FEDERAL RESERVE statistical release



Aug. '12 to

G.17 (419)

For release at 9:15 a.m. (EDT) September 16, 2013

Percent change

INDUSTRIAL PRODUCTION AND CAPACITY UTILIZATION

2013

Industrial production advanced 0.4 percent in August after having been unchanged in July; the gains in August were broadly based. Following a decrease in July of 0.4 percent, which was steeper than previously reported, manufacturing production rose 0.7 percent in August. The output of mines moved up 0.3 percent, its

(over)

2013

Industrial Production and Capacity Utilization: Summary

Seasonally adjusted

Industrial production	Mar.	Apr.r	May^{r}	June ^r	$July^{r}$	Aug. ^p	Mar.	Apr. ^r	May	June ^r	July ^r	Aug. ^p	Aug. '13
Total index	99.1	98.7	98.9	99.0	99.0	99.4	.3	3	.1	.1	.0	.4	2.7
Previous estimates	99.0	98.7	98.7	98.9	98.9	77.4	.2	3 4	.0	.2	.0	.4	2.7
1 revious estimates	77.0	76.7	76.7	76.7	76.7		.2		.0	.2	.0		
Major market groups													
Final Products	97.2	96.8	96.6	97.0	96.5	96.9	.6	5	2	.4	5	.5	2.1
Consumer goods	94.8	94.2	94.0	94.3	93.9	94.1	.8	7	2	.3	5	.3	2.3
Business equipment	102.4	102.3	102.0	102.8	101.8	102.8	.1	1	3	.7	9	.9	2.5
Nonindustrial supplies	88.3	87.9	87.9	87.9	87.5	87.6	.0	5	.0	.1	5	.1	1.7
Construction	81.9	81.0	80.6	81.2	81.5	81.8	-1.1	-1.1	5	.7	.5	.3	5.3
Materials	104.6	104.4	104.8	104.7	105.3	105.7	.1	2	.4	1	.5	.4	3.4
M													
Major industry groups	05.5	05.1	05.4	05.7	05.2	060		4	2	2	4	7	2.6
Manufacturing (see note below)	95.5	95.1	95.4	95.7	95.3	96.0	2 3	4	.2	.3 .2	4	.7	2.6
Previous estimates	95.5 115.8	95.1	95.3	95.5 118.3	95.4 121.1	121.4	3	4 .8	.s .8	.5	1 2.4	.3	7.5
Mining		116.8	117.6			121.4	5.0		.8 -1.8	-2.0	-1.3	.s -1.5	7.5
Utilities	103.8	102.1	100.3	98.3	97.1	95.6	3.0	-1.6	-1.8	-2.0	-1.5	-1.5	-3.9
													Capacity
					Perce	nt of cap	acity						growth
	Average	1988-	1990-	1994-									
	1972-	89	91	95	2009	2012	2013						Aug. '12 to
Capacity utilization	2012	high	low	high	low	Aug.	Mar. ^r	Apr. ^r	May	June ^r	July	Aug. ^p	Aug. '13
		0.7.4		0.50				0	0	0		0	
Total industry	80.2	85.2	78.8	85.0	66.9	77.2	78.2	77.8	77.8	77.8	77.6	77.8	1.8
Previous estimates							78.2	77.8	77.7	77.7	77.6		
M	78.7	85.6	77.3	84.6	64.0	75.4	76.3	75.9	75.9	76.1	75.7	76.1	1.5
Manufacturing (see note below) Previous estimates	/6./	83.0	11.3	64.0	04.0	/3.4	76.2	75.9 75.8	75.9 75.9	75.9	75.8	70.1	1.3
Mining	87.3	86.3	83.9	88.6	78.3	87.2	87.4	87.8	88.1	88.3	90.1	90.0	4.2
Utilities	86.2	92.9	84.3	93.3	78.6	78.5	81.3	79.9	78.5	76.8	75.8	74.7	1.1
Oundes	00.2	92.9	04.3	93.3	/ 0.0	/ / / / /	01.3	17.7	10.3	70.8	13.6	/4./	1.1
Stage-of-process groups	I	1											
Stage-of-process groups													
Crude	86.3	87.7	84.4	89.7	76.4	85.7	86.0	86.2	86.8	86.5	87.8	87.8	3.2
Crude	86.3 81.0	87.7 86.5	84.4 78.0	89.7 87.9	76.4 64.4	85.7 75.0	86.0 76.9	86.2 76.3	86.8 76.1	86.5 75.7	87.8 75.6	87.8 75.7	3.2 .6

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.

fifth consecutive monthly increase, and the production of utilities fell 1.5 percent, its fifth consecutive monthly decrease. At 99.4 percent of its 2007 average, total industrial production in August was 2.7 percent above its year-earlier level. Capacity utilization for the industrial sector increased 0.2 percentage point in August to 77.8 percent, a rate 0.6 percentage point above its level of a year earlier and 2.4 percentage points below its long-run (1972–2012) average.

Market Groups

The production of consumer goods increased 0.3 percent in August after having decreased 0.5 percent in July; in August, the index stood 2.3 percent above its year-earlier level. As a result of a rebound in automotive products, the production of durable consumer goods rose 2.5 percent to reverse a similarly sized decline in July. The indexes for appliances, furniture, and carpeting and for home electronics also posted gains in August, while the output of miscellaneous goods was unchanged for a second month in a row. The index for consumer nondurables declined 0.3 percent in August, its fifth consecutive month without an increase. The output of non-energy nondurables was unchanged; gains for foods and tobacco and for clothing offset losses for chemical products and for paper products. After having moved up 1.7 percent in July, the output of consumer energy products moved down 1.5 percent in August, with decreases for both fuels and utilities.

After a decrease of 0.9 percent in July, the index for business equipment reversed that loss with an increase of 0.9 percent in August; production was 2.5 percent above its level of a year earlier. The index for transit equipment moved up 3.6 percent, the production of information processing equipment rose 1.2 percent, and the index for industrial and other equipment edged down 0.2 percent.

The output of defense and space equipment rose 1.0 percent in August following a decline of 0.1 percent in July. The index for August stood 0.8 percent above its year-earlier level.

In August, the output of construction supplies advanced 0.3 percent, its third consecutive monthly increase, and the index was 5.3 percent above its level of a year earlier. The production of business supplies was unchanged in August and little changed from its year-earlier level.

The production of materials to be processed further in the industrial sector increased 0.4 percent in August and was 3.4 percent above its year-earlier level. The output of durable materials rose 1.0 percent in August. The production of consumer parts advanced 2.5 percent after two consecutive monthly declines, and the output of equipment parts rose 1.7 percent. The production of nondurable materials moved up 0.7 percent; textile, paper, and chemical materials each registered gains of 0.6 percent or more. The output of energy materials decreased 0.3 percent; the index for this market group was 4.4 percent above its level of a year earlier.

Industry Groups

Manufacturing output rose 0.7 percent in August after having decreased 0.4 percent in July. The index in August was 2.6 percent above its year-earlier level. The factory operating rate increased 0.4 percentage point to 76.1 percent, a rate 2.6 percentage points below its long-run average.

The output of durable goods jumped 1.2 percent in August after having declined 0.6 percent in July. In August, the production of motor vehicles and parts rebounded 5.2 percent after having fallen a downwardly revised 4.5 percent in July. In August, the indexes for wood products; computer and electronic products; electrical equipment, appliances, and components; aerospace and miscellaneous transportation equipment; and furniture and related products all posted increases in the range from 1.0 percent to 1.7 percent. Nonmetallic mineral products, fabricated metal products, and machinery each recorded smaller gains. The production of

primary metals decreased 0.3 percent after a large increase in July, and the output of miscellaneous manufacturing moved down 0.8 percent in August, its second consecutive monthly decline. Capacity utilization for durable goods manufacturing increased 0.7 percentage point to 76.2 percent, a rate 0.8 percentage point below its long-run average.

The production of nondurable goods edged up 0.1 percent in August and was 1.5 percent above its level of a year earlier. Among the major components of nondurables, the indexes for apparel and leather and for paper both advanced by more than 1 percent, while smaller gains were recorded for food, beverage, and tobacco products; textile and product mills; and printing and support. Petroleum and coal products, chemicals, and plastics and rubber products all posted declines. The operating rate for nondurables edged up 0.1 percentage point to 77.4 percent, a rate 3.3 percentage points below its long-run average.

Production for non-NAICS manufacturing industries (publishing and logging) moved down 0.2 percent in August. The index was 3.4 percent below its year-earlier level.

Mining output increased 0.3 percent in August and stood 7.5 percent above its year-earlier level. The operating rate for mines edged down 0.1 percentage point to 90.0 percent, a rate 2.7 percentage points above its long-run average. The production of electric and gas utilities fell 1.5 percent, and the operating rate for the sector declined 1.1 percentage points to 74.7 percent, a rate 11.5 percentage points below its long-run average.

Capacity utilization rates in August for industries grouped by stage of process were as follows: At the crude stage, utilization was unchanged at 87.8 percent, a rate 1.5 percentage points above its long-run average; at the primary and semifinished stages, utilization increased 0.1 percentage point to 75.7 percent, a rate 5.3 percentage points below its long-run average; and at the finished stage, utilization moved up 0.4 percentage point to 75.8 percent, a rate 1.3 percentage points lower than its long-run average.

Tables

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

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

Rebasing of Gross Value of Products Series

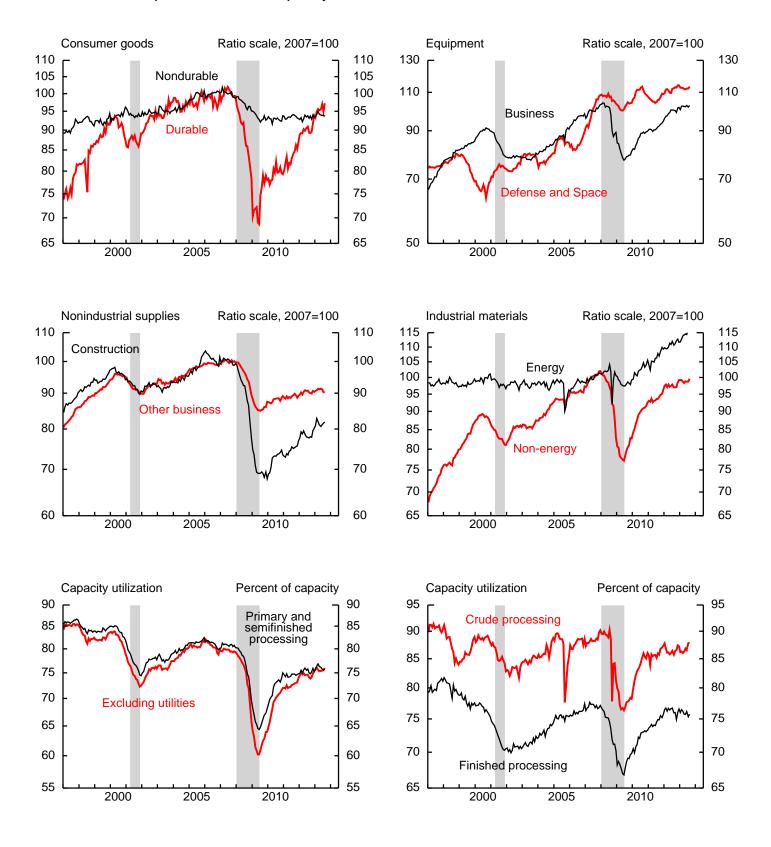
With the October 17, 2013, release of the G.17, the comparison base year for the data in Table 9, Gross Value of Final Products and Nonindustrial Supplies, and in Table 10, Gross-Value-Weighted Industrial Production: Stage-of-Process Groups, will be advanced to 2009 to conform with the comparison base year of the national income and product accounts issued by the Bureau of Economic Analysis.

1. Industrial production, capacity, and utilization



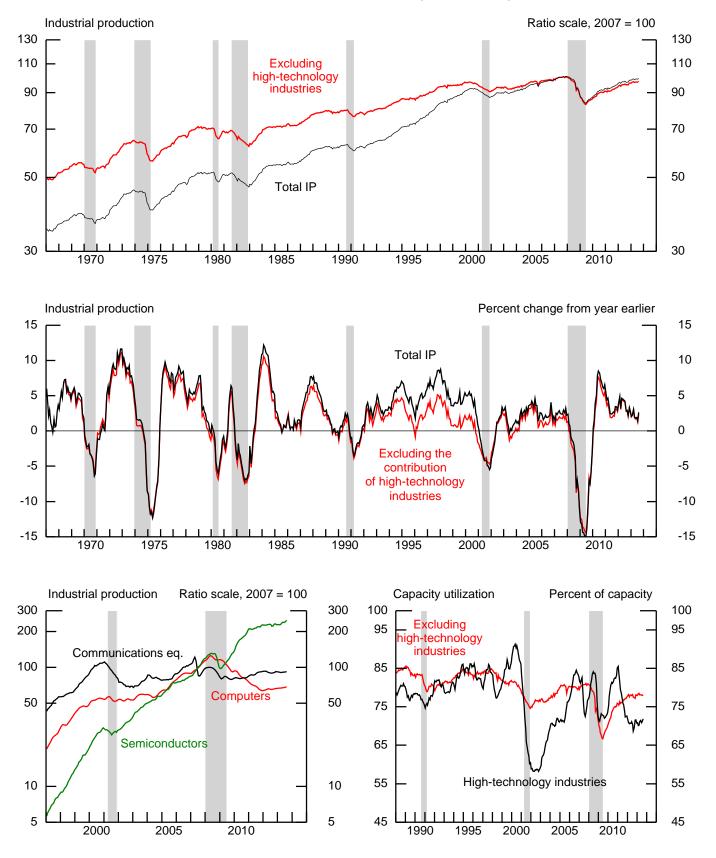
Note: The shaded areas are periods of business recession as defined by the National Bureau of Economic Research (NBER).

2. Industrial production and capacity utilization



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

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



Notes: High-technology industries are defined as semiconductors and related electronic components (NAICS 334412-9), computers (NAICS 3341), and communications equipment (NAICS 3342).

