FEDERAL RESERVE statistical release

G.17 (419) 2014 Historical and Annual Revision

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Industrial Production and Capacity Utilization: The 2014 Annual Revision

The Federal Reserve has revised its index of industrial production (IP) and the related measures of capacity and capacity utilization.[1] The annual revision for 2014 was more limited than in recent years because the source data required to extend the annual benchmark indexes of production into 2012 were mostly unavailable. Consequently, the IP indexes published with this revision are very little changed from previous estimates. Measured from fourth quarter to fourth quarter, total IP is now reported to have increased about 3⅓ percent in each year from 2011 to 2013. Relative to the rates of change for total IP published earlier, the new rates are ½ percentage point higher in 2012 and little changed in any other year. Total IP still shows a peak-to-trough decline of about 17 percent for the most recent recession, and it still returned to its pre-recession peak in the fourth quarter of 2013.

As noted above, much of the new data that are typically incorporated in the annual benchmarks for IP were unavailable for this revision. In particular, at the time of publication, the U.S. Census Bureau had not issued detailed results of the 2012 Census of Manufactures. Some new data were available, however. The benchmark production indexes for publishing were updated from newly available data for 2012 from the Census Bureau's Service Annual Survey. The revised IP indexes also incorporated annual data from the U.S. Geological Survey (USGS) regarding metallic and nonmetallic minerals (except fuels) for 2013. The monthly estimates of production were updated to incorporate late-arriving or revised monthly or quarterly indicator data (either outputs from or inputs to production), and they also reflect recalculations of seasonal factors. In addition, new high-frequency indicators were incorporated for a few production indexes.

Capacity utilization rates for recent years were revised down slightly. Relative to earlier estimates, capacity utilization for total industry is about ¼ percentage point lower in the fourth quarter of each year from 2010 to 2013.

The revised estimates of capacity and capacity utilization incorporated data from the Census Bureau's Quarterly Survey of Plant Capacity Utilization (QSPC) for the fourth quarter of 2013, which covered the manufacturing sector, along with new data on capacity from the USGS, the U.S. Department of Energy, and other organizations, primarily for the energy and mining sectors. Typically, the estimates of capacity and capacity utilization would incorporate an additional year of data on capital spending by industry from the U.S. Census Bureau, but data for 2012 were not available at the time of publication.

RESULTS OF THE REVISION

The tables show the summary statistics for the annual revision. Tables 1A and 1B present the monthly, quarterly, and annual average index levels for total IP and for total capacity and capacity utilization for January 1984 through February 2014, along with the percent changes in total IP. Tables 2 through 4 show the revised

[1] The revision affected rates of change for IP from 1972 forward. When necessary to maintain consistency with any revisions to the data for 1972 and subsequent years, the levels of the production and capacity indexes for the years before 1972 were multiplied by a constant. However, utilization rates and the rates of change in IP for the years before 1972 were not revised.

rates of change in IP from 2009 through 2013 for market groups, industry groups, special aggregates, and selected detail. Table 5 presents the revised rates of change in capacity by industry groups for the 2010–14 period. Tables 2 through 5 also show the differences between the revised and previous estimates of the rates of change. Table 6 contains the revised capacity utilization rates for the fourth quarters of 2010 through 2013 and the differences between the revised and previous estimates. Table 7 reports revised semiannual rates of change for IP for 2009 through 2013. Table 8 contains revised capacity utilization rates for the second and fourth quarters of 2009 through 2013. Tables 9A, 9B, 10A, 10B, 11A, and 11B report the revised production, capacity, and utilization measures for manufacturing, total industry excluding selected high-technology industries, and manufacturing excluding selected high-technology industries. Table 12 displays the annual proportions in IP by market and industry groups for 2006 through 2013. Table 13 reports revised IP indexes for the major market and industry groups for the previous six months and reports revised capacity utilization rates for the same period.

Industrial Production

Revisions to the changes in total IP in recent years are small, and the general contour of total IP in recent years is unchanged from previous estimates (figure 1 and table 2).[2] Total IP declined sharply in 2009, rebounded strongly in 2010, and recorded more moderate gains in each year from 2011 to 2013. The upward revision to the increase in output in 2012 resulted almost entirely from higher estimates for high-technology industries (computers and peripheral equipment, communications equipment, and semiconductors and related electronic components). Excluding high-technology industries, total IP is essentially unrevised from 2009 to 2013 (table 3).

Production by Industry Group

From June 2009, the trough of the recent recession, to February 2014, manufacturing production rose 21.8 percent, but it was still 3.0 percent below its pre-recession peak.[3] The gain in 2012 is now 0.6 percentage point higher than previously reported, primarily because of stronger output in high-technology industries. Excluding high-technology industries, the rates of change of manufacturing output are nearly unchanged from those previously reported (table 3).

After having advanced 12.2 percent in 2010, the output of durable goods industries increased at about half that rate in each year from 2011 to 2013 (table 2). The gain in 2012 is now about ¾ percentage point stronger than previously reported, while the increase in 2013 is about ¼ percentage point larger; the rate of change in 2011, by contrast, is about ¼ percentage point lower than previously reported.

Although overall production for durables has surpassed its pre-recession level, the recovery has not been uniform across its major components. By February 2014, the indexes for machinery, for computer and electronic products, for transportation equipment, and for miscellaneous manufacturing had all rebounded to above their late-2007 levels. In contrast, the latest readings for the indexes for wood products, for nonmetallic mineral products, and for furniture and related products were each more than 20 percent below their previous peaks.

After having increased 26.7 percent in 2010, the output of high-technology industries continued to move up from 2011 to 2013, albeit at a slower pace (table 3). Relative to previous estimates, the increase in high-technology output in 2012 is now substantially larger. This upward revision arose from production of semiconductors, which is stronger than previously reported. In particular, a more rapid advance in the production of microprocessors, which reflected greater improvements in chip quality than previously estimated, accounts for the majority of the higher output (discussed under technical notes).

[2] In this section, all of the rates of change for a full year are calculated from the fourth quarter of the previous year to the fourth quarter of the reference year. Rates of change on a half-year basis are shown in table 7.

[3] Manufacturing consists of those industries in the North American Industry Classification System definition of manufacturing, plus those industries—logging and newspaper, periodical, book, and directory publishing—that were in the manufacturing sector under the Standard Industrial Classification system.

The production of nondurable manufacturing industries expanded modestly in each year since 2010. Rates of change in nondurable output are similar to the previous estimates. By February 2014, the output of nondurable goods industries remained 8 percent below its pre-recession peak; among its major industry groups, only the output of food was higher than its level in late 2007.

The output index for industries not in the scope of manufacturing under the North American Industry Classification System (NAICS)—that is, logging and publishing—fell in every year from 2009 to 2013. The decrease in 2012 is now somewhat less sharp than previously reported as a result of new benchmark data from the Service Annual Survey.

The production indexes for mining and utilities are little changed from those previously reported. Strong increases in oil and natural gas extraction have boosted mining output in each of the last four years. Rates of change in the output of utilities are very similar to previous reports.

Production by Market Group

The production index for final products and nonindustrial supplies rose about 3¾ percent in 2010, 2¼ percent in 2011, 2¾ percent in 2012, and 3¼ percent in 2013 (table 2). Gains in recent years are little changed from previous estimates. By February 2014, the index had recovered about 13½ percentage points of its 17 percent loss from the end of 2007 to mid-2009.

The index for consumer goods is little changed from its previous estimate. The production of consumer goods increased only 0.3 percent in 2010, strengthened somewhat in 2011 and 2012, and then rose about 3 percent in 2013. Despite these gains, which were supported by robust increases in the output of automotive products, the level of the index in February 2014 remained about 2¼ percent below its pre-recession peak.

The index for business equipment has risen substantially since the 2009 trough, with a sharp rebound in 2010 followed by additional, but smaller, increases. With these gains, the output of business equipment has now fully retraced its recession-era decline. Among the three major components of business equipment, only the output of information processing and related equipment remains below its December 2007 level, albeit only slightly. Relative to previous estimates, the index for business equipment is little changed.

The production of defense and space equipment increased robustly in 2010, declined somewhat in 2011, and then jumped in 2012 before increasing moderately in 2013. The index is little changed by this revision.

The index for construction supplies has advanced briskly in recent years; following a jump in output in 2010, production has expanded between 2½ and 5 percent in each year from 2011 to 2013. Notwithstanding these gains, the index in February 2014 had recovered less than half of its recession-period decline of 33 percent. Compared with the index for construction supplies, the index for business supplies declined less steeply during the recession and rebounded less sharply during the recovery, and its most recent reading was about 6 percent below its pre-recession peak.

The output of materials advanced 9½ percent in 2010 and then increased, on average, 3¾ percent per year for the next three years. Relative to previous estimates, the gain in 2012 is now larger, while the increase in 2011 is somewhat smaller. As of February 2014, the level of the index for materials was about 7 percent higher than its pre-recession peak.

Within materials, the recovery from the recession has been uneven. As of February 2014, the indexes for both durable goods materials and energy materials were above their pre-recession levels. All of the categories of durable goods materials increased substantially from 2010 to 2013. The gain in the output of durable materials in

2012 is now stronger than previously reported as a result of a faster increase in the production of equipment parts.

By contrast, the output of nondurable materials has recovered less than half of its 20 percent decline during the recession. The index for nondurable materials advanced in 2010 and moved down in 2011 before increasing in 2012 and being nearly unchanged in 2013.

The output of energy materials advanced briskly in 2010 and 2011, increased at a slower pace in 2012, and then resumed more rapid gains in 2013. Rates of change in the production of energy materials are nearly unchanged from previous estimates.

Capacity

Total industrial capacity contracted in 2010 before increasing in 2011, 2012, and 2013 (table 5).[4] Capacity is expected to expand at a slightly faster rate in 2014. Relative to previous estimates, the gain in total industrial capacity in 2012 is somewhat larger.

After having decreased each year from 2008 to 2010, manufacturing capacity rose slightly in 2011 and then increased around 2 percent in 2012 and in 2013; it is expected to advance at a somewhat faster pace in 2014. Relative to earlier estimates, the gains in 2012 and 2013 are larger. The revised level of capacity in the fourth quarter of 2013 is 0.9 percent higher than the earlier estimate. Capacity in durable manufacturing industries declined from 2008 to 2010 and then advanced solidly in each year from 2011 to 2013; capacity is expected to post another strong gain in 2014. The rate of change in durable manufacturing capacity is now reported to have increased at a faster rate in both 2012 and 2013, with the capacity index for computer and electronic products being the largest contributor in 2012 and higher capacity in fabricated metal products being the largest contributor to the revision in 2013. Capacity in high-technology industries advanced briskly in each year from 2010 to 2012, moved up at a slightly slower pace in 2013, and is expected to increase again in 2014. The gain in 2012 is now substantially stronger than previously reported. For nondurable manufacturing, capacity contracted in each year from 2008 to 2011 before increasing modestly in 2012 and 2013; the pace of capacity gains for nondurables is expected to pick up in 2014. Relative to the previous estimate, the rate of change for nondurables manufacturing capacity is now estimated to have increased somewhat less in 2012.

Capacity at mines was flat in 2010 but increased sharply in 2011, 2012, and 2013; further gains are expected in 2014. Relative to previous estimates, the rates of change in 2010 and 2011 are now larger. Capacity at utilities increased modestly in each year from 2010 to 2013, with another increase expected in 2014; the gains from 2011 to 2013 are now reported to be smaller in each year than previously estimated.

