	1.1	.8	1	.1	.4	4.7	.9	3.2	4.1	5.2
1996	8	1.6	2	1.1	.7	1.1	.3	.6	.7	1	.8	.9	2.0	9.5	7.8	5.7	4.8
1997	.1	1.4	1.2	2	.9	.6	.5	1.6	.8	.6	1.1	.4	9.3	7.6	10.8	10.9	8.4
1998	.8	.1	1	.5	.6	7	5	2.5	4	1.0	.1	.5	6.1	2.3	3.2	7.6	6.6
1999	.3	.7	.0	.4	.9	4	.5	.6	3	1.5	.7	.7	4.7	4.4	3.7	9.0	5.0
2000	.2	.3	.7	.6	2	.2	.0	6	.5	4	3	6	5.3	4.4	8	-2.9	4.2
2001	6	6	3	3	8	7	3	6	2	6	3	.3	-6.4	-5.5	-6.0	-4.2	-4.1
2001	.5	1	.7	.2	.6	1.2	5	.4	.1	4	.5	4	3.3	5.9	3.1	3	.3
2003	.5	.2	.2	9	.0	.4	.1	4	.8	1	1.0	2	2.4	-2.4	1.5	3.7	1.3
2004	.0	.7	2	.4	.7	7	.9	.6	.0	1.0	1	.6	2.5	3.0	4.2	5.5	2.8
2005	.7	.8	4	.3	.4	.2	1	.3	-1.0	1.5	.8	.1	6.0	2.3	1	5.7	4.0
2006	0	2	1	.6	4	2	2	.4	1	4	.1	15	3.9	1.1	.7	1.2	2.5
2008	.8 5	2 .4	1 .7	.0	4 1	.3 .3	2	.4 4	.1 .5	4 4	.1	1.5	4.2	5.7	1.0	1.2	2.5 2.7
2007	4	6	3	-1.1	5	5	-1.1	-1.3	-3.4	6	-2.2	-3.4	-2.6	-7.8	-13.4	-21.5	-4.7
2009	-2.9	2	-1.9	8	-1.1	3	1.2	1.1	.8	.1	1.1	.0	-23.7	-11.1	6.6	7.3	-13.6
2010	1.0	.0	1.3	.9	1.4	.0	.7	.1	.1	.1	.2	.6	7.3	11.3	5.2	1.8	6.1
2011	.2	0	.7	7	2	.1	.7	4	4	C	.0	1.0	3.4	4	5.0	5.2	3.4
2011	1.0	.0 .6	5	7	.3 3	.1	.7	.4 7	.4	.6 4	1.4	.9	8.1	4	5	2.4	3.4
2012	1	.0	3	3	.2	.3	.2	/	.1	4	1.4	.7	5.1	2	5	2.4	3.7
IP (2007=100)																	
2011	89.3	89.3	89.9	89.3	89.5	89.6	90.2	90.6	90.9	91.4	91.4	92.3	89.5	89.5	90.6	91.7	90.3
2012 2013	93.3 95.2	93.9 95.8	93.4 95.5	93.9 95.2	93.7 95.5	94.0 95.7	94.2	93.5	93.6	93.2	94.5	95.3	93.5 95.5	93.9 95.5	93.8	94.3	93.9
Capacity	95.2	95.0	95.5	93.2	95.5	95.1							95.5	93.3			
(percent of																	
2007 output) 2011	121.7	121.7	121.7	121.7	121.8	121.9	122.0	122.1	122.3	122.5	122.6	122.8	121.7	121.8	122.1	122.6	122.1
2011	121.7	121.7	121.7	121.7	121.8	121.9	122.0	122.1	122.3	122.5	122.0	122.8	121.7	121.8	122.1	122.0	122.1
2012	124.9	125.1	125.2	125.4	125.6	125.7	121.0	121	121.5	121.1	121.0	121.0	125.1	125.6	121.1	121.0	123.7
Utilization																	
(percent)	70 5	77.0	77.2	77 4	77.0	70 (70 7	70.0	70.5	70.2	70.0	70.0	77.0	77.0	70.0	70.1	70.5
1991 1992	78.5 78.2	77.9 78.8	77.3 79.4	77.4 79.6	77.8 79.9	78.6 79.9	78.7 80.4	78.8 79.8	79.5 79.7	79.3 80.0	79.0 80.1	78.8 79.8	77.9	77.9 79.8	79.0 80.0	79.1 80.0	78.5 79.6
1993	80.4	80.4	80.1	80.4	80.2	80.0	80.1	79.8	80.2	80.8	81.0	81.2	80.3	80.2	80.0	81.0	80.4
1994	81.2	81.1	82.0	82.4	82.7	82.7	82.7	83.1	83.2	83.7	84.0	84.6	81.4	82.6	83.0	84.1	82.8
1995	84.5	84.0	83.8	83.4	83.1	83.2	82.3	82.9	83.2	82.8	82.4	82.3	84.1	83.2	82.8	82.5	83.2
1006	01.2	00.0	01.6	02.0	02.2	00 5	00.4	00.5	00 5	02.1	00.0	02.5	01.7	02.2	00.5	00.0	02.2
1996 1997	81.3 82.1	82.2 82.8	81.6	82.0 82.6	82.2	82.6	82.4	82.5	82.6	82.1	82.3	82.5	81.7 82.7	82.3	82.5	82.3	82.2
1997 1998	82.1 83.6	82.8	83.3 82.3	82.6	82.8 82.0	82.8 80.8	82.7 80.0	83.4 81.5	83.6 80.7	83.5 81.1	83.8 80.7	83.5 80.7	82.7	82.7 81.7	83.2 80.7	83.6 80.8	83.1 81.5
1999	80.6	80.8	80.3	80.3	80.6	80.0	80.1	80.2	79.6	80.5	80.6	80.9	80.6	80.3	80.0	80.7	80.4
2000	80.7	80.6	80.8	80.9	80.4	80.3	79.9	79.1	79.3	78.6	78.1	77.4	80.7	80.5	79.5	78.0	79.7
	_																
2001	76.6	75.9	75.5	75.1	74.3	73.6	73.2	72.6	72.3	71.8	71.4	71.6	76.0	74.3	72.7	71.6	73.6
2002 2003	71.9 73.7	71.8 73.9	72.2 74.0	72.3 73.3	72.8 73.4	73.6 73.7	73.2 73.8	73.5 73.5	73.6 74.1	73.3 74.1	73.6 74.8	73.3 74.7	72.0	72.9 73.5	73.4 73.8	73.4 74.6	72.9 73.9
2003	74.8	75.3	75.2	75.6	76.1	75.6	76.3	76.7	76.6	77.4	74.8	77.6	75.1	75.8	76.5	77.4	76.2
2005	78.0	78.5	78.0	78.1	78.2	78.2	78.0	78.0	77.0	78.0	78.5	78.4	78.2	78.2	77.7	78.3	78.1
2006	78.9	78.6	78.5	78.8	78.4	78.5	78.2	78.4	78.4	77.9	77.8	78.8	78.7	78.6	78.3	78.1	78.4
2007	78.2	78.3	78.7	79.1	78.8	78.9	78.8	78.3	78.6	78.2	78.5	78.5	78.4	78.9	78.6	78.4	78.6
2008 2009	78.1 66.1	77.7 66.1	77.5 65.0	76.6 64.6	76.3 64.0	76.0 64.0	75.3 64.8	74.4 65.7	72.0 66.3	71.6 66.5	70.2 67.4	67.9 67.6	77.8 65.7	76.3 64.2	73.9 65.6	69.9 67.2	74.5 65.7
2009	68.4	68.5	69.5	70.2	71.4	71.5	72.1	72.3	72.5	72.6	72.8	73.3	68.8	71.0	72.3	72.9	71.3
2011	73.4	73.4	73.9	73.4	73.5	73.5	74.0	74.2	74.3	74.7	74.5	75.2	73.6	73.5	74.2	74.8	74.0
2012	75.8	76.2	75.7	76.1	75.8	75.9	76.0	75.4	75.3	74.9	75.8	76.4	75.9	75.9	75.5	75.7	75.8
2013	76.2	76.6	76.3	75.9	76.0	76.1							76.4	76.0			
1 Pafar to note on a																	

Table 12 HISTORICAL STATISTICS FOR INDUSTRIAL PRODUCTION, CAPACITY, AND UTILIZATION: Manufacturing¹ Seasonally adjusted New June July Aug Sept. Oct. Nov. Dec. Q1 Q2

