

FEDERAL RESERVE statistical release



G.17 (419)

For release at 9:15 a.m. (EST)
November 16, 2012

INDUSTRIAL PRODUCTION AND CAPACITY UTILIZATION

Industrial production declined 0.4 percent in October after having increased 0.2 percent in September. Hurricane Sandy, which held down production in the Northeast region at the end of October, is estimated to have reduced the rate of change in total output by nearly 1 percentage point. The largest estimated storm-related

(over)

Industrial Production and Capacity Utilization: Summary

Seasonally adjusted

Industrial production	2007=100						Percent change						Oct. '11 to Oct. '12
	2012 May ^r	June ^r	July ^r	Aug. ^r	Sept. ^r	Oct. ^p	2012 May ^r	June ^r	July ^r	Aug. ^r	Sept. ^r	Oct. ^p	
Total index	97.3	97.3	97.9	96.8	97.0	96.6	.0	.0	.7	-1.1	.2	-4	1.7
<i>Previous estimates</i>	97.3	97.4	98.0	96.6	97.0		.1	.0	.7	-1.4	.4		
Major market groups													
Final Products	96.6	96.9	97.5	96.5	96.6	95.7	.4	.3	.6	-1.0	.1	-1.0	1.3
Consumer goods	93.6	93.4	94.0	93.0	92.9	92.1	.7	-.2	.7	-1.1	-.1	-.9	-.8
Business equipment	102.9	104.8	104.9	103.9	104.4	103.1	.3	1.9	.0	-.9	.4	-1.2	7.5
Nonindustrial supplies	87.4	87.2	87.1	86.6	86.8	86.2	-.2	-.3	-.1	-.6	.3	-.7	1.0
Construction	80.4	79.7	79.1	78.9	79.5	79.1	-1.6	-.9	-.8	-.3	.8	-.5	2.3
Materials	101.3	101.1	102.1	100.7	100.9	101.1	-.3	-.2	1.0	-1.4	.2	.1	2.4
Major industry groups													
Manufacturing (see note below)	94.0	94.3	94.6	93.7	93.8	93.0	-.7	.3	.3	-.9	.1	-.9	1.6
<i>Previous estimates</i>	94.1	94.4	94.7	93.8	94.0		-.6	.4	.3	-.9	.2		
Mining	111.4	111.6	112.8	111.2	112.2	113.9	-.1	.1	1.1	-1.4	.9	1.5	3.4
Utilities	102.7	99.9	102.8	100.6	100.6	100.5	5.3	-2.7	3.0	-2.2	.0	-.1	.5
Capacity utilization	Percent of capacity												Capacity growth
	Average 1972-2011	1988-89 high	1990-91 low	1994-95 high	2009 low	2011 Oct.	2012 May ^r	June ^r	July ^r	Aug. ^r	Sept. ^r	Oct. ^p	Oct. '11 to Oct. '12
Total industry	80.3	85.2	78.8	85.0	66.8	77.6	78.9	78.8	79.2	78.2	78.2	77.8	1.5
<i>Previous estimates</i>							78.9	78.8	79.2	78.0	78.3		
Manufacturing (see note below)	78.8	85.6	77.3	84.6	63.8	75.8	77.2	77.4	77.5	76.7	76.7	75.9	1.4
<i>Previous estimates</i>							77.3	77.5	77.6	76.8	76.8		
Mining	87.3	86.3	83.9	88.6	78.5	89.3	89.3	89.2	90.0	88.6	89.3	90.4	2.1
Utilities	86.3	92.9	84.3	93.3	79.1	76.6	77.6	75.4	77.5	75.6	75.4	75.2	2.3
Stage-of-process groups													
Crude	86.3	87.7	84.4	89.7	76.4	87.3	86.9	87.0	87.7	86.8	87.3	87.8	1.6
Primary and semifinished	81.1	86.5	78.0	87.9	64.2	74.3	76.4	75.9	76.5	75.5	75.4	75.0	.2
Finished	77.2	83.4	77.3	80.6	66.8	77.2	78.0	78.3	78.4	77.4	77.4	76.4	3.3

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.

effects included reductions in the output of utilities, of chemicals, of food, of transportation equipment, and of computers and electronic products. In October, the index for manufacturing decreased 0.9 percent; excluding storm-related effects, factory output was roughly unchanged from September. The output of utilities edged down 0.1 percent in October, and production at mines advanced 1.5 percent. At 96.6 percent of its 2007 average, total industrial production in October was 1.7 percent above its year-earlier level. Capacity utilization for total industry decreased 0.4 percentage point to 77.8 percent, a rate 2.5 percentage points below its long-run (1972–2011) average.

Market Groups

The production of consumer goods declined 0.9 percent in October. The output of durable goods advanced 0.2 percent, but the output of nondurables fell 1.2 percent. Among durable consumer goods categories, the index for automotive products rose after having declined in each of the previous three months; the production of home electronics moved up; the output of appliances, furniture, and carpeting was unchanged; and the index for miscellaneous goods decreased. Among non-energy nondurables, there were losses in the indexes for foods and tobacco, for clothing, and for paper products. Despite storm-related outages, the index for chemical products edged up. The output of consumer energy products stepped down 0.7 percent, partly reflecting a decline in residential utilities.

The output of business equipment moved down 1.2 percent in October, and all three of its major components registered similarly sized losses. The production of transit equipment decreased 1.2 percent, nearly offsetting its gain in September. The indexes for information processing equipment and for industrial and other equipment each fell slightly more than 1 percent in October, but both indexes were about 5 percent above their year-earlier levels.

The output of defense and space equipment declined 0.8 percent in October after a solid advance in September.

Among nonindustrial supplies, the output of construction supplies decreased 0.5 percent in October after having moved up in September, and the production of business supplies declined 0.7 percent in October and was 0.4 percent above its year-earlier level.

The output of materials to be processed further in the industrial sector rose 0.1 percent in October. A large gain in the index for energy materials more than offset declines in the non-energy categories. The output of durable materials decreased 0.5 percent, its third straight monthly decline. The index for consumer parts was unchanged in October and stood 15.1 percent above its year-earlier level. The output of equipment parts decreased 0.3 percent in October. The index for nondurable materials dropped 1.1 percent, reversing the gain of the previous month; each of its major components moved down. The output of energy materials rose 1.6 percent.

Industry Groups

Manufacturing output declined 0.9 percent in October. Excluding the estimated effects of Hurricane Sandy, manufacturing output was little changed from its September level. Declines were widespread across both durable and nondurable goods industries. The factory operating rate slipped to 75.9 percent in October, a rate 2.9 percentage points below its long-run average.

The production of durable goods decreased 0.6 percent in October. Losses of more than 1 percent were recorded in the indexes for machinery and for electrical equipment, appliances, and components. The output of wood products edged up, but production declined in all other major categories of durables. Capacity utilization

for durable goods manufacturing was 75.8 percent, a rate 1.3 percentage points below its long-run average.

The index for nondurables dropped 1.0 percent in October and stood 0.5 percent below its year-earlier level. Sizable declines were recorded in October in the production of food, beverage, and tobacco products; apparel and leather products; paper; printing and support activities; and petroleum and coal products. Capacity utilization for nondurable manufacturing was 77.5 percent, a rate 3.4 percentage points below its long-run average.

Production in the non-NAICS manufacturing industries (logging and publishing) fell 3.4 percent in October. The output of publishers was held down by the effects of Hurricane Sandy.

Mining output advanced 1.5 percent in October after having gained 0.9 percent in September; the extraction of crude oil rose significantly in both months. Capacity utilization for mining moved up 1.1 percentage points in October to 90.4 percent, a rate 3.1 percentage points above its long-run average. The output of utilities edged down 0.1 percent in October; it was unchanged in September. The operating rate for utilities fell 0.2 percentage point in October to 75.2 percent, a rate 11.1 percentage points below its long-run average.

Capacity utilization rates in October for industries grouped by stage of process were as follows: At the crude stage, utilization increased 0.5 percentage point to 87.8 percent, a rate 1.5 percentage points above its long-run average; at the primary and semifinished stages, utilization dropped 0.4 percentage point to 75.0 percent, a rate 6.1 percentage points below its long-run average; and at the finished stage, utilization fell 1.0 percentage point to 76.4 percent, a rate 0.8 percentage point 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 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/).

Calculating Disaster Effects on Industrial Production

The effect of Hurricane Sandy on industrial output was estimated using the same procedures employed to assess the effects of previous natural disasters. For some industries, timely high-frequency physical product data that reflect the imprint of natural disasters on industrial output exist. For other industries, estimates of natural-disaster effects are constructed using the following methodology. First, information from the Federal Emergency Management Agency (FEMA) is used to determine which counties were affected by the disaster; FEMA issues Major Disaster Declarations and Emergency Declarations based on the needs of the counties. Second, the U.S. Census Bureau's County Business Patterns data are used to measure each industry's share of employment located in the affected counties. Third, the duration that facilities in the affected areas were idled is estimated based on the declaration type assigned to each county by FEMA. Fourth, given this information, an estimate of the magnitude of the disruption is constructed for each industry, and the industry-specific effects are aggregated using industrial production weights to obtain an overall estimate of the effect on top-line industrial production and on the major industry aggregates. In subsequent months, as physical product data and other information become available, the disaster effects are further updated and refined.

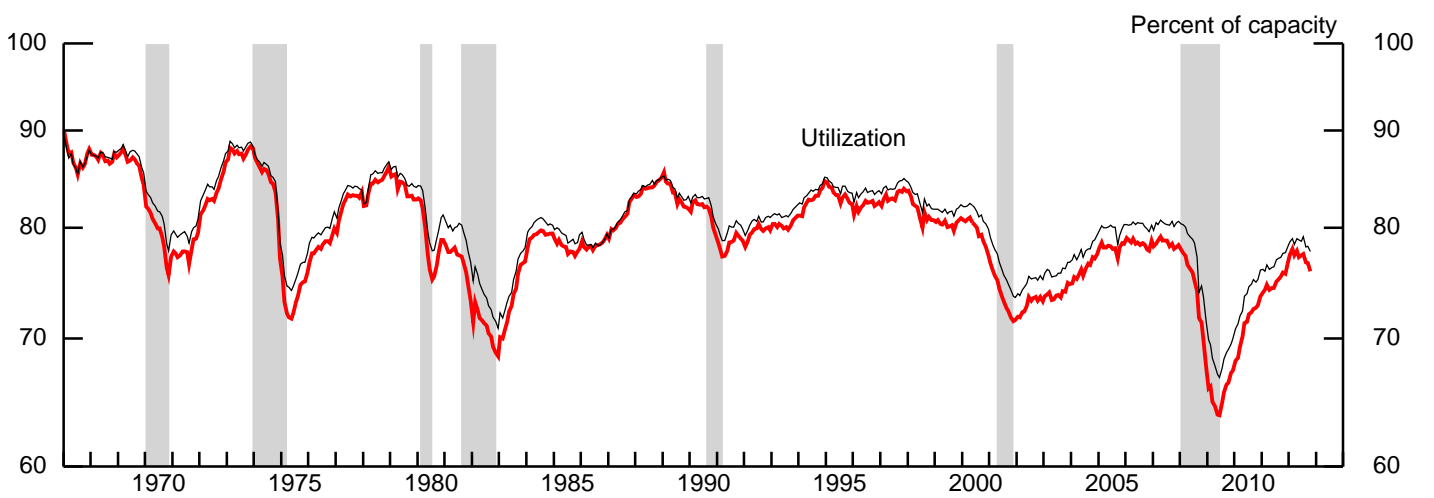
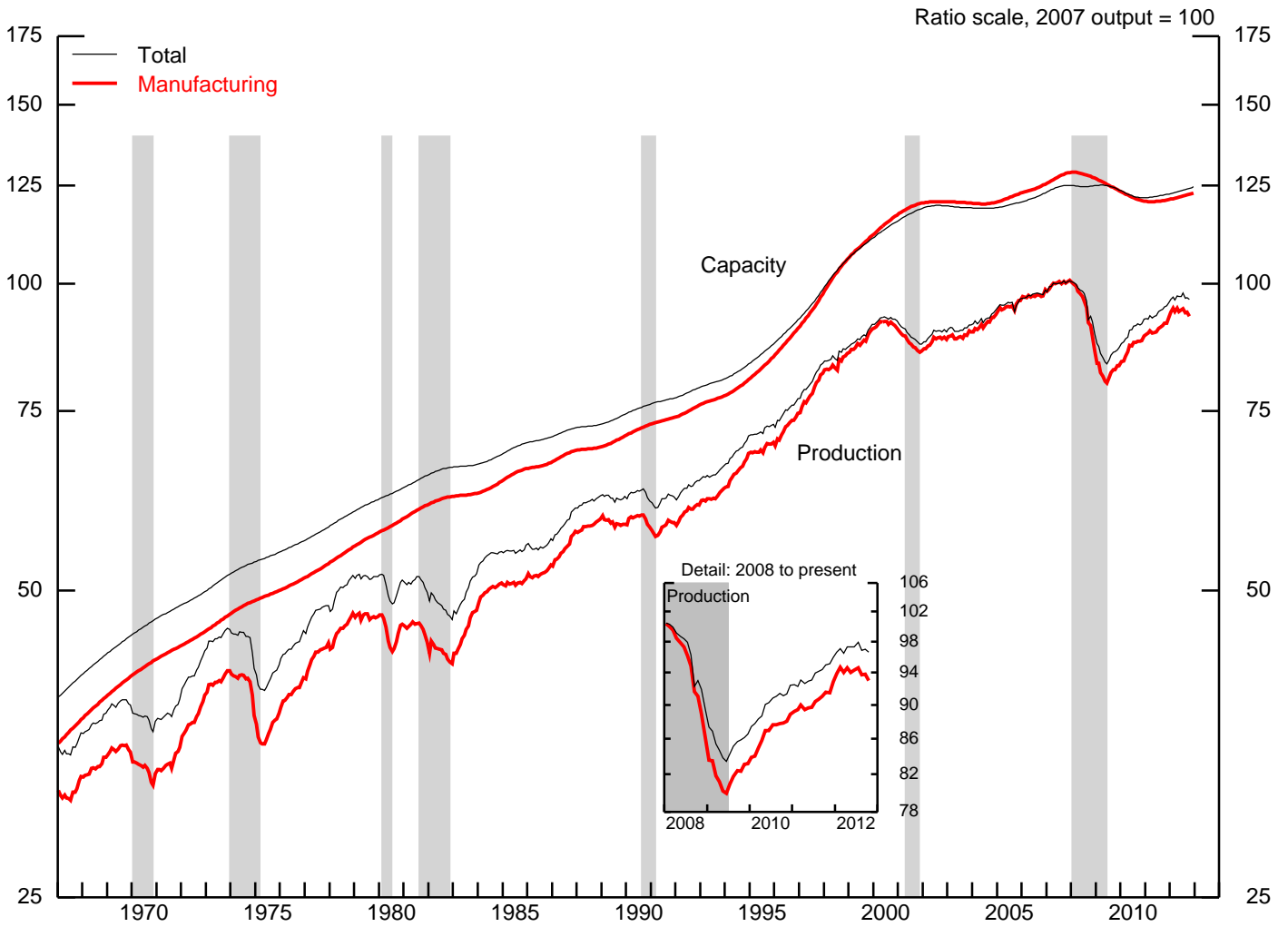
Revision of Industrial Production and Capacity Utilization