By stage of processing, capacity at the crude stage declined in 2010 and then recorded robust gains of 3 percent or more in 2011, 2012, and 2013; capacity is expected to increase further in 2014. Relative to previous estimates, the rates of change for capacity at the crude stage are now reported to be higher in 2010, 2011, and 2012, but lower in 2013. Capacity at the primary and semifinished stages declined in 2010 and then increased in each year from 2011 to 2013; another expansion is expected in 2014. Relative to previous estimates, the gains in capacity at the primary and semifinished stages are now reported to have been somewhat smaller in 2011 but considerably stronger in 2012. For finished goods industries, capacity declined in 2010, edged up in 2011, and then increased more briskly in 2012 and 2013. Capacity for these producers is expected to increase in 2014. The rates of change for capacity in the finished goods stage are smaller than previously reported for 2011 but larger for 2013.

[4] In this section, all the rates of change for a full year are calculated from the fourth quarter of the previous year to the fourth quarter of the reference year.

Capacity Utilization

Capacity utilization for total industry has risen in each year from 2010 to 2013.[5] In 2013, capacity utilization for total industry was 78.4 percent, a rate 1.7 percentage points below its long-run (1972–2013) average of 80.1 percent (table 6). Compared with earlier estimates, capacity utilization for total industry is now reported to have been slightly lower in each year from 2010 to 2013.

The capacity utilization rate for manufacturing jumped in 2010 and then increased at a slower rate in each year from 2011 to 2013. Relative to previous reports, larger increases in manufacturing capacity slightly more than offset higher rates of change in production in 2012 and 2013; consequently, the factory operating rates are now estimated to have been a bit lower in those years. At 76.4 percent, the rate for 2013 is 0.3 percentage point below its earlier level and 2.3 percentage points below its long-run average. The utilization rate for durable manufacturing has risen in each year from 2010 to 2013, when it reached 76.3 percent, but rates in 2012 and 2013 are now lower than reported earlier. The utilization rate for nondurable manufacturing has increased from 71.8 percent in 2009 to 77.8 percent in 2013. The rates for nondurables in 2010 and 2011 are now reported to have been lower than previously estimated, while rates for 2012 and 2013 are slightly higher than previously estimated.

As of the fourth quarter of 2013, all nondurable manufacturing industry groups were still operating at rates below their industry-specific long-run averages (table 6), with the rates for textile and product mills and for printing and support well below their long-run averages. Among durable goods manufacturers, 5 of the 11 industry groups in table 6 were operating at utilization rates above their long-run averages: fabricated metal products; machinery; electrical equipment, appliances, and components; motor vehicles and parts; and aerospace and miscellaneous transportation equipment. Only the nonmetallic mineral products industry was operating at a rate far below its long-run average.

Capacity utilization in mining advanced strongly in 2010 and continued to increase in 2011; utilization fell back slightly in 2012 but increased again in 2013. Utilization rates at mines are lower than previously reported in each year from 2010 to 2013. Nevertheless, the utilization rate for mining in 2013, at 87.7 percent, was 0.4 percentage point above its long-run average. The operating rates for utilities are now higher than previously reported for 2012 and 2013; at 81.3 percent in 2013, however, the utilization rate was 4.8 percentage points below its long-run average.

TECHNICAL ASPECTS OF THE REVISION

The annual revisions to the indexes of IP and capacity were limited in scope this year. Much of the comprehensive data that is newly incorporated in a typical annual revision was not yet available at the time of publication. However, this annual revision did incorporate updated measures of employment and production-worker hours from the Current Employment Statistics monthly survey conducted by the Bureau of Labor Statistics (BLS). In addition, the benchmark indexes for logging and publishing were updated through 2012 based on data from the U.S. Forest Service and the U.S. Census Bureau.

The revised IP indexes include information from the QSPC for 2013 and from other industry reports. The indexes also incorporate revised monthly and quarterly source data on production, shipments, and inventories.

[5]Unless otherwise noted, rates of capacity utilization are reported for the fourth quarter of the reference year.

Annual Benchmark Output Indexes

The annual benchmark output indexes for IP are defined as nominal gross output divided by a price index. These benchmark indexes are constructed for each six-digit industry defined by the NAICS. As noted earlier, much of the underlying source data required to construct the benchmark output indexes for 2012 is not yet available. For a few industries—including semiconductors—the Federal Reserve constructs benchmark indexes at a more detailed level than the six-digit NAICS, and 2012 data do exist for some of these industries.

Changes to annual benchmarks for semiconductors

The IP indexes for semiconductors (NAICS 334413) use monthly shipments data from the Semiconductor Industry Association (SIA) deflated by a price index. This revision updates the methods for calculating the annual benchmark price index used in the output index for microprocessors (MPUs) and extends the price index one year further to 2012. The updated methods also affect the price index for metal-oxide semiconductor (MOS) logic chips excluding MPUs.

As in the construction of other price indexes used in the G.17 statistics, the price index for MPUs is composed of an annual benchmark deflator combined with a monthly price indicator. In the 2013 annual revision, the Federal Reserve introduced new methods using hedonic regressions to construct the annual benchmark price deflator.[6] Hedonic price indexes use data on product characteristics to remove the effect of changing product quality from prices.

This revision updated the previous methods in a few ways. First, this revision incorporated additional observations in the sample used in the 2013 analysis. Second, the increased sample size enabled a more flexible specification of the hedonic model used in the analysis. Third, the updated methods controlled for heat management properties of different MPUs. Finally, some controls were eliminated from the specification and the sample was adjusted to improve consistency over time. The current revision applied the updated methods only to 2012.

After having declined at an average rate of 37 percent per year for the 2007–11 period, the price index for MPUs is estimated to have declined 30 percent in 2012 using the updated methods. Previously, the price deflator for MPUs in 2012 was estimated to have declined about 4 percent. It is expected that the new methods will be introduced to the 2007–11 period in a future annual revision.

The price deflator for the IP index for MOS logic excluding MPUs is a geometric mean of a Fisher price index constructed from monthly SIA data for chips in this category, the price index for MPUs, and the price index for MOS memory chips. Because the changes to the price index for MPUs imply more rapid price declines for 2012, the output index for MOS logic excluding MPUs, which relies on this price deflator, registers stronger gains.

Changes to Individual Production Indexes

Several production indicators were affected by methodological changes in this revision.

Business Furniture

Monthly data on the overall value of shipments for office furniture from the Business and Institutional Furniture Manufacturers Association (BIFMA) have been instituted as the primary source data for the index for business furniture (NAICS 3372) for the period from 1972 forward. Previously, the IP index for business

[6] Described on the Federal Reserve's website at www.federalreserve.gov/releases/g17/MpuPriceIndex.htm.

furniture was based on monthly production-worker hour data from the BLS for 1997 forward; before that, the monthly production indicator was data for electric power use collected by the Federal Reserve. As with the other production indexes that are based on manufacturers' shipments, the BIFMA shipments data were adjusted by a procedure that estimates changes in inventories to obtain a measure of production. The procedure was described in detail in the Federal Reserve Bulletin article that summarized the 2004 annual revision.[7]

Computers

This revision introduced new source data for each of the component indexes for computer and peripheral equipment (NAICS 3341). For the period beginning in 2012, monthly data from the BLS on production-worker hours are now used as high-frequency indicators for the following indexes: business desktops, consumer desktops, business mobiles, consumer mobiles, business storage and terminals, consumer storage and terminals, business printers and peripherals, and consumer printers and peripherals. Previously, these indexes were based on quarterly data on domestic absorption for computers from the International Data Corporation (IDC) and on information from the discontinued (as of mid-2011) Current Industrial Report (CIR) program from the U.S. Census Bureau.

The monthly data on production-worker hours are only collected on an industry basis and do not contain separate labor input information for business and consumer computers. The business and consumer market splits required for the IP indexes are estimated from IDC data on the relative shares of domestic absorption for these markets. The Federal Reserve will continue to receive these data from IDC once per year, with quarterly frequency detail covering the four quarters of the previous year. These data will be used in future annual revisions to retroactively construct the business and consumer shares and apply them to the historical data on production-worker hours for the same time frame. For the period when the business and consumer shares are not yet available from IDC, the shares will be projected using time-series methods.

With this revision, for the period beginning in 2012, the IP indexes for x86 servers and non-x86 servers are based on measures derived from the QSPC augmented by estimates of the service flow from the capital stock at producers of computers and peripherals. The capital services measures were constructed from historical investment data and a survey of investment plans. In recent years, the augmented QSPC utilization rates, a proxy for capital utilization, have tracked detrended measures of IP for servers. Previously, the IP indexes used data from IDC on U.S. domestic absorption of servers.

Semiconductors

The IP indexes for each of the individual components of semiconductors (NAICS 334413) are derived from data on measures of nominal U.S. output deflated by a price index. This revision includes updates to the annual benchmark indexes (discussed above) and also to the monthly production indexes for the different types of memory semiconductors: flash memory, dynamic random-access memory (DRAM), and other metal-oxide semiconductors (MOS) memory. Specifically, the updates to memory chips include enhancements to (1) the share of global semiconductor sales for each product type that originated from U.S. factories and (2) the associated price indexes.

Domestically produced shares of global shipments

The data on nominal shipments come from a SIA monthly report that provides details on global sales for many types of chips. For each type of chip, the SIA shipments figures are multiplied by an estimate of the share of global sales that is produced domestically. These shares are derived from a global census, published by IHS

[7] Kimberly Bayard and Charles Gilbert (2005), "Industrial Production and Capacity Utilization: The 2004 Annual Revision," Federal Reserve Bulletin, vol. 91 (Winter), pp. 9–25, www.federalreserve.gov/pubs/bulletin/2005/winter05_ip.pdf.

iSuppli, of semiconductor factories. The domestic share of global unit capacity (in semiconductor wafers) for each product type is used as a proxy for the domestic share of the value of shipments. Updated capacity estimates from IHS iSuppli along with new information learned from discussions with iSuppli analysts, led to an upwardly revised estimate for the domestic production shares for memory chips and to higher domestic output in 2012 and 2013.

Price index for memory chips

This revision updated the price indexes for memory chips with new data from the Bank of Japan (BOJ). Historically, quarterly price indexes for memory chips have been based on quarterly data on prices and global sales by detailed memory type using a matched-model, chain-weighted aggregation. Less-detailed monthly information from SIA had been used to interpolate a monthly price index that was constrained to line up with the quarterly indexes. With this revision, the monthly interpolation is based on the price index for MOS memory chips published by the BOJ. In addition, this revision used the BOJ price index as a primary indicator of memory prices for months after the last available date of the quarterly price data: the second quarter of 2013 for DRAM and flash memory, and the second quarter of 2009 for other memory.

Electric Lighting

The IP index for electric lighting equipment (NAICS 3351) has been updated with this revision. Previously, output was inferred from monthly production-worker hour data from the BLS. This revision adopted quarterly data back to 2002 from the National Electrical Manufacturers Association's (NEMA) Lighting Systems Index. The NEMA index covers U.S. shipments of a variety of lighting products, including lamps, luminaires, ballasts, and emergency lighting.