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

Table 1 INDUSTRIAL PRODUCTION: MARKET AND INDUSTRY GROUP SUMMARY

Percent change, seasonally adjusted

Percent change, seasonally adjusted			1	th quarte											
Item		2012	fou	rth quar	ter	2012	nnual ra 2013	te	2013		Month	ıly rate			Aug. '12 to
		proportion ¹	2010	2011	2012	Q4	Q1 ^r	Q2 ^r	Mar. ^r	Apr.r	May ^r	June ^r	July ^r	Aug. ^p	Aug. '13
Total IP		100.00	6.2	3.3	2.8	2.5	4.1	.7	.3	3	.1	.1	.0	.4	2.7
MARKET GROUPS															
Final products and nonindustrial supplie	es	53.46	3.7	2.4	2.6	1.4	5.1	.5	.4	5	1	.3	5	.4	2.0
Consumer goods		27.14	.3	2.0	1.4	1.2	5.7	.6	.8	7	2	.3	5	.3	2.3
Durable		5.81	2.3	7.9	6.4	8.7	13.2	5.7	.7	4	.3	1.5	-2.2	2.5	8.9
Automotive products		2.98	.6	14.7	7.1	12.5	14.3	11.1	1.8	4	.7	1.9	-4.2	4.4	12.4
Home electronics		.14	-20.0	5.7	-1.8	3.8	2.2	5.7	1.5	1	-2.8	3.0	-2.9	.6	.7
Appliances, furniture, carpeting		.78 1.91	8.0	1.1	3.3 7.3	2.1	5.6 15.4	3.0	.3 8	.1 5	1.1	.2 1.4	.1	2.0	5.3 5.6
Miscellaneous goods Nondurable		21.33	2	.4	.1	7	3.7	-1.2	8	7	3	.0	.0	3	.5
Non-energy		16.04	8	1.0	1	-1.1	3.8	-2.3	6	7	.2	.8	5	.0	.7
Foods and tobacco		9.11	.7	.7	2.3	-3.7	7.0	-4.9	-1.0	-1.6	.1	1.0	5	.6	1.0
Clothing		.20	11.4	-8.0	-2.4	-1.5	13.9	-7.3	-1.8	-2.7	2.5	.6	6	1.3	4.2
Chemical products		4.87	-3.1	3.1	-3.0	1.6	2	2.2	.4	.7	.1	.4	5	-1.0	.1
Paper products		1.36	-4.1	-1.4	-8.1	2.4	-4.5	.0	-1.8	.3	1.1	1.0	8	2	6
Energy		5.29	1.4	-1.1	.7	.6	3.7	3.6	5.1	7	-1.8	-2.5	1.7	-1.5	.1
Business equipment		9.61	12.0	5.0	7.2	1.6	4.4	2.5	.1	1	3	.7	9	.9	2.5
Transit		2.16	11.4	6.5	13.6	5.8	-2.2	9.1	1.6	.7	7	1.3	-3.2	3.6	4.0
Information processing		2.09	3.5	1.4	7.8	6.8	4.3	3	8	.2	.9	-1.0	1	1.2	3.7
Industrial and other		5.36	16.4 4.6	6.0	4.5	-2.1 4.1	7.3 -3.5	1.0 -2.2	2 .0	5 4	5	1.2	3	2	1.5
Defense and space equipment		2.29	4.0	2	4.8	4.1	-3.3	-2.2	.0	4	4	.0	1	1.0	.8
Construction supplies Business supplies		4.16 9.47	8.1 2.3	2.7 .7	4.2 1.4	7.2	14.5 2.8	-4.6 1.2	-1.1 .6	-1.1 2	5 .2	.7 2	.5 -1.0	.3 .0	5.3 .1
Materials		46.54	9.4	4.3	2.9	3.8	3.1	1.0	.1	2	.4	1	.5	.4	3.4
Non-energy		29.02	11.6	4.0	3.0	4.2	3.5	-1.8	5	4	.5	.0	.0	.9	2.7
Durable		17.64	18.4	7.5	3.9	3.7	4.6	-1.6	6	4	.3	.2	.2	1.0	3.6
Consumer parts		2.61	27.8	6.5	13.2	4.2	9.5	-5.7	-1.4	7	.5	4	-1.9	2.5	3.2
Equipment parts		6.49	23.8	12.1	1.8	2.0	2.0	5.5	4	.8	.4	.6	2 1.2	1.7	5.6
Other Nondurable		8.54 11.39	11.7	4.3	2.8	4.9	5.1	-5.4 -2.2	5 4	-1.3 4	.2	.0	3	.0	2.2
Textile		.44	4.9	-1.3	-1.1	-10.1	1.0	-11.3	.6	-2.7	-1.0	2.1	-1.4	.7	-4.7
Paper		1.98	.8	-1.3	-2.2	2.1	3.9	1	5	6	1.5	5	4	1.0	1.9
Chemical		5.65	5.0	-1.6	3.7	10.9	3	7	7	.0	1.0	4	7	.6	2.5
Energy		17.51	5.9	4.8	2.7	3.2	2.2	5.7	1.1	.3	.3	2	1.4	3	4.4
INDUSTRY GROUPS															
Manufacturing		75.46	6.4	3.3	2.8	2.4	4.9	4	2	4	.2	.3	4	.7	2.6
Manufacturing (NAICS)	31–33	72.70	6.9	3.4	3.3	2.7	5.4	4	2	4	.2	.3	4	.7	2.8
Durable manufacturing	221	38.30	12.2	6.3	5.3	3.7	6.4	.9	2	3	.2	.5	6	1.2	4.0
Wood products Nonmetallic mineral products	321 327	.89 1.53	4.2 9.5	1.2	7.1	21.7	15.5 10.1	-8.7 -1.6	-1.2 3	-2.8 -2.5	.6 2.6	.5	6 4	1.7	8.4 4.4
Primary metals	331	3.11	12.3	8.8	-2.6	9	3.6	-9.4	-2.2	-2.3	.2	-1.6	4.1	3	4
Fabricated metal products	332	5.64	12.9	6.3	5.8	1.2	10.0	-1.6	-2.2	4	5	.5	2	.4	2.8
Machinery	333	5.78	21.2	8.4	2.9	-4.6	10.2	.5	2	7	9	1.9	8	.8	2.8
Computer and electronic products	334	6.10	17.8	7.2	5.6	8.6	2.0	6.1	.0	1.0	1.0	5	.3	1.6	6.9
Electrical equip., appliances,															
and components	335	1.84	12.9	2.4	3.6	5.2	.3	-3.2	-1.8	8	.7	.6	3	1.0	2.7
Motor vehicles and parts	3361–3	4.61	15.3	11.7	13.8	9.8	7.1	7.7	1.4	4	.6	1.2	-4.5	5.2	8.4
Aerospace and miscellaneous transportation equipment	3364–9	4.59	1.4	6.4	4.8	2.6	.9	1.7	.0	.3	5	.6	-1.2	1.0	1.5
Furniture and related products	3304-9	1.04	5.2	1.8	3.3	-4.1	11.0	4.8	.0	1.0	5 1	.o 2	1.3	1.5	5.5
Miscellaneous	339	3.17	2.9	1	8.4	7.9	10.3	.5	.4	-1.1	.2	1.6	-1.2	8	3.6
Nondurable manufacturing		34.39	1.5	5	1.0	1.5	12	-1.8	2	-	2	1	1	1	1.5
Nondurable manufacturing Food, beverage, and tobacco products	311,2	11.08	1.5	.5 .5	1.0 2.5	1.5 -3.5	4.3 6.6	-1.8 -4.9	2 8	5 -1.4	.3 .0	.1 .9	1 2	.1 .6	1.5 1.0
Textile and product mills	313,4	.71	4.0	.2	5	-3.8	-1.2	-9.0	6	-2.0	7	1.5	2	.0	-3.2
Apparel and leather	315,6	.26	6.5	-5.3	-2.6	5	14.2	-6.3	-2.1	-2.6	2.9	.8	4	1.2	5.3
Paper	322	2.41	.9	5	-2.3	3.8	3.1	2	-1.3	1	1.8	-1.4	.2	1.1	2.3
Printing and support	323	1.41	2.2	-3.3	-1.7	-7.2	4.5	1.3	1.1	6	.7	1	8	.4	-1.0
Petroleum and coal products	324	3.95	.7	3.3	-1.3	5.9	10.8	-7.1	4	-1.7	.5	8	1.3	7	2.1
Chemicals Plastics and rubber products	325 326	11.67 2.90	1.2 7.7	.3 .7	.7 4.6	5.6 3.7	1 5.9	1.4 5.1	.1 1.6	.7 1	.0	2 .4	4 .0	2 2	1.3 4.4
Other manufacturing (non-NAICS)	1133,5111	2.76	-5.6	3	-7.7	-4.9	-7.2	7	-1.2	.1	1.0	.5	4	2	-3.4
Mining	21	14.62	8.7	7.6	4.3	7.7	7	6.9	2	.8	.8	.5	2.4	.3	7.5
Utilities	2211,2	9.92	2.7	-2.3	.1	-3.9	5.2	.2	5.0	-1.6	-1.8	-2.0	-1.3	-1.5	-3.9
Electric	2211	8.80	2.6	-1.8	3	-4.6	5.5	.5	4.0	-1.2	-1.2	-1.9	-1.9	-1.6	-4.4
Natural gas	2212	1.13	3.8	-5.7	3.7	1.2	3.0	-2.2	12.1	-4.3	-5.5	-2.9	3.4	6	2
		I .	1			1									l .

r Revised. p Preliminary.

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

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

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

ercent change, seasonally adjusted			т.												1
				rth quarte			nnual rat	_			Mandle	.1			A ,10
Item		2012	10	urth quar	ter	2012	2013	e	2013		Monu	nly rate			Aug. '12 to
nem		proportion	2010	2011	2012	Q4	Q1 ^r	Q2 ^r	Mar. ^r	Apr.r	May ^r	June ^r	July ^r	Aug.p	Aug. '13
		proportion	2010	2011	2012	<u> </u>	٧.	Ψ-	172411	p	1,14,	vane	o ary	1145.	1146. 1
Total industry		100.00	6.2	3.3	2.8	2.5	4.1	.7	.3	3	.1	.1	.0	.4	2.7
Energy		26.50	5.1	3.3	1.9	1.6	2.3	4.6	1.9	.0	2	8	1.1	5	2.5
Consumer products		5.29	1.4	-1.1	.7	.6	3.7	3.6	5.1	7	-1.8	-2.5	1.7	-1.5	.1
Commercial products	212111	2.95	1.7	2	1.4	8	2.9	.7	1.3	3	1	-1.5	-2.1	5	-3.0
Oil and gas well drilling Converted fuel	213111	.75	45.2	21.3	-7.6	-17.9	-7.8 4.4	8	.0	7	.1	.5	.6	1.2	-5.0
		3.98 13.53	3.0 7.0	-1.3 6.6	.1 3.5	-4.8 5.7	1.6	-7.0 9.6	5.3	-5.0 1.9	8 .6	-1.6 .2	3 1.9	-1.8 .0	-4.4 7.0
Primary energy		15.55	7.0	0.0	3.3	3.7	1.0	9.0	1	1.9	.0	.2	1.9	.0	7.0
Non-energy		73.50	6.6	3.3	3.1	2.8	4.8	7	3	5	.2	.5	4	.8	2.7
Selected high-technology industries		3.22	27.2	9.7	2.3	10.0	-1.6	12.0	.5	2.0	1.2	1	1.3	1.7	9.9
Computers and peripheral equipment	3341	.33	-15.2	-18.4	3.6	5.6	3.3	2.9	.0	.2	.3	.5	.6	.6	4.9
Communications equipment	3342	.57	3.3	11.6	4	7.2	-1.0	9	7	.1	.2	.2	.4	.1	2.2
Semiconductors and related	3372	.51	3.3	11.0		1.2	1.0	/	,	.1	.2	.2		.1	2.2
electronic components	334412-9	2.32	49.3	14.7	2.8	11.4	-2.3	16.6	.9	2.7	1.5	2	1.6	2.2	12.5
•															
Excluding selected high-technology															
industries		70.28	5.6	3.0	3.1	2.5	5.1	-1.2	4	6	.2	.5	5	.7	2.4
Motor vehicles and neuts	2261.2	1 (1	15.2	11.7	12.0	0.0	7.1	77	1.4	4		1.2	1.5	<i>5</i> 2	0.4
Motor vehicles and parts	3361-3	4.61	15.3	11.7	13.8	9.8	7.1	7.7	1.4	4	.6	1.2	-4.5	5.2	8.4
Motor vehicles Motor vehicle parts	3361 3363	2.20 2.11	9.8 23.0	17.2 6.5	13.3 14.3	12.8 3.7	7.9 7.2	16.1 .2	2.7	2 6	.7 .5	2.4	-6.6 -2.1	8.4 2.2	13.7 2.9
wood venicle parts	3303	2.11	23.0	0.5	14.3	3.7	1.2	.∠	د. ا	0	.3	3	-∠.1	2.2	2.9
Excluding motor vehicles and parts		65.67	4.9	2.4	2.4	2.0	4.9	-1.8	5	6	.1	.4	2	.4	2.0
Consumer goods		19.28	.0	1.3	.8	4	5.2	-1.8	5	7	.2	.9	5	.1	1.4
Business equipment		8.26	11.9	5.9	6.6	1.4	7.1	2.4	.0	1	3	.7	7	.5	2.8
Construction supplies		4.14	8.2	2.7	4.2	7.2	14.6	-4.6	-1.1	-1.1	5	.7	.5	.3	5.4
Business supplies Materials		6.23 25.44	.9 7.5	.4 2.9	1.3 2.1	2 3.5	2.9 3.7	.8 -3.3	.2	3 6	.3 .4	.4	6 .1	.1 .6	1.0 1.9
iviateriais		23.44	7.3	2.9	2.1	3.3	3.7	-3.3	/	0	.4	.0	.1	.0	1.9
Measures excluding selected															
high-technology industries															
Total industry		96.78	5.5	3.1	2.8	2.2	4.3	.3	.3	4	.1	.1	1	.4	2.4
Manufacturing ¹		72.24	5.3	3.0	2.9	2.1	5.2	9	3	5	.2	.3	4	.6	2.3
Durable		35.23	10.6	5.9	5.6	3.1	7.1	.0	3	5	.1	.6	8	1.1	3.5
Measures excluding motor vehicles and parts															
Total industry		95.39	5.8	3.0	2.3	2.2	4.0	.4	.2	3	.1	.1	.2	.2	2.4
Manufacturing ¹		70.85	5.8	2.8	2.3	2.0	4.8	9	4	3 4	.2	.3	1	.4	2.4
Durable		33.84	11.7	5.6	4.2	2.9	6.3	.0	4	3	.1	.5	.0	.6	3.4
Measures excluding selected															
high-technology industries															
and motor vehicles and parts															
Total industry		92.17	4.9	2.7	2.2	1.9	4.2	.0	.2	4	.1	.1	.2	.1	2.1
Manufacturing ¹		67.63	4.6	2.4	2.2	1.6	5.1	-1.5	4	5	.2	.3	1	.3	1.9
Stage-of-process components															
of non-energy materials,															
measures of the input to			100	.	2 :	2.5	4.6		_	_	_		_		
Finished processors		11.52	18.8	7.8	3.4	2.0	4.0	1.2	6	.1	.6	.3	7	1.7	4.0
Primary and semifinished processors		17.51	6.9	1.6	2.8	5.6	3.2	-3.8	5	8	.4	3	.4	.3	1.9
		1	1			1			1						