The Federal Reserve Board plans to issue its annual revision to the index of industrial production (IP) and the related measures of capacity utilization at the end of March 2013. The revised IP indexes will incorporate detailed data from the 2011 Annual Survey of Manufactures, conducted by the U.S. Census Bureau. Annual data from the U.S. Geological Survey regarding metallic and nonmetallic minerals (except fuels) for 2011 will also be incorporated. The update will include revisions to the monthly indicator (either product data or input data) and to seasonal factors for each industry. In addition, the estimation methods for some series may be changed. Any modifications to the methods for estimating the output of an industry will affect the index from 1972 to the present.

Capacity and capacity utilization will be revised to incorporate data through the fourth quarter of 2012 from the Census Bureau's Quarterly Survey of Plant Capacity, which covers manufacturing, along with new data on capacity from the U.S. Geological Survey, the U.S. Department of Energy, and other organizations.

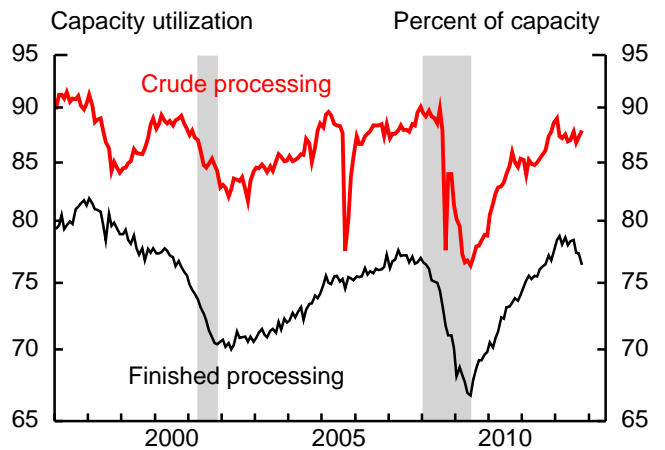
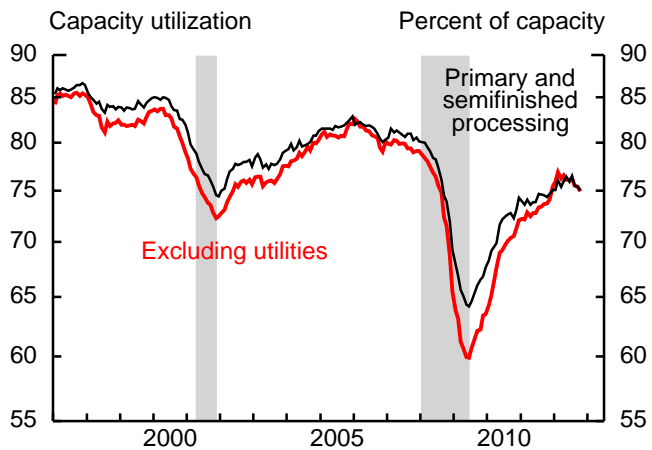
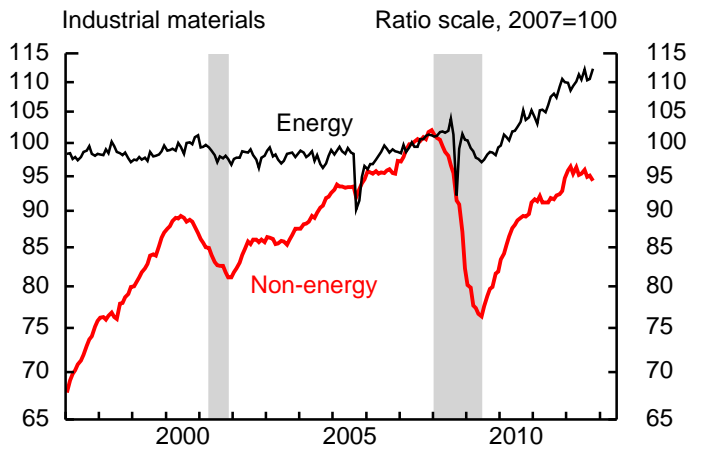
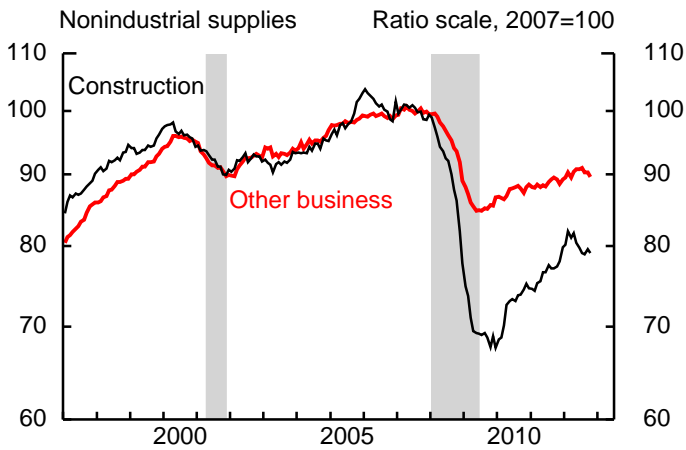
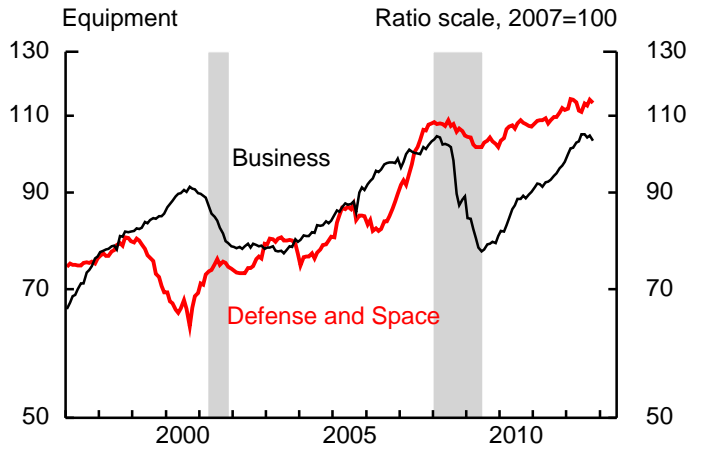
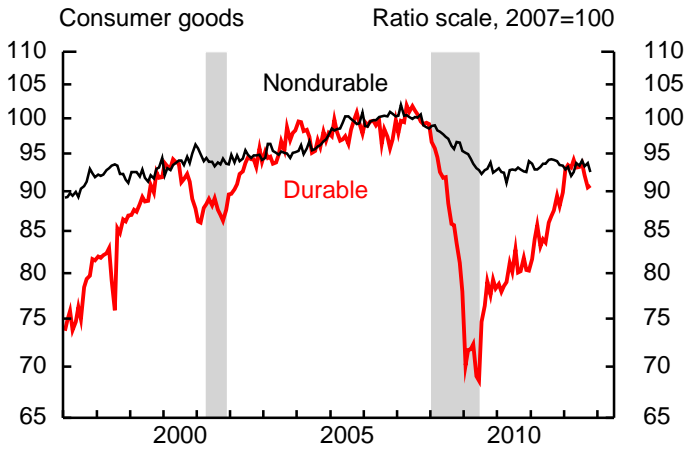
Once the revision is published, it will be available on the Board's website at www.federalreserve.gov/releases/G17. The 2013 release schedule is also available on the website.