Adjustments for Natural Disasters and Extreme Weather

With this annual revision, the production indexes continue to incorporate model-based estimates of the effects on output of natural disasters or extreme weather events. These estimates are derived from industry-specific measures of economic activity in the most affected areas.[8] Since the 2013 annual revision, the natural disasters and extreme weather events that required special estimates of the effect on production include the tornadoes that hit Oklahoma in July 2013 and the extreme cold weather and snowstorms that affected much of the country in January and February 2014.

Weights for Aggregation

The IP index is a Fisher index. The weights for manufacturing industries are derived from value-added measures from the Census of Manufactures and the Annual Survey of Manufactures, both from the U.S. Census Bureau. The Federal Reserve derives estimates of value added for the electric and gas utility industries from annual revenue and expense data issued by other organizations. As in the 2013 annual revision, the weights for aggregation expressed as value-added per unit were estimated with data on producer prices for the period after 2011. Table 12 shows the annual value-added proportions in the IP index from 2006 through 2013.

Revised Quarterly and Monthly Data

This revision incorporated product data that became available or were revised after the regular six-month reporting window for monthly IP was closed. These data were released with too great of a lag to be included

[8]The methods used to make these estimates have been documented previously, most recently on the Federal Reserve's website at www.federalreserve.gov/releases/g17/g17_technical_qa.htm.

with monthly IP estimates but were available for inclusion in the annual revision.

Revised Seasonal Factors

Seasonal factors for production-worker hours—which adjust for timing, holiday, and monthly seasonal patterns—were updated with data through January 2014. The updated factors for the physical product series, which include adjustments for holiday and workday patterns, used data through December 2013 where available.

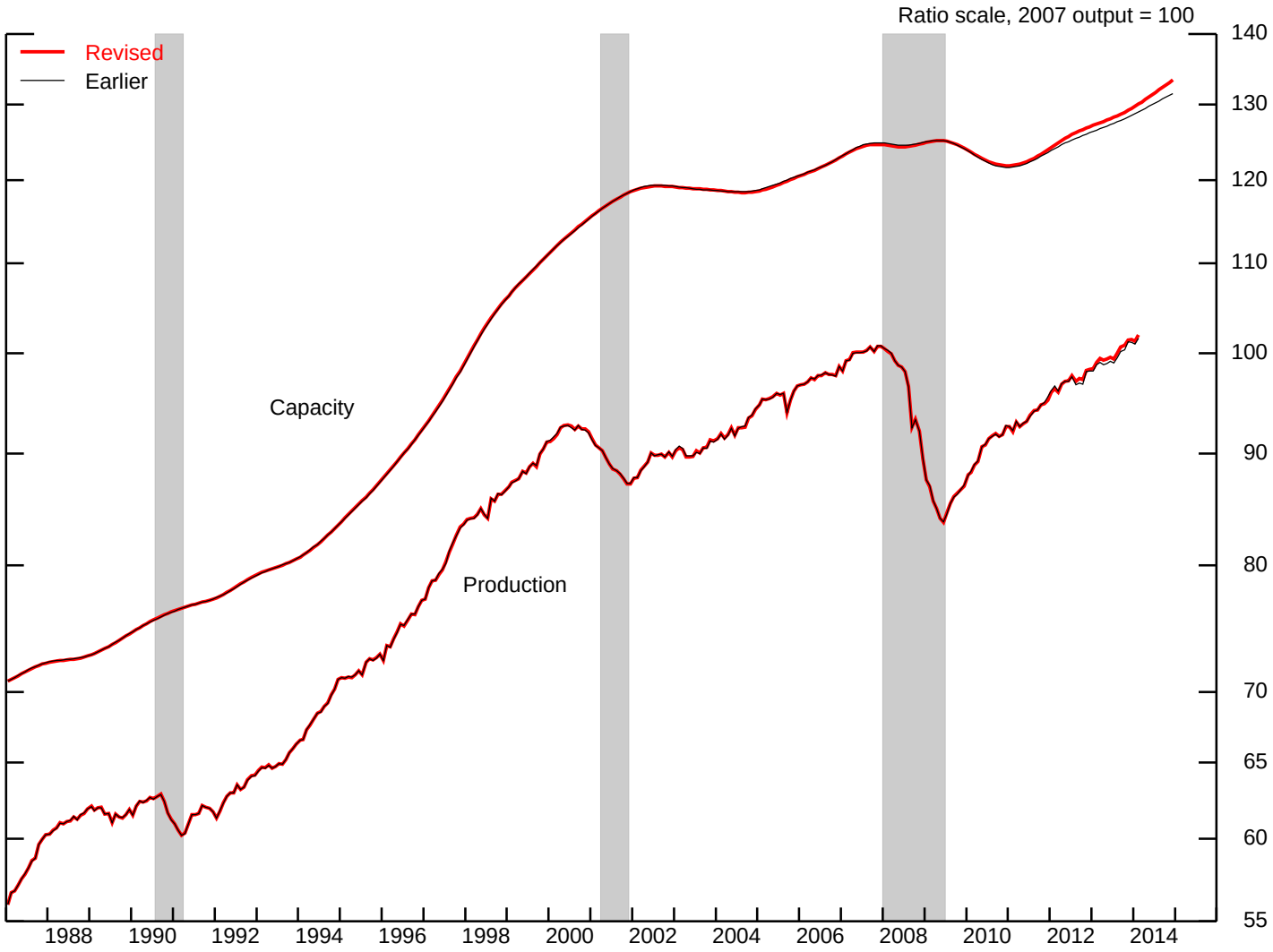
Seasonal factors for unit motor vehicle assemblies have been updated, and projections through June 2015 are on the Board's website at www.federalreserve.gov/releases/g17/mvsf.htm. This annual revision updated the procedures for estimating seasonal factors for the months in the third quarter of the years from 1996 through 2011. Previously, the seasonal factors for cars and light trucks were based, in part, on manufacturers' initial assembly plans for the months of July, August, and September. These assembly plans reflected the summer shutdowns that allow for factory retooling to accommodate model changeovers. Prior to the mid-1990s, the summer shutdowns fluctuated between July and August, which necessitated special adjustments to the seasonal factors. Since the mid-1990s, however, automakers' summer shutdowns have been more reliably slotted for July, if they are scheduled at all, so the special adjustments based on initial assembly plans were no longer required. With this revision, the special adjustments were removed for the period beginning with 1996.

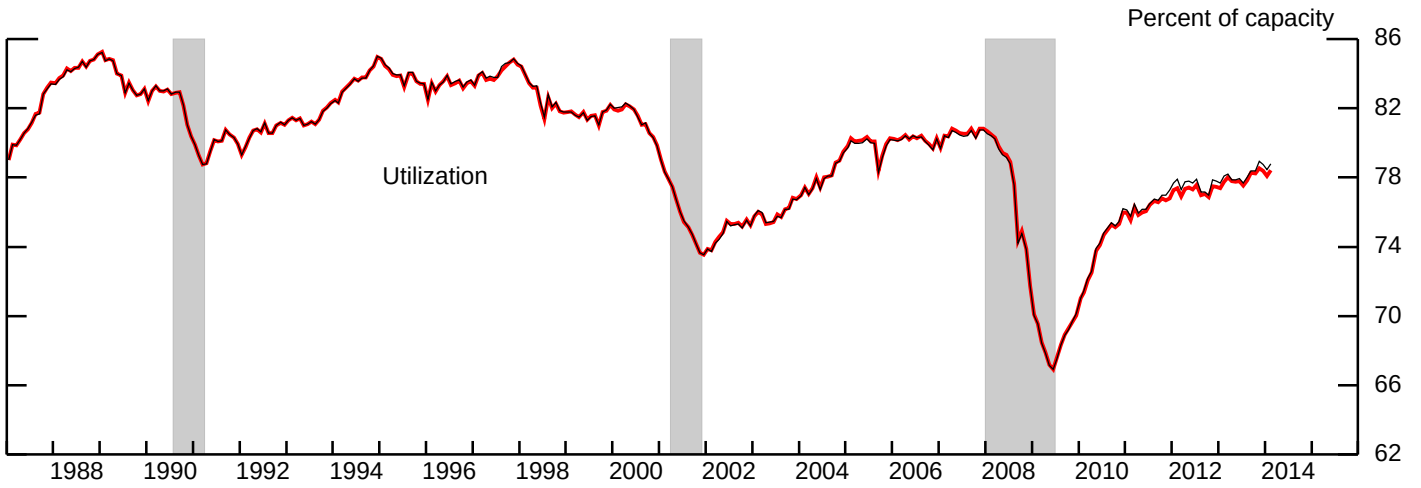
Data Availability and Publication Changes

Files containing the revised data and the text and tables from this release are available on the Board's website at www.federalreserve.gov/releases/g17, as are updated data for the annual revision and for all of the regularly issued series on industrial production, capacity, and capacity utilization. Indexes for one additional industry group are being published with this release: Nonferrous metals except foundries (NAICS 3313 and 3314).

A document with printed tables of the revised estimates of series shown in the G.17 release is available upon request to the Industrial Output Section, Mail Stop 82, Division of Research and Statistics, Board of Governors of the Federal Reserve System, Washington, DC 20551.

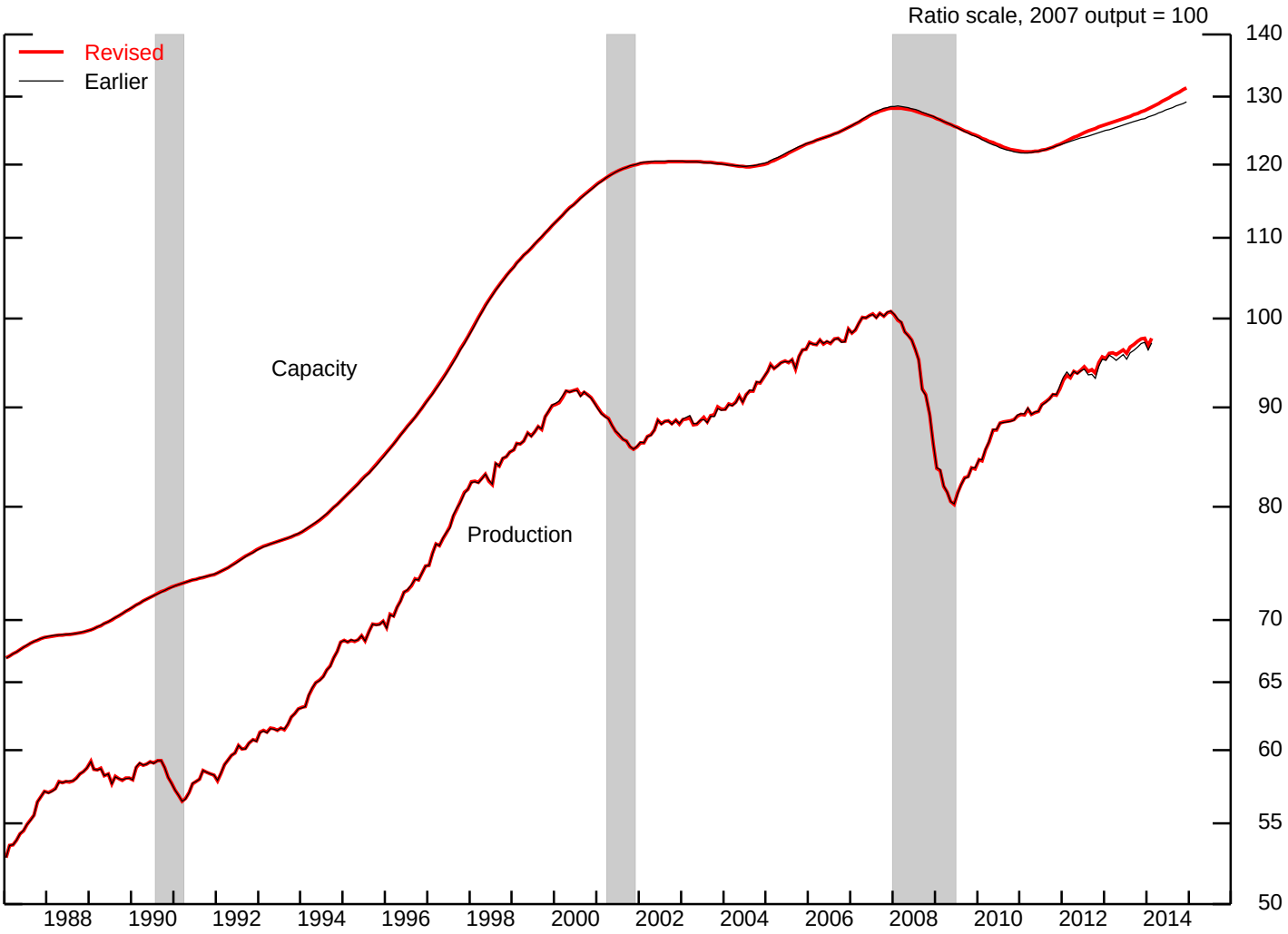
1. Total industrial production, capacity, and utilization