 I. Refer to note on cover page.

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

Seasonally adjusted Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
IP (percent																	
change) ²		0		2	1.0	1.0	0		0	2	2	-	0.0	2.0			2.0
1991	4	8	6	.2	1.0	1.0	0.	.1	.9	2	2	5	-8.0	2.0	5.4	.4	-2.0
1992	8	.8	.7	.6	.3	1	.8	6	.1	.6	.3	.0	-1.9	6.1	1.8	3.0	1.9
1993	.5	.3	1	.3	4	.2	.3	1	.4	.7	.3	.5	3.2	.2	1.4	5.1	2.5
1994 1995	.4	.0	.9 1	.3 3	.4	.6 .2	.0 5	.4 1.1	.1	.6 4	.4	.9 .1	4.5	5.4 -1.2	3.2 1.5	5.7	4.0
1996 1997	-1.0	1.4 .9	3 .5	.8 3	.5	.7	5 .4	.4 1.0	.3	3 .6	.8 .6	.5	4 5.1	6.5 2.3	2.1 6.3	3.0 7.7	1.7
1998	.2	.0	1	.2	.6	9	8	2.0	7	.6	4	.1	1.9	.8	3	2.3	3.0
1999	.2	.2	1	1	.6	5	.3	.3	4	1.2	.2	.5	.7	.3	1.1	5.5	1.1
2000	3	.0	.1	.4	1	1	5	4	.4	6	2	5	.5	1.5	-3.0	-2.7	1.0
2001	7	5	3	2	6	5	3	2	4	5	5	1	-5.9	-4.4	-4.3	-4.5	-4.0
2002	.7	1	.8	.4	.5	.9	4	.1	.0	4	.5	6	2.8	6.2	1.7	8	.3
2003	.6	.2	3	9	1	1	.2	2	.6	1	.7	1	1.7	-4.7	.8	2.5	.2
2004	.2	.6	6	.5	.8	8	.8	.1	1	1.0	.2	.7	2.2	2.0	2.0	5.3	1.7
2005	.3	.6	1	.0	.1	.4	3	.0	-2.2	1.2	1.0	.5	4.8	1.3	-2.9	2.1	2.5
2006	.1	.0	.2	.3	2	.3	.0	.1	2	1	2	1.0	3.4	1.8	.8	.0	1.4
2007	5	1.1	1	.6	.1	.1	.0	.1	.3	7	.4	1	3.1	3.9	1.1	8	1.8
2008	4	3	4	9	5	2	4	-1.6	-4.3	1.0	-1.0	-2.7	-2.6	-6.5	-12.3	-14.9	-4.2
2009	-2.3	7	-1.7	-1.0	-1.1	4	.9	1.1	.6	.3	.4	.4	-19.6	-11.8	4.8	6.1	-11.3
2010	1.0	.2	.7	.3	1.6	.2	.6	.2	.2	4	.2	.9	7.2	7.9	5.9	.9	5.0
2011	2	5	1.1	6	.3	.1	.6	.5	.1	.6	.2	.6	1.9	1.0	4.8	4.7	2.9
2012	.7	.5	6	.8	.3	.0	.5	7	.1	2	1.4	.1	5.4	2.9	.5	2.2	3.6
2013	.0	.8	.2	4	1	.3							4.4	.0			
IP (2007=100)																	
2011	90.8	90.4	91.4	90.8	91.1	91.3	91.8	92.3	92.4	92.9	93.1	93.6	90.8	91.1	92.1	93.2	91.8
2012	94.3	94.8	94.2	95.0	95.2	95.2	95.7	95.0	95.1	94.9	96.2	96.3	94.4	95.1	95.2	95.8	95.1
2013 Capacity (percent of 2007 output)	96.3	97.0	97.2	96.8	96.7	97.0							96.8	96.8			
2007 output) 2011	119.8	119.8	119.7	119.7	119.8	119.9	120.0	120.1	120.2	120.4	120.6	120.8	119.8	119.8	120.1	120.6	120.1
2012	121.0	121.2	121.5	121.7	121.9	122.1	122.4	122.6	122.8	123.0	123.2	123.3	121.2	121.9	122.6	123.2	122.2
2013	123.5	123.6	123.8	123.9	124.1	124.2							123.6	124.1			
Utilization (percent)																	
1991	80.2	79.5	78.9	79.0	79.7	80.4	80.3	80.2	80.9	80.6	80.4	79.9	79.6	79.7	80.5	80.3	80.0
1992	79.2	79.7	80.2	80.6	80.8	80.6	81.1	80.6	80.6	81.0	81.2	81.1	79.7	80.6	80.8	81.1	80.6
1993	81.5	81.6	81.5	81.6	81.2	81.2	81.4	81.2	81.4	81.9	82.1	82.3	81.5	81.3	81.3	82.1	81.6
1994	82.6	82.5	83.1	83.2	83.4	83.8	83.6	83.8	83.7	84.1	84.3	84.9	82.7	83.5	83.7	84.5	83.6
1995	84.9	84.6	84.3	83.9	83.8	83.8	83.2	84.0	83.9	83.4	83.3	83.3	84.6	83.9	83.7	83.3	83.9
1996	82.3	83.3	82.9	83.4	83.7	84.1	83.5	83.7	83.8	83.3	83.8	84.0	82.8	83.7	83.6	83.7	83.5
1997	83.7	84.2	84.3	83.8	83.8	83.7	83.7	84.2	84.5	84.7	84.9	84.7	84.1	83.8	84.1	84.7	84.2
1998	84.5	84.2	83.8	83.6	83.8	82.8	81.9	83.2	82.4	82.6	82.1	81.9	84.2	83.4	82.5	82.2	83.1
1999	81.8	81.8	81.5	81.2	81.5	80.9	81.0	81.1	80.7	81.5	81.5	81.9	81.7	81.2	80.9	81.6	81.4
2000	81.5	81.4	81.4	81.6	81.4	81.2	80.7	80.3	80.6	80.0	79.8	79.3	81.4	81.4	80.5	79.7	80.8
2001	78.7	78.2	77.9	77.7	77.1	76.6	76.3	76.0	75.6	75.2	74.7	74.6	78.2	77.1	76.0	74.8	76.5
2002	75.1	74.9	75.5	75.7	76.1	76.8	76.5	76.6	76.6	76.4	76.8	76.4	75.2	76.2	76.5	76.5	76.1
2003	76.9	77.1	76.9	76.3	76.2	76.2	76.4	76.3	76.8	76.7	77.3	77.2	77.0	76.2	76.5	77.1	76.7
2004	77.4	77.8	77.4	77.8	78.4	77.8	78.4	78.5	78.5	79.2	79.4	79.9	77.5	78.0	78.5	79.5	78.4
2005	80.2	80.6	80.5	80.5	80.5	80.8	80.5	80.4	78.5	79.3	80.0	80.4	80.4	80.6	79.8	79.9	80.2
2006	80.3	80.2	80.2	80.4	80.1	80.3	80.2	80.2	79.9	79.7	79.4	80.1	80.2	80.3	80.1	79.7	80.1
2007	79.6 80.7	80.4 80.5	80.2 80.2	80.6 79.5	80.6 79.1	80.7 78.9	80.7 78.6	80.8 77.2	81.1	80.6 74.5	81.0	81.0	80.1 80.5	80.7 79.2	80.9 76.6	80.8	80.6 77.4
2008 2009	70.0	80.5 69.5	68.3	79.5 67.6	66.9	66.7	67.4	68.2	73.8 68.8	74.5 69.1	73.7 69.6	71.7 70.0	69.3	67.1	76.6 68.1	73.3 69.6	68.5
2009 2010	70.0	71.2	71.9	72.3	73.6	74.0	74.5	74.8	75.1	74.9	75.2	75.9	71.3	73.3	74.8	75.3	73.7
2011	75.8	75.5	76.3	75.8	76.1	76.1	76.5	76.8	76.8	77.2	77.2	77.5	75.9	76.0	76.7	77.3	76.5
2011 2012	75.8	75.5	76.3	75.8	78.1	76.1	78.2	76.8	76.8	77.2	77.2	78.0	75.9	78.0	76.7	77.8	76.5
2012	77.9	78.4	78.5	78.1	77.9	78.0	10.2	11.5	11.5	11.2	70.1	70.0	78.3	78.0	77.7	77.0	77.0