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

initions of units, seasonary adjusted unite	2012	2012		2013		2012					
	2012					2013					
Item	average	Q3	Q4	Q1	Q2	Mar.	Apr.	May	June	July	Aug.
Total	10.33	10.31	10.46	10.71	11.09	10.96	10.99	11.05	11.22	10.14	11.25
Autos	4.11	4.26	4.13	4.37	4.43	4.48	4.37	4.40	4.52	3.85	4.28
Trucks	6.23	6.05	6.32	6.34	6.66	6.48	6.62	6.65	6.70	6.29	6.97
Light	5.96	5.79	6.08	6.11	6.40	6.24	6.37	6.40	6.43	6.00	6.65
Medium and heavy	.27	.26	.24	.23	.26	.24	.26	.26	.27	.30	.31
Memo											
Autos and light trucks	10.06	10.05	10.21	10.48	10.83	10.72	10.74	10.79	10.95	9.84	10.93
2											

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

r Revised. p Preliminary.

1. Refer to note on cover page.

 Table 4

 INDUSTRIAL PRODUCTION INDEXES: MARKET AND INDUSTRY GROUP SUMMARY

 2007 = 100, seasonally adjusted

007 = 100, seasonally adjusted											
Item		2012 proportion	2012 Dec.	2013 Jan.	Feb.	Mar. ^r	Apr.r	May ^r	June ^r	July ^r	Aug. ^p
Total IP		100.00	98.2	98.2	98.8	99.1	98.7	98.9	99.0	99.0	99.4
MARKET GROUPS											
Final products and nonindustrial supplies		53.46	93.5	93.5	94.4	94.8	94.3	94.2	94.5	94.0	94.4
Consumer goods		27.14	93.1	93.3	94.1	94.8	94.2	94.0	94.3	93.9	94.1
Durable		5.81	93.9	93.3	94.9	95.6	95.3	95.5	97.0	94.9	97.2
Automotive products		2.98	106.2	103.9	106.4	108.3	107.8	108.6	110.7	106.1	110.7
Home electronics		.14	61.5	58.7	61.3	62.3	62.2	60.4	62.2	60.5	60.8
Appliances, furniture, carpeting Miscellaneous goods		.78 1.91	67.8 91.5	69.4 92.2	68.7 93.9	68.9 93.2	69.0 92.7	69.7 92.2	69.8 93.5	69.9 93.5	71.3 93.6
Nondurable		21.33	93.3	93.7	94.2	95.0	94.2	94.0	93.9	94.0	93.7
Non-energy		16.04	92.0	91.9	92.2	91.7	91.0	91.2	91.9	91.4	91.5
Foods and tobacco		9.11	99.5	99.5	101.2	100.2	98.6	98.8	99.8	99.3	99.9
Clothing		.20	57.9	59.3	59.5	58.5	56.9	58.3	58.7	58.4	59.1
Chemical products		4.87	85.4	85.1	83.5	83.8	84.5	84.5	84.8	84.4	83.6
Paper products Energy		1.36 5.29	75.2 97.7	74.9 99.9	74.5 100.9	73.2 106.1	73.4 105.3	74.2 103.4	75.0 100.9	74.4 102.6	74.2 101.1
Energy		3.27	77.7	77.7	100.7	100.1	103.3	103.4	100.7	102.0	101.1
Business equipment		9.61	101.7	100.5	102.3	102.4	102.3	102.0	102.8	101.8	102.8
Transit Information processing		2.16 2.09	103.9	101.2 100.9	102.5 100.8	104.2 100.1	104.9 100.2	104.2 101.1	105.6 100.2	102.2 100.1	105.9 101.2
Industrial and other		5.36	101.3	99.2	100.8	100.1	100.2	101.1	100.2	100.1	101.2
Defense and space equipment		2.29	114.1	112.7	112.7	112.6	112.1	111.7	112.3	112.2	113.4
• • •											
Construction supplies Business supplies		4.16 9.47	80.1 90.4	80.9 90.7	82.8 90.9	81.9 91.4	81.0 91.2	80.6 91.4	81.2 91.2	81.5 90.3	81.8 90.3
Materials		46.54	104.1	104.2	104.5	104.6	104.4	104.8	104.7	105.3	105.7
Non-energy		29.02	99.2	99.3	99.3	98.7	98.3	98.8	98.8	98.8	99.6
Durable		17.64	105.5	105.7	106.2	105.6	105.1	105.4	105.7	105.9	106.9
Consumer parts		2.61	98.4	98.1	98.0	96.7	96.0	96.5	96.1	94.2	96.6
Equipment parts		6.49	129.8	129.9	130.9	130.5	131.6	132.1	132.9	132.6	134.9
Other		8.54	91.8	92.1	92.5	92.0	90.8	91.0	91.0	92.1	92.1
Nondurable Textile		11.39	90.4 76.0	90.4 79.3	89.7 77.5	89.4 77.9	89.0 75.9	89.7 75.1	89.3 76.7	89.0 75.6	89.6 76.1
Paper		1.98	83.5	83.4	83.6	83.2	82.7	83.9	83.5	83.2	84.0
Chemical		5.65	91.3	90.2	89.6	88.9	88.9	89.8	89.4	88.8	89.4
Energy		17.51	111.6	111.7	112.7	113.9	114.2	114.6	114.3	115.9	115.6
INDUSTRY GROUPS											
Manufacturing		75.46	95.3	95.2	95.7	95.5	95.1	95.4	95.7	95.3	96.0
Manufacturing (NAICS)	31–33	72.70	96.6	96.5	97.1	96.9	96.5	96.7	97.0	96.7	97.4
Durable manufacturing	221	38.30	102.0	101.7	102.9	102.7	102.4	102.5	103.1	102.5	103.7
Wood products Nonmetallic mineral products	321 327	.89 1.53	75.5 72.3	75.7 72.1	77.5 73.5	76.6 73.2	74.4 71.4	74.9 73.2	75.3 73.2	74.8 73.0	76.1 73.1
Primary metals	331	3.11	99.1	100.2	99.4	97.3	96.9	97.1	95.6	99.5	99.3
Fabricated metal products	332	5.64	92.9	93.6	95.5	94.8	94.4	93.9	94.4	94.2	94.6
Machinery	333	5.78	101.5	101.4	104.3	104.0	103.3	102.4	104.4	103.5	104.3
Computer and electronic products	334	6.10	133.5	133.2	133.0	133.1	134.4	135.8	135.1	135.5	137.7
Electrical equip., appliances,	225	1.04	97.0	960	00.2	967	96.0	96.6	07.1	960	97.7
and components Motor vehicles and parts	335 3361–3	1.84 4.61	87.9 105.3	86.9 102.6	88.3 104.0	86.7 105.4	86.0 105.0	86.6 105.7	87.1 107.0	86.9 102.2	87.7 107.5
Aerospace and miscellaneous	3301-3	4.01	105.5	102.0	104.0	105.4	105.0	105.7	107.0	104.4	107.3
transportation equipment	3364-9	4.59	103.3	103.2	104.0	104.0	104.3	103.8	104.5	103.2	104.2
Furniture and related products	337	1.04	69.4	70.6	71.2	71.3	72.0	71.9	71.8	72.7	73.7
Miscellaneous	339	3.17	109.2	108.5	109.6	110.0	108.8	109.0	110.7	109.4	108.5
Nondurable manufacturing		34.39	91.1	91.2	91.2	91.0	90.5	90.8	90.8	90.8	90.9
Food, beverage, and tobacco products	311,2	11.08	100.7	101.0	102.1	101.3	99.9	99.9	100.8	100.6	101.2
Textile and product mills	313,4	.71	73.5	74.9	73.6	73.9	72.4	71.9	72.9	72.3	72.5
Apparel and leather Paper	315,6 322	.26 2.41	57.1 85.4	58.3 85.7	58.7 86.0	57.5 84.9	56.0 84.8	57.6 86.4	58.1 85.2	57.8 85.4	58.5 86.3
Printing and support	323	1.41	76.4	76.4	75.8	76.6	76.2	76.7	76.6	76.0	76.3
Petroleum and coal products	324	3.95	95.8	97.8	98.3	97.8	96.2	96.6	95.8	97.0	96.4
	325	11.67	88.3	87.5	86.6	86.7	87.3	87.3	87.1	86.8	86.6
Chemicals	323				88.7	90.1	90.0	90.4	90.8	90.9	90.7
Chemicals Plastics and rubber products	326	2.90	89.3	89.1	00.7	, 0.1					
		2.90 2.76	69.3	68.9	68.2	67.4	67.5	68.2	68.5	68.2	68.1
Plastics and rubber products Other manufacturing (non-NAICS) Mining	326 1133,5111 21	2.76 14.62	69.3 115.9	68.9 115.0	68.2 116.1	67.4	67.5 116.8	68.2 117.6	118.3	121.1	68.1
Plastics and rubber products	326 1133,5111	2.76	69.3	68.9	68.2	67.4	67.5	68.2			