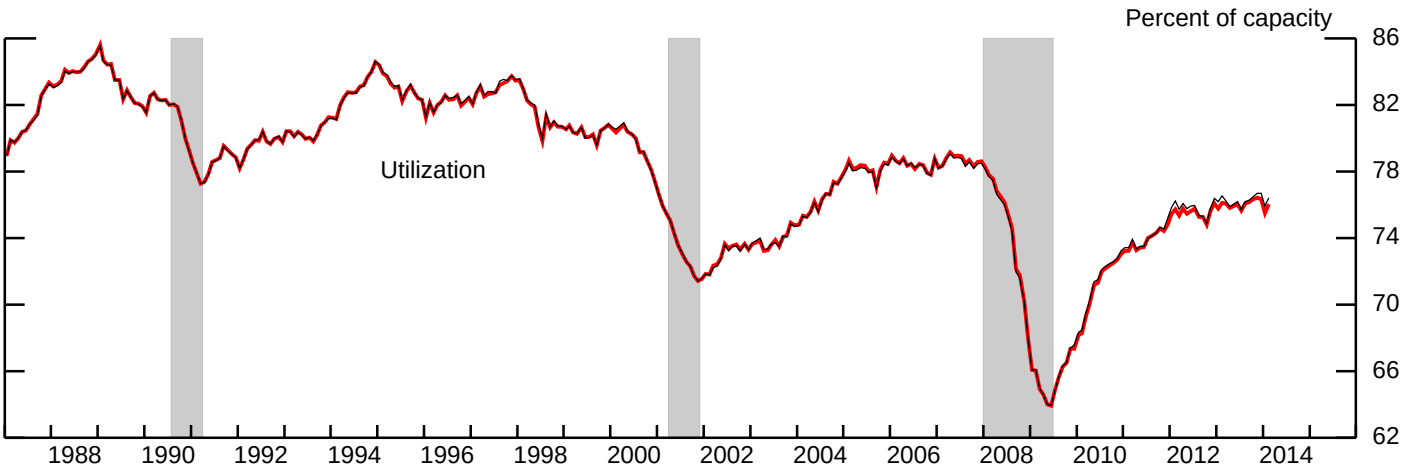




Note: The shaded areas represent periods of business recession as defined by the National Bureau of Economic Research (NBER).

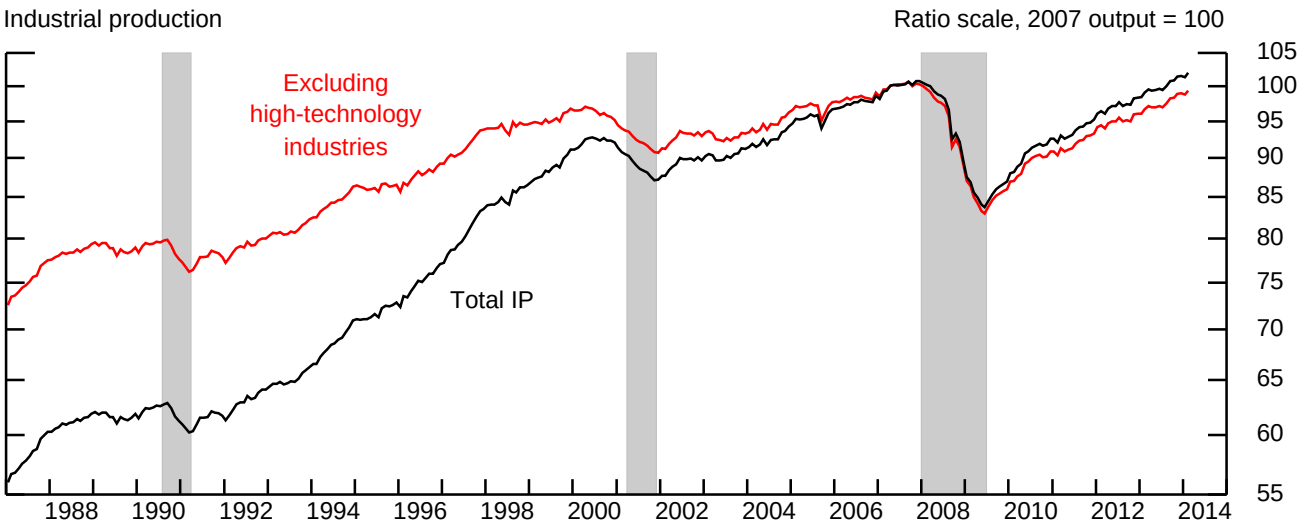
2. Manufacturing industrial production, capacity, and utilization

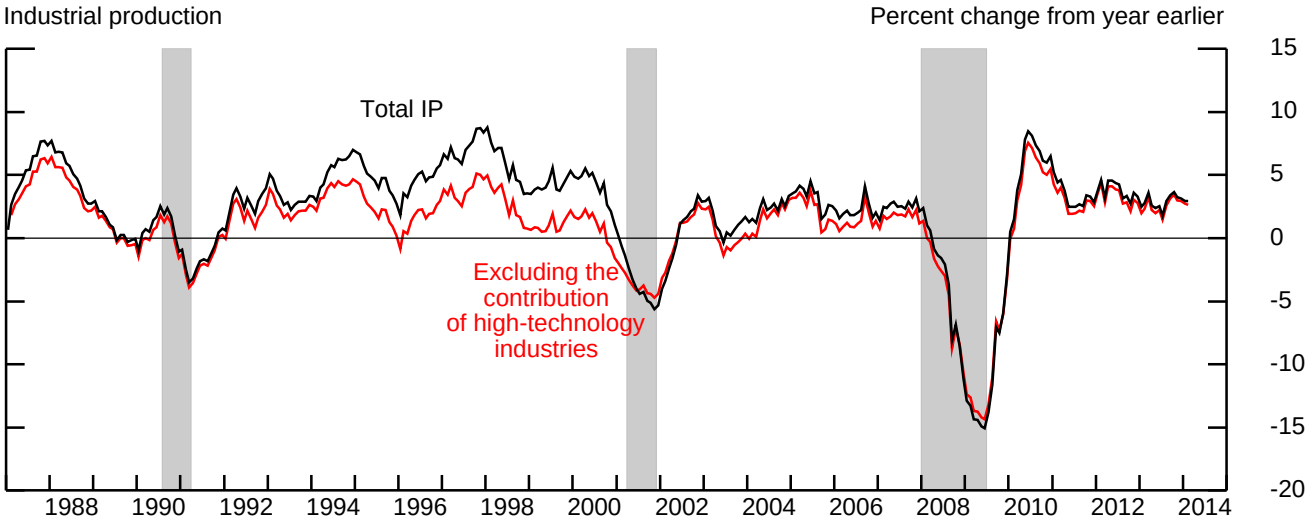


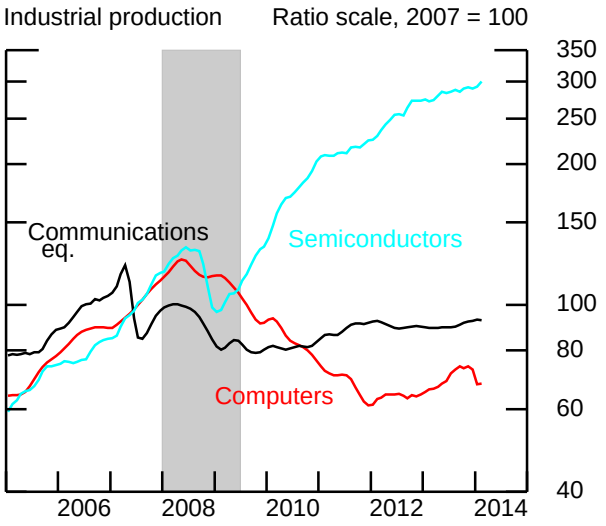


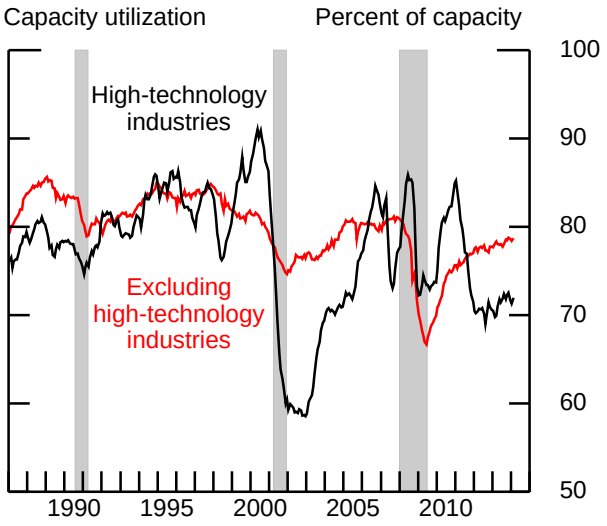
Notes: The shaded areas represent periods of business recession as defined by the NBER. Manufacturing consists of those industries in the North American Industry Classification System, or NAICS, definition of manufacturing plus those industries--logging and newspaper, periodical, book, and directory publishing--that have traditionally been considered to be manufacturing and included in the industrial sector.