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

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

Seasonally adjusted									~			-				<u> </u>	
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
IP (percent																	
change) ³																	
1991	8	8	8	.3	.7	1.1	.3	.2	1.1	2	3	3	-9.6	1.3	7.1	1.1	-2.6
1992 1993	9 1.1	.9 .1	.9 3	.4 .5	.5 1	.1 2	.8 .3	5 2	1 .5	.5 .7	.3 .3	2 .5	-1.2 4.0	7.0 .6	2.7 .3	1.5 5.7	2.6 2.5
1994	.1	.1	1.1	.6	.5	.2	.2	.6	.1	.7	.6	.9	4.2	7.1	3.7	7.0	4.4
1995	.1	3	1	4	1	.3	8	.9	.5	4	1	.0	2.8	-2.3	.4	.6	2.5
100 0	1.0	1.0	-	1.0	~	0	1	2			-	7	1.0	7.0	1.0	2.0	1.5
1996 1997	-1.2	1.3 1.1	5 .8	1.0 7	.5 .5	.8 .4	1 .2	.3 1.3	.4 .6	4 .5	.7 .8	.7 .1	-1.9 6.2	7.3 2.8	4.0 6.9	2.8 8.1	1.5 4.9
1998	.5	.0	3	.3		-1.1	9	2.4	8	.7	1	.1	3.2	2	5	4.0	3.4
1999	1	.5	4	1	.8	7	.0	.6	4	1.4	.4	.4	.8	.3	.2	6.7	1.4
2000	3	2	.3	.4	6	.0	4	8	.4	6	6	8	.3	.6	-3.8	-4.8	.7
2001	6	5	3	1	7	6	1	6	2	7	2	.2	-7.0	-4.5	-4.6	-4.3	-4.8
2001	.6	2	.7	.1	.6	1.1	6	.3	.0	5	.4	6	3.4	5.5	2.4	-1.1	.4
2003	.4	.0	.1	-1.1	1	.2	1	5	.8	2	.9	3	.7	-4.0	.0	2.7	.0
2004	1	.7	2	.4	.8	8	.9	.5	2	1.0	1	.6	1.7	3.3	3.7	4.9	2.0
2005	.6	.7	5	.2	.3	.1	3	.1	-1.3	1.4	.8	.0	5.2	1.3	-1.9	4.3	3.1
2006	.8	3	1	.5	6	.2	2	.3	.0	5	.0	1.5	3.3	.0	1	.5	1.5
2007	6	.3	.6	.5	.0	.5	.1	5	.4	6	.3	.0	3.3	4.5	1.0	-1.4	1.8
2008 2009	5 -2.9	8 2	5 -2.1	-1.3 9	6 -1.2	6 3	-1.0 1.2	-1.4 1.1	-3.5 .7	4 .1	-2.0	-3.2 .0	-4.3 -23.5	-9.3 -12.3	-13.8 6.5	-20.5 6.6	-5.8 -13.8
2009	-2.9	2	-2.1	9	-1.2	3 .0	.7	.0	.7	.1	.0	.0	-23.5	10.3	4.8	.8	-13.8
2011 2012	.0	.0 .7	.8 5	8 .6	.2 3	.0 .3	.7	.3 6	.4	.6 6	1 1.5	1.0 .9	2.4 8.2	4 1.5	4.8	5.1 2.1	2.8 3.9
2012 2013	2	.7	3	.0 4	5	.3	.2	0	.0	0	1.5	.9	8.2 5.3	-1.0	2	2.1	5.9
2010		••	10										0.0	110			
IP (2007=100)	0.5.0	0.5.0	07.5	0.6.0	07.0	07.0	07.7	00.0	00.2	00.0	00.0		07.1	07.0	22.2	00.1	07.0
2011 2012	86.8 90.6	86.8 91.3	87.5 90.8	86.8 91.3	87.0 91.0	87.0 91.3	87.7 91.5	88.0 91.0	88.3 91.0	88.9 90.5	88.8 91.8	89.7 92.7	87.1 90.9	87.0 91.2	88.0 91.2	89.1 91.7	87.8 91.2
2012	92.5	93.2	90.8	92.5	92.6	92.8	91.5	91.0	91.0	90.5	91.0	92.1	92.8	91.2 92.6	91.2	91.7	91.2
Capacity (percent of 2007 output)	110.2	110.0	110.0	110.0	110.0	110.7	110.7	110 7	110.0	110.0	110.0	110.0	110.0	110.0	110.7	110.0	110.0
2011 2012	119.2 119.1	119.0 119.3	118.9 119.4	118.8 119.6	118.8 119.7	118.7 119.9	118.7 120.1	118.7 120.2	118.8 120.4	118.8 120.6	118.9 120.7	119.0 120.9	119.0 119.3	118.8 119.7	118.7 120.2	118.9 120.7	118.9 120.0
2012	121.0	121.1	121.2	121.4	121.5	121.6	120.1	120.2	120.4	120.0	120.7	120.9	121.1	121.5	120.2	120.7	120.0
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Utilization (percent)																	
1991	78.8	78.1	77.4	77.5	77.9	78.7	78.8	78.9	79.7	79.4	79.1	78.7	50.4	50.0		70.1	78.6
1992	78.0	78.6	79.2	79.5	79.8	79.8	80.2					/0./	78.1	78.0	79.1	79.1	
1993	80.6	80.6					80.3	79.8	79.6	79.9	80.1	79.8	78.6	79.7	79.9	79.9	79.5
1994 1995	81.2		80.2	80.5	80.3	80.1	80.2	79.9	80.2	79.9 80.7	80.1 80.9	79.8 81.2	78.6 80.4	79.7 80.3	79.9 80.1	79.9 81.0	79.5 80.4
1770		81.2	82.1	82.4	82.7	80.1 82.7	80.2 82.8	79.9 83.1	80.2 83.1	79.9 80.7 83.5	80.1 80.9 83.9	79.8 81.2 84.5	78.6 80.4 81.5	79.7 80.3 82.6	79.9 80.1 83.0	79.9 81.0 84.0	79.5 80.4 82.8
	84.4	81.2 84.0	82.1 83.7	82.4 83.2	82.7 82.9	80.1 82.7 83.0	80.2 82.8 82.2	79.9 83.1 82.7	80.2 83.1 83.0	79.9 80.7 83.5 82.4	80.1 80.9 83.9 82.2	79.8 81.2 84.5 82.0	78.6 80.4 81.5 84.0	79.7 80.3 82.6 83.1	79.9 80.1 83.0 82.6	79.9 81.0 84.0 82.2	79.5 80.4 82.8 83.0
1996	84.4 80.9	81.2 84.0 81.8	82.1 83.7 81.3	82.4 83.2 81.9	82.7 82.9 82.2	80.1 82.7 83.0 82.7	80.2 82.8 82.2 82.4	79.9 83.1 82.7 82.5	80.2 83.1 83.0 82.6	79.9 80.7 83.5 82.4 82.1	80.1 80.9 83.9 82.2 82.4	79.8 81.2 84.5 82.0 82.8	78.6 80.4 81.5 84.0 81.3	79.7 80.3 82.6 83.1 82.3	79.9 80.1 83.0 82.6 82.5	79.9 81.0 84.0 82.2 82.4	79.5 80.4 82.8 83.0 82.1
1997	84.4 80.9 82.4	81.2 84.0 81.8 83.0	82.1 83.7 81.3 83.4	82.4 83.2 81.9 82.5	82.7 82.9 82.2 82.6	80.1 82.7 83.0 82.7 82.6	80.2 82.8 82.2 82.4 82.5	79.9 83.1 82.7 82.5 83.2	80.2 83.1 83.0 82.6 83.3	79.9 80.7 83.5 82.4 82.1 83.4	80.1 80.9 83.9 82.2 82.4 83.7	79.8 81.2 84.5 82.0 82.8 83.5	78.6 80.4 81.5 84.0 81.3 82.9	79.7 80.3 82.6 83.1 82.3 82.6	79.9 80.1 83.0 82.6 82.5 83.0	79.9 81.0 84.0 82.2 82.4 83.5	79.5 80.4 82.8 83.0 82.1 83.0
	84.4 80.9	81.2 84.0 81.8	82.1 83.7 81.3	82.4 83.2 81.9	82.7 82.9 82.2	80.1 82.7 83.0 82.7 82.6 81.2	80.2 82.8 82.2 82.4	79.9 83.1 82.7 82.5 83.2 81.8	80.2 83.1 83.0 82.6	79.9 80.7 83.5 82.4 82.1	80.1 80.9 83.9 82.2 82.4	79.8 81.2 84.5 82.0 82.8	78.6 80.4 81.5 84.0 81.3	79.7 80.3 82.6 83.1 82.3	79.9 80.1 83.0 82.6 82.5	79.9 81.0 84.0 82.2 82.4 83.5 81.0	79.5 80.4 82.8 83.0 82.1 83.0 81.8
1997 1998	84.4 80.9 82.4 83.6	81.2 84.0 81.8 83.0 83.2	82.1 83.7 81.3 83.4 82.6	82.4 83.2 81.9 82.5 82.5	82.7 82.9 82.2 82.6 82.5	80.1 82.7 83.0 82.7 82.6	80.2 82.8 82.2 82.4 82.5 80.2	79.9 83.1 82.7 82.5 83.2	80.2 83.1 83.0 82.6 83.3 80.9	79.9 80.7 83.5 82.4 82.1 83.4 81.3	80.1 80.9 83.9 82.2 82.4 83.7 80.9	79.8 81.2 84.5 82.0 82.8 83.5 80.8	78.6 80.4 81.5 84.0 81.3 82.9 83.1	79.7 80.3 82.6 83.1 82.3 82.6 82.1	79.9 80.1 83.0 82.6 82.5 83.0 81.0	79.9 81.0 84.0 82.2 82.4 83.5	79.5 80.4 82.8 83.0 82.1 83.0