1. Industrial production, capacity, and utilization



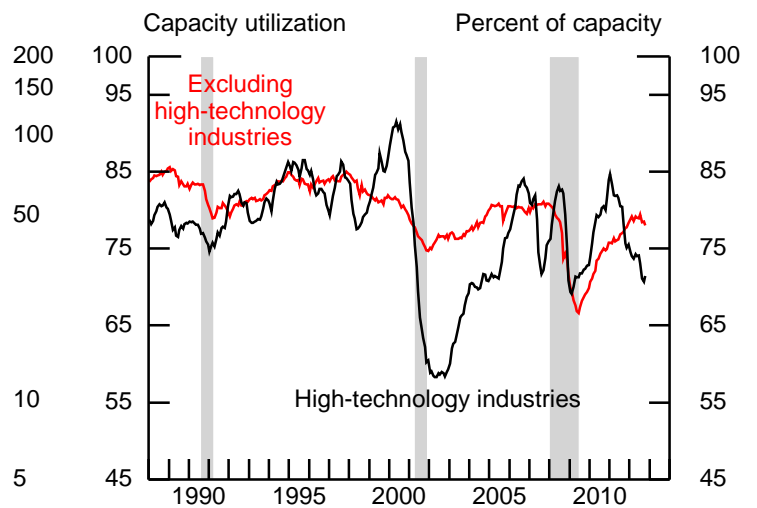
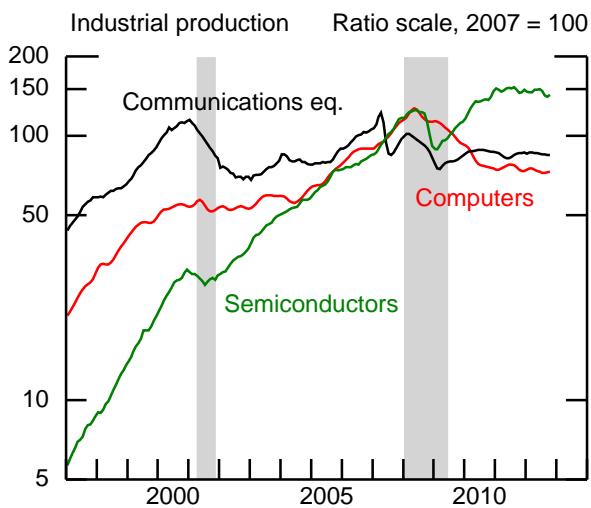
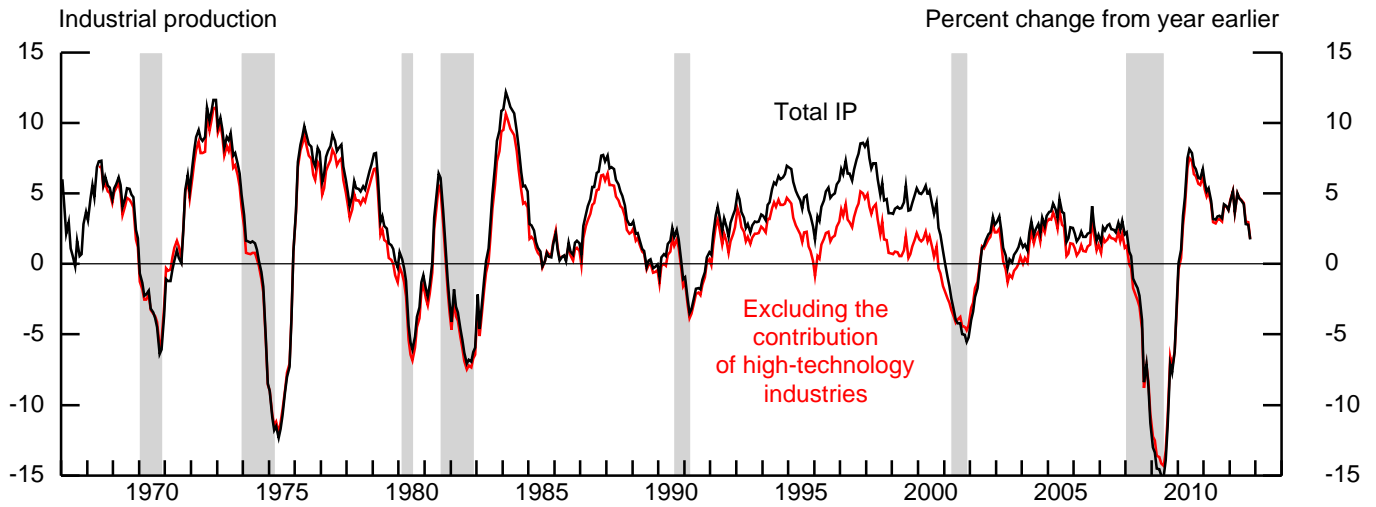
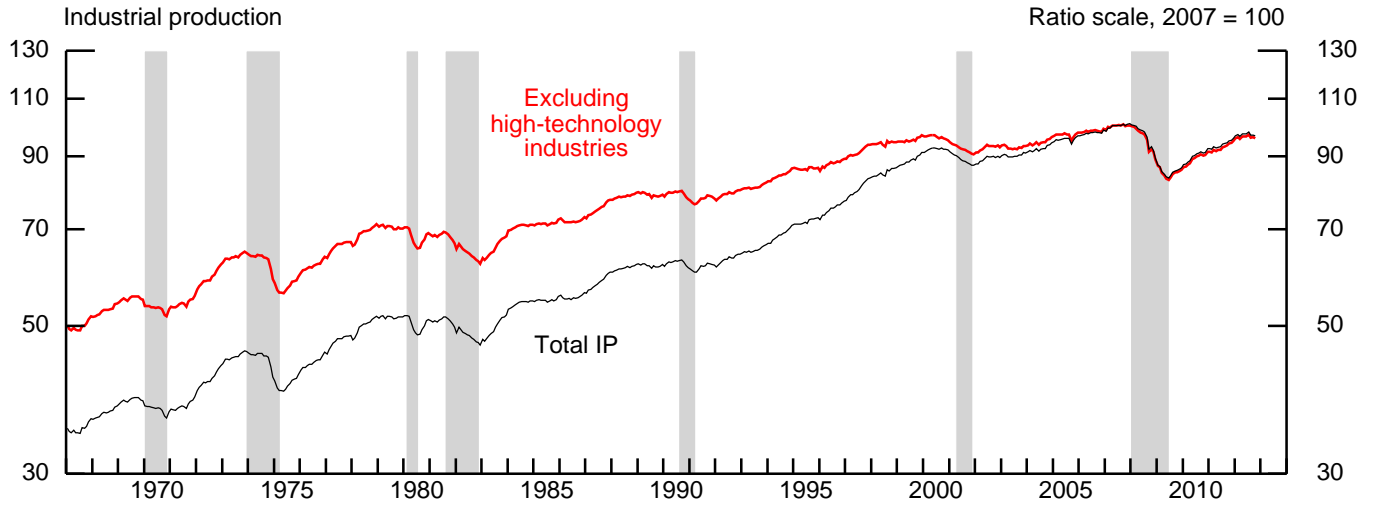
Note: The shaded areas are periods of business recession as defined by the National Bureau of Economic Research (NBER).

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

Item	2011 proportion ¹	Fourth quarter to fourth quarter			Annual rate			Monthly rate						Oct. '11 to Oct. '12
		2009	2010	2011	2012 Q1	Q2 ^r	Q3 ^r	2012 May ^r	June ^r	July ^r	Aug. ^r	Sept. ^r	Oct. ^p	
Total IP	100.00	-5.7	6.3	4.1	5.9	2.3	.0	.0	.0	.7	-1.1	.2	-4	1.7
MARKET GROUPS														
Final products and nonindustrial supplies	53.84	-6.6	4.2	3.8	5.7	3.4	.2	.3	.2	.4	-.9	.2	-.9	1.2
Consumer goods	27.68	-3.3	.8	2.8	1.2	2.2	.1	.7	-.2	.7	-1.1	-.1	-.9	-.8
Durable	6.30	-3.1	3.1	10.3	19.2	1.7	-5.9	-1.1	.1	.5	-1.8	-1.7	.2	1.4
Automotive products	3.50	7.6	1.6	16.6	27.5	-.1	-11.7	-2.2	.3	-.2	-2.4	-2.4	.6	.5
Home electronics	.16	-16.8	-21.4	2.2	2.2	-8.5	-14.4	-1.2	-1.3	-1.8	-.9	-.8	.4	-6.4
Appliances, furniture, carpeting	.76	-15.9	2.3	2.5	11.5	-5.2	-.9	.2	-.8	1.0	-.8	-.7	.0	1.1
Miscellaneous goods	1.88	-10.9	9.2	3.4	8.3	9.3	5.0	.7	.0	1.9	-1.0	-.8	-.3	4.0
Nondurable	21.38	-3.3	.1	.6	-3.9	2.3	2.0	1.3	-.3	.7	-.9	.4	-1.2	-1.5
Non-energy	15.99	-4.2	-.6	1.0	2.1	-1.8	-.7	-.4	-.3	.4	-.8	.7	-1.4	-1.6
Foods and tobacco	9.22	-1.2	1.3	1.2	4.4	.4	4.3	-.3	.3	.9	-.5	1.1	-1.8	.7
Clothing	.20	-27.9	10.3	-6.7	17.1	-11.0	-14.3	-.3	-1.8	-1.1	-2.6	1.1	-1.6	-4.4
Chemical products	4.72	-7.4	-3.5	2.1	-.9	-3.5	-7.7	-.6	-1.1	-.2	-1.3	.0	.1	-3.7
Paper products	1.35	-7.1	-4.3	-3.9	-7.1	-15.5	-10.1	-1.3	-1.7	-.2	-1.1	-.4	-4.1	-12.7
Energy	5.39	-.5	2.1	-.4	-20.2	16.8	10.9	6.7	-.6	1.7	-1.2	-.2	-.7	-1.2
Business equipment	9.57	-9.9	12.7	8.0	17.3	12.0	3.7	.3	1.9	.0	-.9	.4	-1.2	7.5
Transit	2.31	11.5	13.2	17.6	28.4	25.7	14.5	1.0	2.5	3.1	-3.3	1.5	-1.2	15.1
Information processing	2.22	-8.0	6.0	6.2	14.8	3.7	3.3	-1.1	1.5	.6	-.8	.3	-1.1	5.1
Industrial and other	5.04	-17.0	15.8	4.6	13.3	9.2	-1.4	.5	1.7	-1.8	.4	-.1	-1.3	4.9
Defense and space equipment	2.18	-3.2	5.0	4.1	8.1	-5.7	5.9	-2.3	-.4	2.2	-.4	1.5	-.8	2.6
Construction supplies	4.12	-17.0	9.8	4.9	14.6	-2.2	-7.2	-1.6	-.9	-.8	-.3	.8	-.5	2.3
Business supplies	9.56	-6.1	2.4	1.2	3.4	4.0	-.5	.4	.0	.2	-.7	.0	-.7	.4
Materials	46.16	-4.6	9.0	4.3	6.1	1.1	-.3	-.3	-.2	1.0	-1.4	.2	.1	2.4
Non-energy	28.75	-6.5	10.9	3.7	11.7	-1.2	-1.3	-1.2	.2	.6	-1.1	.2	-.7	2.2
Durable	17.14	-11.2	16.4	6.6	15.9	2.4	-4.1	-.8	.4	.4	-2.1	-.4	-.5	3.3
Consumer parts	2.45	-11.5	27.2	6.7	34.1	18.1	9.8	-1.1	2.0	4.9	-4.5	-.9	.0	15.1
Equipment parts	6.28	-9.5	17.5	8.0	15.4	5.7	-13.1	-.6	.9	-2.3	-2.5	.1	-.3	1.5
Other	8.42	-12.5	12.5	5.6	11.4	-4.4	-1.3	-.8	-.5	1.1	-.9	-.5	-.7	1.2
Nondurable	11.61	.8	3.6	-.5	5.4	-6.6	3.2	-1.9	-.1	.9	.3	1.0	-1.1	.5
Textile	.45	-5.1	5.2	1.2	18.4	-4.7	-4.0	-2.8	2.3	-1.1	-.9	.3	-.6	2.5
Paper	2.01	-4.7	-.1	-2.9	3.7	-4.9	-8.9	-.1	-2.1	-.5	-.1	-.9	-1.5	-4.0
Chemical	5.68	4.9	6.6	-.8	7.3	-9.7	7.8	-2.7	.1	1.6	.8	1.9	-.7	2.4
Energy	17.40	-1.7	5.7	5.3	-2.4	5.0	1.5	1.1	-.8	1.6	-1.7	.2	1.6	2.7
INDUSTRY GROUPS														
Manufacturing	75.34	-6.5	6.5	4.2	9.8	.7	-1.1	-.7	.3	.3	-.9	.1	-.9	1.6
Manufacturing (NAICS) 31-33	72.60	-6.3	7.1	4.5	10.2	1.2	-.7	-.6	.4	.4	-.9	.1	-.8	2.0
Durable manufacturing	37.96	-9.3	11.7	7.2	16.3	5.4	-1.9	-.5	.6	.3	-1.4	-.3	-.6	4.2
Wood products	321	.90	-12.8	5.0	2.6	14.4	-4.5	-3.6	.2	-1.6	.3	-.9	1.1	2.5
Nonmetallic mineral products	327	1.55	-18.1	10.5	.3	7.2	-3.4	-8.0	-1.6	.6	-1.8	-.2	-.4	-1.9
Primary metals	331	2.94	-2.8	11.9	8.6	9.1	-9.8	-10.0	-2.1	-3.4	2.3	-.5	-4.8	-3.6
Fabricated metal products	332	5.41	-19.0	14.4	7.7	13.4	7.0	3.1	.5	.7	.4	-.6	.5	-.7
Machinery	333	5.41	-18.6	20.2	7.3	22.1	8.8	-9.7	-.4	2.5	-3.3	-1.1	.3	-1.9
Computer and electronic products	334	6.25	-3.1	12.2	5.7	9.3	4.1	-3.8	-.9	1.1	-.1	-1.9	-.1	-.3
Electrical equip., appliances, and components	335	1.76	-18.1	12.5	.2	9.9	5.4	2.4	.4	-.8	1.0	-1.2	2.5	-1.4
Motor vehicles and parts	3361-3	5.33	2.3	15.8	14.6	40.4	15.8	.2	-1.2	1.9	2.1	-3.5	-1.8	-.1
Aerospace and miscellaneous transportation equipment	3364-9	4.30	-.1	2.5	10.5	10.9	.9	3.0	-.4	.2	1.0	-1.0	1.2	-.1
Furniture and related products	337	.98	-22.3	5.8	3.5	16.3	-3.3	-2.0	-1.1	-1.2	1.7	-1.1	-1.1	-.6
Miscellaneous	339	3.12	-4.0	4.2	2.4	9.9	13.0	5.5	.9	.5	1.5	-.8	-.7	-.4
Nondurable manufacturing	34.64	-2.9	2.3	1.6	3.7	-3.4	.7	-.8	.1	.4	-.4	.6	-1.0	-.5
Food, beverage, and tobacco products	311,2	11.43	-.5	1.0	1.7	4.0	-.4	5.0	-.5	.4	1.0	-.5	1.2	-.18
Textile and product mills	313,4	.74	-10.4	5.3	.8	9.4	-4.2	-3.0	-2.3	2.2	-1.0	-.8	.4	-.5
Apparel and leather	315,6	.28	-20.0	9.5	-2.6	10.5	-8.9	-14.6	-.7	-1.3	-1.5	-2.9	1.8	-2.1
Paper	322	2.43	-1.2	.3	-1.8	-.3	-5.5	-7.6	-.7	-2.4	-.2	.3	-.4	-1.2
Printing and support	323	1.43	-12.4	1.0	-5.9	6.8	.2	-2.6	.5	.5	.1	-.7	-2.2	-1.5
Petroleum and coal products	324	3.69	-2.6	2.6	7.3	.4	-8.9	-4.9	.8	-.4	-1.4	.2	.2	-.9
Chemicals	325	11.53	-1.5	1.9	.4	3.7	-5.4	.4	-1.6	.1	.3	-.1	.9	-.3
Plastics and rubber products	326	3.11	-8.4	10.6	6.4	6.2	.3	2.9	-1.1	.8	2.0	-1.7	-.8	.2
Other manufacturing (non-NAICS) 1133,5111	2.74	-11.5	-6.0	-3.1	-.2	-12.0	-11.2	-1.5	-1.3	-1.3	.0	-.6	-3.4	-9.3
Mining 21	14.38	-5.1	8.3	7.9	.5	-.5	2.1	-.1	.1	1.1	-1.4	.9	1.5	3.4
Utilities 2211,2	10.28	-1.1	2.7	-2.2	-13.8	21.1	5.4	5.3	-2.7	3.0	-2.2	.0	-.1	.5
Electric	2211	8.99	-1.4	2.6	-2.0	-8.4	19.5	1.0	5.3	-3.9	3.0	-2.5	-.1	.2
Natural gas	2212	1.29	.7	3.5	-3.3	-44.6	36.3	45.9	6.0	7.4	2.7	.0	.7	-2.0

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 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.