3. Industrial production and capacity utilization



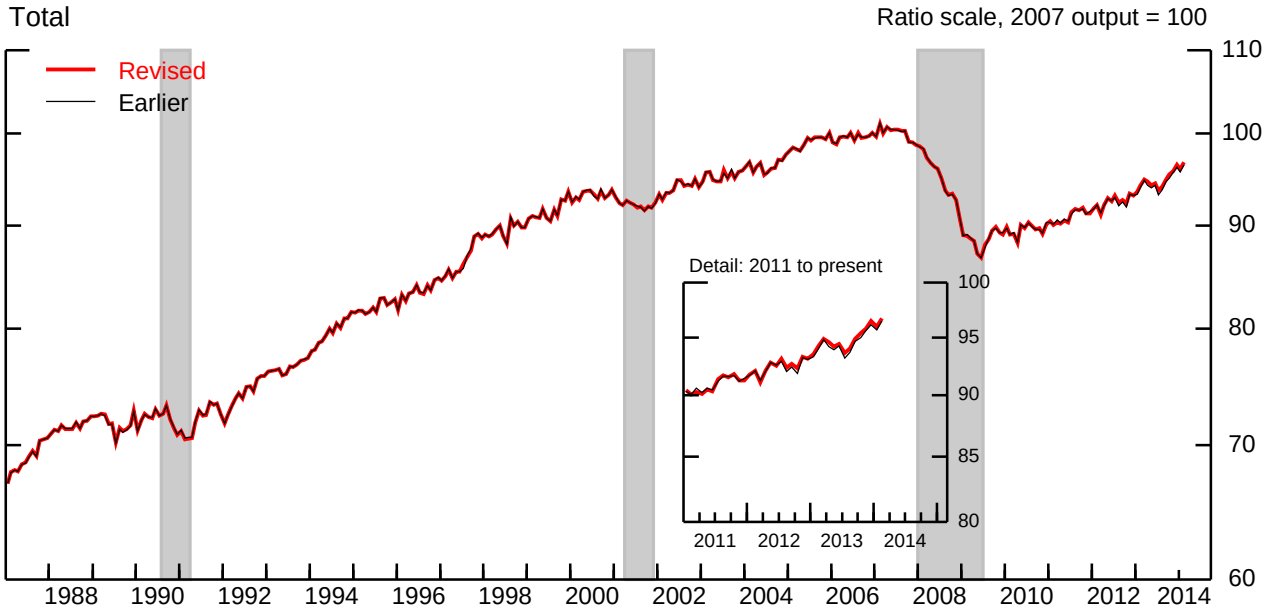


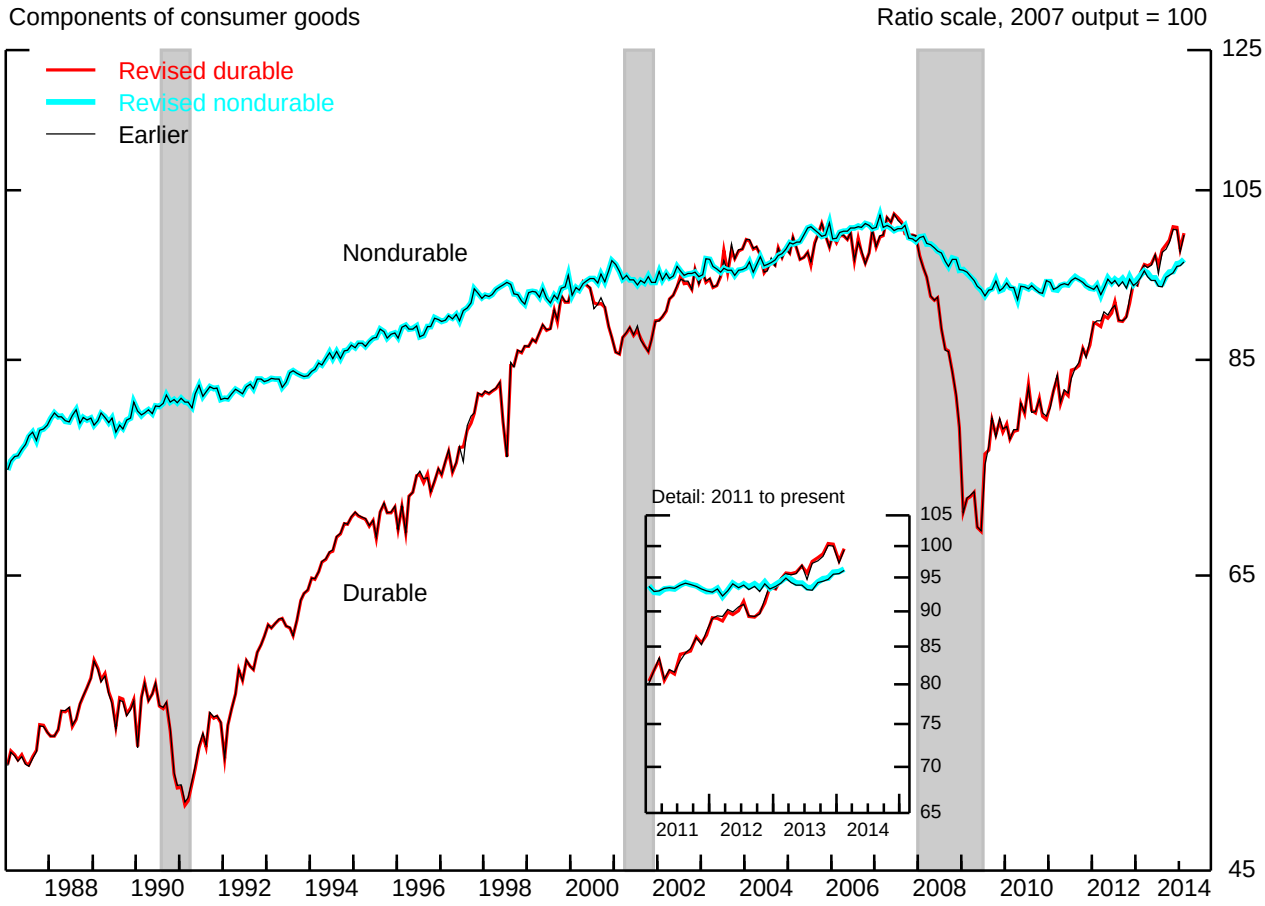




Notes: High-technology industries are defined as semiconductors and related electronic components (NAICS 334412-9), computers (NAICS 3341),and communications equipment (NAICS 3342).
The shaded areas represent periods of business recession as defined by the NBER.

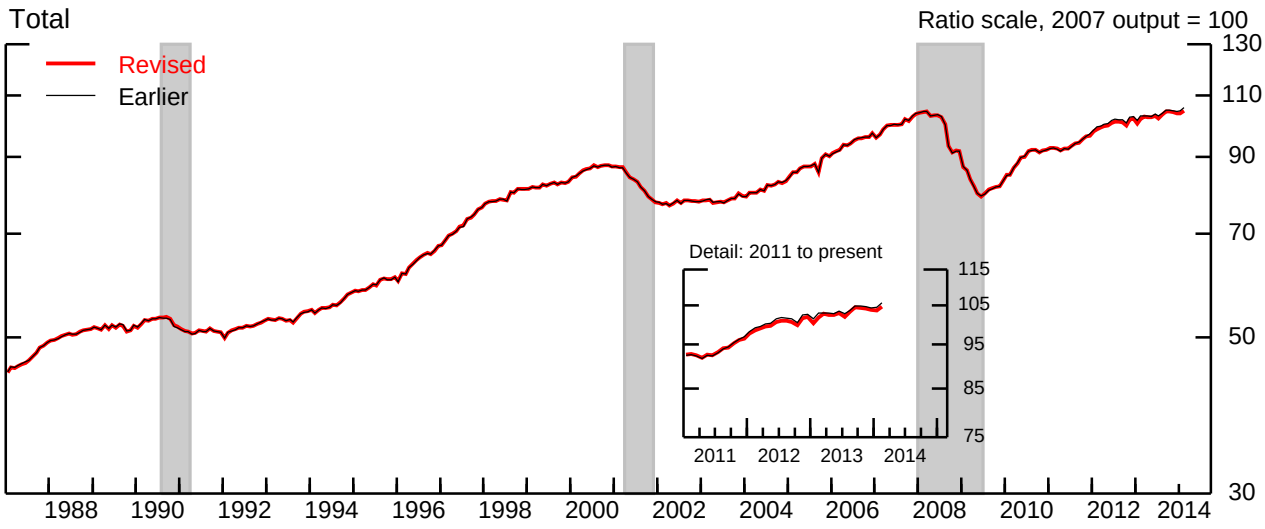
4. Consumer goods



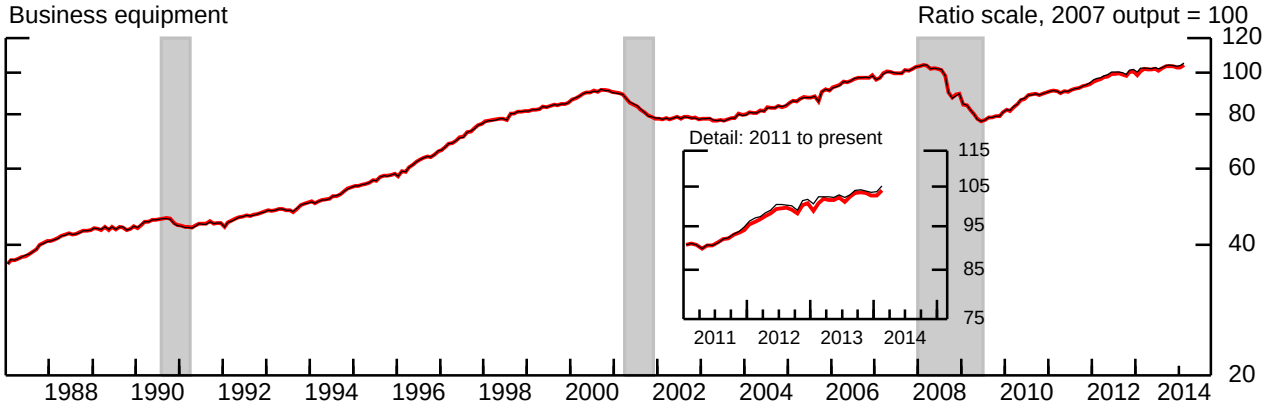


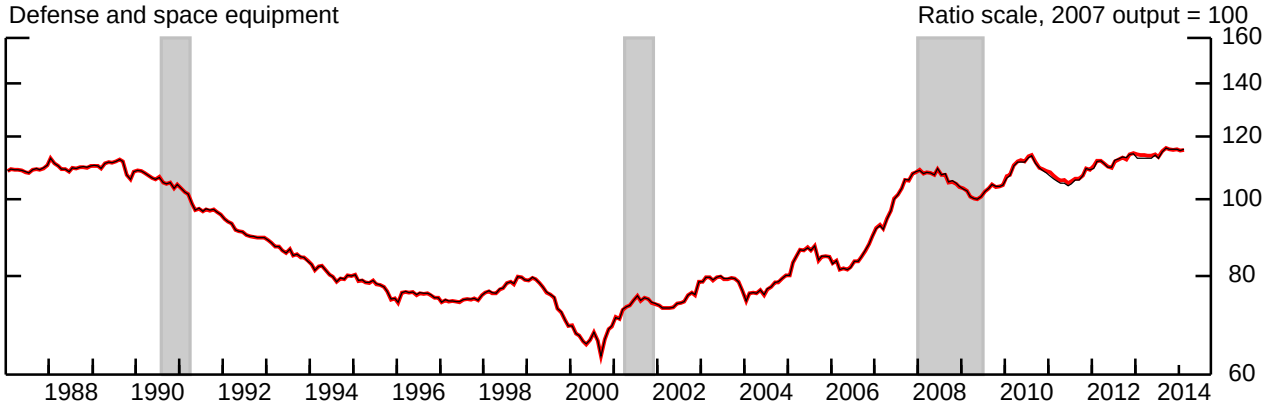
Note: The shaded areas represent periods of business recession as defined by the NBER.