1997 1998 1999 2000	84.4 80.9 82.4 83.6 80.5 79.9	81.2 84.0 81.8 83.0 83.2 80.6 79.6	82.1 83.7 81.3 83.4 82.6 80.1 79.8	82.4 83.2 81.9 82.5 82.5 79.8 79.9	82.7 82.9 82.2 82.6 82.5 80.2 79.4	80.1 82.7 83.0 82.7 82.6 81.2 79.4 79.3	80.2 82.8 82.2 82.4 82.5 80.2 79.3 78.9	79.9 83.1 82.7 82.5 83.2 81.8 79.6 78.1	80.2 83.1 83.0 82.6 83.3 80.9 79.1 78.3	79.9 80.7 83.5 82.4 82.1 83.4 81.3 80.0 77.8	80.1 80.9 83.9 82.2 82.4 83.7 80.9 80.1 77.3	79.8 81.2 84.5 82.0 82.8 83.5 80.8 80.3 76.5	78.6 80.4 81.5 84.0 81.3 82.9 83.1 80.4 79.8	79.7 80.3 82.6 83.1 82.3 82.6 82.1 79.8 79.5	79.9 80.1 83.0 82.6 82.5 83.0 81.0 79.3 78.4	79.9 81.0 84.0 82.2 82.4 83.5 81.0 80.1 77.2	79.5 80.4 82.8 83.0 82.1 83.0 81.8 79.9 78.7
1997 1998 1999 2000 2001	84.4 80.9 82.4 83.6 80.5 79.9 76.0	81.2 84.0 81.8 83.0 83.2 80.6 79.6 75.5	82.1 83.7 81.3 83.4 82.6 80.1 79.8 75.2	82.4 83.2 81.9 82.5 82.5 79.8 79.9 75.1	82.7 82.9 82.2 82.6 82.5 80.2 79.4 74.5	80.1 82.7 83.0 82.7 82.6 81.2 79.4 79.3 74.0	80.2 82.8 82.2 82.4 82.5 80.2 79.3 78.9 73.9	79.9 83.1 82.7 82.5 83.2 81.8 79.6 78.1 73.4	80.2 83.1 83.0 82.6 83.3 80.9 79.1 78.3 73.2	79.9 80.7 83.5 82.4 82.1 83.4 81.3 80.0 77.8 72.7	80.1 80.9 83.9 82.2 82.4 83.7 80.9 80.1 77.3 72.5	79.8 81.2 84.5 82.0 82.8 83.5 80.8 80.3 76.5 72.7	78.6 80.4 81.5 84.0 81.3 82.9 83.1 80.4 79.8 75.6	79.7 80.3 82.6 83.1 82.3 82.6 82.1 79.8 79.5 74.5	79.9 80.1 83.0 82.6 82.5 83.0 81.0 79.3 78.4 73.5	79.9 81.0 84.0 82.2 82.4 83.5 81.0 80.1 77.2 72.6	79.5 80.4 82.8 83.0 82.1 83.0 81.8 79.9 78.7 74.1
1997 1998 1999 2000	84.4 80.9 82.4 83.6 80.5 79.9	81.2 84.0 81.8 83.0 83.2 80.6 79.6	82.1 83.7 81.3 83.4 82.6 80.1 79.8	82.4 83.2 81.9 82.5 82.5 79.8 79.9	82.7 82.9 82.2 82.6 82.5 80.2 79.4	80.1 82.7 83.0 82.7 82.6 81.2 79.4 79.3	80.2 82.8 82.2 82.4 82.5 80.2 79.3 78.9	79.9 83.1 82.7 82.5 83.2 81.8 79.6 78.1	80.2 83.1 83.0 82.6 83.3 80.9 79.1 78.3	79.9 80.7 83.5 82.4 82.1 83.4 81.3 80.0 77.8	80.1 80.9 83.9 82.2 82.4 83.7 80.9 80.1 77.3	79.8 81.2 84.5 82.0 82.8 83.5 80.8 80.3 76.5	78.6 80.4 81.5 84.0 81.3 82.9 83.1 80.4 79.8	79.7 80.3 82.6 83.1 82.3 82.6 82.1 79.8 79.5	79.9 80.1 83.0 82.6 82.5 83.0 81.0 79.3 78.4	79.9 81.0 84.0 82.2 82.4 83.5 81.0 80.1 77.2	79.5 80.4 82.8 83.0 82.1 83.0 81.8 79.9 78.7
1997 1998 1999 2000 2001 2002 2003 2004	84.4 80.9 82.4 83.6 80.5 79.9 76.0 73.1 74.9 75.1	81.2 84.0 81.8 83.0 83.2 80.6 79.6 75.5 73.0 74.9 75.7	82.1 83.7 81.3 83.4 82.6 80.1 79.8 75.2 73.5 75.0 75.6	82.4 83.2 81.9 82.5 82.5 79.8 79.9 75.1 73.6 74.2 76.0	82.7 82.9 82.2 82.6 82.5 80.2 79.4 74.5 74.1 74.2 76.6	80.1 82.7 83.0 82.7 82.6 81.2 79.4 79.3 74.0 75.0 74.4 76.0	80.2 82.8 82.2 82.4 82.5 80.2 79.3 78.9 73.9 74.6 74.4 76.7	79.9 83.1 82.7 82.5 83.2 81.8 79.6 78.1 73.4 74.8 74.1 77.1	80.2 83.1 83.0 82.6 83.3 80.9 79.1 78.3 73.2 74.9 74.7 77.0	79.9 80.7 83.5 82.4 82.1 83.4 81.3 80.0 77.8 72.7 74.6 74.6 77.8	80.1 80.9 83.9 82.2 82.4 83.7 80.9 80.1 77.3 72.5 74.9 75.3 77.7	79.8 81.2 84.5 82.0 82.8 83.5 80.8 80.3 76.5 72.7 74.5 75.1 78.1	78.6 80.4 81.5 84.0 81.3 82.9 83.1 80.4 79.8 75.6 73.2 74.9 75.5	79.7 80.3 82.6 83.1 82.3 82.6 82.1 79.8 79.5 74.5 74.5 74.2 74.3 76.2	79.9 80.1 83.0 82.6 82.5 83.0 81.0 79.3 78.4 73.5 74.8 74.4 76.9	79.9 81.0 84.0 82.2 82.4 83.5 81.0 80.1 77.2 72.6 74.7 75.0 77.8	79.5 80.4 82.8 83.0 82.1 83.0 81.8 79.9 78.7 74.1 74.2 74.6 76.6
1997 1998 1999 2000 2001 2002 2003	84.4 80.9 82.4 83.6 80.5 79.9 76.0 73.1 74.9	81.2 84.0 81.8 83.0 83.2 80.6 79.6 75.5 73.0 74.9	82.1 83.7 81.3 83.4 82.6 80.1 79.8 75.2 73.5 75.0	82.4 83.2 81.9 82.5 82.5 79.8 79.9 75.1 73.6 74.2	82.7 82.9 82.2 82.6 82.5 80.2 79.4 74.5 74.1 74.2	80.1 82.7 83.0 82.7 82.6 81.2 79.4 79.3 74.0 75.0 74.4	80.2 82.8 82.2 82.4 82.5 80.2 79.3 78.9 73.9 74.6 74.4	79.9 83.1 82.7 82.5 83.2 81.8 79.6 78.1 73.4 74.8 74.1	80.2 83.1 83.0 82.6 83.3 80.9 79.1 78.3 73.2 74.9 74.7	79.9 80.7 83.5 82.4 82.1 83.4 81.3 80.0 77.8 72.7 74.6 74.6	80.1 80.9 83.9 82.2 82.4 83.7 80.9 80.1 77.3 72.5 74.9 75.3	79.8 81.2 84.5 82.0 82.8 83.5 80.8 80.3 76.5 72.7 74.5 75.1	78.6 80.4 81.5 84.0 81.3 82.9 83.1 80.4 79.8 75.6 73.2 74.9	79.7 80.3 82.6 83.1 82.3 82.6 82.1 79.8 79.5 74.5 74.5 74.2 74.3	79.9 80.1 83.0 82.6 82.5 83.0 81.0 79.3 78.4 73.5 74.8 74.4	79.9 81.0 84.0 82.2 82.4 83.5 81.0 80.1 77.2 72.6 74.7 75.0	79.5 80.4 82.8 83.0 82.1 83.0 81.8 79.9 78.7 74.1 74.2 74.6
1997 1998 1999 2000 2001 2002 2003 2004	84.4 80.9 82.4 83.6 80.5 79.9 76.0 73.1 74.9 75.1	81.2 84.0 81.8 83.0 83.2 80.6 79.6 75.5 73.0 74.9 75.7	82.1 83.7 81.3 83.4 82.6 80.1 79.8 75.2 73.5 75.0 75.6	82.4 83.2 81.9 82.5 82.5 79.8 79.9 75.1 73.6 74.2 76.0	82.7 82.9 82.2 82.6 82.5 80.2 79.4 74.5 74.1 74.2 76.6	80.1 82.7 83.0 82.7 82.6 81.2 79.4 79.3 74.0 75.0 74.4 76.0	80.2 82.8 82.2 82.4 82.5 80.2 79.3 78.9 73.9 74.6 74.4 76.7	79.9 83.1 82.7 82.5 83.2 81.8 79.6 78.1 73.4 74.8 74.1 77.1	80.2 83.1 83.0 82.6 83.3 80.9 79.1 78.3 73.2 74.9 74.7 77.0	79.9 80.7 83.5 82.4 82.1 83.4 81.3 80.0 77.8 72.7 74.6 74.6 77.8	80.1 80.9 83.9 82.2 82.4 83.7 80.9 80.1 77.3 72.5 74.9 75.3 77.7	79.8 81.2 84.5 82.0 82.8 83.5 80.8 80.3 76.5 72.7 74.5 75.1 78.1	78.6 80.4 81.5 84.0 81.3 82.9 83.1 80.4 79.8 75.6 73.2 74.9 75.5	79.7 80.3 82.6 83.1 82.3 82.6 82.1 79.8 79.5 74.5 74.5 74.2 74.3 76.2	79.9 80.1 83.0 82.6 82.5 83.0 81.0 79.3 78.4 73.5 74.8 74.4 76.9	79.9 81.0 84.0 82.2 82.4 83.5 81.0 80.1 77.2 72.6 74.7 75.0 77.8	79.5 80.4 82.8 83.0 82.1 83.0 81.8 79.9 78.7 74.1 74.2 74.6 76.6