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

 Table 5

 INDUSTRIAL PRODUCTION INDEXES: SPECIAL AGGREGATES

 2007 = 100, seasonally adjusted

Riem	007 = 100, seasonally adjusted											
Total industry 100.00 98.2 98.2 98.8 99.1 98.7 98.9 99.0 99.0 99.0 99.0	Item		2012	2012 Dec	2013 Ian	Feb	Mar	Δprr	Mayr	Inner	Iuly ^r	Δ11σ P
Part	Item		proportion	Dec.	Juii.	100.	iviai.	7 грг.	wiay	June	July	Tiug.
Consumer products	Total industry		100.00	98.2	98.2	98.8	99.1	98.7	98.9	99.0	99.0	99.4
Commercial products 2.95 99.2 101.2 101.7 103.1 102.8 102.7 101.1 99.0 99.0 30.0 30.0 30.6 96.8 96.9 96.9 96.9 96.9 96.9 96.9 96.9 96.9 96.9 96.8 96.8 97.4 98.0 98.0 97.4 98.0 98.0 97.4 98.0 98.0 97.4 98.0 97.7 102.8 97.7 90.9 97.4 98.0 97.7 97.0 99.0 97.4 98.0 97.7 102.8 97.7 97.0 97.7 97.0	Energy		26.50	106.8	107.5	108.5	110.5	110.5	110.3	109.4	110.6	110.0
Oil and gas well drilling 213111 7.5 97.3 96.1 96.9 96.9 96.3 96.3 96.8 97.4 98.	Consumer products		5.29	97.7	99.9	100.9	106.1	105.3	103.4	100.9	102.6	101.1
Converted field 3,98 94,6 94,9 97,7 102,8 97,7 96,9 95,4 95,1 93,	Commercial products		2.95	99.2	101.2	101.7	103.1	102.8	102.7	101.1	99.0	98.5
Primary energy 13.53 117.3 117.5 117.5 119.7 120.4 120.6 122.9 122.	Oil and gas well drilling	213111										98.5
Non-energy 73.50 95.2 95.0 95.6 95.3 94.9 95.1 95.5 95.1 95.	Converted fuel		3.98	94.6	94.9	97.7	102.8	97.7	96.9	95.4	95.1	93.5
Selected high-technology industries 3.22 153.5 154.5 153.3 154.1 157.2 159.1 159.0 161.1 163.	Primary energy		13.53	117.3	117.3	117.7	117.5	119.7	120.4	120.6	122.9	122.9
Computers and peripheral equipment 3341 33 66.4 66.7 67.0 67.0 67.1 67.3 67.6 68.1 68.1 68.1	Non-energy		73.50	95.2	95.0	95.6	95.3	94.9	95.1	95.5	95.1	95.8
Semiconductors and related electronic components 3344 2-9 2.32 227.7 229.8 227.3 229.4 235.6 239.1 238.7 242.5 247.	Selected high-technology industries		3.22	153.5	154.5	153.3	154.1	157.2	159.1	159.0	161.1	163.8
Semiconductors and related electronic components 334412-9 2.32 227.7 229.8 227.3 229.4 235.6 239.1 238.7 242.5 247.	Computers and peripheral equipment	3341	.33	66.4	66.7	67.0	67.0	67.1	67.3	67.6	68.1	68.5
Excluding selected high-technology industries 70.28 92.5 92.3 92.9 92.6 92.0 92.2 92.7 92.2 92.	Communications equipment	3342	.57	91.7	91.5	91.4	90.7	90.8	91.0	91.2	91.5	91.6
Recluding selected high-technology industries	Semiconductors and related											
Motor vehicles and parts 3361-3 4.61 105.3 102.6 104.0 105.4 105.0 105.7 107.0 102.2 107.	electronic components	334412–9	2.32	227.7	229.8	227.3	229.4	235.6	239.1	238.7	242.5	247.8
Motor vehicles 3361 2.20 108.9 103.0 106.1 108.9 108.6 109.4 112.0 104.6 113.			70.28	92.5	92.3	92.9	92.6	92.0	92.2	92.7	92.2	92.8
Motor vehicle parts 3363 2.11 105.0 105.0 105.1 105.7 105.1 105.6 105.3 103.1 105.	Motor vehicles and parts	3361-3	4.61	105.3	102.6	104.0	105.4	105.0	105.7	107.0	102.2	107.5
Excluding motor vehicles and parts 65.67 91.7 91.6 92.2 91.7 91.2 91.3 91.7 91.5 91.5	Motor vehicles		2.20	108.9	103.0	106.1		108.6	109.4	112.0	104.6	113.4
Consumer goods	Motor vehicle parts	3363	2.11	105.0	105.0	105.1	105.7	105.1	105.6	105.3	103.1	105.3
Business equipment 8.26 103.2 102.5 104.6 104.6 104.5 104.2 104.9 104.2 104. Construction supplies 4.14 80.0 80.8 82.7 81.8 80.9 80.5 81.0 81.4 81. 81. 81. 81. 81. 82.5 81.8 81.8 81.9 80.5 81.0 81.4 81. 81. 81. 81. 81. 82.5 81.8 81.8 81.9 81.5 81.0 81.4 81. 81. 81. 81. 81. 82.5 81.8 81.8 81.8 81.9 81.5 81.0 81.4 81. 81. 81. 81. 81. 81. 81. 81. 81. 81.			65.67			92.2				91.7		91.9
Construction supplies												90.3
Business supplies Materials 6.23 84.1 83.7 83.7 83.8 83.6 83.9 84.2 83.8 83. Materials 6.23 92.3 92.3 92.4 91.7 91.2 91.5 91.5 91.5 92. Measures excluding selected high-technology industries Total industry 96.78 96.3 96.3 96.9 97.2 96.8 96.9 97.0 96.9 97. Manufacturing¹ 72.24 92.7 92.5 93.1 92.9 92.4 92.6 92.9 92.5 93. Durable 35.23 96.8 96.4 97.8 97.5 97.0 97.1 97.6 96.9 98. Measures excluding motor vehicles and parts Total industry 95.39 97.8 97.9 98.5 98.7 98.4 98.5 98.6 98.8 98. Manufacturing¹ 70.85 94.7 94.7 95.2 94.9 94.5 94.7 94.9 94.9 95. Durable 33.84 101.3 101.4 102.6 102.1 101.8 101.9 102.4 102.3 103. Measures excluding selected high-technology industries and motor vehicles and parts Total industry 92.17 95.8 95.9 96.6 96.8 96.4 96.4 96.5 96.6 96. Manufacturing¹ 67.63 91.8 91.9 92.4 92.0 91.6 91.7 92.0 91.8 92. Stage-of-process components of non-energy materials, measures of the input to Finished processors 11.52 110.1 110.2 110.6 110.0 110.1 110.7 111.0 110.2 112.												104.7
Materials 25.44 92.3 92.3 92.4 91.7 91.2 91.5 91.5 91.5 92. Measures excluding selected high-technology industries 96.78 96.3 96.3 96.9 97.2 96.8 96.9 97.0 96.9 97. 97.0 97. 97.0 97. 97.0 97. 97.0 97. 97.0 97. 97. 97.0 97. 97.0 97. 97.0 97. 97.0 97. 97.0 97. 97.0 97. 97.0 97. 97. 97.0 97. 97.												81.7
Measures excluding selected high-technology industries 96.78 96.3 96.3 96.9 97.2 96.8 96.9 97.0 96.9 97.0 96.9 97.0 96.9 97.0 96.9 97.0 96.9 97.0 96.9 97.0 96.9 97.0 96.9 97.0 97.0 96.9 97.0												83.9
industries Total industry 96.78 96.78 96.3 96.3 96.3 96.9 97.2 96.8 96.9 97.0 97.0 96.9 97.0 96.9 97.0 96.9 97.0 96.9 97.0 98.5 98.7 98.7 98.7 98.7 98.7 98.7 98.7 98.7 98.7 98.4 98.5 98.6 98.8 98. 98. 98. 98. 98. 9	Materials		25.44	92.3	92.3	92.4	91.7	91.2	91.5	91.5	91.5	92.1
Total industry 96.78 96.3 96.3 96.9 97.2 96.8 96.9 97.0 96.9 97.0 96.9 97.0 Manufacturing 72.24 92.7 92.5 93.1 92.9 92.4 92.6 92.9 92.5 93.1 92.9 92.4 92.6 92.9 92.5 93.1 92.9 92.4 92.6 92.9 92.5 93.1 92.9 92.4 92.6 92.9 92.5 93.1 92.9 92.4 92.6 92.9 92.5 93.1 92.9 94.5 97.0 97.1 97.6 96.9 98.8												
Manufacturing Text			96.78	96.3	96.3	96.9	97.2	96.8	96 9	97.0	96 9	97.3
Durable 35.23 96.8 96.4 97.8 97.5 97.0 97.1 97.6 96.9 98.8	•											
Measures excluding motor vehicles and parts 95.39 97.8 97.9 98.5 98.7 98.4 98.5 98.6 98.8 98.9 98.9 98.9 98.9 98												
Stage-of-process components of non-energy materials, measures of the input to 11.52 110.1 110.2 110.6 102.0 98.5 98.7 98.4 98.5 98.6 98.8 98.8 98.6 98.8 98.8 98.8 98.6 98.8 98.8 98.6 98.8 98.8 98.6 98.8 98.8 98.6 98.8 98.8 98.6 98.8			33.23	70.0	70.7	71.0	71.5	71.0	//·I	71.0	70.7	70.0
Manufacturing 1 70.85 94.7 94.7 95.2 94.9 94.5 94.7 94.9 94.9 95. Durable 33.84 101.3 101.4 102.6 102.1 101.8 101.9 102.4 102.3 103. Measures excluding selected high-technology industries and motor vehicles and parts Total industry 92.17 95.8 95.9 96.6 96.8 96.4 96.4 96.5 96.6 96. Manufacturing 1 67.63 91.8 91.9 92.4 92.0 91.6 91.7 92.0 91.8 92. Stage-of-process components of non-energy materials, measures of the input to Finished processors 11.52 110.1 110.2 110.6 110.0 110.1 110.7 111.0 110.2 112.			95.39	97.8	97.9	98.5	98.7	98.4	98.5	98.6	98.8	98.9
Durable 33.84 101.3 101.4 102.6 102.1 101.8 101.9 102.4 102.3 103.												95.2
Measures excluding selected high-technology industries and motor vehicles and parts 92.17 95.8 95.9 96.6 96.8 96.4 96.4 96.5 96.6 96.8 96.6 96.8 96.4 96.5 96.6 96.8 96.4 96.5 96.6 96.8 96.4 96.5 96.6 96.8 96.6 96.8 96.4 96.5 96.6 96.8 96.4 96.5 96.6 96.8 96.4 96.5 96.6 96.8 96.4 96.5 96.6 96.8 96.4 96.5 96.6 96.8 96.4 96.5 96.6 96.8 96.4 96.5 96.6 96.8 96.4 96.5 96.6 96.8												103.0
industries and motor vehicles and parts Total industry 92.17 95.8 95.9 96.6 96.8 96.4 96.4 96.5 96.6 96. 96.8 96.4 96.5 96.6 96.8 96.8 96.4 96.7 92.0 91.8 92.0 91.6 91.7 92.0 91.8 92.0 92.0 92.0 92.0 92.0 92.0 92.0						. =					. =	
Total industry 92.17 95.8 95.9 96.6 96.8 96.4 96.4 96.5 96.6 96. Manufacturing 1 67.63 91.8 91.9 92.4 92.0 91.6 91.7 92.0 91.8 92. Stage-of-process components of non-energy materials, measures of the input to Finished processors 11.52 110.1 110.2 110.6 110.0 110.1 110.7 111.0 110.2 112.												
Manufacturing 1 67.63 91.8 91.9 92.4 92.0 91.6 91.7 92.0 91.8 92. Stage-of-process components of non-energy materials, measures of the input to Finished processors 11.52 110.1 110.2 110.6 110.0 110.1 110.7 111.0 110.2 112.			92.17	95.8	95.9	96.6	96.8	96.4	96.4	96.5	96.6	96.8
materials, measures of the input to Finished processors 11.52 110.1 110.2 110.6 110.0 110.1 110.7 111.0 110.2 112.			67.63	91.8	91.9	92.4	92.0	91.6	91.7	92.0	91.8	92.1
1			11.52	110.1	110.2	110.6	110.0	110.1	110.7	111.0	110.2	112.1
	*		17.51	92.4	92.5	92.2	91.8	91.1	91.5	91.3	91.7	92.0

Table 6 DIFFUSION INDEXES OF INDUSTRIAL PRODUCTION

ercent	Ion	Feb.	Mon	A	More	Luna	Trale.	A 110	Cont	Oat	Nov.	Dag
Item	Jan.	reb.	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	60.4	45.5	46.5	54.5	61.5	47.9					
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	53.5	50.0	46.5	54.2	53.8					
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	62.5	62.5	52.6	55.4	53.2					

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.

r Revised. p Preliminary.

1. Refer to note on cover page.

Table 7
CAPACITY UTILIZATION
Percent of capacity, seasonally adjusted

ercent of capacity, seasonally adjusted														
*.		2012	1972-	1994-	2000	2012	2012		2012					
Item		2012	2012	95 h:-h	2009	2012	2013	Q2 ^r	2013 Mar. ^r	Α Γ	Mass	T I	T1I	A
		proportion	ave.	high	low	Q4	Q1 ^r	Q2 ^s	Mar.	Apr.r	May ^r	June ^r	July ^r	Aug.
Total industry		100.00	80.2	85.0	66.9	77.5	78.0	77.8	78.2	77.8	77.8	77.8	77.6	77.
Manufacturing ¹		77.44	78.7	84.6	64.0	75.7	76.3	76.0	76.3	75.9	75.9	76.1	75.7	76.
Manufacturing (NAICS)	31–33	74.05	78.6	84.7	63.7	76.3	77.0	76.6	77.0	76.6	76.6	76.8	76.4	76.
Durable manufacturing		39.70	77.0	83.7	58.4	75.5	76.2	75.9	76.3	75.9	75.8	76.1	75.5	76.
Wood products	321	1.09	76.8	86.5	49.4	67.0	69.5	67.9	69.5	67.5	67.9	68.3	67.8	68.
Nonmetallic mineral products	327	2.16	74.8	82.7	44.4	56.3	58.1	58.2	58.4	57.1	58.7	58.9	58.8	59.
Primary metals	331	3.19	79.1	94.1	48.8	74.0	74.9	73.2	73.7	73.5	73.7	72.6	75.6	75
Fabricated metal products	332	5.31	77.4	85.4	61.5	83.0	84.9	84.4	85.0	84.6	84.2	84.6	84.4	84.
Machinery	333	5.45	78.1	87.6	59.4	80.1	81.5	81.1	81.9	81.2	80.3	81.7	80.9	81.
Computer and electronic products	334	6.59	78.1	84.2	70.2	74.6	74.0	73.8	73.7	73.9	74.2	73.3	73.0	73.
Electrical equip., appliances,	334	0.57	70.1	07.2	70.2	74.0	74.0	73.0	73.7	13.7	77.2	75.5	75.0	73.
and components	335	1.75	82.5	92.6	66.2	82.0	81.7	80.6	81.0	80.2	80.7	81.0	80.7	81.
Motor vehicles and parts	3361–3	4.97	75.0	87.8	35.0	73.8	74.5	75.4	75.3	74.9	75.3	76.1	72.6	76.
Aerospace and miscellaneous	3301-3	4.57	/ / / /	07.0	33.0	75.0	77.3	13.4	13.3	14.)	13.3	70.1	12.0	70.
transportation equipment	3364–9	4.86	73.0	69.1	71.0	73.5	73.1	73.0	73.2	73.2	72.7	73.0	71.9	72.
Furniture and related products	3304-9	1.14	76.8	82.5	56.6	70.6	72.7		73.2		73.7	73.6	74.6	75.
	339							73.7		73.8				
Miscellaneous	339	3.20	76.0	80.5	68.2	77.8	78.7	77.8	78.8	77.6	77.5	78.4	77.1	76.
Nondurable manufacturing		34.35	80.7	86.0	69.3	77.3	77.9	77.4	77.8	77.3	77.5	77.5	77.3	77.
Food, beverage, and tobacco products	311,2	10.64	81.0	85.5	75.2	80.4	81.4	80.2	81.2	80.0	79.9	80.6	80.3	80.
Textile and product mills	313,4	.79	80.0	91.7	53.7	70.2	70.8	69.8	70.8	69.6	69.3	70.6	70.2	70.
Apparel and leather	315,6	.30	77.7	87.5	57.5	67.2	70.2	69.9	69.7	68.1	70.4	71.3	71.3	72.
Paper	322	2.31	86.8	92.6	72.6	81.3	82.3	82.5	81.8	81.8	83.4	82.3	82.6	83.
Printing and support	323	1.65	81.0	85.1	60.5	66.0	67.2	67.8	67.6	67.4	68.0	68.1	67.7	68.
Petroleum and coal products	324	3.68	85.6	91.0	76.3	83.3	85.2	83.3	85.0	83.4	83.7	82.8	83.7	83.
Chemicals	325	11.93	77.6	81.9	65.1	75.0	74.7	74.7	74.4	74.8	74.7	74.5	74.1	73.
Plastics and rubber products	326	3.05	82.2	93.2	59.1	73.8	74.3	74.7	74.8	74.5	74.7	74.9	74.7	74.
Other manufacturing (non-NAICS)	1133,5111	3.39	82.3	83.2	69.5	61.4	60.6	60.8	60.0	60.2	60.9	61.3	61.2	61.
Mining	21	12.69	87.3	88.6	78.3	88.6	87.5	88.1	87.4	87.8	88.1	88.3	90.1	90.
Utilities	2211,2	9.87	86.2	93.3	78.6	77.8	78.5	78.4	81.3	79.9	78.5	76.8	75.8	74.
Selected high-technology industries		3.71	78.0	86.2	71.2	71.3	70.4	71.1	70.2	71.1	71.4	70.8	71.2	71.
Computers and peripheral equipment	3341	.39	78.2	87.7	80.6	67.8	68.3	69.3	68.5	68.8	69.3	69.9	70.6	71.
Communications equipment	3342	.61	76.7	84.2	77.3	77.7	78.1	77.8	77.8	77.8	77.8	77.8	78.0	77.
Semiconductors and related														
electronic components	334412–9	2.71	79.9	92.1	62.8	70.4	69.1	70.0	68.8	70.0	70.4	69.5	69.9	70.
Measures excluding selected														
high-technology industries														
Total industry		96.29	80.3	84.9	66.7	77.8	78.3	78.1	78.5	78.1	78.1	78.1	77.9	78.
Manufacturing ¹		73.73	78.8	84.5	63.5	75.9	76.6	76.2	76.6	76.1	76.2	76.4	76.0	76.
STAGE-OF-PROCESS GROUPS		16.01	06.2	90.7	76.4	97.0	06.0	965	960	963	96.0	065	07.0	07
Crude		16.81	86.3	89.7	76.4	87.0	86.2	86.5	86.0	86.2	86.8	86.5	87.8	87.
Primary and semifinished		45.66	81.0	87.9	64.4	75.4	76.4	76.0	76.9	76.3	76.1	75.7	75.6	75.
Finished		37.53	77.1	80.6	66.8	75.8	76.2	75.9	76.2	75.8	75.7	76.2	75.4	75.

r Revised. p Preliminary.