5. Equipment



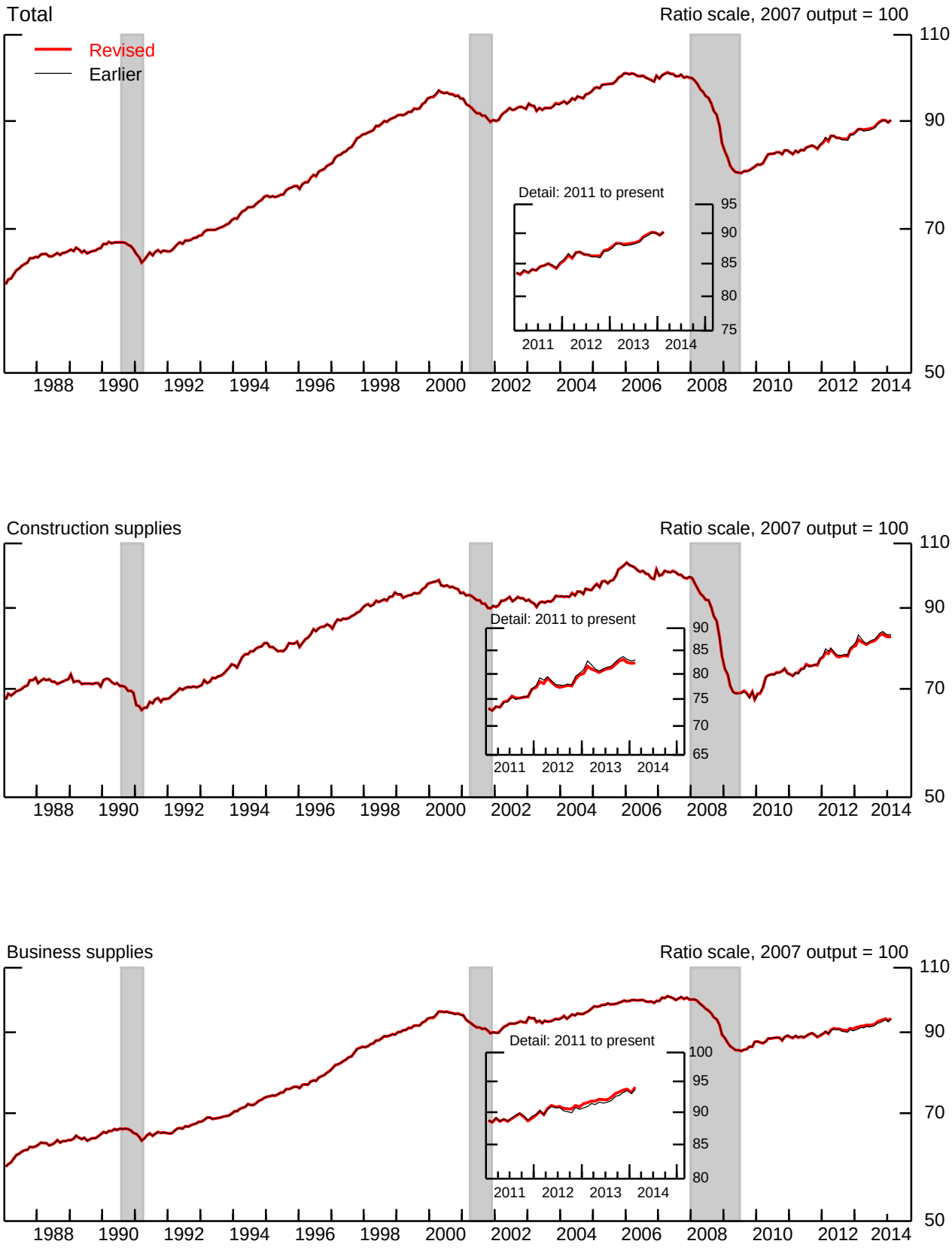
Note: Includes business equipment, defense and space equipment, oil and gas well drilling, and manufactured homes.





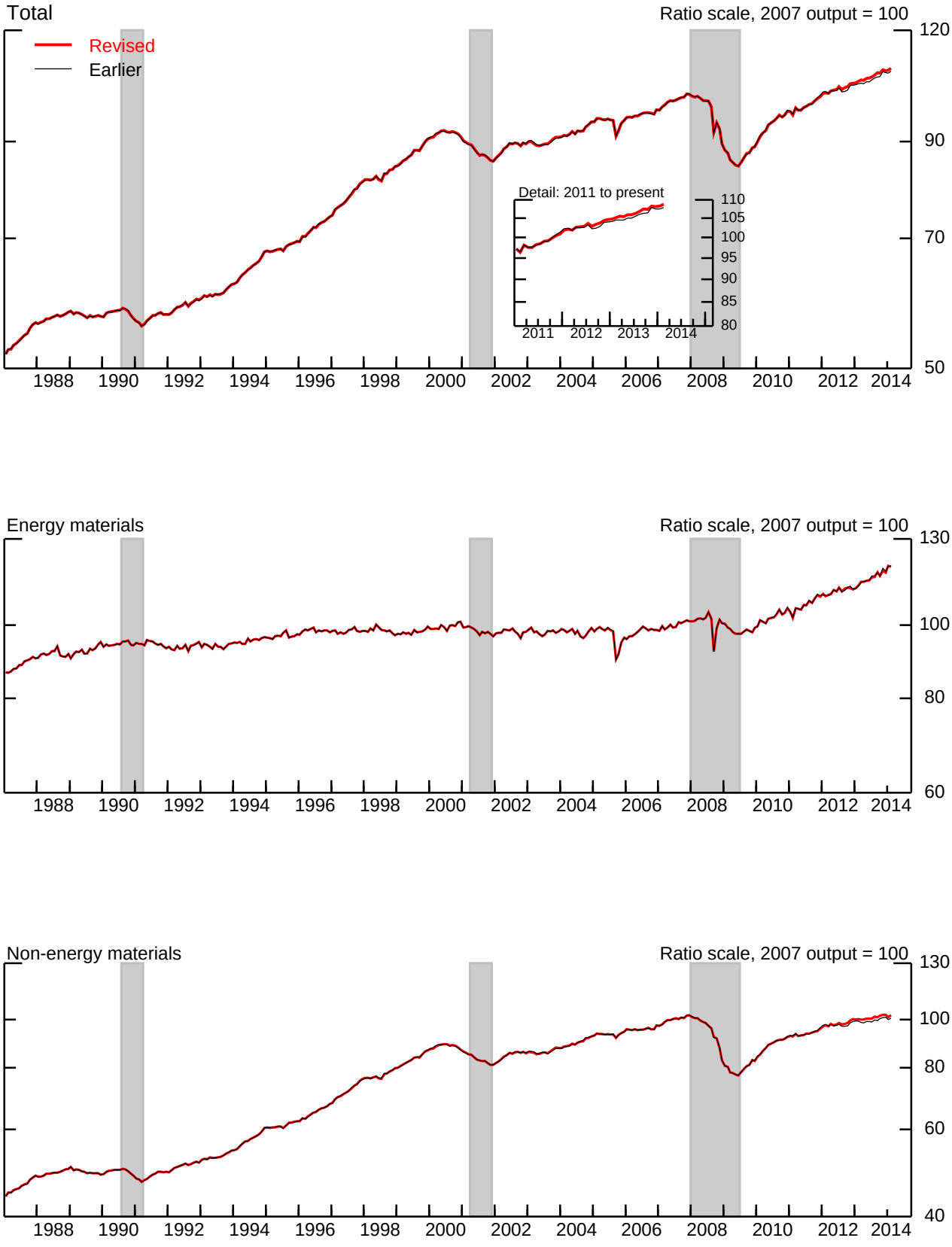
Note: The shaded areas represent periods of business recession as defined by the NBER.

6. Nonindustrial supplies



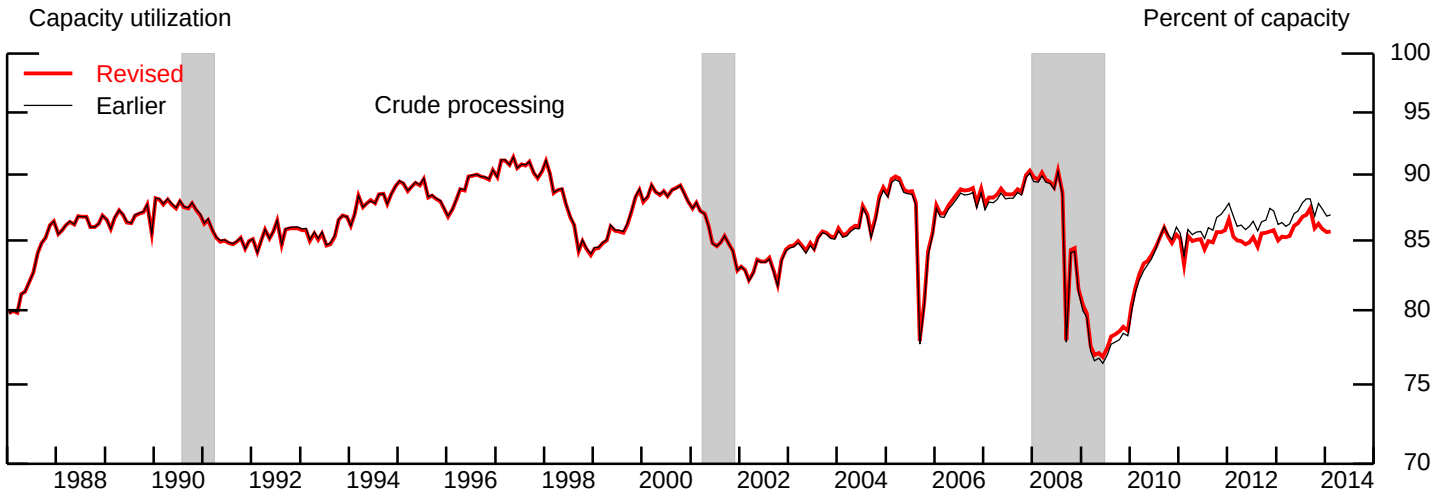
Note: The shaded areas represent periods of business recession as defined by the NBER.