1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007	84.4 80.9 82.4 83.6 80.5 79.9 76.0 73.1 74.9 75.1 78.5 79.0 78.0	81.2 84.0 81.8 83.0 83.2 80.6 79.6 75.5 73.0 74.9 75.7 79.0 78.6 78.2	82.1 83.7 81.3 83.4 82.6 80.1 79.8 75.2 73.5 75.0 75.6 78.5 78.4 78.4	82.4 83.2 81.9 82.5 79.8 79.9 75.1 73.6 74.2 76.0 78.6 78.7 78.9	82.7 82.9 82.2 82.6 82.5 80.2 79.4 74.5 74.1 74.2 76.6 78.7 78.1 78.8	80.1 82.7 83.0 82.7 82.6 81.2 79.4 79.3 74.0 75.0 74.4 76.0 78.7 78.2 79.1	80.2 82.8 82.2 82.4 82.5 80.2 79.3 78.9 73.9 74.6 74.4 76.7 78.4 77.9 79.1	79.9 83.1 82.7 82.5 83.2 81.8 79.6 78.1 73.4 74.8 74.1 77.1 78.3 78.1 78.7	80.2 83.1 83.0 82.6 83.3 80.9 79.1 78.3 73.2 74.9 74.7 77.0 77.2 78.0 79.0	79.9 80.7 83.5 82.4 82.1 83.4 81.3 80.0 77.8 72.7 74.6 74.6 74.6 77.8 78.1 77.5 78.4	80.1 80.9 83.9 82.2 82.4 83.7 80.9 80.1 77.3 72.5 74.9 75.3 77.7 78.6 77.4 78.6	79.8 81.2 84.5 82.0 82.8 83.5 80.8 80.3 76.5 72.7 74.5 75.1 78.1 78.5 78.5 78.6	78.6 80.4 81.5 84.0 81.3 82.9 83.1 80.4 79.8 75.6 73.2 74.9 75.5 78.7 78.7 78.7	79.7 80.3 82.6 83.1 82.3 82.6 82.1 79.8 79.5 74.5 74.5 74.2 74.3 76.2 78.7 78.3 78.9	79.9 80.1 83.0 82.6 82.5 83.0 81.0 79.3 78.4 73.5 74.8 74.4 76.9 78.0 78.0 78.0	79.9 81.0 84.0 82.2 82.4 83.5 81.0 80.1 77.2 72.6 74.7 75.0 77.8 78.4 77.8 78.4	79.5 80.4 82.8 83.0 82.1 83.0 81.8 79.9 78.7 74.1 74.2 74.6 76.6 78.4 78.2 78.7
1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008	84.4 80.9 82.4 83.6 80.5 79.9 76.0 73.1 74.9 75.1 78.5 79.0 78.0 78.0 78.2	81.2 84.0 81.8 83.0 83.2 80.6 79.6 75.5 73.0 74.9 75.7 79.0 78.6 78.2 77.6	82.1 83.7 81.3 83.4 82.6 80.1 79.8 75.2 73.5 75.0 75.6 78.5 78.5 78.4 78.5 77.3	82.4 83.2 81.9 82.5 79.8 79.9 75.1 73.6 74.2 76.0 78.6 78.6 78.7 78.9 76.3	82.7 82.9 82.2 82.6 82.5 80.2 79.4 74.5 74.1 74.2 76.6 78.7 78.1 78.8 75.9	80.1 82.7 83.0 82.7 82.6 81.2 79.4 79.3 74.0 75.0 74.4 76.0 78.7 78.2 79.1 75.5	80.2 82.8 82.2 82.4 82.5 80.2 79.3 78.9 73.9 74.6 74.4 76.7 78.4 77.9 79.1 74.8	79.9 83.1 82.7 82.5 83.2 81.8 79.6 78.1 73.4 74.8 74.1 77.1 78.3 78.1 78.7 73.9	80.2 83.1 83.0 82.6 83.3 80.9 79.1 78.3 73.2 74.9 74.7 77.0 77.2 78.0 79.0 71.4	79.9 80.7 83.5 82.4 82.1 83.4 81.3 80.0 77.8 72.7 74.6 74.6 74.6 77.8 78.1 77.5 78.4 71.1	80.1 80.9 83.9 82.2 82.4 83.7 80.9 80.1 77.3 72.5 74.9 75.3 77.7 78.6 77.4 78.6 69.8	79.8 81.2 84.5 82.0 82.8 83.5 80.8 80.3 76.5 72.7 74.5 75.1 78.1 78.5 78.5 78.6 67.7	78.6 80.4 81.5 84.0 81.3 82.9 83.1 80.4 79.8 75.6 73.2 74.9 75.5 78.7 78.7 78.7 78.2 77.7	79.7 80.3 82.6 83.1 82.3 82.6 82.1 79.8 79.5 74.5 74.5 74.2 74.3 76.2 78.7 78.3 78.9 75.9	79.9 80.1 83.0 82.6 82.5 83.0 81.0 79.3 78.4 73.5 74.8 74.4 76.9 78.0 78.0 78.0 78.9 73.3	79.9 81.0 84.0 82.2 82.4 83.5 81.0 80.1 77.2 72.6 74.7 75.0 77.8 78.4 77.8 78.4 77.8 78.6 69.5	79.5 80.4 82.8 83.0 82.1 83.0 81.8 79.9 78.7 74.1 74.2 74.6 76.6 78.4 78.2 78.7 74.1
1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009	84.4 80.9 82.4 83.6 80.5 79.9 76.0 73.1 74.9 75.1 78.5 79.0 78.0 78.0 78.2 65.8	81.2 84.0 81.8 83.0 83.2 80.6 79.6 75.5 73.0 74.9 75.7 79.0 78.6 78.2 77.6 65.8	82.1 83.7 81.3 83.4 82.6 80.1 79.8 75.2 73.5 75.0 75.6 78.5 78.4 78.5 77.3 64.6	82.4 83.2 81.9 82.5 82.5 79.8 79.9 75.1 73.6 74.2 76.0 78.6 78.7 78.9 76.3 64.2	82.7 82.9 82.2 82.6 82.5 80.2 79.4 74.5 74.1 74.2 76.6 78.7 78.1 78.8 75.9 63.6	80.1 82.7 83.0 82.7 82.6 81.2 79.4 79.3 74.0 75.0 74.4 76.0 78.7 78.2 79.1 75.5 63.5	80.2 82.8 82.2 82.4 82.5 80.2 79.3 78.9 73.9 74.6 74.4 76.7 78.4 77.9 79.1 74.8 64.5	79.9 83.1 82.7 82.5 83.2 81.8 79.6 78.1 73.4 74.8 74.1 77.1 78.3 78.1 78.7 73.9 65.4	80.2 83.1 83.0 82.6 83.3 80.9 79.1 78.3 73.2 74.9 74.7 77.0 77.2 78.0 79.0 71.4 66.0	79.9 80.7 83.5 82.4 82.1 83.4 81.3 80.0 77.8 72.7 74.6 74.6 77.6 78.1 77.5 78.4 71.1 66.3	80.1 80.9 83.9 82.2 82.4 83.7 80.9 80.1 77.3 72.5 74.9 75.3 77.7 78.6 77.4 78.6 69.8 67.1	79.8 81.2 84.5 82.0 82.8 83.5 80.8 80.3 76.5 72.7 74.5 75.1 78.1 78.1 78.5 78.6 67.7 67.3	78.6 80.4 81.5 84.0 81.3 82.9 83.1 80.4 79.8 75.6 73.2 74.9 75.5 78.7 78.7 78.7 78.2 77.7 65.4	79.7 80.3 82.6 83.1 82.3 82.6 82.1 79.8 79.5 74.5 74.5 74.5 74.2 74.3 76.2 78.7 78.3 76.9 75.9 63.8	79.9 80.1 83.0 82.6 82.5 83.0 81.0 79.3 78.4 73.5 74.8 74.4 76.9 78.0 78.0 78.0 78.0 78.9 73.3 65.3	79.9 81.0 84.0 82.2 82.4 83.5 81.0 80.1 77.2 72.6 74.7 75.0 77.8 78.4 77.8 78.4 77.8 78.6 69.5 66.9	79.5 80.4 82.8 83.0 82.1 83.0 81.8 79.9 78.7 74.1 74.2 74.6 76.6 78.4 78.2 78.7 74.1 65.3
1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008	84.4 80.9 82.4 83.6 80.5 79.9 76.0 73.1 74.9 75.1 78.5 79.0 78.0 78.0 78.2	81.2 84.0 81.8 83.0 83.2 80.6 79.6 75.5 73.0 74.9 75.7 79.0 78.6 78.2 77.6	82.1 83.7 81.3 83.4 82.6 80.1 79.8 75.2 73.5 75.0 75.6 78.5 78.5 78.4 78.5 77.3	82.4 83.2 81.9 82.5 79.8 79.9 75.1 73.6 74.2 76.0 78.6 78.6 78.7 78.9 76.3	82.7 82.9 82.2 82.6 82.5 80.2 79.4 74.5 74.1 74.2 76.6 78.7 78.1 78.8 75.9	80.1 82.7 83.0 82.7 82.6 81.2 79.4 79.3 74.0 75.0 74.4 76.0 78.7 78.2 79.1 75.5	80.2 82.8 82.2 82.4 82.5 80.2 79.3 78.9 73.9 74.6 74.4 76.7 78.4 77.9 79.1 74.8	79.9 83.1 82.7 82.5 83.2 81.8 79.6 78.1 73.4 74.8 74.1 77.1 78.3 78.1 78.7 73.9	80.2 83.1 83.0 82.6 83.3 80.9 79.1 78.3 73.2 74.9 74.7 77.0 77.2 78.0 79.0 71.4	79.9 80.7 83.5 82.4 82.1 83.4 81.3 80.0 77.8 72.7 74.6 74.6 74.6 77.8 78.1 77.5 78.4 71.1	80.1 80.9 83.9 82.2 82.4 83.7 80.9 80.1 77.3 72.5 74.9 75.3 77.7 78.6 77.4 78.6 69.8	79.8 81.2 84.5 82.0 82.8 83.5 80.8 80.3 76.5 72.7 74.5 75.1 78.1 78.5 78.5 78.6 67.7	78.6 80.4 81.5 84.0 81.3 82.9 83.1 80.4 79.8 75.6 73.2 74.9 75.5 78.7 78.7 78.7 78.2 77.7	79.7 80.3 82.6 83.1 82.3 82.6 82.1 79.8 79.5 74.5 74.5 74.2 74.3 76.2 78.7 78.3 78.9 75.9	79.9 80.1 83.0 82.6 82.5 83.0 81.0 79.3 78.4 73.5 74.8 74.4 76.9 78.0 78.0 78.0 78.9 73.3	79.9 81.0 84.0 82.2 82.4 83.5 81.0 80.1 77.2 72.6 74.7 75.0 77.8 78.4 77.8 78.4 77.8 78.6 69.5	79.5 80.4 82.8 83.0 82.1 83.0 81.8 79.9 78.7 74.1 74.2 74.6 76.6 78.4 78.2 78.7 74.1