1. Refer to note on cover page.

Table 8 INDUSTRIAL CAPACITY

Percent change

													Monthly
	1	Average aı	nnual rate		Fourth	quarter to	o fourth o	quarter		Annual	rate		rate
Item	1972-	1980-	1989-	1995-					2012	2013			2013
	79	88	94	2013	2010	2011	2012	2013	Q4	Q1	Q2	Q3	Aug.
Total industry	3.1	1.9	2.3	2.3	-2.1	1.3	2.2	1.8	1.9	1.7	1.7	1.8	.2
Manufacturing ¹	3.3	2.2	2.5	2.4	-2.0	.6	1.6	1.6	1.6	1.5	1.5	1.6	.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	4.0 1.5	4.1 1.2	4.2 .9	4.4 .7	.4 .1
Selected high-technology industries	19.6	17.3	15.8	20.2	11.1	26.4	4.1	7.7	3	3.7	7.4	9.8	.8
Manufacturing ¹ ex. selected high-technology industries	2.6	1.3	1.6	1.0	-2.7	5	1.5	1.2	1.6	1.3	1.2	1.1	.1
STAGE-OF-PROCESS GROUPS Crude	1.6	.4	5	.7	-1.5	3.4	3.2	3.5	2.7	3.0	3.3	3.7	.3
Primary and semifinished	3.0	1.3	2.5	2.7	-1.1	1.4	.7	.7	.3	.4	.6	.8	.1
Finished	3.9	3.3	2.7	2.3	-2.1	.4	3.3	2.5	3.5	2.9	2.5	2.3	.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 |

allions of 2005 dollars at annual rate, seaso	nany adjusted										
			2012	2013		2013					
Item	2005	2012	Q4	Q1 ^r	Q2 ^r	Mar. ^r	Apr.r	May ^r	June ^r	July ^r	Aug. ^p
Final products and nonindustrial											
supplies	3,332.3	3,275.6	3,296.9	3,337.9	3,349.0	3,358.4	3,345.6	3,346.8	3,354.7	3,342.6	3,360.6
Final products	2,474.8	2,517.2	2,536.1	2,565.5	2,579.6	2,584.7	2,574.6	2,578.4	2,585.8	2,577.4	2,593.1
Consumer goods	1,834.0	1,795.6	1,807.2	1,833.5	1,843.0	1,848.3	1,838.2	1,844.7	1,846.0	1,842.7	1,848.6
Durable	495.2	464.7	472.4	488.0	497.5	494.8	492.9	495.6	503.9	487.9	505.1
Automotive products	288.4	307.3	312.4	323.7	333.0	330.4	329.0	331.7	338.4	322.3	338.6
Other durable goods	206.8	158.0	160.5	164.9	165.2	165.1	164.6	164.6	166.4	166.2	167.4
Nondurable	1,338.8	1,332.0	1,336.9	1,349.5	1,351.0	1,358.2	1,350.1	1,354.1	1,348.9	1,358.2	1,350.4
Equipment, total	640.9	727.6	735.4	737.5	742.2	741.7	742.3	738.8	745.6	740.1	750.9
Business and defense	617.5	705.0	714.1	716.2	721.2	720.6	721.2	717.8	724.6	718.9	729.4
Business	537.6	599.0	606.5	609.9	615.9	614.4	615.6	612.9	619.1	613.4	623.0
Defense and space	79.9	105.1	106.6	105.6	104.8	105.5	105.0	104.3	105.0	104.8	105.8
Nonindustrial supplies	857.4	761.7	764.2	775.7	773.0	777.2	774.4	772.1	772.6	768.9	771.4
Construction supplies	270.0	216.5	218.0	226.5	222.9	226.7	223.3	222.0	223.3	224.8	224.9
Business supplies	587.4	545.3	546.3	549.4	550.3	550.6	551.2	550.3	549.5	544.3	546.6
Commercial energy products	210.9	211.5	212.3	213.2	212.3	214.0	214.5	212.4	209.8	206.4	208.1

r Revised. p Preliminary.

Table 10
GROSS-VALUE-WEIGHTED INDUSTRIAL PRODUCTION: STAGE-OF-PROCESS GROUPS
Percent change, seasonally adjusted

Percent change, seasonally adjusted		Fou	rth quarte	er to				I						
		1	urth quar			Annual ra	ate			Month	nly rate			Aug. '12
Item	2012				2012	2013		2013						to
	gross value1	2010	2011	2012	Q4	$Q1^{r}$	Q2 ^r	Mar.r	Apr.r	May ^r	June ^r	July ^r	Aug.p	Aug. '13
Finished	1,992.6	4.1	4.7	4.4	2.0	5.6	1.8	.2	4	.1	.8	-1.1	1.3	3.5
Semifinished	1,706.9	9.2	2.9	3.2	1.4	6.6	-1.0	.6	5	5	.0	8	.5	1.9
Primary	1,328.1	3.9	1.4	.0	1.9	4.3	-1.4	.6	9	.5	7	1.2	7	1.0
Crude	670.3	6.5	3.0	1.8	7.6	-1.9	3.3	1	.0	1.3	2	1.1	.4	4.5

r Revised. p Preliminary.

^{1.} Billions of 2005 dollars.