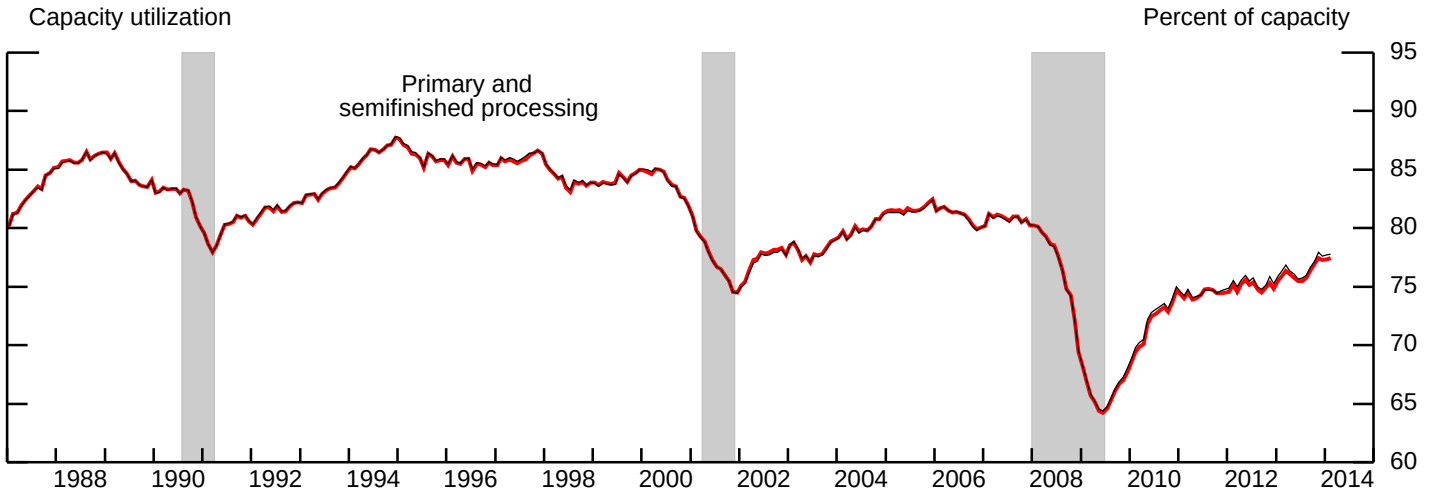
7. Industrial materials

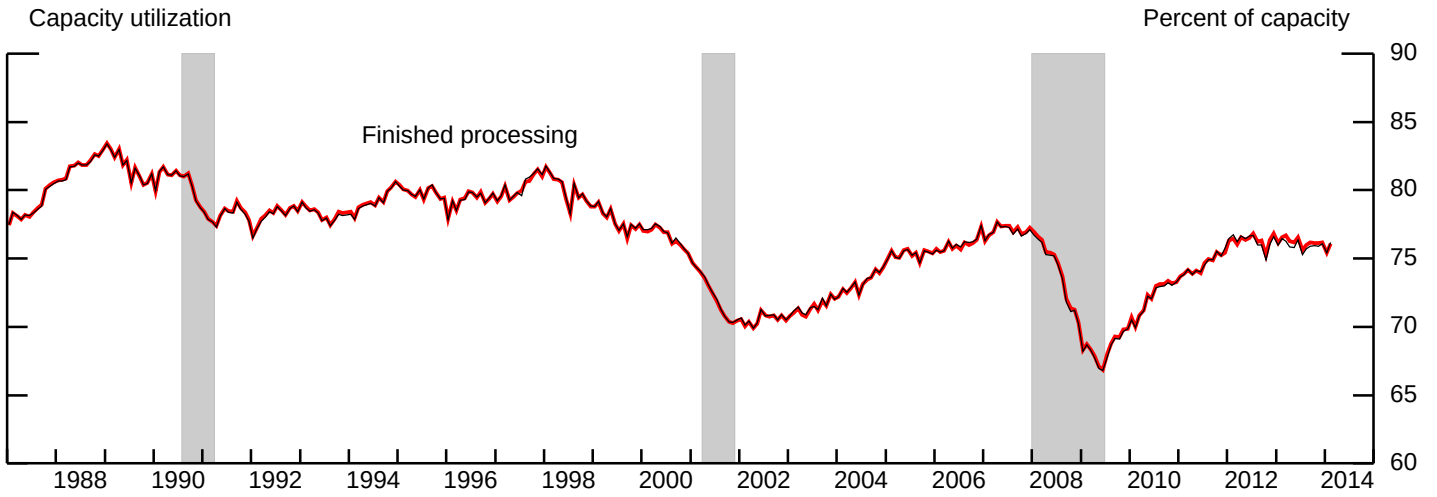


Note: The shaded areas represent periods of business recession as defined by the NBER.

8. Capacity utilization by stage of process







Note: The shaded areas represent periods of business recession as defined by the NBER.

Table 1A

INDUSTRIAL PRODUCTION: Total

Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual[1]
IP (*percent change*)																	
1984	2.0	.5	.5	.6	.5	.3	.3	.1	-.2	-.1	.4	.1	12.3	6.3	2.9	.3	8.9
1985	-.2	.4	.1	-.3	.1	.1	-.7	.4	.4	-.4	.3	1.0	1.1	.4	-.7	2.4	1.2
1986	.5	-.7	-.6	.1	.2	-.3	.6	-.2	.2	.4	.5	.9	2.4	-2.3	1.6	4.5	1.0
1987	-.3	1.3	.2	.6	.7	.5	.7	.8	.3	1.5	.5	.5	5.4	7.2	7.5	10.2	5.2
1988	.0	.4	.2	.5	-.1	.3	.0	.5	-.3	.5	.2	.5	3.7	3.4	1.6	2.9	5.2
1989	.3	-.4	.3	.1	-.7	.1	-1.0	.9	-.3	-.1	.3	.6	1.8	-1.4	-2.6	1.6	.9
1990	-.6	.9	.5	-.1	.2	.3	-.1	.3	.2	-.8	-1.2	-.7	2.7	3.2	1.6	-6.1	1.0
1991	-.5	-.7	-.5	.2	1.0	.9	.0	.1	.9	-.2	-.1	-.4	-7.4	2.5	5.5	.8	-1.5
1992	-.6	.7	.9	.7	.3	.0	.9	-.5	.2	.8	.4	.1	-.5	7.2	3.0	4.3	2.8
1993	.5	.4	.0	.3	-.4	.2	.3	-.1	.5	.8	.4	.5	3.6	.8	1.6	6.2	3.3
1994	.4	.0	1.0	.5	.6	.7	.2	.6	.4	.8	.6	1.0	5.1	7.5	5.3	8.4	5.3
1995	.2	-.1	.1	.0	.3	.4	-.4	1.3	.4	-.1	.2	.4	4.4	1.5	3.9	3.4	4.7
1996	-.7	1.6	-.1	.9	.7	.8	-.2	.6	.6	-.1	.9	.6	2.7	8.5	5.0	5.5	4.4
1997	.2	1.2	.7	.1	.6	.5	.9	1.0	.9	.9	.9	.3	7.9	6.3	9.8	10.5	7.2
1998	.5	.1	.1	.3	.6	-.7	-.4	2.1	-.3	.8	.0	.4	4.5	2.5	2.8	5.6	5.8
1999	.5	.5	.2	.2	.8	-.2	.6	.4	-.4	1.3	.5	.8	4.3	3.8	3.8	7.5	4.3
2000	.0	.3	.4	.7	.2	.1	-.1	-.3	.4	-.3	.0	-.3	4.3	5.3	-.4	-1.2	4.0
2001	-.7	-.6	-.3	-.3	-.7	-.7	-.5	-.2	-.4	-.5	-.5	.0	-5.6	-5.5	-5.7	-4.5	-3.4
2002	.6	.0	.8	.5	.4	1.0	-.2	.0	.1	-.3	.5	-.5	2.9	6.5	2.4	-.2	.2
2003	.7	.3	-.2	-.8	.0	.0	.6	-.3	.6	.1	.8	-.1	2.6	-3.1	2.7	3.4	1.2
2004	.3	.5	-.5	.4	.8	-.8	.8	.0	.1	1.0	.2	.7	2.5	1.8	2.1	5.7	2.3
2005	.5	.6	-.1	.1	.2	.4	-.2	.2	-2.0	1.3	1.0	.6	5.7	2.2	-1.7	3.4	3.2
2006	.1	.0	.3	.4	-.1	.4	.0	.3	-.2	.0	-.1	1.0	3.8	2.4	1.6	.8	2.2
2007	-.5	1.1	.1	.7	.0	.0	.0	.1	.4	-.5	.6	.0	3.7	4.9	1.1	.7	2.5
2008	-.2	-.3	-.3	-.7	-.5	-.2	-.5	-1.5	-4.2	.8	-1.3	-2.8	-1.4	-5.3	-12.1	-16.0	-3.4
2009	-2.2	-.7	-1.5	-.8	-1.1	-.4	1.0	1.0	.7	.4	.4	.3	-20.0	-10.8	5.2	6.3	-11.3
2010	1.2	.3	.8	.4	1.6	.2	.6	.3	.3	-.3	.2	.8	8.3	8.7	6.5	1.5	5.7
2011	.0	-.6	1.0	-.5	.3	.2	.6	.5	.1	.5	.1	.4	2.5	1.2	5.2	3.9	3.3
2012	.9	.4	-.4	.8	.3	.1	.6	-.6	.3	-.1	1.0	.1	5.2	3.8	1.6	2.4	3.8
2013	.1	.6	.4	-.2	.1	.2	-.2	.6	.7	.2	.6	.0	4.2	1.9	2.5	4.9	2.9
2014	-.1	.6															
IP (*2007=100*)																	
1984	53.0	53.2	53.5	53.8	54.1	54.2	54.4	54.5	54.4	54.3	54.5	54.6	53.2	54.0	54.4	54.5	54.0
1985	54.4	54.7	54.7	54.6	54.7	54.7	54.3	54.6	54.8	54.6	54.8	55.3	54.6	54.7	54.6	54.9	54.7
1986	55.6	55.2	54.9	54.9	55.0	54.8	55.2	55.0	55.2	55.4	55.7	56.1	55.2	54.9	55.1	55.7	55.2
1987	56.0	56.7	56.8	57.1	57.5	57.8	58.2	58.6	58.8	59.6	60.0	60.3	56.5	57.5	58.5	59.9	58.1
1988	60.3	60.5	60.7	61.0	60.9	61.1	61.1	61.4	61.2	61.5	61.6	61.9	60.5	61.0	61.2	61.7	61.1
1989	62.1	61.8	62.0	62.0	61.6	61.6	61.0	61.6	61.4	61.3	61.5	61.9	61.9	61.7	61.3	61.6	61.6
1990	61.5	62.1	62.4	62.3	62.4	62.6	62.6	62.7	62.9	62.4	61.6	61.2	62.0	62.5	62.7	61.7	62.2
1991	60.9	60.5	60.2	60.3	60.9	61.5	61.5	61.6	62.1	62.0	61.9	61.7	60.6	60.9	61.7	61.9	61.3
1992	61.3	61.8	62.3	62.7	62.9	62.9	63.5	63.2	63.3	63.8	64.1	64.1	61.8	62.9	63.3	64.0	63.0
1993	64.4	64.7	64.7	64.8	64.6	64.7	64.9	64.9	65.2	65.7	65.9	66.3	64.6	64.7	65.0	66.0	65.1
1994	66.6	66.6	67.3	67.6	68.0	68.5	68.6	69.0	69.2	69.8	70.2	70.9	66.8	68.0	68.9	70.3	68.5
1995	71.1	71.0	71.1	71.1	71.3	71.6	71.3	72.2	72.5	72.4	72.6	72.9	71.1	71.3	72.0	72.6	71.8
1996	72.4	73.5	73.4	74.1	74.6	75.2	75.1	75.5	76.0	76.0	76.6	77.1	73.1	74.6	75.5	76.5	74.9
1997	77.2	78.1	78.7	78.7	79.2	79.6	80.3	81.1	81.8	82.6	83.3	83.5	78.0	79.2	81.1	83.1	80.4
1998	84.0	84.0	84.1	84.4	84.9	84.4	84.1	85.8	85.6	86.2	86.2	86.5	84.0	84.6	85.1	86.3	85.0
1999	86.9	87.3	87.5	87.6	88.3	88.2	88.7	89.1	88.8	90.0	90.4	91.1	87.2	88.0	88.9	90.5	88.7
2000	91.1	91.4	91.8	92.5	92.7	92.7	92.6	92.3	92.7	92.3	92.3	92.1	91.4	92.6	92.5	92.3	92.2
2001	91.4	90.8	90.6	90.3	89.6	89.0	88.6	88.4	88.1	87.6	87.2	87.2	90.9	89.7	88.3	87.3	89.1
2002	87.7	87.7	88.4	88.8	89.2	90.0	89.8	89.9	89.9	89.7	90.1	89.7	88.0	89.4	89.9	89.8	89.3
2003	90.3	90.5	90.4	89.7	89.7	89.7	90.3	90.0	90.5	90.6	91.3	91.2	90.4	89.7	90.3	91.0	90.4
2004	91.4	91.9	91.4	91.8	92.5	91.7	92.5	92.5	92.5	93.4	93.6	94.3	91.6	92.0	92.5	93.8	92.5
2005	94.7	95.3	95.2	95.4	95.5	95.9	95.7	95.9	94.0	95.2	96.1	96.7	95.1	95.6	95.2	96.0	95.5
2006	96.8	96.8	97.1	97.4	97.3	97.7	97.7	98.0	97.8	97.8	97.7	98.6	96.9	97.5	97.8	98.0	97.6
2007	98.2	99.2	99.4	100.1	100.1	100.1	100.2	100.3	100.7	100.2	100.8	100.7	98.9	100.1	100.4	100.6	100.0
2008	100.5	100.2	100.0	99.2	98.8	98.6	98.1	96.6	92.5	93.3	92.1	89.5	100.2	98.9	95.7	91.6	96.6
2009	87.5	86.9	85.6	84.9	84.0	83.7	84.6	85.4	86.0	86.3	86.6	86.9	86.7	84.2	85.3	86.6	85.7
2010	88.0	88.2	88.9	89.2	90.6	90.8	91.4	91.7	91.9	91.6	91.8	92.6	88.4	90.2	91.7	92.0	90.6
2011	92.6	92.1	93.0	92.6	92.9	93.1	93.7	94.1	94.2	94.7	94.8	95.2	92.6	92.9	94.0	94.9	93.6
2012	96.0	96.4	96.0	96.8	97.1	97.2	97.7	97.1	97.4	97.3	98.3	98.4	96.1	97.0	97.4	98.0	97.1
2013	98.4	99.0	99.5	99.3	99.4	99.6	99.4	100.0	100.7	100.9	101.4	101.5	99.0	99.4	100.1	101.3	99.9
2014	101.3	102.0															