Table 2
INDUSTRIAL PRODUCTION: SPECIAL AGGREGATES AND SELECTED DETAIL

Percent change, seasonally adjusted

Item	2011 proportion	Fourth quarter to fourth quarter			Annual rate			Monthly rate						Oct. '11 to Oct. '12
		2009	2010	2011	2012 Q1	Q2 ^r	Q3 ^r	2012 May ^r	June ^r	July ^r	Aug. ^r	Sept. ^r	Oct. ^p	
Total industry	100.00	-5.7	6.3	4.1	5.9	2.3	.0	.0	.0	.7	-1.1	.2	-4	1.7
Energy	26.40	-2.5	5.1	3.9	-6.3	7.8	3.1	2.3	-.7	1.5	-1.5	.0	.9	1.4
Consumer products	5.39	-.5	2.1	-.4	-20.2	16.8	10.9	6.7	-.6	1.7	-1.2	-.2	-.7	-1.2
Commercial products	2.93	-1.4	1.9	-.4	-5.3	13.2	2.7	2.5	-.7	1.0	-.7	-.7	.5	.4
Oil and gas well drilling	213111	.68	-42.3	44.9	21.1	4.1	-3.5	-10.0	.9	.5	-1.2	-2.1	-1.9	-2.3
Converted fuel	3.98	-.4	3.0	-1.2	3.0	18.6	-5.6	4.4	-3.1	1.8	-4.1	.8	.1	2.9
Primary energy	13.43	-2.2	6.7	7.3	-3.9	1.3	3.6	.2	-.1	1.6	-1.0	.1	2.0	2.7
Non-energy	73.60	-6.8	6.7	4.1	10.6	.5	-1.1	-.8	.3	.4	-1.0	.3	-.9	1.9
Selected high-technology industries	3.38	-.3	12.9	1.8	.6	4.1	-12.2	-.1	.2	-1.3	-2.8	-.6	1.1	-1.7
Computers and peripheral equipment	3341	.46	-16.6	-20.0	-2.5	6.7	-6.4	-6.8	-.9	-1.1	-.7	-.3	.6	-.9
Communications equipment	3342	.63	-4.4	5.2	-1.0	-.4	-.6	-4.6	-.2	-.4	-.5	-.3	-.5	-1.6
Semiconductors and related electronic components	334412-9	2.29	9.3	27.0	3.6	-.4	7.7	-15.4	.0	.6	-1.6	-4.0	-.9	1.5
Excluding selected high-technology industries	70.21	-7.2	6.4	4.2	11.0	.4	-.6	-.8	.3	.5	-.9	.3	-1.0	2.0
Motor vehicles and parts	3361-3	5.33	2.3	15.8	14.6	40.4	15.8	.2	-1.2	1.9	2.1	-3.5	-1.8	-.1
Motor vehicles	3361	2.86	8.9	11.7	21.3	47.9	13.5	-3.6	-1.9	2.0	2.0	-4.3	-2.2	-.2
Motor vehicle parts	3363	2.15	-4.5	21.4	5.0	33.3	21.6	7.8	-.3	1.8	2.8	-2.2	-1.5	.3
Excluding motor vehicles and parts	64.88	-7.8	5.6	3.4	8.8	-1.0	-.7	-.8	.1	.3	-.6	.5	-1.1	1.3
Consumer goods	19.09	-5.9	.4	1.6	3.8	-1.0	-.4	-.4	-.2	.6	-.9	.4	-1.2	-.8
Business equipment	7.84	-9.3	12.5	7.7	13.4	9.6	1.8	.5	1.5	-.9	.1	.4	-1.1	6.2
Construction supplies	4.10	-17.1	9.8	4.9	14.7	-2.2	-7.2	-1.6	-.9	-.8	-.3	.8	-.5	2.3
Business supplies	6.35	-8.7	1.7	1.9	7.7	.1	-1.3	-.5	.3	-.1	-.6	.4	-1.4	.6
Materials	25.30	-7.4	8.5	3.5	10.6	-3.7	-1.0	-1.4	.0	.6	-.8	.4	-.9	1.4
Measures excluding selected high-technology industries														
Total industry	96.62	-5.9	6.0	4.1	6.1	2.3	.4	.0	.0	.7	-1.1	.2	-.5	1.8
Manufacturing ¹	71.95	-6.9	6.2	4.3	10.2	.6	-.6	-.7	.3	.4	-.8	.1	-.9	1.7
Durable	34.70	-10.4	11.6	7.7	17.8	5.6	-1.0	-.5	.7	.4	-1.3	-.3	-.7	4.8
Measures excluding motor vehicles and parts														
Total industry	94.67	-6.1	5.8	3.5	4.1	1.5	-.1	.1	-.1	.6	-1.0	.3	-.5	1.2
Manufacturing ¹	70.01	-7.1	5.9	3.5	7.6	-.5	-1.2	-.6	.2	.1	-.7	.2	-.9	.9
Durable	32.75	-10.8	11.0	6.1	12.5	3.7	-2.3	-.4	.4	.0	-1.0	.0	-.7	3.2
Measures excluding selected high-technology industries and motor vehicles and parts														
Total industry	91.29	-6.3	5.5	3.6	4.2	1.4	.4	.1	-.1	.6	-.9	.3	-.5	1.3
Manufacturing ¹	66.63	-7.5	5.5	3.5	8.0	-.7	-.7	-.6	.2	.2	-.6	.3	-1.0	1.0
Stage-of-process components of non-energy materials, measures of the input to														
Finished processors	11.19	-8.8	15.1	5.4	17.3	6.2	-6.9	-.7	.7	-.2	-2.6	-.3	-.4	3.6
Primary and semifinished processors	17.57	-4.9	8.1	2.6	8.1	-5.8	2.6	-1.5	-.1	1.2	-.2	.5	-.9	1.2

r Revised. p Preliminary.

1. Refer to note on cover page.

Table 3
MOTOR VEHICLE ASSEMBLIES

Millions of units, seasonally adjusted annual rate

Item	2011 average	2011 Q4	2012 Q1	Q2	Q3	2012 May	June	July	Aug.	Sept.	Oct.
Total	8.66	9.22	10.11	10.44	10.34	10.30	10.50	10.92	10.30	9.82	9.86
Autos	2.98	3.40	3.86	4.18	4.23	4.14	4.22	4.60	4.09	4.02	3.95
Trucks	5.68	5.82	6.25	6.26	6.11	6.17	6.28	6.32	6.21	5.80	5.92
Light	5.44	5.55	5.97	5.97	5.85	5.87	5.99	6.05	5.96	5.53	5.67
Medium and heavy	.24	.27	.28	.30	.26	.30	.29	.28	.25	.27	.24
Memo											
Autos and light trucks	8.41	8.95	9.83	10.14	10.08	10.01	10.21	10.64	10.05	9.55	9.62

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/mvsv.htm

Table 4
INDUSTRIAL PRODUCTION INDEXES: MARKET AND INDUSTRY GROUP SUMMARY

2007 = 100, seasonally adjusted

Item		2011 proportion	2012 Feb.	Mar.	Apr.	May ^r	June ^r	July ^r	Aug. ^r	Sept. ^r	Oct. ^p
Total IP		100.00	97.1	96.5	97.3	97.3	97.3	97.9	96.8	97.0	96.6
MARKET GROUPS											
Final products and nonindustrial supplies		53.84	93.8	93.1	93.9	94.1	94.2	94.6	93.8	93.9	93.1
Consumer goods		27.68	93.3	92.3	92.9	93.6	93.4	94.0	93.0	92.9	92.1
Durable		6.30	93.4	93.1	94.2	93.2	93.3	93.7	92.1	90.5	90.7
Automotive products		3.50	104.6	104.5	105.8	103.5	103.9	103.6	101.2	98.7	99.3
Home electronics		.16	70.3	70.0	69.4	68.6	67.7	66.5	65.9	65.4	65.7
Appliances, furniture, carpeting		.76	69.9	68.4	68.6	68.7	68.1	68.8	68.3	67.8	67.9
Miscellaneous goods		1.88	88.2	88.1	89.4	89.9	90.0	91.7	90.8	90.1	89.8
Nondurable		21.38	93.2	92.0	92.6	93.7	93.4	94.1	93.3	93.7	92.6
Non-energy		15.99	91.8	90.9	91.4	91.0	90.8	91.2	90.5	91.1	89.8
Foods and tobacco		9.22	98.7	97.4	98.3	98.0	98.3	99.2	98.7	99.8	98.0
Clothing		.20	61.2	59.7	59.4	59.2	58.1	57.5	56.0	56.6	55.7
Chemical products		4.72	85.1	85.0	85.1	84.7	83.7	83.5	82.5	82.5	82.6
Paper products		1.35	78.0	75.8	75.3	74.3	73.0	72.9	72.1	71.8	68.9
Energy		5.39	98.1	95.8	96.6	103.1	102.5	104.3	103.0	102.8	102.1
Business equipment		9.57	101.0	101.2	102.6	102.9	104.8	104.9	103.9	104.4	103.1
Transit		2.31	107.9	109.1	111.6	112.8	115.6	119.3	115.3	117.1	115.7
Information processing		2.22	102.9	101.8	103.3	102.2	103.7	104.4	103.5	103.8	102.7
Industrial and other		5.04	96.2	96.5	97.3	97.8	99.5	97.6	98.0	97.9	96.7
Defense and space equipment		2.18	114.8	114.7	114.0	111.4	111.0	113.5	113.1	114.7	113.8
Construction supplies		4.12	82.0	81.1	81.7	80.4	79.7	79.1	78.9	79.5	79.1
Business supplies		9.56	90.3	89.6	90.4	90.8	90.8	91.0	90.4	90.4	89.7
Materials		46.16	101.2	100.8	101.6	101.3	101.1	102.1	100.7	100.9	101.1
Non-energy		28.75	96.4	95.4	96.3	95.1	95.3	95.9	94.8	95.0	94.3
Durable		17.14	100.7	99.6	100.9	100.1	100.6	101.0	98.9	98.6	98.1
Consumer parts		2.45	91.0	91.1	94.7	93.7	95.6	100.2	95.7	94.8	94.8
Equipment parts		6.28	115.6	115.8	116.8	116.1	117.2	114.5	111.7	111.8	111.4
Other		8.42	93.6	91.3	92.0	91.3	90.9	91.8	91.0	90.5	89.8
Nondurable		11.61	90.4	89.4	89.8	88.1	88.0	88.8	89.1	90.1	89.0
Textile		.45	84.8	82.9	83.8	81.5	83.4	82.5	81.7	81.9	81.4
Paper		2.01	83.9	82.3	82.6	82.5	80.8	80.4	80.4	79.6	78.4
Chemical		5.68	89.8	89.1	89.2	86.8	86.8	88.2	88.9	90.6	90.0
Energy		17.40	108.5	109.3	110.0	111.3	110.4	112.2	110.2	110.5	112.2
INDUSTRY GROUPS											
Manufacturing		75.34	94.6	94.0	94.6	94.0	94.3	94.6	93.7	93.8	93.0
Manufacturing (NAICS)	31-33	72.60	95.7	95.1	95.8	95.2	95.6	95.9	95.0	95.1	94.4
Durable manufacturing		37.96	99.3	99.0	100.2	99.7	100.3	100.6	99.2	98.9	98.3
Wood products	321	.90	72.6	72.2	72.1	72.3	71.1	71.3	70.7	71.5	71.5
Nonmetallic mineral products	327	1.55	73.4	72.2	72.3	71.2	71.6	70.3	70.1	70.3	70.0
Primary metals	331	2.94	103.9	100.1	102.3	100.2	96.8	99.1	98.6	93.8	93.7
Fabricated metal products	332	5.41	92.8	92.6	93.2	93.7	94.3	94.7	94.1	94.6	94.0
Machinery	333	5.41	101.0	102.2	102.5	102.1	104.6	101.1	100.0	100.3	98.4
Computer and electronic products	334	6.25	115.4	114.7	116.4	115.4	116.7	116.5	114.3	114.3	114.0
Electrical equip., appliances, and components	335	1.76	85.2	85.0	85.6	85.9	85.2	86.1	85.1	87.2	85.9
Motor vehicles and parts	3361-3	5.33	100.2	101.1	104.2	102.9	104.9	107.1	103.4	101.6	101.5
Aerospace and miscellaneous transportation equipment	3364-9	4.30	107.0	106.7	106.2	105.7	105.9	107.0	105.9	107.2	107.1
Furniture and related products	337	.98	71.2	69.9	70.6	69.8	68.9	70.2	69.4	68.7	68.3
Miscellaneous	339	3.12	104.2	104.3	106.6	107.5	108.0	109.7	108.8	108.1	107.7
Nondurable manufacturing		34.64	92.0	91.0	91.2	90.5	90.6	91.0	90.6	91.1	90.2
Food, beverage, and tobacco products	311,2	11.43	100.4	99.0	99.9	99.4	99.8	100.9	100.3	101.6	99.7
Textile and product mills	313,4	.74	78.4	77.2	77.6	75.8	77.4	76.7	76.1	76.4	76.0
Apparel and leather	315,6	.28	62.9	61.8	61.8	61.4	60.6	59.7	57.9	59.0	57.7
Paper	322	2.43	86.0	84.4	85.1	84.6	82.5	82.3	82.6	82.3	81.3
Printing and support	323	1.43	75.4	74.1	74.6	75.0	75.3	75.4	74.8	73.2	72.0
Petroleum and coal products	324	3.69	103.7	101.9	99.4	100.2	99.8	98.4	98.5	98.7	97.9
Chemicals	325	11.53	87.5	87.0	87.2	85.9	86.0	86.2	86.1	86.9	86.6
Plastics and rubber products	326	3.11	92.5	91.9	92.4	91.4	92.1	94.0	92.4	91.7	91.8
Other manufacturing (non-NAICS)	1133,5111	2.74	72.9	71.7	71.1	70.1	69.1	68.2	68.2	67.8	65.5
Mining	21	14.38	111.0	110.8	111.6	111.4	111.6	112.8	111.2	112.2	113.9
Utilities	2211,2	10.28	95.9	95.3	97.5	102.7	99.9	102.8	100.6	100.6	100.5
Electric	2211	8.99	96.0	97.2	98.4	103.6	99.6	102.5	100.0	99.9	100.1
Natural gas	2212	1.29	93.5	80.2	89.5	94.8	101.8	104.6	104.6	105.3	103.2

r Revised, p Preliminary.