1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011	84.4 80.9 82.4 83.6 80.5 79.9 76.0 73.1 74.9 75.1 78.5 79.0 78.0 78.0 78.2 65.8 68.0 72.9	81.2 84.0 81.8 83.0 83.2 80.6 79.6 75.5 73.0 74.9 75.7 79.0 78.6 78.2 77.6 65.8 68.0 73.0	82.1 83.7 81.3 83.4 82.6 80.1 79.8 75.2 73.5 75.0 75.6 78.5 78.4 78.5 77.3 64.6 69.0 73.6	82.4 83.2 81.9 82.5 79.8 79.9 75.1 73.6 74.2 76.0 78.6 78.7 78.9 76.3 64.2 69.7 73.1	82.7 82.9 82.2 82.6 82.5 80.2 79.4 74.5 74.1 74.2 76.6 78.7 78.1 78.8 75.9 63.6 70.9 73.3	80.1 82.7 83.0 82.7 83.0 82.7 82.6 81.2 79.4 79.3 74.0 75.0 74.4 76.0 78.7 78.2 79.1 75.5 63.5 71.1 73.3	80.2 82.8 82.2 82.4 82.5 80.2 79.3 78.9 73.9 74.6 74.4 76.7 78.4 77.9 79.1 74.8 64.5 71.7 73.9	79.9 83.1 82.7 82.5 83.2 81.8 79.6 78.1 73.4 74.8 74.1 77.1 78.3 78.1 78.7 73.9 65.4 71.9 74.1	80.2 83.1 83.0 82.6 83.3 80.9 79.1 78.3 73.2 74.9 74.7 77.0 77.2 78.0 79.0 71.4 66.0 72.0 74.4	79.9 80.7 83.5 82.4 82.1 83.4 81.3 80.0 77.8 72.7 74.6 74.6 74.6 77.8 78.1 77.5 78.4 71.1 66.3 72.2 74.8	80.1 80.9 83.9 82.2 82.4 83.7 80.9 80.1 77.3 72.5 74.9 75.3 77.7 78.6 77.4 78.6 69.8 67.1 72.3 74.6	79.8 81.2 84.5 82.0 82.8 83.5 80.8 80.3 76.5 72.7 74.5 75.1 78.5 78.6 67.7 67.3 72.7 75.3	78.6 80.4 81.5 84.0 81.3 82.9 83.1 80.4 79.8 75.6 73.2 74.9 75.5 78.7 78.7 78.7 78.7 78.2 77.7 65.4 68.4 73.1	79.7 80.3 82.6 83.1 82.3 82.6 82.1 79.8 79.5 74.5 74.2 74.3 76.2 78.7 78.3 78.9 75.9 63.8 70.6 73.2	79.9 80.1 83.0 82.6 82.5 83.0 81.0 79.3 78.4 73.5 74.8 74.4 76.9 78.0 78.0 78.0 78.0 78.0 78.0 78.3 65.3 71.9 74.1	79.9 81.0 84.0 82.2 82.4 83.5 81.0 80.1 77.2 72.6 74.7 75.0 77.8 78.4 77.8 78.4 77.8 78.6 69.5 66.9 72.4 74.9	79.5 80.4 82.8 83.0 82.1 83.0 81.8 79.9 78.7 74.1 74.2 74.6 76.6 78.4 78.2 78.7 74.1 65.3 70.8 73.8
1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012	84.4 80.9 82.4 83.6 80.5 79.9 76.0 73.1 74.9 75.1 78.5 79.0 78.0 78.0 78.0 78.0 78.0 78.0 78.0 78	81.2 84.0 81.8 83.0 83.2 80.6 79.6 75.5 73.0 74.9 75.7 79.0 78.6 78.2 77.6 65.8 68.0 73.0 76.5	82.1 83.7 81.3 83.4 82.6 80.1 79.8 75.2 73.5 75.0 75.6 78.5 78.4 78.5 77.3 64.6 69.0 73.6 76.0	82.4 83.2 81.9 82.5 79.8 79.9 75.1 73.6 74.2 76.0 78.6 78.7 78.9 76.3 64.2 69.7 73.1 76.3	82.7 82.9 82.2 82.6 82.5 80.2 79.4 74.5 74.1 74.2 76.6 78.7 78.1 78.8 75.9 63.6 70.9 73.3 76.0	80.1 82.7 83.0 82.7 82.6 81.2 79.4 79.3 74.0 75.0 74.4 76.0 78.7 78.2 79.1 75.5 63.5 71.1 73.3 76.2	80.2 82.8 82.2 82.4 82.5 80.2 79.3 78.9 73.9 74.6 74.4 76.7 78.4 77.9 79.1 74.8 64.5 71.7	79.9 83.1 82.7 82.5 83.2 81.8 79.6 78.1 73.4 74.8 74.1 77.1 78.3 78.1 78.7 73.9 65.4 71.9	80.2 83.1 83.0 82.6 83.3 80.9 79.1 78.3 73.2 74.9 74.7 77.0 77.2 78.0 79.0 71.4 66.0 72.0	79.9 80.7 83.5 82.4 82.1 83.4 81.3 80.0 77.8 72.7 74.6 74.6 77.8 78.1 77.5 78.4 71.1 66.3 72.2	80.1 80.9 83.9 82.2 82.4 83.7 80.9 80.1 77.3 72.5 74.9 75.3 77.7 78.6 77.4 78.6 69.8 67.1 72.3	79.8 81.2 84.5 82.0 82.8 83.5 80.8 80.3 76.5 72.7 74.5 75.1 78.5 78.6 67.7 67.3 72.7	78.6 80.4 81.5 84.0 81.3 82.9 83.1 80.4 79.8 75.6 73.2 74.9 75.5 78.7 78.7 78.7 78.7 78.7 78.2 77.7 65.4 68.4 73.1 76.2	79.7 80.3 82.6 83.1 82.3 82.6 82.1 79.8 79.5 74.5 74.2 74.3 76.2 78.7 78.3 78.9 75.9 63.8 70.6 73.2 76.2	79.9 80.1 83.0 82.6 82.5 83.0 81.0 79.3 78.4 73.5 74.8 74.4 76.9 78.0 78.0 78.3 65.3 71.9	79.9 81.0 84.0 82.2 82.4 83.5 81.0 80.1 77.2 72.6 74.7 75.0 77.8 78.4 78.4 77.8 78.4 69.5 66.9 72.4	79.5 80.4 82.8 83.0 82.1 83.0 81.8 79.9 78.7 74.1 74.2 74.6 76.6 78.4 78.2 78.7 74.1 65.3 70.8
1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011	84.4 80.9 82.4 83.6 80.5 79.9 76.0 73.1 74.9 75.1 78.5 79.0 78.0 78.0 78.2 65.8 68.0 72.9	81.2 84.0 81.8 83.0 83.2 80.6 79.6 75.5 73.0 74.9 75.7 79.0 78.6 78.2 77.6 65.8 68.0 73.0	82.1 83.7 81.3 83.4 82.6 80.1 79.8 75.2 73.5 75.0 75.6 78.5 78.4 78.5 77.3 64.6 69.0 73.6	82.4 83.2 81.9 82.5 79.8 79.9 75.1 73.6 74.2 76.0 78.6 78.7 78.9 76.3 64.2 69.7 73.1	82.7 82.9 82.2 82.6 82.5 80.2 79.4 74.5 74.1 74.5 74.1 74.2 76.6 78.7 78.1 78.8 75.9 63.6 70.9 73.3	80.1 82.7 83.0 82.7 82.6 81.2 79.4 79.3 74.0 75.0 74.4 76.0 78.7 78.2 79.1 75.5 63.5 71.1 73.3	80.2 82.8 82.2 82.4 82.5 80.2 79.3 78.9 73.9 74.6 74.4 76.7 78.4 77.9 79.1 74.8 64.5 71.7 73.9	79.9 83.1 82.7 82.5 83.2 81.8 79.6 78.1 73.4 74.8 74.1 77.1 78.3 78.1 78.7 73.9 65.4 71.9 74.1	80.2 83.1 83.0 82.6 83.3 80.9 79.1 78.3 73.2 74.9 74.7 77.0 77.2 78.0 79.0 71.4 66.0 72.0 74.4	79.9 80.7 83.5 82.4 82.1 83.4 81.3 80.0 77.8 72.7 74.6 74.6 74.6 77.8 78.1 77.5 78.4 71.1 66.3 72.2 74.8	80.1 80.9 83.9 82.2 82.4 83.7 80.9 80.1 77.3 72.5 74.9 75.3 77.7 78.6 77.4 78.6 69.8 67.1 72.3 74.6	79.8 81.2 84.5 82.0 82.8 83.5 80.8 80.3 76.5 72.7 74.5 75.1 78.5 78.6 67.7 67.3 72.7 75.3	78.6 80.4 81.5 84.0 81.3 82.9 83.1 80.4 79.8 75.6 73.2 74.9 75.5 78.7 78.7 78.7 78.7 78.2 77.7 65.4 68.4 73.1	79.7 80.3 82.6 83.1 82.3 82.6 82.1 79.8 79.5 74.5 74.2 74.3 76.2 78.7 78.3 78.9 75.9 63.8 70.6 73.2	79.9 80.1 83.0 82.6 82.5 83.0 81.0 79.3 78.4 73.5 74.8 74.4 76.9 78.0 78.0 78.0 78.0 78.0 78.0 78.3 65.3 71.9 74.1	79.9 81.0 84.0 82.2 82.4 83.5 81.0 80.1 77.2 72.6 74.7 75.0 77.8 78.4 77.8 78.4 77.8 78.6 69.5 66.9 72.4 74.9	79.5 80.4 82.8 83.0 82.1 83.0 81.8 79.9 78.7 74.1 74.2 74.6 76.6 78.4 78.2 78.7 74.1 65.3 70.8 73.8