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

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
IP (percent																	
change) ¹																	
.991	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	.7	.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 1998	.1	1.2	.8	.0	.7 .7	.5 6	.6 4	1.3 2.1	.9 3	.7 .8	.9 1	.4 .4	7.8 4.5	6.5 2.9	9.7 2.9	10.1 5.5	7.2 5.8
1999	.4	.4	.2	.2	.7	2	.7	.4	3	1.3	.5	.8	4.1	3.9	4.0	7.6	4.3
2000	.1	.4	.4	.6	.2	.1	2	3	.5	4	.0	3	4.7	4.6	6	-1.3	4.0
2001	7	6	3	3	7	7	4	3	3	5	5	.0	-5.6	-5.3	-5.5	-4.5	-3.4
2002	.6	.0	.7	.4	.5	1.0	3	.1	.1	3	.5	5	2.7	6.5	2.4	2	.2
003	.7	.4	2	8	.0	.0	.4	1	.6	.0	.8	1	3.1	-3.3	1.9	3.3	1.2
2004	.3	.6	5	.4	.7	8	.8	.2	.0	1.0	.2	.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
0006	.1	.1	.3	.4	1	.4	.0	.2	1	1	1	1.0	3.8	2.6	1.5	.6	2.2
2007	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	.5	5	.7	.3	.0	.4	8	.2	1	1.3	.0	5.4	2.9	.3	2.5	3.6
013	.0	.7	.3	3	.1	.1	.0	.4					4.1	.7			
P (2007=100)																	
011	92.6	92.2	93.1	92.6	92.9	93.1	93.6	94.1	94.2	94.7	95.0	95.5	92.6	92.9	94.0	95.1	93.6
012 013	96.2 98.2	96.7 98.8	96.1 99.1	96.9 98.7	97.1 98.9	97.1 99.0	97.6 99.0	96.8 99.4	97.0	96.8	98.1	98.2	96.3 98.7	97.0 98.9	97.1	97.7	97.0
Capacity percent of 007 output)	121.6	121.7	121.8	121.9	122.0	122.2	122.4	122.6	122.8	123.1	123.3	123.6	121.7	122.0	122.6	123.3	122.4
2012	123.9	124.1	124.3	124.6	124.8	125.0	125.2	125.4	125.6	125.8	126.0	126.2	124.1	124.8	125.4	126.0	125.1
2013	126.4	126.5	126.7	126.9	127.1	127.3	127.4	127.6					126.5	127.1			
Itilization																	
(percent)																	
							00.1	80.1	80.7	00 5	80.3						
	79.9	79.3	78.8	78.8	79.5	80.2	80.1			80.5		79.9	79.3	79.5	80.3	80.2	
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
1992 1993	79.3 81.3	79.8 81.5	80.3 81.3	80.7 81.4	80.8 81.0	80.6 81.1	81.2 81.2	80.6 81.1	80.6 81.4	81.0 81.8	81.2 82.0	81.0 82.3	79.8 81.3	80.7 81.2	80.8 81.2	81.1 82.0	80.6 81.4
1992 1993 1994	79.3 81.3 82.4	79.8 81.5 82.3	80.3 81.3 82.9	80.7 81.4 83.2	80.8 81.0 83.4	80.6 81.1 83.7	81.2 81.2 83.6	80.6 81.1 83.8	80.6 81.4 83.7	81.0 81.8 84.2	81.2 82.0 84.4	81.0 82.3 85.0	79.8 81.3 82.6	80.7 81.2 83.4	80.8 81.2 83.7	81.1 82.0 84.5	80.6 81.4 83.6
1992 1993 1994 1995	79.3 81.3 82.4 84.9	79.8 81.5 82.3 84.5	80.3 81.3 82.9 84.4	80.7 81.4 83.2 84.0	80.8 81.0 83.4 83.9	80.6 81.1 83.7 83.9	81.2 81.2 83.6 83.3	80.6 81.1 83.8 84.1	80.6 81.4 83.7 84.1	81.0 81.8 84.2 83.6	81.2 82.0 84.4 83.5	81.0 82.3 85.0 83.4	79.8 81.3 82.6 84.6	80.7 81.2 83.4 84.0	80.8 81.2 83.7 83.8	81.1 82.0 84.5 83.5	80.6 81.4 83.6 84.0
1992 1993 1994 1995	79.3 81.3 82.4 84.9	79.8 81.5 82.3 84.5	80.3 81.3 82.9 84.4 83.0	80.7 81.4 83.2 84.0	80.8 81.0 83.4 83.9	80.6 81.1 83.7 83.9	81.2 81.2 83.6 83.3	80.6 81.1 83.8 84.1	80.6 81.4 83.7 84.1	81.0 81.8 84.2 83.6	81.2 82.0 84.4 83.5	81.0 82.3 85.0 83.4	79.8 81.3 82.6 84.6	80.7 81.2 83.4 84.0	80.8 81.2 83.7 83.8	81.1 82.0 84.5 83.5	80.6 81.4 83.6 84.0
1992 1993 1994 1995 1996 1997	79.3 81.3 82.4 84.9 82.5 83.3	79.8 81.5 82.3 84.5 83.5 83.9	80.3 81.3 82.9 84.4 83.0 84.1	80.7 81.4 83.2 84.0 83.3 83.7	80.8 81.0 83.4 83.9 83.5 83.9	80.6 81.1 83.7 83.9 83.9 83.8	81.2 81.2 83.6 83.3 83.4 83.8	80.6 81.1 83.8 84.1 83.6 84.4	80.6 81.4 83.7 84.1 83.6 84.6	81.0 81.8 84.2 83.6 83.2 84.6	81.2 82.0 84.4 83.5 83.5 84.8	81.0 82.3 85.0 83.4 83.6 84.6	79.8 81.3 82.6 84.6 83.0 83.8	80.7 81.2 83.4 84.0 83.6 83.8	80.8 81.2 83.7 83.8 83.5 84.3	81.1 82.0 84.5 83.5 83.5 84.7	80.6 81.4 83.6 84.0 83.4 84.1
1992 1993 1994 1995 1996 1997 1998	79.3 81.3 82.4 84.9 82.5 83.3 84.4	79.8 81.5 82.3 84.5 83.5 83.9 84.0	80.3 81.3 82.9 84.4 83.0 84.1 83.5	80.7 81.4 83.2 84.0 83.3 83.7 83.3	80.8 81.0 83.4 83.9 83.5 83.9 83.3	80.6 81.1 83.7 83.9 83.9 83.8 82.3	81.2 81.2 83.6 83.3 83.4 83.8 81.5	80.6 81.1 83.8 84.1 83.6 84.4 82.8	80.6 81.4 83.7 84.1 83.6 84.6 82.1	81.0 81.8 84.2 83.6 83.2 84.6 82.3	81.2 82.0 84.4 83.5 83.5 84.8 81.9	81.0 82.3 85.0 83.4 83.6 84.6 81.8	79.8 81.3 82.6 84.6 83.0 83.8 84.0	80.7 81.2 83.4 84.0 83.6 83.8 82.9	80.8 81.2 83.7 83.8 83.5 84.3 82.1	81.1 82.0 84.5 83.5 83.5 84.7 82.0	80.6 81.4 83.6 84.0 83.4 84.1 82.8
992 993 994 995 996 997 998 999	79.3 81.3 82.4 84.9 82.5 83.3	79.8 81.5 82.3 84.5 83.5 83.9	80.3 81.3 82.9 84.4 83.0 84.1	80.7 81.4 83.2 84.0 83.3 83.7	80.8 81.0 83.4 83.9 83.5 83.9	80.6 81.1 83.7 83.9 83.9 83.8	81.2 81.2 83.6 83.3 83.4 83.8	80.6 81.1 83.8 84.1 83.6 84.4	80.6 81.4 83.7 84.1 83.6 84.6	81.0 81.8 84.2 83.6 83.2 84.6	81.2 82.0 84.4 83.5 83.5 84.8	81.0 82.3 85.0 83.4 83.6 84.6	79.8 81.3 82.6 84.6 83.0 83.8	80.7 81.2 83.4 84.0 83.6 83.8	80.8 81.2 83.7 83.8 83.5 84.3	81.1 82.0 84.5 83.5 83.5 84.7	80.6 81.4 83.6 84.0 83.4 84.1 82.8 81.6
1992 1993 1994 1995 1996 1997 1998 1999 2000	79.3 81.3 82.4 84.9 82.5 83.3 84.4 81.8 82.0	79.8 81.5 82.3 84.5 83.5 83.9 84.0 81.8 82.0	80.3 81.3 82.9 84.4 83.0 84.1 83.5 81.6 82.1	80.7 81.4 83.2 84.0 83.3 83.7 83.3 81.5 82.3	80.8 81.0 83.4 83.9 83.5 83.9 83.3 81.8 82.2	80.6 81.1 83.7 83.9 83.9 83.8 82.3 81.3 81.9	81.2 81.2 83.6 83.3 83.4 83.8 81.5 81.5	80.6 81.1 83.8 84.1 83.6 84.4 82.8 81.6 81.0	80.6 81.4 83.7 84.1 83.6 84.6 82.1 81.0	81.0 81.8 84.2 83.6 83.2 84.6 82.3 81.8 80.6	81.2 82.0 84.4 83.5 83.5 84.8 81.9 81.9 80.3	81.0 82.3 85.0 83.4 83.6 84.6 81.8 82.2 79.8	79.8 81.3 82.6 84.6 83.0 83.8 84.0 81.7 82.0	80.7 81.2 83.4 84.0 83.6 83.8 82.9 81.5 82.1	80.8 81.2 83.7 83.8 83.5 84.3 82.1 81.4	81.1 82.0 84.5 83.5 83.5 84.7 82.0 82.0 80.2	80.6 81.4 83.6 84.0 83.4 84.1 82.8 81.6 81.4
992 993 994 995 996 997 998 999 2000	79.3 81.3 82.4 84.9 82.5 83.3 84.4 81.8 82.0	79.8 81.5 82.3 84.5 83.5 83.9 84.0 81.8 82.0	80.3 81.3 82.9 84.4 83.0 84.1 83.5 81.6 82.1	80.7 81.4 83.2 84.0 83.3 83.7 83.3 81.5 82.3	80.8 81.0 83.4 83.9 83.5 83.9 83.3 81.8 82.2	80.6 81.1 83.7 83.9 83.9 83.8 82.3 81.3 81.9	81.2 81.2 83.6 83.3 83.4 83.8 81.5 81.5 75.5	80.6 81.1 83.8 84.1 83.6 84.4 82.8 81.6 81.0	80.6 81.4 83.7 84.1 83.6 84.6 82.1 81.0 81.2	81.0 81.8 84.2 83.6 83.2 84.6 82.3 81.8 80.6	81.2 82.0 84.4 83.5 83.5 84.8 81.9 81.9 80.3	81.0 82.3 85.0 83.4 83.6 84.6 81.8 82.2 79.8	79.8 81.3 82.6 84.6 83.0 83.8 84.0 81.7 82.0	80.7 81.2 83.4 84.0 83.6 83.8 82.9 81.5 82.1	80.8 81.2 83.7 83.8 83.5 84.3 82.1 81.4 81.2	81.1 82.0 84.5 83.5 83.5 84.7 82.0 82.0 80.2	80.6 81.4 83.6 84.0 83.4 84.1 82.8 81.6 81.4
992 993 994 995 996 997 998 999 2000	79.3 81.3 82.4 84.9 82.5 83.3 84.4 81.8 82.0 79.0 73.9	79.8 81.5 82.3 84.5 83.5 83.9 84.0 81.8 82.0 78.3 73.7	80.3 81.3 82.9 84.4 83.0 84.1 83.5 81.6 82.1	80.7 81.4 83.2 84.0 83.3 83.7 83.3 81.5 82.3 77.5 74.4	80.8 81.0 83.4 83.9 83.5 83.9 83.3 81.8 82.2 76.7 74.8	80.6 81.1 83.7 83.9 83.9 83.8 82.3 81.3 81.9 76.0 75.5	81.2 81.2 83.6 83.3 83.4 83.8 81.5 81.5 81.5 75.5 75.2	80.6 81.1 83.8 84.1 83.6 84.4 82.8 81.6 81.0	80.6 81.4 83.7 84.1 83.6 84.6 82.1 81.0 81.2 74.7 75.3	81.0 81.8 84.2 83.6 83.2 84.6 82.3 81.8 80.6	81.2 82.0 84.4 83.5 83.5 84.8 81.9 81.9 80.3 73.6 75.5	81.0 82.3 85.0 83.4 83.6 84.6 81.8 82.2 79.8 73.5 75.2	79.8 81.3 82.6 84.6 83.0 83.8 84.0 81.7 82.0 78.4 73.9	80.7 81.2 83.4 84.0 83.6 83.8 82.9 81.5 82.1 76.7 74.9	80.8 81.2 83.7 83.8 83.5 84.3 82.1 81.4 81.2 75.1 75.3	81.1 82.0 84.5 83.5 83.5 84.7 82.0 82.0 80.2 73.8 75.3	80.6 81.4 83.6 84.0 83.4 84.1 82.8 81.6 81.4 76.0 74.8
992 993 994 995 996 997 998 999 2000 2001 2002 2003	79.3 81.3 82.4 84.9 82.5 83.3 84.4 81.8 82.0	79.8 81.5 82.3 84.5 83.5 83.9 84.0 81.8 82.0	80.3 81.3 82.9 84.4 83.0 84.1 83.5 81.6 82.1	80.7 81.4 83.2 84.0 83.3 83.7 83.3 81.5 82.3	80.8 81.0 83.4 83.9 83.5 83.9 83.3 81.8 82.2	80.6 81.1 83.7 83.9 83.9 83.8 82.3 81.3 81.9	81.2 81.2 83.6 83.3 83.4 83.8 81.5 81.5 75.5	80.6 81.1 83.8 84.1 83.6 84.4 82.8 81.6 81.0	80.6 81.4 83.7 84.1 83.6 84.6 82.1 81.0 81.2	81.0 81.8 84.2 83.6 83.2 84.6 82.3 81.8 80.6	81.2 82.0 84.4 83.5 83.5 84.8 81.9 81.9 80.3	81.0 82.3 85.0 83.4 83.6 84.6 81.8 82.2 79.8	79.8 81.3 82.6 84.6 83.0 83.8 84.0 81.7 82.0	80.7 81.2 83.4 84.0 83.6 83.8 82.9 81.5 82.1	80.8 81.2 83.7 83.8 83.5 84.3 82.1 81.4 81.2	81.1 82.0 84.5 83.5 83.5 84.7 82.0 82.0 80.2	81.4 83.6 84.0
1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2001 2002 2003 2004	79.3 81.3 82.4 84.9 82.5 83.3 84.4 81.8 82.0 79.0 73.9 75.8	79.8 81.5 82.3 84.5 83.5 83.9 84.0 81.8 82.0 78.3 73.7	80.3 81.3 82.9 84.4 83.0 84.1 83.5 81.6 82.1 77.9 74.2 76.0	80.7 81.4 83.2 84.0 83.3 83.7 83.3 81.5 82.3 77.5 74.4 75.4	80.8 81.0 83.4 83.9 83.5 83.9 83.3 81.8 82.2 76.7 74.8 75.4	80.6 81.1 83.7 83.9 83.9 83.8 82.3 81.3 81.9 76.0 75.5	81.2 81.2 83.6 83.3 83.4 83.8 81.5 81.5 75.5 75.2 75.8	80.6 81.1 83.8 84.1 83.6 84.4 82.8 81.6 81.0 75.1 75.3 75.7	80.6 81.4 83.7 84.1 83.6 84.6 82.1 81.0 81.2 74.7 75.3 76.2	81.0 81.8 84.2 83.6 83.2 84.6 82.3 81.8 80.6 74.2 75.1	81.2 82.0 84.4 83.5 83.5 84.8 81.9 81.9 80.3 73.6 75.5 76.8	81.0 82.3 85.0 83.4 83.6 84.6 81.8 82.2 79.8 73.5 75.2 76.7	79.8 81.3 82.6 84.6 83.0 83.8 84.0 81.7 82.0 78.4 73.9 76.0	80.7 81.2 83.4 84.0 83.6 83.8 82.9 81.5 82.1 76.7 74.9 75.4	80.8 81.2 83.7 83.8 83.5 84.3 82.1 81.4 81.2 75.1 75.3 75.9	81.1 82.0 84.5 83.5 83.5 84.7 82.0 82.0 80.2 73.8 75.3 76.5	80.6 81.4 83.6 84.0 83.4 84.1 82.8 81.6 81.4 76.0 74.8