NOTE. Refer to notes on table 1.

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

Item	2011 proportion	2012 Feb.	Mar.	Apr.	May ^r	June ^r	July ^r	Aug. ^r	Sept. ^r	Oct. ^p
Total industry	100.00	97.1	96.5	97.3	97.3	97.3	97.9	96.8	97.0	96.6
Energy	26.40	105.3	105.1	106.0	108.4	107.7	109.3	107.6	107.6	108.6
Consumer products	5.39	98.1	95.8	96.6	103.1	102.5	104.3	103.0	102.8	102.1
Commercial products	2.93	99.8	97.9	100.2	102.7	102.0	103.0	102.3	101.5	102.0
Oil and gas well drilling	213111	.68	107.1	107.3	105.6	106.5	107.1	105.8	103.6	99.3
Converted fuel	3.98	98.6	98.7	100.1	104.5	101.2	103.0	98.8	99.6	99.7
Primary energy	13.43	111.7	112.7	113.2	113.5	113.3	115.1	113.9	114.0	116.3
Non-energy	73.60	94.2	93.5	94.3	93.6	93.8	94.2	93.2	93.5	92.6
Selected high-technology industries	3.38	115.6	115.6	116.8	116.6	116.9	115.4	112.2	111.5	112.7
Computers and peripheral equipment	3341	.46	75.1	75.1	74.3	73.7	72.9	72.4	72.6	73.2
Communications equipment	3342	.63	86.4	86.2	86.1	85.9	85.6	85.2	84.9	84.4
Semiconductors and related electronic components	334412-9	2.29	146.2	146.3	148.9	149.0	149.9	147.5	141.6	142.4
Excluding selected high-technology industries	70.21	93.0	92.3	93.0	92.3	92.5	92.9	92.1	92.4	91.5
Motor vehicles and parts	3361-3	5.33	100.2	101.1	104.2	102.9	104.9	107.1	103.4	101.6
Motor vehicles	3361	2.86	105.9	106.2	109.8	107.8	110.0	112.2	107.4	105.0
Motor vehicle parts	3363	2.15	94.2	96.0	98.9	98.6	100.4	103.2	100.9	99.7
Excluding motor vehicles and parts	64.88	92.3	91.4	92.0	91.2	91.3	91.6	91.0	91.5	90.5
Consumer goods	19.09	90.1	89.3	89.8	89.4	89.3	89.8	89.0	89.4	88.3
Business equipment	7.84	101.2	101.1	102.2	102.7	104.2	103.3	103.4	103.7	102.6
Construction supplies	4.10	81.9	81.0	81.6	80.3	79.6	79.0	78.7	79.4	79.0
Business supplies	6.35	85.3	85.1	85.4	84.9	85.2	85.1	84.6	85.0	83.8
Materials	25.30	93.8	92.4	93.1	91.8	91.8	92.4	91.6	92.0	91.2
Measures excluding selected high-technology industries										
Total industry	96.62	96.3	95.7	96.4	96.4	96.4	97.1	96.1	96.3	95.9
Manufacturing ¹	71.95	93.4	92.8	93.4	92.8	93.1	93.4	92.6	92.7	91.9
Durable	34.70	97.0	96.7	97.9	97.4	98.1	98.5	97.2	96.9	96.2
Measures excluding motor vehicles and parts										
Total industry	94.67	96.7	96.0	96.7	96.7	96.6	97.2	96.2	96.5	96.1
Manufacturing ¹	70.01	94.0	93.3	93.7	93.1	93.3	93.5	92.8	93.0	92.2
Durable	32.75	98.6	98.1	98.9	98.5	99.0	98.9	97.9	97.9	97.2
Measures excluding selected high-technology industries and motor vehicles and parts										
Total industry	91.29	95.8	95.1	95.8	95.9	95.7	96.4	95.5	95.8	95.3
Manufacturing ¹	66.63	92.7	91.9	92.4	91.8	92.0	92.2	91.6	91.9	90.9
Stage-of-process components of non-energy materials, measures of the input to										
Finished processors	11.19	102.0	101.6	103.2	102.4	103.2	103.0	100.3	100.0	99.6
Primary and semifinished processors	17.57	92.9	91.4	92.0	90.6	90.5	91.5	91.4	91.9	91.0

^r Revised. ^p Preliminary.

1. Refer to note on cover page.

Table 6
DIFUSION INDEXES OF INDUSTRIAL PRODUCTION
Percent

Item	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
One month earlier												
2010	64.4	56.4	65.7	67.0	66.0	52.6	61.9	52.6	52.2	55.1	52.9	60.9
2011	57.7	54.2	56.1	46.8	53.2	49.7	57.1	52.9	51.9	58.0	52.2	65.7
2012	59.0	62.8	42.6	63.3	52.2	56.7	52.2	36.5	52.6			
Three months earlier												
2010	68.6	62.2	69.2	67.0	69.9	66.7	60.9	58.0	58.3	55.8	54.2	57.4
2011	62.5	62.5	61.9	51.9	54.8	53.5	56.4	51.0	57.1	55.8	59.3	65.1
2012	68.3	73.1	61.9	57.1	48.4	58.3	50.6	49.0	44.6			
Six months earlier												
2010	69.6	64.1	65.7	72.1	72.4	72.1	69.9	68.6	64.1	63.5	57.1	63.8
2011	59.0	61.2	63.1	59.6	59.3	57.1	57.4	53.2	51.9	58.7	57.4	62.8
2012	67.9	72.8	62.8	69.6	64.7	59.6	57.7	48.1	53.8			

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.

Table 7
CAPACITY UTILIZATION
Percent of capacity, seasonally adjusted

Item	2011 proportion	1972- 2011 ave.	1994- 95 high	2009 low	2012 Q1	Q2 ^r	Q3 ^r	2012 May ^r	June ^r	July ^r	Aug. ^r	Sept. ^r	Oct. ^p
Total industry	100.00	80.3	85.0	66.8	78.7	78.9	78.5	78.9	78.8	79.2	78.2	78.2	77.8
Manufacturing¹	76.96	78.8	84.6	63.8	77.6	77.5	77.0	77.2	77.4	77.5	76.7	76.7	75.9
Manufacturing (NAICS) 31-33	73.67	78.7	84.7	63.6	78.2	78.1	77.6	77.8	78.0	78.2	77.3	77.3	76.6
Durable manufacturing	39.73	77.1	83.7	58.2	77.5	78.0	77.1	77.7	78.0	78.1	76.8	76.4	75.8
Wood products 321	1.10	77.6	86.6	51.7	66.9	66.6	66.4	67.0	66.1	66.4	65.9	66.8	66.9
Nonmetallic mineral products 327	2.21	75.2	82.7	44.2	56.4	56.4	55.7	56.0	56.4	55.6	55.6	55.8	55.8
Primary metals 331	3.08	79.2	94.1	48.6	77.0	75.1	73.3	75.4	72.9	74.7	74.3	70.8	70.7
Fabricated metal products 332	5.28	77.3	85.9	60.9	82.4	83.6	84.0	83.6	84.0	84.3	83.6	84.0	83.3
Machinery 333	5.18	78.1	87.7	60.3	84.9	86.1	83.2	85.3	87.1	84.0	82.8	82.9	81.1
Computer and electronic products 334	6.22	78.2	84.5	68.7	78.1	77.6	75.8	77.1	77.6	77.1	75.4	75.0	74.5
Electrical equip., appliances, and components 335	1.71	82.6	92.7	66.3	81.8	82.9	83.4	83.3	82.6	83.4	82.4	84.4	83.2
Motor vehicles and parts 3361-3	6.24	75.0	87.4	34.7	75.1	77.1	76.2	76.3	77.5	78.8	75.8	74.1	73.7
Aerospace and miscellaneous transportation equipment 3364-9	4.49	73.1	69.1	69.7	78.1	77.7	77.7	77.5	77.5	78.1	77.1	77.8	77.6
Furniture and related products 337	1.12	77.1	82.4	57.5	70.9	70.6	70.4	70.6	69.8	71.1	70.4	69.7	69.4
Miscellaneous 339	3.09	76.1	80.6	68.2	78.3	79.6	79.5	79.7	79.7	80.5	79.5	78.6	77.9
Nondurable manufacturing	33.94	80.9	86.1	69.3	78.9	78.1	78.2	77.9	78.0	78.3	77.9	78.3	77.5
Food, beverage, and tobacco products 311,2	11.05	81.1	86.1	75.7	79.7	79.4	80.1	79.2	79.4	80.1	79.6	80.5	78.9
Textile and product mills 313,4	.85	80.3	91.9	53.8	69.9	69.6	69.4	68.5	70.1	69.6	69.1	69.5	69.3
Apparel and leather 315,6	.31	78.0	87.5	59.0	71.2	69.9	67.5	70.1	69.3	68.3	66.5	67.8	66.5
Paper 322	2.27	86.9	92.6	71.8	81.8	81.1	80.1	81.6	79.8	79.8	80.3	80.2	79.4
Printing and support 323	1.70	81.6	84.7	60.4	65.5	65.4	64.9	65.5	65.7	65.7	65.2	63.7	62.7
Petroleum and coal products 324	3.32	85.7	90.9	76.0	86.3	84.8	84.6	85.1	85.0	84.1	84.5	85.0	84.6
Chemicals 325	11.33	77.7	81.9	65.0	78.2	76.9	76.7	76.4	76.4	76.6	76.4	77.0	76.6
Plastics and rubber products 326	3.11	82.2	92.5	58.0	78.5	78.2	78.3	77.7	78.2	79.6	78.1	77.3	77.3
Other manufacturing (non-NAICS) 1133,5111	3.29	82.7	83.3	68.4	65.4	63.8	62.3	63.7	63.0	62.3	62.4	62.2	60.3
Mining 21	12.77	87.3	88.6	78.5	89.9	89.3	89.3	89.3	89.2	90.0	88.6	89.3	90.4
Utilities 2211,2	10.27	86.3	93.3	79.1	72.5	75.6	76.2	77.6	75.4	77.5	75.6	75.4	75.2
Selected high-technology industries	3.45	78.2	86.5	69.1	74.1	74.1	71.6	74.0	74.1	73.1	71.1	70.7	71.4
Computers and peripheral equipment 3341	.44	78.4	86.8	75.8	81.0	79.3	78.0	79.4	78.5	78.0	77.7	78.3	79.0
Communications equipment 3342	.66	76.6	84.1	75.8	76.4	76.2	75.3	76.2	76.0	75.6	75.4	75.1	75.0
Semiconductors and related electronic components 334412-9	2.36	80.2	92.1	62.7	72.3	72.9	69.7	72.7	73.1	71.9	69.0	68.4	69.4
Measures excluding selected high-technology industries													
Total industry	96.55	80.4	84.9	66.6	78.9	79.0	78.8	79.0	78.9	79.4	78.5	78.5	78.0
Manufacturing ¹	73.50	78.9	84.5	63.5	77.8	77.7	77.2	77.4	77.6	77.8	77.0	77.0	76.2
STAGE-OF-PROCESS GROUPS													
Crude	16.85	86.3	89.7	76.4	87.8	87.1	87.3	86.9	87.0	87.7	86.8	87.3	87.8
Primary and semifinished	45.82	81.1	87.9	64.2	75.5	76.1	75.8	76.4	75.9	76.5	75.5	75.4	75.0
Finished	37.33	77.2	80.6	66.8	78.4	78.3	77.7	78.0	78.3	78.4	77.4	77.4	76.4

^r Revised. ^p Preliminary.