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

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

EXPLANATORY NOTE

The **Industrial Production and Capacity Utilization** statistical release, which is published around the middle of the month, reports measures of output, capacity, and capacity utilization in manufacturing, mining, and the electric and gas utilities industries. More detailed descriptions of industrial production and capacity utilization are available on the Board's website at **www.federalreserve.gov/releases/G17**. In addition, files containing data shown in the release, more detailed series that were published in the G.17 prior to December 2000, and historical data are available from the Data Download Program on the Board's website. Instructions for searching for and downloading specific series are provided as well.

INDUSTRIAL PRODUCTION

Coverage. The industrial production (IP) index measures the real output of all manufacturing, mining, and electric and gas utility establishments located in the United States, regardless of their ownership, but not those located in U.S. territories; the reference period for the index is 2007. Manufacturing consists of those industries included in the North American Industry Classification System (NAICS) definition of manufacturing plus those industriesnewspaper, periodical, book, and directory publishing plus logging-that have traditionally been considered to be manufacturing. For the period since 1997, the total IP index has been constructed from 312 individual series based on the 2007 NAICS codes. These individual series are classified in two ways: (1) market groups, and (2) industry groups. Market groups consist of products and materials. Total products are the aggregate of final products, such as consumer goods and equipment, and nonindustrial supplies (which are inputs to nonindustrial sectors). Materials are inputs in the manufacture of products. Major industry groups include three-digit NAICS industries and aggregates of these industries-for example, durable and nondurable manufacturing, mining, and utilities. A complete description of the market and industry structures, including details regarding series classification, relative importance weights, and data sources, is available on the Board's web site (www.federalreserve.gov/releases/G17/About.htm).