1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2001 2002 2003 2004 2005	79.3 81.3 82.4 84.9 82.5 83.3 84.4 81.8 82.0 79.0 73.9 75.8 77.0	79.8 81.5 82.3 84.5 83.5 83.9 84.0 81.8 82.0 78.3 73.7 76.1	80.3 81.3 82.9 84.4 83.0 84.1 83.5 81.6 82.1 77.9 74.2 76.0 77.0	80.7 81.4 83.2 84.0 83.3 83.7 83.3 81.5 82.3 77.5 74.4 77.4	80.8 81.0 83.4 83.9 83.5 83.9 83.3 81.8 82.2 76.7 74.8 75.4	80.6 81.1 83.7 83.9 83.8 82.3 81.3 81.9 76.0 75.5 77.3	81.2 81.2 83.6 83.3 83.4 83.8 81.5 81.5 75.5 75.2 75.8 77.9	80.6 81.1 83.8 84.1 83.6 84.4 82.8 81.6 81.0 75.1 75.3 75.7	80.6 81.4 83.7 84.1 83.6 84.6 82.1 81.0 81.2 74.7 75.3 76.2 78.1	81.0 81.8 84.2 83.6 83.2 84.6 82.3 81.8 80.6 74.2 75.1 76.2	81.2 82.0 84.4 83.5 83.5 84.8 81.9 80.3 73.6 75.5 76.8 78.9	81.0 82.3 85.0 83.4 83.6 84.6 81.8 82.2 79.8 73.5 75.2 76.7	79.8 81.3 82.6 84.6 83.0 83.8 84.0 81.7 82.0 78.4 73.9 76.0 77.1	80.7 81.2 83.4 84.0 83.6 83.8 82.9 81.5 82.1 76.7 74.9 75.4 77.5	80.8 81.2 83.7 83.8 83.5 84.3 82.1 81.4 81.2 75.1 75.3 75.9 78.0	81.1 82.0 84.5 83.5 83.5 84.7 82.0 82.0 80.2 73.8 75.3 76.5	80.6 81.4 83.6 84.0 83.4 84.1 82.8 81.6 74.8 76.0 77.9 79.8
992 993 994 995 996 997 998 999 2000 2001 2002 2003 2004 2005	79.3 81.3 82.4 84.9 82.5 83.3 84.4 81.8 82.0 79.0 73.9 75.8 77.0 79.7	79.8 81.5 82.3 84.5 83.5 83.9 84.0 81.8 82.0 78.3 73.7 76.1 77.4 80.1	80.3 81.3 82.9 84.4 83.0 84.1 83.5 81.6 82.1 77.9 74.2 76.0 77.0 80.0	80.7 81.4 83.2 84.0 83.3 83.7 83.3 81.5 82.3 77.5 74.4 75.4 80.0	80.8 81.0 83.4 83.9 83.5 83.9 83.3 81.8 82.2 76.7 74.8 75.4 77.9 80.0	80.6 81.1 83.7 83.9 83.8 82.3 81.3 81.9 76.0 75.5 77.3 80.2	81.2 81.2 83.6 83.3 83.4 83.8 81.5 81.5 75.5 75.2 75.2 75.9 80.0	80.6 81.1 83.8 84.1 83.6 84.4 82.8 81.6 81.0 75.1 75.3 75.7 78.1	80.6 81.4 83.7 84.1 83.6 84.6 82.1 81.0 81.2 74.7 75.3 76.2 78.1 78.3	81.0 81.8 84.2 83.6 83.2 84.6 82.3 81.8 80.6 74.2 75.1 76.2 78.8 79.2	81.2 82.0 84.4 83.5 83.5 84.8 81.9 80.3 73.6 75.5 76.8 78.9	81.0 82.3 85.0 83.4 83.6 84.6 81.8 82.2 79.8 73.5 75.2 76.7 79.4 80.2	79.8 81.3 82.6 84.6 83.0 83.8 84.0 81.7 82.0 78.4 73.9 76.0 77.1	80.7 81.2 83.4 84.0 83.6 83.8 82.9 81.5 82.1 76.7 74.9 75.4 77.5 80.1	80.8 81.2 83.7 83.8 83.5 84.3 82.1 81.4 81.2 75.1 75.3 75.9 78.0	81.1 82.0 84.5 83.5 83.5 82.0 82.0 80.2 73.8 75.3 76.5 79.1	80.6 81.4 83.6 84.0 83.4 84.1 82.8 81.6 81.4 76.0 77.9 79.8
1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008	79.3 81.3 82.4 84.9 82.5 83.3 84.4 81.8 82.0 79.0 73.9 75.8 77.0 79.7 80.2	79.8 81.5 82.3 84.5 83.5 83.9 84.0 81.8 82.0 78.3 73.7 76.1 77.4 80.1 80.1 80.4	80.3 81.3 82.9 84.4 83.0 84.1 83.5 81.6 82.1 77.9 74.2 76.0 77.0 80.0 80.2 80.3 80.2	80.7 81.4 83.2 84.0 83.3 83.7 83.3 81.5 82.3 77.5 74.4 77.4 80.0 80.4 80.7 79.6	80.8 81.0 83.4 83.9 83.5 83.9 83.3 81.8 82.2 76.7 74.8 75.4 77.9 80.0 80.2 80.6 79.3	80.6 81.1 83.7 83.9 83.8 82.3 81.3 81.9 76.0 75.5 77.3 80.2 80.4 80.5 79.2	81.2 81.2 83.6 83.3 83.4 83.8 81.5 81.5 75.5 75.2 75.8 77.9 80.0 80.3 80.4 78.8	80.6 81.1 83.8 84.1 83.6 84.4 82.8 81.6 81.0 75.1 75.3 75.7 78.1 80.0 80.3 80.4 77.5	80.6 81.4 83.7 84.1 83.6 84.6 82.1 81.0 81.2 74.7 75.3 76.2 78.1 78.3	81.0 81.8 84.2 83.6 83.2 84.6 82.3 81.8 80.6 74.2 75.1 76.2 78.8 79.2 79.9 80.3 74.8	81.2 82.0 84.4 83.5 83.5 81.9 81.9 80.3 73.6 75.5 76.8 78.9 79.8	81.0 82.3 85.0 83.4 83.6 84.6 81.8 82.2 79.8 73.5 75.2 76.7 79.4 80.2 80.2 80.8 71.7	79.8 81.3 82.6 84.6 83.0 83.8 84.0 81.7 82.0 78.4 73.9 76.0 77.1 79.9 80.2 80.1 80.4	80.7 81.2 83.4 84.0 83.6 83.8 82.9 81.5 82.1 76.7 74.9 75.4 77.5 80.1 80.3 80.6 79.4	80.8 81.2 83.7 83.8 83.5 84.3 82.1 81.4 81.2 75.1 75.3 75.9 78.0 79.4 80.3 80.5 76.8	81.1 82.0 84.5 83.5 83.5 82.0 82.0 80.2 73.8 75.3 76.5 79.1 79.7	80.6 81.4 83.6 84.0 83.4 84.1 82.8 81.6 76.0 77.9 79.8 80.2 80.5 77.5
992 993 994 995 996 997 998 999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009	79.3 81.3 82.4 84.9 82.5 83.3 84.4 81.8 82.0 79.0 73.9 75.8 77.0 79.7 80.2 79.7 80.5	79.8 81.5 82.3 84.5 83.5 83.9 84.0 81.8 82.0 78.3 73.7 76.1 77.4 80.1 80.1 80.4 80.4	80.3 81.3 82.9 84.4 83.0 84.1 83.5 81.6 82.1 77.9 74.2 76.0 77.0 80.0 80.2 80.3 80.2 68.5	80.7 81.4 83.2 84.0 83.3 83.7 83.3 81.5 82.3 77.5 74.4 75.4 77.4 80.0 80.4 80.7 79.6 67.9	80.8 81.0 83.4 83.9 83.5 83.9 83.3 81.8 82.2 76.7 74.8 75.4 77.9 80.0 80.2 80.6 79.3 67.2	80.6 81.1 83.7 83.9 83.8 82.3 81.3 81.9 76.0 75.5 77.3 80.2	81.2 81.2 83.6 83.3 83.4 83.8 81.5 81.5 75.5 75.2 75.8 77.9 80.0 80.3 80.4 78.8 67.6	80.6 81.1 83.8 84.1 83.6 84.4 82.8 81.6 81.0 75.1 75.3 75.7 78.1 80.0 80.3 80.4 77.5 68.3	80.6 81.4 83.7 84.1 83.6 84.6 82.1 81.0 81.2 74.7 75.3 76.2 78.1 78.3 80.1 80.7 74.2 68.9	81.0 81.8 84.2 83.6 83.2 84.6 82.3 81.8 80.6 74.2 75.1 76.2 78.8 79.2 79.9 80.3 74.8 69.2	81.2 82.0 84.4 83.5 83.5 84.8 81.9 80.3 73.6 75.5 76.8 78.9 79.8	81.0 82.3 85.0 83.4 83.6 84.6 81.8 82.2 79.8 73.5 75.2 76.7 79.4 80.2 80.2 80.2 70.1	79.8 81.3 82.6 84.6 83.0 83.8 84.0 81.7 82.0 78.4 73.9 76.0 77.1 79.9 80.2 80.1 80.4 69.4	80.7 81.2 83.4 84.0 83.6 83.8 82.9 81.5 82.1 76.7 74.9 75.4 77.5 80.1 80.3 80.6 79.4 67.3	80.8 81.2 83.7 83.8 83.5 84.3 82.1 81.4 81.2 75.1 75.3 75.9 78.0 79.4 80.3 80.5 76.8 68.3	81.1 82.0 84.5 83.5 83.5 84.7 82.0 82.0 80.2 73.8 75.3 76.5 79.1 79.9 80.6 73.5 69.7	80.6 81.4 83.6 84.0 83.4 84.1 82.8 81.6 76.0 77.9 79.8 80.2 80.5 77.5 68.7
1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2001 2002 2003 2004 2005	79.3 81.3 82.4 84.9 82.5 83.3 84.4 81.8 82.0 79.0 73.9 75.8 77.0 79.7 80.2	79.8 81.5 82.3 84.5 83.5 83.9 84.0 81.8 82.0 78.3 73.7 76.1 77.4 80.1 80.1 80.4	80.3 81.3 82.9 84.4 83.0 84.1 83.5 81.6 82.1 77.9 74.2 76.0 77.0 80.0 80.2 80.3 80.2	80.7 81.4 83.2 84.0 83.3 83.7 83.3 81.5 82.3 77.5 74.4 77.4 80.0 80.4 80.7 79.6	80.8 81.0 83.4 83.9 83.5 83.9 83.3 81.8 82.2 76.7 74.8 75.4 77.9 80.0 80.2 80.6 79.3	80.6 81.1 83.7 83.9 83.8 82.3 81.3 81.9 76.0 75.5 77.3 80.2 80.4 80.5 79.2	81.2 81.2 83.6 83.3 83.4 83.8 81.5 81.5 75.5 75.2 75.8 77.9 80.0 80.3 80.4 78.8	80.6 81.1 83.8 84.1 83.6 84.4 82.8 81.6 81.0 75.1 75.3 75.7 78.1 80.0 80.3 80.4 77.5	80.6 81.4 83.7 84.1 83.6 84.6 82.1 81.0 81.2 74.7 75.3 76.2 78.1 78.3	81.0 81.8 84.2 83.6 83.2 84.6 82.3 81.8 80.6 74.2 75.1 76.2 78.8 79.2 79.9 80.3 74.8	81.2 82.0 84.4 83.5 83.5 81.9 81.9 80.3 73.6 75.5 76.8 78.9 79.8	81.0 82.3 85.0 83.4 83.6 84.6 81.8 82.2 79.8 73.5 75.2 76.7 79.4 80.2 80.2 80.8 71.7	79.8 81.3 82.6 84.6 83.0 83.8 84.0 81.7 82.0 78.4 73.9 76.0 77.1 79.9 80.2 80.1 80.4	80.7 81.2 83.4 84.0 83.6 83.8 82.9 81.5 82.1 76.7 74.9 75.4 77.5 80.1 80.3 80.6 79.4	80.8 81.2 83.7 83.8 83.5 84.3 82.1 81.4 81.2 75.1 75.3 75.9 78.0 79.4 80.3 80.5 76.8	81.1 82.0 84.5 83.5 83.5 82.0 82.0 80.2 73.8 75.3 76.5 79.1 79.7	80.6 81.4 83.6 84.0 83.4 84.1 82.8 81.6 81.4 76.0 77.9 79.8 80.2 80.5 77.5 68.7
1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010	79.3 81.3 82.4 84.9 82.5 83.3 84.4 81.8 82.0 79.0 73.9 75.8 77.0 79.7 80.2 79.7 80.5	79.8 81.5 82.3 84.5 83.5 83.9 84.0 81.8 82.0 78.3 73.7 76.1 77.4 80.1 80.4 80.4 69.6 71.5	80.3 81.3 82.9 84.4 83.0 84.1 83.5 81.6 82.1 77.9 74.2 76.0 77.0 80.0 80.2 80.3 80.2 68.5	80.7 81.4 83.2 84.0 83.3 83.7 83.3 81.5 82.3 77.5 74.4 75.4 77.4 80.0 80.4 80.7 79.6 67.9	80.8 81.0 83.4 83.9 83.5 83.9 83.3 81.8 82.2 76.7 74.8 75.4 77.9 80.0 80.2 80.6 79.3 67.2	80.6 81.1 83.7 83.9 83.8 82.3 81.3 81.9 76.0 75.5 77.3 80.2	81.2 81.2 83.6 83.3 83.4 83.8 81.5 81.5 75.5 75.2 75.8 77.9 80.0 80.3 80.4 78.8 67.6	80.6 81.1 83.8 84.1 83.6 84.4 82.8 81.6 81.0 75.1 75.3 75.7 78.1 80.0 80.3 80.4 77.5 68.3	80.6 81.4 83.7 84.1 83.6 84.6 82.1 81.0 81.2 74.7 75.3 76.2 78.1 78.3 80.1 80.7 74.2 68.9	81.0 81.8 84.2 83.6 83.2 84.6 82.3 81.8 80.6 74.2 75.1 76.2 78.8 79.2 79.9 80.3 74.8 69.2	81.2 82.0 84.4 83.5 83.5 84.8 81.9 80.3 73.6 75.5 76.8 78.9 79.8	81.0 82.3 85.0 83.4 83.6 84.6 81.8 82.2 79.8 73.5 75.2 76.7 79.4 80.2 80.2 80.2 70.1	79.8 81.3 82.6 84.6 83.0 83.8 84.0 81.7 82.0 78.4 73.9 76.0 77.1 79.9 80.2 80.1 80.4 69.4	80.7 81.2 83.4 84.0 83.6 83.8 82.9 81.5 82.1 76.7 74.9 75.4 77.5 80.1 80.3 80.6 79.4 67.3	80.8 81.2 83.7 83.8 83.5 84.3 82.1 81.4 81.2 75.1 75.3 75.9 78.0 79.4 80.3 80.5 76.8 68.3	81.1 82.0 84.5 83.5 83.5 84.7 82.0 82.0 80.2 73.8 75.3 76.5 79.1 79.9 80.6 73.5 69.7	80.6 81.4 83.6 84.0 83.4 84.1 82.8 81.6 81.4 76.0 77.9
1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010	79.3 81.3 82.4 84.9 82.5 83.3 84.4 81.8 82.0 79.0 73.9 75.8 77.0 79.7 80.2 79.7 80.5 70.0 71.0	79.8 81.5 82.3 84.5 83.9 84.0 81.8 82.0 78.3 73.7 76.1 77.4 80.1 80.4 80.4 69.6 71.5	80.3 81.3 82.9 84.4 83.0 84.1 83.5 81.6 82.1 77.9 74.2 76.0 77.0 80.0 80.2 80.3 80.2 80.3 80.2	80.7 81.4 83.2 84.0 83.3 83.7 83.3 81.5 82.3 77.5 74.4 77.4 80.0 80.4 80.7 79.6 67.9 72.6	80.8 81.0 83.4 83.9 83.5 83.9 83.3 81.8 82.2 76.7 74.8 75.4 77.9 80.0 80.2 80.6 79.3 67.2 73.9	80.6 81.1 83.7 83.9 83.8 82.3 81.3 81.9 76.0 75.5 77.3 80.2 80.4 80.5 79.2 66.9 74.2	81.2 81.2 83.6 83.3 83.4 83.8 81.5 81.5 75.2 75.2 75.8 77.9 80.0 80.3 80.4 78.8 67.6 74.8	80.6 81.1 83.8 84.1 83.6 84.4 82.8 81.6 81.0 75.1 75.3 75.7 78.1 80.0 80.3 80.4 77.5 68.3 75.1	80.6 81.4 83.7 84.1 83.6 84.6 82.1 81.0 81.2 74.7 75.3 76.2 78.1 80.1 80.7 74.2 68.9 75.4	81.0 81.8 84.2 83.6 83.2 84.6 82.3 81.8 80.6 74.2 75.1 76.2 78.8 79.2 79.9 80.3 74.8 69.2 75.2	81.2 82.0 84.4 83.5 83.5 84.8 81.9 80.3 73.6 75.5 76.8 78.9 79.8	81.0 82.3 85.0 83.4 83.6 84.6 81.8 82.2 79.8 73.5 75.2 76.7 79.4 80.2 80.2 80.8 71.7 70.1	79.8 81.3 82.6 84.6 83.0 83.8 84.0 81.7 82.0 78.4 73.9 76.0 77.1 79.9 80.2 80.1 80.4 69.4 71.6	80.7 81.2 83.4 84.0 83.6 83.8 82.9 81.5 82.1 76.7 74.9 75.4 77.5 80.1 80.3 80.6 79.4 67.3 73.6	80.8 81.2 83.7 83.8 83.5 84.3 82.1 81.4 81.2 75.1 75.3 75.9 78.0 79.4 80.3 80.5 76.8 68.3 75.1	81.1 82.0 84.5 83.5 83.5 82.0 80.2 73.8 75.3 76.5 79.1 79.7 79.9 80.6 73.5 69.7	80.6 81.4 83.6 84.0 83.4 84.1 82.8 81.6 74.8 76.0 77.9 79.8 80.2 80.5 77.5 68.7 74.0