1. Refer to note on cover page.

Table 8
INDUSTRIAL CAPACITY
Percent change

Item	Average annual rate				Fourth quarter to fourth quarter				Annual rate				Monthly rate
	1972-79	1980-88	1989-94	1995-2012	2009	2010	2011	2012	2012 Q1	Q2	Q3	Q4	2012 Oct.
	Total industry	3.1	1.9	2.3	2.3	-7	-1.9	.8	1.5	1.4	1.5	1.6	1.7
Manufacturing ¹	3.3	2.2	2.5	2.4	-2.8	-2.4	.1	1.4	1.3	1.5	1.5	1.5	.1
Mining	.7	.1	-.7	.3	5.0	-.2	2.7	2.2	2.0	2.0	2.2	2.5	.2
Utilities	4.2	2.1	1.8	2.3	1.2	4.5	3.2	2.4	2.1	2.3	2.5	2.6	.2
Selected high-technology industries													
Manufacturing ¹ ex. selected high-technology industries	19.6	17.3	15.6	18.8	3.0	.3	10.4	3.1	8.3	3.7	.7	.1	.0
	2.6	1.3	1.6	1.0	-3.1	-2.6	-.4	1.3	1.0	1.3	1.5	1.5	.1
STAGE-OF-PROCESS GROUPS													
Crude	1.6	.4	-.5	.4	3.1	-.4	2.0	1.6	1.4	1.5	1.7	1.9	.2
Primary and semifinished	3.0	1.4	2.5	2.7	-1.0	-1.2	.3	.1	.3	.1	.0	.0	.0
Finished	3.9	3.3	2.7	2.3	-3.5	-2.3	.9	3.5	3.0	3.5	3.7	3.7	.3

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

Item	2005	2011	2012 Q1	Q2 ^r	Q3 ^r	2012 May ^r	June ^r	July ^r	Aug. ^r	Sept. ^r	Oct. ^p
Final products and nonindustrial supplies	3,332.3	3,218.3	3,312.0	3,339.3	3,343.4	3,340.0	3,352.1	3,360.8	3,333.7	3,335.6	3,305.5
Final products	2,474.8	2,468.3	2,545.2	2,567.7	2,575.5	2,568.9	2,580.9	2,590.3	2,567.8	2,568.5	2,540.9
Consumer goods	1,834.1	1,777.6	1,806.4	1,813.1	1,814.9	1,818.2	1,819.5	1,825.6	1,811.5	1,807.4	1,790.7
Durable	495.3	433.1	476.6	479.4	471.4	477.2	478.2	480.8	470.6	462.8	463.5
Automotive products	288.4	277.5	317.2	318.5	309.7	315.9	317.4	317.8	309.0	302.3	303.3
Other durable goods	206.9	156.1	160.1	161.6	162.3	162.0	161.5	163.7	162.2	161.0	160.8
Nondurable	1,338.8	1,339.8	1,331.6	1,335.7	1,343.9	1,342.3	1,342.8	1,346.5	1,341.4	1,343.8	1,327.3
Equipment, total	640.8	692.6	745.3	762.8	769.6	758.3	770.2	773.6	764.8	770.4	759.0
Business and defense	617.4	670.7	721.4	739.7	747.1	735.2	746.9	750.7	742.2	748.4	737.4
Business	537.5	566.6	613.8	634.2	639.8	630.5	642.8	643.8	635.4	640.3	630.0
Defense and space	79.9	102.9	106.8	105.1	106.9	104.4	104.0	106.6	106.3	107.7	106.9
Nonindustrial supplies	857.4	753.1	770.3	775.1	771.6	774.6	774.9	774.3	769.7	770.7	768.0
Construction supplies	270.0	212.6	226.5	224.8	220.4	224.0	221.7	220.2	219.9	221.0	219.5
Business supplies	587.4	540.6	543.9	550.4	551.4	550.7	553.4	554.2	549.9	549.9	548.6
Commercial energy products	210.9	212.3	207.7	213.7	215.6	214.9	216.2	217.3	215.9	213.7	215.9

^r Revised. ^p Preliminary.

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

Item	2011 gross value ¹	Fourth quarter to fourth quarter			Annual rate			Monthly rate						Oct. '11 to Oct. '12
		2009	2010	2011	2012 Q1	Q2 ^r	Q3 ^r	2012 May ^r	June ^r	July ^r	Aug. ^r	Sept. ^r	Oct. ^p	
		Finished	1921.4	-4.9	4.8	6.9	11.6	4.3	.3	-.4	.5	.5	-1.0	
Semifinished	1627.7	-8.4	9.0	3.2	10.4	5.1	-2.6	.4	-.2	.6	-2.0	.4	-.7	2.5
Primary	1331.9	-3.5	4.4	2.4	-2.7	-.6	-.7	1.0	-.2	.0	-.2	-.6	-.4	-1.5
Crude	653.9	1.2	6.6	2.6	.5	-5.0	2.7	-1.2	.1	.9	-.4	1.0	.1	.8

^r Revised. ^p Preliminary.

1. Billions of 2005 dollars.

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

Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
IP (percent change)¹																	
1990	-6	.9	.5	-.1	.2	.3	-.1	.2	.2	-.8	-1.2	-.7	2.8	3.0	1.7	-6.2	1.0
1991	-4	-6	-.5	.2	1.0	1.0	.0	.1	.9	-.2	-.1	-.3	-7.4	2.5	5.5	.8	-1.5
1992	-6	.8	.8	.7	.4	.0	.9	-.5	.2	.8	.4	.0	-.5	7.3	2.9	4.1	2.8
1993	.5	.4	.0	.3	-.4	.2	.3	.0	.5	.7	.4	.5	3.5	1.1	2.0	6.1	3.3
1994	.4	.0	1.0	.5	.6	.7	.2	.6	.2	.8	.6	1.1	5.1	7.5	5.1	8.1	5.3
1995	.3	.0	.2	-.1	.2	.3	-.4	1.3	.4	-.2	.2	.3	5.0	1.2	3.8	3.2	4.7
1996	-.7	1.6	-.1	.9	.7	.9	-.1	.6	.5	.0	.8	.6	2.6	8.7	5.5	5.3	4.4
1997	.1	1.2	.8	.0	.7	.5	.6	1.3	.9	.7	.9	.4	7.7	6.5	9.8	10.1	7.2
1998	.5	.1	.1	.4	.7	-.6	-.4	2.1	-.3	.8	-.1	.3	4.4	2.9	2.9	5.4	5.8
1999	.4	.4	.2	.2	.7	-.2	.7	.4	-.3	1.3	.5	.8	4.1	3.9	4.0	7.5	4.3
2000	.1	.4	.4	.6	.1	.1	-.2	-.3	.5	-.4	.0	-.3	4.7	4.6	-.6	-1.3	4.0
2001	-.7	-.6	-.3	-.3	-.7	-.6	-.5	-.3	-.3	-.5	-.5	.0	-5.6	-5.3	-5.5	-4.6	-3.4
2002	.6	.0	.8	.4	.6	.9	-.3	.2	.1	-.4	.5	-.5	2.7	6.5	2.4	-.4	.2
2003	.8	.4	-.2	-.8	.0	.0	.3	-.1	.6	-.1	.8	.0	3.2	-3.2	1.9	3.3	1.2
2004	.3	.6	-.6	.4	.7	-.9	.7	.3	.0	1.0	.2	.7	2.8	1.7	2.2	5.8	2.3
2005	.5	.6	-.1	.0	.2	.4	-.1	.1	-2.0	1.3	.9	.6	5.9	1.8	-1.6	3.2	3.3
2006	.1	.1	.2	.5	-.2	.4	.1	.2	-.2	-.1	-.1	1.0	4.0	2.5	1.5	.6	2.2
2007	-.4	1.2	.0	.8	-.1	.0	.1	.0	.5	-.6	.5	.1	4.1	4.6	1.0	.6	2.5
2008	-.3	-.2	-.4	-.8	-.5	-.3	-.5	-1.7	-4.1	.8	-1.2	-2.7	-1.2	-5.9	-12.5	-15.9	-3.5
2009	-2.2	-.6	-1.7	-.9	-1.1	-.4	1.0	1.0	.6	.2	.4	.5	-19.6	-11.4	5.0	5.6	-11.4
2010	1.0	.4	.6	.4	1.6	.2	.7	.2	.4	-.4	.3	1.1	7.9	8.6	6.6	2.2	5.4
2011	.1	-.2	.8	-.5	.3	.1	.9	.3	.2	.6	.2	.9	4.4	1.2	5.6	5.1	4.1
2012	.7	.5	-.6	.8	.0	.0	.7	-1.1	.2	-.4			5.9	2.3	.0		
IP (2007=100)																	
2010	87.4	87.8	88.3	88.7	90.1	90.2	90.9	91.1	91.4	91.1	91.4	92.4	87.8	89.7	91.1	91.6	90.1
2011	92.5	92.3	93.1	92.6	92.9	93.1	93.9	94.2	94.4	94.9	95.1	95.9	92.6	92.9	94.2	95.3	93.7
2012	96.6	97.1	96.5	97.3	97.3	97.3	97.9	96.8	97.0	96.6			96.7	97.3	97.3		
Capacity (percent of 2007 output)																	
2010	123.4	123.1	122.8	122.6	122.3	122.1	121.9	121.8	121.6	121.6	121.5	121.5	123.1	122.3	121.8	121.5	122.2
2011	121.5	121.6	121.6	121.7	121.8	121.9	122.0	122.1	122.2	122.3	122.5	122.6	121.6	121.8	122.1	122.5	122.0
2012	122.7	122.9	123.0	123.2	123.3	123.5	123.7	123.8	124.0	124.2			122.9	123.3	123.8		
Utilization (percent)																	
1990	82.5	83.0	83.3	83.0	83.0	83.1	82.9	82.9	83.0	82.2	81.1	80.4	82.9	83.0	82.9	81.2	82.5
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	80.7	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	81.4	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	82.1	81.4
1994	82.5	82.3	83.0	83.2	83.4	83.7	83.6	83.8	83.8	84.2	84.4	85.0	82.6	83.5	83.7	84.6	83.6
1995	85.0	84.6	84.5	84.1	84.0	84.0	83.4	84.1	84.1	83.6	83.5	83.4	84.7	84.0	83.9	83.5	84.0
1996	82.5	83.5	83.0	83.4	83.6	84.0	83.5	83.6	83.7	83.3	83.6	83.7	83.0	83.6	83.6	83.5	83.4
1997	83.4	83.9	84.2	83.8	83.9	83.8	83.9	84.5	84.7	84.7	84.9	84.7	83.8	83.8	84.3	84.8	84.2
1998	84.5	84.0	83.5	83.3	83.3	82.4	81.5	82.8	82.1	82.4	81.9	81.8	84.0	83.0	82.2	82.0	82.8
1999	81.8	81.8	81.6	81.5	81.8	81.4	81.6	81.7	81.1	81.9	82.0	82.3	81.8	81.6	81.5	82.0	81.7
2000	82.1	82.1	82.2	82.4	82.2	82.0	81.6	81.1	81.2	80.6	80.4	79.9	82.1	82.2	81.3	80.3	81.5
2001	79.1	78.4	77.9	77.5	76.8	76.1	75.6	75.2	74.8	74.2	73.7	73.6	78.5	76.8	75.2	73.8	76.1
2002	73.9	73.8	74.2	74.5	74.8	75.5	75.2	75.3	75.4	75.1	75.5	75.2	74.0	74.9	75.3	75.3	74.9
2003	75.8	76.1	76.0	75.4	75.5	75.5	75.8	75.7	76.2	76.2	76.8	76.8	76.0	75.5	75.9	76.6	76.0
2004	77.0	77.4	77.0	77.3	77.9	77.2	77.8	78.0	78.0	78.7	78.9	79.4	77.1	77.5	77.9	79.0	77.9
2005	79.7	80.2	80.1	80.0	80.1	80.3	80.1	80.1	78.4	79.3	79.9	80.3	80.0	80.1	79.5	79.9	79.9
2006	80.3	80.3	80.4	80.6	80.4	80.5	80.5	80.5	80.2	79.9	79.7	80.3	80.3	80.5	80.4	80.0	80.3
2007	79.8	80.5	80.3	80.8	80.6	80.4	80.4	80.3	80.6	80.1	80.5	80.6	80.2	80.6	80.4	80.4	80.4
2008	80.4	80.3	80.1	79.5	79.1	78.9	78.6	77.2	74.0	74.6	73.6	71.6	80.3	79.2	76.6	73.2	77.3
2009	69.9	69.5	68.3	67.7	67.1	66.8	67.5	68.3	68.9	69.1	69.5	70.0	69.3	67.2	68.2	69.5	68.6
2010	70.8	71.3	71.9	72.4	73.7	73.9	74.5	74.8	75.2	74.9	75.2	76.0	71.4	73.3	74.8	75.4	73.7
2011	76.1	75.9	76.5	76.1	76.3	76.3	77.0	77.1	77.2	77.6	77.7	78.3	76.2	76.3	77.1	77.9	76.8
2012	78.7	79.0	78.4	79.0	78.9	78.8	79.2	78.2	78.2	77.8			78.7	78.9	78.5		