Source data. On a monthly basis, the individual indexes of industrial production are constructed from two main types of source data: (1) output measured in physical units and (2) data on inputs to the production process, from which output is inferred. Data on physical products, such as tons of steel or barrels of oil, are obtained from private trade associations and from government agencies; data of this type are used to estimate monthly IP wherever possible and appropriate. Production indexes for a few industries are derived by dividing estimated nominal output (calculated using unit production and unit values or sales) by a corresponding Fisher price index; the most notable of these fall within the high-technology grouping and include computers, communications equipment, and semiconductors. When suitable direct measures of product are not available, estimates of output are based on production-worker hours by industry. Data on hours worked by production workers are collected in the monthly establishment survey conducted by the Bureau of Labor Statistics. The factors used to convert inputs into estimates of production are based on historical relationships between the inputs and the comprehensive annual data used to benchmark the IP indexes; these factors also may be influenced by technological or cyclical developments. The annual data used in benchmarking the individual IP indexes are constructed from a variety of source data, such as the quinquennial Censuses of Manufactures and Mineral Industries and the Annual Survey of Manufactures, prepared by the Bureau of the Census; the Minerals Yearbook, prepared by the United States Geological Survey of the Department of the Interior; and publications of the Department of Energy.

Aggregation Methodology and Weights. The aggregation method for the IP index is a version of the Fisher-ideal index formula. (For a detailed discussion of the aggregation method, see the *Federal Reserve Bulletins* of February 1997 and March 2001.) In the IP index, series that measure the output of an individual industry are combined using weights derived from their proportion in the total value-added output of all industries. The IP index, which extends back to 1919, is built as a chain-type index since 1972. The current formula for the growth in monthly IP (or any of the sub-aggregates) since 1972 is shown below. An output index for month m is denoted by I_m^A for aggregate A and I_m for each of its components. The monthly price measure in the formula (p_m) is interpolated from an annual series of value added divided by the average annual IP index.

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

The IP proportions (typically shown in the first column of the relevant tables in the G.17 release) are estimates of the industries' relative contributions to overall growth in the following year. For example, the relative importance weight of the motor vehicles and parts industry is about 6 percent. If output in this industry increased 10 percent in a month, then this gain would boost growth in total IP by 6/10 percentage point (0.06 x 10% = 0.6%). To assist users with calculations, the Federal Reserve's web site provides supplemental monthly statistics that represent the exact proportionate contribution of a monthly change in a component index to the monthly change in the total index (www.federalreserve.gov/releases/G17/ipdisk/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 67 percent of the source data increases to 81 percent for estimates in the second month that the estimate is published, 93 percent in the third month, 96 percent in the fourth month. Data availability by data type in early 2011 is summarized in the table below:

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

	Month of estimate										
Type of data	1st	2nd	3rd	4th	5th	6th					
Physical product	27	41	53	55	58	58					
Production-worker hours	41	41	41	41	41	41					
IP data received	67	81	93	96	99	99					
IP data estimated	33	19	7	4	1	1					

The physical product group includes series based on either monthly or quarterly data. As can be seen in the first row of the table, in the first month, a physical product indicator is available for about half of the series (in terms of value added) that ultimately are based on physical product data (27 percent out of a total of 58 percent). Of the 27 percent, about two-thirds (19 percent of total IP) include series that are derived from weekly physical product data and for which actual monthly data may lag up to several months. On average, quarterly product data are received for the fourth estimate of industrial production. Specifically, quarterly data are available for the third estimate of the last month of a quarter, the fourth estimate of the second month of a quarter, and the fifth estimate of the first month of a quarter.

Seasonal adjustment. Individual series are seasonally adjusted using Census X-12 ARIMA. For series based on production-worker hours, the current seasonal factors were estimated with data through January 2013; for other series, the factors were estimated with data through at least December 2012. Series are pre-adjusted for the effects of holidays or business cycles when appropriate. For the data since 1972, all seasonally adjusted aggregate indexes are calculated by aggregating the seasonally adjusted indexes of the individual series.

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

0.27 percent during the 1987-2010 period. The average revision to the *percent change* in total IP, without regard to sign, from the first to the fourth estimates was 0.21 percentage point during the 1987-2010 period. In most cases (about 85 percent), the direction of the change in output indicated by the first estimate for a given month is the same as that shown by the fourth estimate.

Rounding. The published percent changes are calculated from unrounded indexes, and may not be the same as percent changes calculated from the rounded indexes shown in the release.

CAPACITY UTILIZATION

Overview. The Federal Reserve Board constructs estimates of capacity and capacity utilization for industries in manufacturing, mining, and electric and gas utilities. For a given industry, the capacity utilization rate is equal to an output index (seasonally adjusted) divided by a capacity index. The Federal Reserve Board's capacity indexes attempt to capture the concept of sustainable *maximum output*—the greatest level of output a plant can maintain within the framework of a realistic work schedule, after factoring in normal downtime and assuming sufficient availability of inputs to operate the capital in place.

Coverage. The capacity indexes cover all facilities located in the United States, regardless of their ownership, but not those located in U.S. territories. Capacity indexes are constructed for 89 detailed industries (71 in manufacturing, 16 in mining, and 2 in utilities), which mostly correspond to industries at the three- and four-digit NAICS level. Estimates of capacity and utilization are available for a variety of groups, including durable and nondurable manufacturing, total manufacturing, mining, utilities, and total industry. Manufacturing consists of those industries included in the North American Industry Classification System (NAICS) definition of manufacturing plus those industries- newspaper, periodical, book, and directory publishing plus logging-that have traditionally been considered to be manufacturing. Also, special aggregates are available, such as high-technology industries and manufacturing excluding high-technology industries.

Source Data. The monthly rates of capacity utilization are designed to be consistent with both the monthly data on production and the periodically available data on capacity and utilization. Because there is no direct monthly information on overall industrial capacity or utilization rates, the Federal Reserve first estimates annual capacity indexes from the source data. Capacity data reported in physical units from government sources (primarily from the U.S. Geological Survey and the Department of Energy's Energy Information Administration) and trade sources are available for portions of several industries in manufacturing (e.g., paper, industrial chemicals, petroleum refining, motor vehicles), as well as for electric utilities and mining; these industries represent about 25 percent of total industrial capacity. When physical product data are unavailable for manufacturing industries, capacity indexes are based on responses to the Bureau of the Census's Quarterly Survey of Plant Capacity (QSPC); these industries account for a bit less than 70 percent of total industry capacity. In the absence of utilization data for a few mining and petroleum series, capacity is based on trends through peaks in production (roughly 5 percent of total industry capacity). A detailed description of the methodology used to construct the capacity indexes is available on the Board's web site (www.federalreserve.gov/releases/G17/CapNotes.htm).

Aggregation Methodology. Monthly capacity aggregates are calculated in three steps: (1) utilization aggregates are calculated on an annual basis through the most recent full year as capacity-weighted aggregates of individual utilization rates; (2) the annual aggregate capacity is derived from the corresponding production and utilization aggregates; (3) the monthly capacity aggregate is obtained by interpolating the annual capacity aggregate with a Fisher index of its constituent monthly capacity series. Utilization rates for the individual series and aggregates are calculated by dividing the pertinent monthly production index by the related capacity index.

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

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

Perspective. Over the 1972–2012 period, the average total industry utilization rate is 80.2 percent; for manufacturing, the average factory operating rate has been 78.7 percent. Industrial plants usually operate at capacity utilization rates that are well below 100 percent: none of the broad aggregates has ever reached 100 percent. For total industry and total manufacturing, utilization rates have exceeded 90 percent only in wartime. The highs and lows in capacity utilization are specific to each series and do not all occur in the same month.

REFERENCES AND RELEASE DATES

References. The release for the annual revision that was published on March 22, 2013 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 an on-line staff study (www.federalreserve.gov/releases/g17/articles/rev2010/industrial10.pdf).

Release Schedule

At 9:15 a.m. on

2013: January 16, February 15, March 15, April 16, May 15, June 14, July 16, August 15, September 16, October 17, November 15, and December 16.