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

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

Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annua
P (percent																	
change) ²																	
991	8	6	7	.3	.7	1.1	.2	.3	1.1	2	2	1	-8.8	1.9	7.2	1.6	-2.0
992	6	.9	1.0	.5	.6	.3	.9	4	.0	.7	.4	2	.5	8.2	4.0	3.1	3.
993	1.0	.2	2	.5	1	2	.3	1	.6	.8	.4	.5	4.5	1.4	1.0	6.9	3.:
994	.2	.1	1.3	.8	.7	.3	.4	.8	.4	1.0	.8	1.1	4.9	9.6	6.1	10.3	5.
995	.2	2	.2	1	.1	.5	6	1.1	.8	1	.1	.4	4.7	.9	3.2	4.1	5.
96	8	1.6	2	1.1	.7	1.1	.3	.6	.7	1	.8	.9	2.0	9.5	7.8	5.7	4.
97	.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.
998	.8	.1	1	.5	.6	7	5	2.5	4	1.0	.1	.5	6.1	2.3	3.2	7.6	6.
999	.3	.7	.0	.4	.9	4	.5	.6	3	1.5	.7	.7	4.7	4.4	3.7	9.0	5
000	.2	.3	.7	.6	2	.2	.0	6	.5	4	3	6	5.3	4.4	8	-2.9	4
01	6	6	3	3	8	7	3	6	2	6	3	.3	-6.4	-5.5	-6.0	-4.2	-4
002	0	1	3 .7	.2	6	1.2	5 5	0	.1	4	s .5	4	3.3	5.9	3.1	3	-4
003	.5	.2	.2	9	.0	.4	.1	4	.8	1	1.0	2	2.4	-2.4	1.5	3.7	1
004	.0	.7	2	.4	.7	7	.9	.6	.0	1.0	1	.6	2.5	3.0	4.2	5.5	2
005	.7	.8	4	.3	.4	.2	1	.3	-1.0	1.5	.8	.1	6.0	2.3	1	5.7	4
20.5		•											2.0			1.0	
006 007	.8 5	2 .4	1 .7	.6 .7	4 1	.3	2 .1	.4 4	.1	4 4	.1	1.5	3.9 4.2	1.1 5.7	.7 1.0	1.2 1.0	2
107	3 4	.4 6	3	. / -1.1	1 5	.s 5	-1.1	4	.s -3.4	4 6	.3 -2.2	-3.4	-2.6	-7.8	-13.4	-21.5	-4
109	-2.9	2	-1.9	8	-1.1	3	1.2	1.1	-3.4	.1	1.1	.0	-23.7	-11.1	6.6	7.3	-13
010	1.0	.0	1.3	.9	1.4	.0	.7	.1	.1	.1	.2	.6	7.3	11.3	5.2	1.8	6
	_		_	_	_	_	_			_	_						_
11	.2	.0	.7	7	.3	.1	.7	.4	.4	.6	.0	1.0	3.4	4	5.0	5.2	3
)12)13	1.0 1	.6 .6	5 2	.6 4	3 .2	.3	.2 4	7 .7	.1	4	1.4	.9	8.1 4.9	1.6 4	5	2.4	3
13	1	.0	2	4	.2	.3	4	. /					4.7	4			
P (2007=100)																	
11	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
12	93.3	93.9	93.4	93.9	93.7	94.0	94.2	93.5	93.6	93.2	94.5	95.3	93.5	93.9	93.8	94.3	93
13	95.2	95.7	95.5	95.1	95.4	95.7	95.3	96.0					95.5	95.4			
apacity																	
ercent of																	
007 output)																	
011	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
012	123.0	123.1	123.3	123.5	123.6	123.8	124.0	124.1	124.3	124.4	124.6	124.8	123.1	123.6	124.1	124.6	123
013	124.9	125.1	125.2	125.4	125.6	125.7	125.9	126.0					125.1	125.6			
tilization																	
ercent)																	
991	78.5	77.9	77.3	77.4	77.8	78.6	78.7	78.8	79.5	79.3	79.0	78.8	77.9	77.9	79.0	79.1	78
992	78.2	78.8	79.4	79.6	79.9	79.9	80.4	79.8	79.7	80.0	80.1	79.8	78.8	79.8	80.0	80.0	79
993	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
94	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
995	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
996	81.3	82.2	81.6	82.0	82.2	82.6	82.4	82.5	82.6	82.1	82.3	82.5	81.7	82.3	82.5	82.3	82
997	82.1	82.8	83.3	82.6	82.8	82.8	82.7	83.4	83.6	83.5	83.8	83.5	82.7	82.7	83.2	83.6	83
998	83.6	83.0	82.3	82.1	82.0	80.8	80.0	81.5	80.7	81.1	80.7	80.7	83.0	81.7	80.7	80.8	81
999	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
000	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
01	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
02	71.9	73.9	72.2	72.3	72.8	73.6	73.2	73.5	73.6	73.3	73.6	73.3	72.0	72.9	73.4	73.4	72
03	73.7	73.9	74.0	73.3	73.4	73.7	73.8	73.5	74.1	74.1	74.8	74.7	73.9	73.5	73.8	74.6	73
04	74.8	75.3	75.2	75.6	76.1	75.6	76.3	76.7	76.6	77.4	77.2	77.6	75.1	75.8	76.5	77.4	76
005	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
106	70.0	70.6	70.5	70.0	70.4	70.5	79.2	70.4	70.4	77.0	77.0	70.0	70.7	70.6	70.2	70.1	70
006	78.9 78.2	78.6 78.3	78.5 78.7	78.8 79.1	78.4 78.8	78.5 78.9	78.2 78.8	78.4 78.3	78.4 78.6	77.9 78.2	77.8 78.5	78.8 78.5	78.7 78.4	78.6 78.9	78.3 78.6	78.1 78.4	78 78
)07)08	78.2 78.1	78.3 77.7	78.7 77.5	79.1 76.6	78.8 76.3	78.9 76.0	78.8 75.3	78.3 74.4	72.0	78.2 71.6	78.5 70.2	78.5 67.9	77.8	78.9 76.3	78.6 73.9	78.4 69.9	78 74
	66.1	66.1	65.0	64.6	64.0	64.0	64.8	65.7	66.3	66.5	67.4	67.6	65.7	64.2	65.6	67.2	65
009	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
									T 4 0	- 4 -							1 7/
)10)11	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
009 010 011 012 013	73.4 75.8 76.2	73.4 76.2 76.5	73.9 75.7 76.3	73.4 76.1 75.9	73.5 75.8 75.9	73.5 75.9 76.1	74.0 76.0 75.7	74.2 75.4 76.1	74.3	74.7	74.5 75.8	75.2 76.4	73.6 75.9 76.3	73.5 75.9 76.0	74.2 75.5	74.8 75.7	75

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

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

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	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 1994	.5	.3	1 .9	.3	4 .4	.2	.3	1 .4	.4 .1	.7 .6	.3	.5	3.2 4.5	.2 5.4	1.4 3.2	5.1 5.7	2.5 4.0
1995	.1	2	1	3	.1	.2	5	1.1	.1	4	.1	.1	2.9	-1.2	1.5	.2	2.5
1996	-1.0	1.4	3	.8	.5	.7	5	.4	.3	3	.8	.5	4	6.5	2.1	3.0	1.7
1997 1998	1	.9	.5 1	3 .2	.3 .6	.2 9	.4 8	1.0 2.0	.7 7	.6 .6	.6 4	.1 .1	5.1 1.9	2.3	6.3	7.7 2.3	4.2 3.0
1999	.2	.2	1 1	1	.6	5 5	.3	.3	<i>1</i> 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 2002	7 .7	5 1	3 .8	2 .4	6 .5	5 .9	3 4	2 .1	4 .0	5 4	5 .5	1 6	-5.9 2.8	-4.4 6.2	-4.3 1.7	-4.5 8	-4.0 .3
2002	.6	.2	3	9	1	1	.2	2	.6	4	.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	2	2	.3	0	.1	2	1	2	1.0	2.1	1.8	.8	0	1.4
2006 2007	.1 5	1.1	1	.6	2 .1	.1	.0	.1	2	1 7	2	1	3.4	3.9	1.1	.0 8	1.4 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	.7	.3	4	.1	.1	1	.4					4.3	.3			
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	96.3	96.9	97.2	96.8	96.9	97.0	96.9	97.3					96.8	96.9			
Capacity (percent of 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	120.2	123.0	123.2	123.3	121.2	121.9	122.6	123.2	120.1
2013	123.5	123.6	123.8	123.9	124.1	124.2	124.4	124.6					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 1993	79.2 81.5	79.7 81.6	80.2 81.5	80.6 81.6	80.8 81.2	80.6 81.2	81.1 81.4	80.6 81.2	80.6 81.4	81.0 81.9	81.2 82.1	81.1 82.3	79.7 81.5	80.6 81.3	80.8 81.3	81.1 82.1	80.6 81.6
1994	82.6	82.5	83.1	83.2	83.4	83.8	83.6	83.8	83.7	84.1	84.3	84.9	82.7	83.5	83.7	84.5	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
1006	92.2	02.2	92.0	02.4	92.7	041	02.5	92.7	02.0	92.2	02.0	04.0	02.0	92.7	92.6	92.7	92.5
1996 1997	82.3 83.7	83.3 84.2	82.9 84.3	83.4 83.8	83.7 83.8	84.1 83.7	83.5 83.7	83.7 84.2	83.8 84.5	83.3 84.7	83.8 84.9	84.0 84.7	82.8 84.1	83.7 83.8	83.6 84.1	83.7 84.7	83.5 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
2001	75.1	74.9	75.5	75.7	76.1	76.8	76.5	76.6	75.6 76.6	76.4	76.8	76.4	75.2	76.2	76.5	76.5	76.3
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	80.4	80.2	80.6	80.6	80.7	80.7	80.8	81.1	80.6	81.0	81.0	80.1	80.7	80.9	80.8	80.6
2008	80.7	80.5	80.2	79.5	79.1	78.9	78.6	77.2	73.8	74.5	73.7	71.7	80.5	79.2	76.6	73.3	77.4
2009	70.0	69.5	68.3	67.6	66.9	66.7	67.4	68.2	68.8	69.1	69.6	70.0	69.3	67.1	68.1	69.6	68.5
2010	70.9	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
2012	77.9	78.2	77.6	78.0	78.1	77.9	78.2	77.5	77.5	77.2	78.1	78.0	77.9	78.0	77.7	77.8	77.8
2013	77.9	78.4	78.5	78.1	78.1	78.1	77.9	78.1					78.3	78.1			
	Ì																

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

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

7.1 1.1 2.7 1.5 .3 5.7 3.7 7.0 .4 .6 4.0 2.8 6.9 8.1 5 4.0 .2 6.7 -3.8 -4.8 -4.6 -4.3 2.4 -1.1 .0 2.7 3.7 4.9	5 2.6 7 2.5 0 4.4 6 2.5 8 1.5 1 4.9 0 3.4 7 1.4 8 .7
2.7 1.5 .3 5.7 3.7 7.0 .4 .6 4.0 2.8 6.9 8.1 5 4.0 2 6.7 -3.8 -4.8 -4.6 -4.3 2.4 -1.1 .0 2.7	5 2.6 7 2.5 0 4.4 6 2.5 8 1.5 1 4.9 0 3.4 7 1.4 8 .7
.3 5.7 3.7 7.0 .4 .6 4.0 2.8 6.9 8.1 5 4.0 .2 6.7 -3.8 -4.8 -4.6 -4.3 2.4 -1.1 .0 2.7	7 2.5 0 4.4 6 2.5 8 1.5 1 4.9 0 3.4 7 1.4 8 .7
.4 .6 4.0 2.8 6.9 8.1 5 4.0 .2 6.7 -3.8 -4.8 -4.6 -4.3 2.4 -1.1 .0 2.7	6 2.5 8 1.5 1 4.9 0 3.4 7 1.4 8 .7
4.0 2.8 6.9 8.1 5 4.0 .2 6.7 -3.8 -4.8 -4.6 -4.3 2.4 -1.1 .0 2.7	8 1.5 1 4.9 0 3.4 7 1.4 8 .7
6.9 8.1 5 4.0 .2 6.7 -3.8 -4.8 -4.6 -4.3 2.4 -1.1 .0 2.7	1 4.9 0 3.4 7 1.4 8 .7
5 4.0 .2 6.7 -3.8 -4.8 -4.6 -4.3 2.4 -1.1 .0 2.7	0 3.4 7 1.4 8 .7
-3.8 -4.8 -4.6 -4.3 2.4 -1.1 .0 2.7	8 .7
-4.6 -4.3 2.4 -1.1 .0 2.7	
2.4 -1.1 .0 2.7	2 4 6
.0 2.7	
37 40	7 .0
-1.9 4.3	I
1 .5 1.0 -1.4	
-13.8 -20.5	5 -5.8
2 2.1	3.7
88.0 89.1	1 87.8
91.2 91.7	7 91.2
118.7 118.9 120.2 120.7	
79.1 79.1	1 78.6
79.9 79.9	I
83.0 84.0	
82.6 82.2	2 83.0
82.5 82.4	4 82.1
83.0 83.5	
79.3 80.1	I
78.4 77.2	2 78.7
73.5 72.6	6 74.1
74.8 74.7	
78.0 78.4	I
78.0 77.8	8 78.2
78.9 78.6	6 78.7
71.9 72.4	
74.1 74.0	9 73.8
74.1 74.9 75.8 75.9	
111	-13.8 -20. 6.5 6. 4.8 4.8 52 2. 88.0 89. 91.2 91. 18.7 118. 20.2 120. 79.1 79. 79.9 79. 80.1 81. 83.0 84. 82.6 82. 82.8 82. 82.8 83.0 83. 81.0 81. 79.3 80. 78.4 77. 73.5 72. 74.8 74. 74.4 75. 76.9 77. 78.0 78. 78.0 77. 78.9 78. 78.0 77. 78.9 78. 77. 78.9 78. 77. 78.9 78. 77. 78.1 74. 74.1 74.1 74.1

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

EXPLANATORY NOTE

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

INDUSTRIAL PRODUCTION

Coverage. The industrial production (IP) index measures the real output of all manufacturing, mining, and electric and gas utility establishments located in the United States, regardless of their ownership, but not those located in U.S. territories; the reference period for the index is 2007. Manufacturing consists of those industries included in the North American Industry Classification System (NAICS) definition of manufacturing plus those industries newspaper, periodical, book, and directory publishing plus logging—that have traditionally been considered to be manufacturing. For the period since 1997, the total IP index has been constructed from 312 individual series based on the 2007 NAICS codes. These individual series are classified in two ways: (1) market groups, and (2) industry groups. Market groups consist of products and materials. Total products are the aggregate of final products, such as consumer goods and equipment, and nonindustrial supplies (which are inputs to nonindustrial sectors). Materials are inputs in the manufacture of products. Major industry groups include three-digit NAICS industries and aggregates of these industries—for example, durable and nondurable manufacturing, mining, and utilities. A complete description of the market and industry structures, including details regarding series classification, relative importance weights, and data sources, is available on the Board's 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 $(0.06 \times 10\% = 0.6\%)$. 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 (in value-added terms) are available; the fraction of available 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, 99 percent in the fifth month, and 99 percent in the sixth 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.

2014: January 17, February 14, March 17, April 16, May 15, June 16, July 16, August 15, September 15, October 16, November 17, and December 15.