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

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

Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
IP (percent change)²																	
1990	-1	1.4	.5	-.3	.2	.3	-.1	.3	.0	-.8	-1.1	-.8	4.3	2.9	1.1	-6.8	.8
1991	-.8	-.6	-.7	.3	.8	1.1	.2	.2	1.1	-.2	-.2	-.1	-8.8	1.9	7.2	1.5	-2.0
1992	-.6	.9	1.0	.6	.6	.3	.9	-.4	.0	.6	.4	-.2	.5	8.3	4.0	2.9	3.6
1993	1.0	.2	-.2	.5	-.1	-.1	.3	-.1	.6	.8	.4	.5	4.4	1.5	1.2	6.9	3.5
1994	.2	.1	1.3	.8	.7	.3	.4	.8	.3	1.0	.8	1.1	5.0	9.5	6.0	9.9	5.9
1995	.3	-.1	.3	-.2	.1	.5	-.6	1.2	.9	-.1	.0	.3	5.3	.6	3.2	4.0	5.2
1996	-.8	1.6	-.2	1.1	.7	1.1	.3	.6	.6	-.1	.8	.9	1.8	9.9	8.0	5.5	4.8
1997	.0	1.4	1.2	-.2	.9	.7	.5	1.6	.9	.6	1.1	.5	9.1	7.6	10.9	10.9	8.4
1998	.8	.1	-.1	.5	.6	-.7	-.5	2.5	-.4	1.0	.2	.5	6.0	2.4	3.3	7.5	6.6
1999	.3	.7	.0	.4	.9	-.3	.5	.7	-.3	1.5	.6	.7	4.7	4.5	3.7	9.0	5.0
2000	.2	.3	.7	.6	-.2	.2	.0	-.6	.5	-.4	-.3	-.6	5.3	4.3	-.8	-2.9	4.2
2001	-.6	-.6	-.3	-.2	-.8	-.7	-.4	-.6	-.2	-.7	-.3	.3	-6.5	-5.5	-6.0	-4.3	-4.1
2002	.5	.0	.7	.1	.7	1.1	-.5	.4	.1	-.4	.5	-.5	3.2	5.9	3.1	-.5	.3
2003	.6	.2	.2	-1.0	.1	.4	.0	-.3	.7	-.1	1.0	-.2	2.5	-2.3	1.4	3.7	1.2
2004	.0	.7	-.3	.4	.7	-.8	.8	.7	-.1	1.1	-.1	.7	2.6	2.9	3.8	5.6	2.7
2005	.8	.8	-.5	.2	.4	.1	-.1	.3	-1.1	1.5	.7	.1	6.5	2.0	-.3	5.6	4.0
2006	.9	-.1	-.1	.6	-.5	.3	-.1	.4	.1	-.4	.0	1.6	4.1	1.1	.7	1.1	2.5
2007	-.5	.6	.6	.8	-.2	.3	.2	-.5	.5	-.5	.4	.3	4.7	5.3	.8	.4	2.7
2008	-.4	-.4	-.4	-1.1	-.6	-.6	-1.1	-1.4	-3.4	-.7	-2.3	-3.3	-2.2	-8.2	-14.0	-21.6	-4.8
2009	-2.9	.0	-2.1	-.8	-1.2	-.3	1.2	1.0	.7	-.1	.9	.1	-23.3	-11.6	6.4	5.8	-13.8
2010	.9	.1	1.1	1.0	1.4	.0	.8	.0	.2	.1	.2	1.0	7.1	11.2	5.2	2.6	5.7
2011	.4	.2	.6	-.6	.2	.0	.8	.3	.4	.5	.0	1.5	6.0	.2	5.1	5.6	4.3
2012	1.0	.9	-.7	.7	-.7	.3	.3	-.9	.1	-.9			9.8	.7	-1.1		
IP (2007=100)																	
2010	83.9	84.0	84.9	85.8	87.0	87.0	87.6	87.6	87.8	87.9	88.0	88.9	84.3	86.6	87.7	88.2	86.7
2011	89.2	89.4	90.0	89.5	89.7	89.7	90.4	90.7	91.1	91.5	91.5	92.9	89.6	89.6	90.7	92.0	90.5
2012	93.8	94.6	94.0	94.6	94.0	94.3	94.6	93.7	93.8	93.0			94.1	94.3	94.1		
Capacity (percent of 2007 output)																	
2010	123.1	122.8	122.5	122.3	122.0	121.7	121.5	121.3	121.1	120.9	120.8	120.6	122.8	122.0	121.3	120.8	121.7
2011	120.6	120.5	120.5	120.5	120.5	120.5	120.6	120.6	120.7	120.8	120.9	121.0	120.5	120.5	120.6	120.9	120.6
2012	121.1	121.3	121.4	121.6	121.7	121.9	122.0	122.2	122.3	122.5			121.3	121.7	122.2		
Utilization (percent)																	
1990	81.6	82.5	82.7	82.3	82.3	82.3	82.1	82.1	81.9	81.1	80.0	79.3	82.3	82.3	82.0	80.1	81.7
1991	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	79.0	78.5
1992	78.2	78.7	79.3	79.6	79.9	79.9	80.4	79.9	79.7	80.0	80.1	79.8	78.8	79.8	80.0	79.9	79.6
1993	80.4	80.4	80.1	80.4	80.2	80.0	80.1	79.9	80.2	80.8	81.0	81.2	80.3	80.2	80.1	81.0	80.4
1994	81.2	81.1	82.0	82.4	82.8	82.8	82.8	83.2	83.2	83.7	84.0	84.6	81.5	82.7	83.1	84.1	82.8
1995	84.6	84.1	84.0	83.5	83.2	83.3	82.4	83.0	83.3	82.8	82.5	82.3	84.2	83.3	82.9	82.5	83.2
1996	81.3	82.2	81.6	82.0	82.2	82.7	82.5	82.6	82.7	82.1	82.3	82.6	81.7	82.3	82.6	82.3	82.2
1997	82.1	82.8	83.3	82.6	82.9	82.9	82.8	83.5	83.7	83.6	83.9	83.6	82.8	82.8	83.3	83.7	83.1
1998	83.7	83.1	82.4	82.2	82.1	80.9	80.0	81.6	80.8	81.1	80.8	80.8	83.0	81.7	80.8	80.9	81.6
1999	80.6	80.8	80.4	80.3	80.7	80.1	80.1	80.3	79.7	80.6	80.7	80.9	80.6	80.4	80.1	80.7	80.4
2000	80.8	80.6	80.8	81.0	80.5	80.3	80.0	79.2	79.3	78.7	78.2	77.4	80.7	80.6	79.5	78.1	79.8
2001	76.7	76.0	75.5	75.1	74.3	73.7	73.2	72.7	72.4	71.8	71.5	71.6	76.1	74.4	72.8	71.6	73.7
2002	71.9	71.8	72.3	72.3	72.8	73.6	73.3	73.5	73.6	73.3	73.6	73.2	72.0	72.9	73.5	73.4	72.9
2003	73.7	73.9	74.0	73.3	73.4	73.7	73.8	73.6	74.1	74.1	74.9	74.8	73.9	73.5	73.8	74.6	73.9
2004	74.8	75.4	75.2	75.6	76.1	75.5	76.1	76.6	76.5	77.3	77.1	77.6	75.1	75.7	76.4	77.3	76.2
2005	78.1	78.6	78.1	78.2	78.3	78.3	78.0	78.1	77.1	78.1	78.6	78.5	78.3	78.2	77.7	78.4	78.2
2006	79.1	78.8	78.6	79.0	78.5	78.6	78.4	78.5	78.4	78.0	77.8	78.8	78.8	78.7	78.5	78.2	78.5
2007	78.3	78.5	78.8	79.2	78.8	78.8	78.8	78.8	78.5	78.0	78.2	78.4	78.5	78.9	78.5	78.2	78.5
2008	78.0	77.6	77.4	76.5	76.2	75.8	75.1	74.1	71.7	71.4	69.9	67.7	77.7	76.2	73.6	69.7	74.3
2009	65.9	66.0	64.8	64.5	63.9	63.8	64.8	65.6	66.2	66.4	67.2	67.4	65.6	64.1	65.5	67.0	65.5
2010	68.2	68.4	69.3	70.2	71.3	71.4	72.1	72.3	72.5	72.7	72.9	73.7	68.6	71.0	72.3	73.1	71.2
2011	74.0	74.2	74.7	74.3	74.4	74.4	75.0	75.2	75.5	75.8	75.7	76.8	74.3	74.4	75.2	76.1	75.0
2012	77.5	78.0	77.4	77.8	77.2	77.4	77.5	76.7	76.7	75.9			77.6	77.5	77.0		

1. Refer to note on cover page.

2. 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

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
IP (percent change)²																	
1990	-.7	-.9	.5	-.2	.1	.3	-.1	.2	.2	-.8	-1.3	-.8	2.2	2.5	1.3	-6.8	.3
1991	-.4	-.8	-.6	.2	1.0	1.0	.0	.1	.9	-.2	-.2	-.5	-8.0	2.0	5.3	.3	-2.0
1992	-.8	-.7	.8	.6	.3	-.1	.8	-.6	.1	.6	.3	.0	-1.9	6.2	1.8	2.9	1.9
1993	.5	.3	-.1	.3	-.4	.2	.3	-.1	.4	.6	.3	.5	3.1	.3	1.4	5.1	2.5
1994	.4	.0	.9	.3	.4	.6	.0	.4	.0	.6	.4	.9	4.5	5.4	3.2	5.7	4.0
1995	.1	-.2	-.1	-.3	.1	.2	-.5	1.1	.1	-.5	.1	.1	2.9	-1.2	1.5	.2	2.5
1996	-1.0	1.3	-.3	.8	.5	.7	-.5	.4	.3	-.3	.8	.5	-.3	6.5	2.1	3.0	1.7
1997	-.1	.9	.5	-.3	.3	.2	.3	1.0	.7	.6	.6	.1	5.1	2.4	6.3	7.7	4.2
1998	.2	.0	.0	.1	.6	-.9	-.8	2.0	-.7	.6	-.3	.1	1.9	.7	-.3	2.3	3.1
1999	.2	.1	-.1	-.1	.6	-.5	.3	.4	-.4	1.2	.2	.5	.7	.3	1.1	5.5	1.1
2000	-.3	.0	.1	.4	-.2	-.1	-.5	-.4	.4	-.5	-.2	-.5	.6	1.5	-3.0	-2.7	1.0
2001	-.7	-.5	-.3	-.2	-.7	-.5	-.3	-.2	-.4	-.5	-.5	-.1	-5.9	-4.5	-4.3	-4.6	-4.0
2002	.7	-.1	.8	.4	.5	.9	-.4	.1	.0	-.4	.4	-.6	2.8	6.3	1.7	-1.0	.3
2003	.7	.2	-.3	-.9	-.1	-.1	.2	-.1	.6	-.2	.7	-.1	1.8	-4.6	.8	2.5	.2
2004	.2	.6	-.6	.5	.8	-.9	.7	.2	-.1	1.0	.2	.7	2.2	1.9	1.7	5.3	1.7
2005	.4	.6	-.1	.0	.1	.3	-.3	.0	-2.3	1.2	1.0	.6	5.2	1.0	-3.0	2.0	2.5
2006	.1	.0	.2	.4	-.3	.3	.1	.1	-.2	-.1	-.2	1.0	3.6	1.8	.9	.0	1.4
2007	-.5	1.1	-.2	.6	.0	.1	.1	.0	.4	-.8	.3	.0	3.3	3.7	1.0	-1.1	1.8
2008	-.4	-.3	-.5	-.8	-.6	-.3	-.4	-1.7	-4.2	1.1	-1.0	-2.6	-2.2	-6.6	-12.5	-14.7	-4.2
2009	-2.2	-.6	-1.8	-1.0	-1.1	-.5	.9	1.1	.6	.2	.3	.4	-19.1	-12.2	4.7	5.3	-11.3
2010	1.0	.3	.6	.4	1.6	.2	.7	.2	.4	-.4	.2	1.0	7.3	8.2	6.8	2.0	5.0
2011	.0	-.2	.9	-.5	.3	.1	1.0	.2	.3	.7	.2	.8	4.1	1.2	5.7	5.6	4.0
2012	.7	.5	-.6	.8	.0	.0	.7	-1.1	.2	-.5			6.1	2.3	.4		
IP (2007=100)																	
2010	86.8	87.0	87.5	87.8	89.2	89.4	90.1	90.2	90.6	90.3	90.5	91.5	87.1	88.8	90.3	90.8	89.3
2011	91.5	91.3	92.2	91.7	92.0	92.1	93.0	93.2	93.5	94.1	94.3	95.1	91.7	91.9	93.2	94.5	92.8
2012	95.8	96.3	95.7	96.4	96.4	96.4	97.1	96.1	96.3	95.9			95.9	96.4	96.5		
Capacity (percent of 2007 output)																	
2010	122.7	122.4	122.1	121.8	121.5	121.3	121.1	121.0	120.9	120.8	120.8	120.7	122.4	121.6	121.0	120.8	121.4
2011	120.7	120.7	120.8	120.8	120.9	120.9	121.0	121.0	121.1	121.2	121.2	121.3	120.7	120.9	121.0	121.2	121.0
2012	121.5	121.6	121.7	121.9	122.0	122.2	122.4	122.5	122.7	122.9			121.6	122.0	122.5		
Utilization (percent)																	
1990	82.7	83.3	83.6	83.3	83.3	83.4	83.2	83.3	83.3	82.5	81.4	80.7	83.2	83.3	83.3	81.5	82.8
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	79.1	79.6	80.2	80.6	80.7	80.5	81.1	80.6	80.6	81.0	81.2	81.1	79.7	80.6	80.8	81.1	80.5
1993	81.4	81.6	81.4	81.6	81.1	81.2	81.4	81.2	81.4	81.9	82.1	82.4	81.5	81.3	81.3	82.1	81.6
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	84.4	84.0	83.9	83.9	83.3	84.0	84.0	83.4	83.4	83.3	84.6	83.9	83.8	83.4	83.9
1996	82.4	83.4	82.9	83.4	83.7	84.1	83.6	83.7	83.8	83.4	83.8	84.0	82.9	83.8	83.7	83.7	83.5
1997	83.7	84.2	84.4	83.9	83.9	83.8	83.8	84.3	84.6	84.7	85.0	84.7	84.1	83.8	84.2	84.8	84.2
1998	84.6	84.2	83.9	83.7	83.9	82.8	81.9	83.3	82.4	82.7	82.1	82.0	84.2	83.5	82.5	82.2	83.1
1999	81.9	81.8	81.5	81.2	81.5	81.0	81.1	81.2	80.7	81.6	81.6	81.9	81.7	81.3	81.0	81.7	81.4
2000	81.6	81.5	81.4	81.7	81.4	81.3	80.8	80.4	80.6	80.1	79.8	79.4	81.5	81.5	80.6	79.8	80.8
2001	78.7	78.2	77.9	77.7	77.1	76.6	76.3	76.1	75.7	75.2	74.8	74.6	78.3	77.1	76.0	74.9	76.6
2002	75.1	75.0	75.5	75.8	76.1	76.8	76.5	76.6	76.6	76.4	76.7	76.3	75.2	76.2	76.6	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	77.9	77.4	77.8	78.4	77.7	78.3	78.5	78.4	79.2	79.3	79.9	77.6	78.0	78.4	79.5	78.3
2005	80.2	80.7	80.6	80.5	80.6	80.8	80.5	80.5	78.6	79.4	80.1	80.5	80.5	80.6	79.9	80.0	80.3
2006	80.5	80.4	80.4	80.6	80.3	80.4	80.3	80.3	80.0	79.8	79.5	80.2	80.4	80.4	80.2	79.8	80.2
2007	79.7	80.5	80.3	80.7	80.7	80.7	80.8	80.7	81.1	80.5	80.8	80.9	80.2	80.7	80.9	80.7	80.6
2008	80.6	80.4	80.1	79.4	79.0	78.8	78.4	77.0	73.7	74.4	73.6	71.6	80.4	79.1	76.3	73.2	77.2
2009	69.9	69.5	68.3	67.6	66.9	66.6	67.3	68.2	68.7	69.0	69.4	69.9	69.2	67.0	68.1	69.4	68.4
2010	70.7	71.1	71.7	72.1	73.4	73.7	74.4	74.6	75.0	74.7	75.0	75.8	71.2	73.1	74.6	75.2	73.5
2011	75.8	75.7	76.3	75.9	76.1	76.2	76.9	77.0	77.2	77.7	77.8	78.4	75.9	76.1	77.0	77.9	76.7
2012	78.9	79.2	78.6	79.1	79.0	78.9	79.4	78.5	78.5	78.0			78.9	79.0	78.8		

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: Manufacturing¹ Excluding Selected High-Technology Industries²

Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
IP (percent change)³																	
1990	-3	1.5	.4	-.3	.1	.2	-.2	.2	-.1	-.9	-1.2	-.8	3.6	2.3	.6	-7.6	.0
1991	-8	-8	-.8	.3	.7	1.1	.3	.2	1.1	-.2	-.3	-.3	-9.6	1.3	7.0	1.0	-2.6
1992	-9	.9	.9	.4	.5	.1	.8	-.5	-.1	.5	.3	-.2	-1.2	7.1	2.7	1.4	2.6
1993	1.1	.1	-.3	.5	-.1	-.2	.2	-.2	.5	.7	.3	.5	4.0	.7	.3	5.7	2.5
1994	.1	.1	1.2	.5	.5	.2	.2	.6	.1	.8	.5	.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	.5	2.5
1996	-1.1	1.3	-.5	1.0	.5	.8	-.1	.3	.4	-.4	.7	.7	-1.8	7.3	4.0	2.7	1.5
1997	-.2	1.0	.9	-.7	.5	.4	.2	1.3	.6	.5	.8	.2	6.2	2.9	6.9	8.2	4.9
1998	.5	-.1	-.3	.2	.5	-1.1	-.9	2.4	-.8	.7	-.1	.2	3.2	-.2	-.5	4.0	3.4
1999	-.1	.4	-.4	-.1	.7	-.7	.0	.6	-.4	1.3	.3	.4	.8	.3	.2	6.7	1.4
2000	-.3	-.2	.3	.4	-.6	.0	-.4	-.8	.4	-.5	-.6	-.8	.4	.6	-3.8	-4.8	.7
2001	-.6	-.5	-.3	-.1	-.7	-.5	-.1	-.6	-.2	-.7	-.2	.2	-7.0	-4.5	-4.6	-4.3	-4.8
2002	-.6	-.2	.8	-.1	.7	1.1	-.5	.3	.0	-.5	.4	-.7	3.4	5.6	2.4	-1.3	-.4
2003	.5	.0	.1	-1.1	-.1	.3	-.1	-.4	.7	-.2	.9	-.3	.8	-3.9	.1	2.7	.0
2004	-.1	.8	-.3	.5	.8	-.9	.8	.6	-.3	1.1	-.1	.6	1.9	3.1	3.2	5.0	2.0
2005	.7	.7	-.5	.1	.3	.1	-.3	.1	-1.4	1.4	.7	.0	5.7	1.1	-2.1	4.2	3.1
2006	.9	-.2	-.2	.6	-.6	.2	-.2	.3	.0	-.5	-.1	1.6	3.6	.0	-.1	.4	1.5
2007	-.5	.5	.4	.6	-.2	.4	.2	-.6	.4	-.7	.2	.2	3.8	4.2	.9	-1.8	1.8
2008	-.5	-.6	-.6	-1.2	-.6	-.6	-1.1	-1.4	-3.5	-.4	-2.0	-3.1	-3.7	-9.4	-14.1	-20.4	-5.8
2009	-2.9	.0	-2.2	-.9	-1.3	-.4	1.2	1.1	.7	-.1	.9	.1	-22.9	-12.8	6.0	5.4	-13.8
2010	.9	.0	1.0	1.0	1.4	.0	.8	.0	.2	.1	.1	.8	6.3	10.8	5.4	2.3	5.3
2011	.4	.3	.7	-.7	.2	.0	.9	.2	.5	.7	-.1	1.5	5.7	.1	5.2	6.4	4.2
2012	1.1	.9	-.7	.7	-.7	.3	.4	-.8	.1	-.9			10.2	.6	-.6		
IP (2007=100)																	
2010	82.9	82.9	83.7	84.5	85.7	85.7	86.4	86.4	86.6	86.6	86.7	87.5	83.2	85.3	86.4	86.9	85.5
2011	87.8	88.0	88.7	88.1	88.2	88.3	89.0	89.2	89.7	90.3	90.2	91.6	88.2	88.2	89.3	90.7	89.1
2012	92.6	93.4	92.8	93.4	92.8	93.1	93.4	92.6	92.7	91.9			92.9	93.1	92.9		
Capacity (percent of 2007 output)																	
2010	122.1	121.8	121.5	121.2	120.9	120.6	120.4	120.2	120.0	119.8	119.6	119.5	121.8	120.9	120.2	119.7	120.6
2011	119.4	119.3	119.2	119.2	119.1	119.1	119.1	119.1	119.1	119.1	119.2	119.2	119.3	119.1	119.1	119.2	119.2
2012	119.3	119.4	119.6	119.7	119.8	120.0	120.1	120.3	120.5	120.6			119.5	119.8	120.3		
Utilization (percent)																	
1990	81.8	82.9	83.1	82.6	82.6	82.6	82.4	82.5	82.3	81.4	80.3	79.5	82.6	82.6	82.4	80.4	82.0
1991	78.8	78.1	77.4	77.5	77.9	78.7	78.8	78.9	79.6	79.4	79.0	78.7	78.1	78.1	79.1	79.0	78.6
1992	77.9	78.5	79.2	79.4	79.7	79.8	80.3	79.8	79.6	79.9	80.0	79.8	78.5	79.6	79.9	79.9	79.5
1993	80.5	80.5	80.2	80.5	80.3	80.1	80.2	79.9	80.2	80.7	80.9	81.2	80.4	80.3	80.1	81.0	80.4
1994	81.2	81.2	82.1	82.4	82.7	82.7	82.8	83.1	83.1	83.6	83.9	84.5	81.5	82.6	83.0	84.0	82.8
1995	84.5	84.0	83.8	83.3	83.0	83.1	82.2	82.8	83.0	82.5	82.2	82.1	84.1	83.1	82.7	82.3	83.0
1996	81.0	81.9	81.3	82.0	82.2	82.7	82.5	82.6	82.7	82.1	82.5	82.8	81.4	82.3	82.6	82.5	82.2
1997	82.4	83.0	83.5	82.6	82.7	82.7	82.5	83.2	83.4	83.5	83.8	83.6	83.0	82.7	83.1	83.6	83.1
1998	83.7	83.2	82.6	82.5	82.5	81.3	80.3	81.9	81.0	81.3	80.9	80.8	83.2	82.1	81.0	81.0	81.8
1999	80.6	80.7	80.1	79.9	80.3	79.5	79.4	79.7	79.2	80.1	80.2	80.3	80.4	79.9	79.4	80.2	80.0
2000	80.0	79.7	79.8	80.0	79.4	79.3	78.9	78.2	78.4	77.9	77.3	76.6	79.9	79.6	78.5	77.3	78.8
2001	76.0	75.6	75.3	75.1	74.5	74.1	74.0	73.5	73.3	72.8	72.6	72.7	75.6	74.6	73.6	72.7	74.1
2002	73.1	73.0	73.6	73.7	74.2	75.0	74.6	74.8	74.9	74.6	74.9	74.4	73.3	74.3	74.8	74.6	74.2
2003	74.8	74.9	75.0	74.2	74.2	74.4	74.4	74.1	74.7	74.6	75.3	75.2	74.9	74.3	74.4	75.0	74.6
2004	75.2	75.8	75.6	76.0	76.6	76.0	76.6	77.1	76.9	77.7	77.6	78.1	75.5	76.2	76.8	77.8	76.6
2005	78.6	79.1	78.6	78.6	78.8	78.8	78.5	78.4	77.3	78.2	78.7	78.6	78.7	78.7	78.1	78.5	78.5
2006	79.1	78.8	78.5	78.9	78.3	78.3	78.1	78.2	78.1	77.6	77.5	78.6	78.8	78.5	78.1	77.9	78.4
2007	78.1	78.4	78.6	79.0	78.8	79.1	79.2	78.7	78.9	78.3	78.4	78.5	78.4	78.9	78.9	78.4	78.7
2008	78.1	77.6	77.2	76.2	75.8	75.4	74.6	73.6	71.2	70.9	69.6	67.6	77.6	75.8	73.1	69.4	74.0
2009	65.7	65.9	64.6	64.1	63.5	63.5	64.4	65.3	65.9	66.1	66.9	67.1	65.4	63.7	65.2	66.7	65.2
2010	67.9	68.0	68.9	69.8	70.9	71.1	71.8	71.9	72.1	72.3	72.5	73.2	68.3	70.6	71.9	72.7	70.9
2011	73.5	73.8	74.4	73.9	74.1	74.1	74.8	74.9	75.3	75.8	75.7	76.8	73.9	74.0	75.0	76.1	74.8
2012	77.6	78.2	77.6	78.0	77.4	77.6	77.8	77.0	77.0	76.2			77.8	77.7	77.2		

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.

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 4 percent. If output in this industry increased 10 percent in a month, then this gain would boost growth in total IP by 4/10 percentage point ($0.04 \times 10\% = 0.4\%$). 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)

Type of data	Month of estimate					
	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 2012; for other series, the factors were estimated with data through at least December 2011. 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 1972–2011 period, the average total industry utilization rate is 80.3 percent; for manufacturing, the average factory operating rate has been 78.8 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 30, 2012 is available on the Board's website (www.federalreserve.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

2012: January 18, February 15, March 16, April 17, May 16, June 15, July 17, August 15, September 14, October 16, November 16, and December 14.

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.