NOTE: Estimates from October 2013 through February 2014 are subject to further revision in the upcoming monthly releases.

1. Annual averages of industrial production are calculated from not seasonally adjusted indexes.

Table 1B

CAPACITY AND UTILIZATION: Total

Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
Capacity (*percent of 2007 output*)																	
1984	66.5	66.6	66.7	66.8	66.9	67.1	67.2	67.3	67.5	67.7	67.8	68.0	66.6	66.9	67.4	67.8	67.2
1985	68.2	68.3	68.5	68.7	68.8	69.0	69.2	69.3	69.4	69.5	69.7	69.8	68.3	68.8	69.3	69.6	69.0
1986	69.8	69.9	70.0	70.1	70.1	70.2	70.3	70.3	70.4	70.5	70.6	70.7	69.9	70.1	70.3	70.6	70.2
1987	70.8	70.9	71.1	71.2	71.4	71.5	71.6	71.8	71.9	72.0	72.1	72.2	70.9	71.4	71.8	72.1	71.5
1988	72.2	72.3	72.3	72.4	72.4	72.4	72.4	72.5	72.5	72.6	72.6	72.7	72.3	72.4	72.5	72.6	72.4
1989	72.8	72.9	73.0	73.1	73.3	73.4	73.6	73.8	73.9	74.1	74.3	74.4	72.9	73.3	73.8	74.3	73.6
1990	74.6	74.8	74.9	75.1	75.2	75.4	75.5	75.7	75.8	75.9	76.1	76.2	74.8	75.2	75.7	76.0	75.4
1991	76.3	76.4	76.5	76.6	76.6	76.7	76.8	76.9	76.9	77.0	77.1	77.2	76.4	76.6	76.9	77.1	76.7
1992	77.3	77.4	77.6	77.7	77.9	78.1	78.3	78.4	78.6	78.8	79.0	79.1	77.4	77.9	78.4	79.0	78.2
1993	79.3	79.4	79.5	79.6	79.7	79.8	79.9	80.0	80.1	80.2	80.4	80.5	79.4	79.7	80.0	80.4	79.9
1994	80.7	80.9	81.1	81.3	81.5	81.8	82.0	82.3	82.6	82.9	83.2	83.5	80.9	81.5	82.3	83.2	82.0
1995	83.8	84.1	84.4	84.7	85.0	85.3	85.7	86.0	86.3	86.7	87.0	87.4	84.1	85.0	86.0	87.0	85.5
1996	87.7	88.1	88.5	88.9	89.3	89.7	90.1	90.5	90.9	91.3	91.8	92.2	88.1	89.3	90.5	91.8	89.9
1997	92.7	93.2	93.6	94.1	94.7	95.2	95.8	96.3	96.9	97.6	98.2	98.8	93.2	94.7	96.3	98.2	95.6
1998	99.5	100.2	100.8	101.5	102.1	102.7	103.3	103.8	104.3	104.8	105.3	105.8	100.2	102.1	103.8	105.3	102.8
1999	106.3	106.7	107.2	107.6	108.0	108.4	108.8	109.2	109.6	110.0	110.4	110.8	106.7	108.0	109.2	110.4	108.6
2000	111.2	111.6	112.0	112.4	112.8	113.2	113.6	113.9	114.3	114.6	115.0	115.3	111.6	112.8	113.9	114.9	113.3
2001	115.6	115.9	116.2	116.5	116.8	117.1	117.4	117.7	117.9	118.1	118.4	118.6	115.9	116.8	117.7	118.4	117.2
2002	118.7	118.9	119.0	119.1	119.2	119.2	119.3	119.3	119.3	119.3	119.2	119.2	118.9	119.2	119.3	119.2	119.1
2003	119.2	119.1	119.1	119.0	119.0	119.0	118.9	118.9	118.9	118.9	118.8	118.8	119.1	119.0	118.9	118.8	119.0
2004	118.8	118.7	118.7	118.6	118.6	118.5	118.5	118.5	118.5	118.5	118.5	118.6	118.7	118.6	118.5	118.5	118.6
2005	118.7	118.8	118.9	119.0	119.2	119.4	119.5	119.7	119.9	120.1	120.3	120.4	118.8	119.2	119.7	120.3	119.5
2006	120.6	120.8	121.0	121.1	121.3	121.5	121.7	121.9	122.1	122.4	122.6	122.9	120.8	121.3	121.9	122.6	121.7
2007	123.1	123.4	123.6	123.9	124.1	124.3	124.4	124.5	124.6	124.6	124.6	124.6	123.4	124.1	124.5	124.6	124.1
2008	124.6	124.5	124.5	124.4	124.3	124.3	124.3	124.4	124.5	124.6	124.7	124.8	124.5	124.4	124.4	124.7	124.5
2009	124.9	125.0	125.0	125.1	125.1	125.1	125.0	124.9	124.8	124.6	124.4	124.1	125.0	125.1	124.9	124.4	124.8
2010	123.9	123.6	123.4	123.1	122.9	122.6	122.4	122.2	122.1	122.0	121.9	121.9	123.6	122.9	122.2	121.9	122.7
2011	121.9	121.9	122.0	122.1	122.2	122.4	122.6	122.8	123.1	123.4	123.6	123.9	121.9	122.2	122.8	123.6	122.7
2012	124.2	124.5	124.8	125.1	125.4	125.7	125.9	126.2	126.4	126.6	126.8	127.0	124.5	125.4	126.2	126.8	125.7
2013	127.2	127.3	127.5	127.7	127.9	128.0	128.2	128.5	128.7	128.9	129.2	129.4	127.3	127.9	128.5	129.2	128.2
2014	129.7	130.0															
Utilization (*percent*)																	
1984	79.6	79.9	80.2	80.5	80.8	80.9	81.0	80.9	80.6	80.3	80.4	80.3	79.9	80.7	80.8	80.3	80.4
1985	79.9	80.0	79.9	79.5	79.4	79.3	78.6	78.8	79.0	78.5	78.6	79.3	79.9	79.4	78.8	78.8	79.2
1986	79.6	79.0	78.4	78.3	78.4	78.1	78.5	78.3	78.3	78.6	78.8	79.4	79.0	78.3	78.4	78.9	78.6
1987	79.0	79.9	79.9	80.2	80.6	80.8	81.2	81.7	81.8	82.8	83.2	83.5	79.6	80.5	81.5	83.2	81.2
1988	83.5	83.7	83.9	84.3	84.2	84.3	84.4	84.7	84.4	84.8	84.8	85.1	83.7	84.3	84.5	84.9	84.3
1989	85.3	84.8	84.9	84.8	84.0	83.9	82.9	83.5	83.0	82.8	82.8	83.1	85.0	84.2	83.1	82.9	83.8
1990	82.4	83.0	83.3	83.0	83.0	83.1	82.8	82.9	82.9	82.2	81.0	80.4	82.9	83.0	82.9	81.2	82.5
1991	79.9	79.3	78.7	78.8	79.5	80.2	80.1	80.1	80.7	80.5	80.3	79.9	79.3	79.5	80.3	80.2	79.8
1992	79.3	79.8	80.3	80.7	80.8	80.6	81.1	80.6	80.6	81.0	81.2	81.1	79.8	80.7	80.7	81.1	80.6
1993	81.3	81.5	81.3	81.4	81.0	81.1	81.2	81.1	81.3	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	83.4	83.7	84.5	83.6
1995	84.8	84.4	84.3	83.9	83.9	83.9	83.2	84.0	84.0	83.6	83.4	83.4	84.5	83.9	83.8	83.5	83.9
1996	82.5	83.4	83.0	83.3	83.6	83.9	83.3	83.5	83.6	83.2	83.5	83.6	83.0	83.6	83.5	83.4	83.4
1997	83.3	83.9	84.0	83.6	83.7	83.6	83.9	84.2	84.4	84.6	84.8	84.5	83.7	83.7	84.2	84.7	84.1
1998	84.4	83.9	83.4	83.2	83.2	82.2	81.4	82.6	82.0	82.3	81.8	81.8	83.9	82.8	82.0	81.9	82.7
1999	81.8	81.8	81.6	81.5	81.8	81.4	81.6	81.6	81.0	81.8	81.9	82.2	81.7	81.5	81.4	81.9	81.7
2000	81.9	81.9	81.9	82.2	82.1	81.9	81.6	81.0	81.1	80.6	80.3	79.9	81.9	82.1	81.2	80.3	81.4
2001	79.1	78.3	77.9	77.5	76.7	76.0	75.4	75.1	74.7	74.2	73.6	73.5	78.4	76.7	75.1	73.8	76.0
2002	73.9	73.8	74.3	74.6	74.8	75.5	75.3	75.3	75.4	75.2	75.6	75.2	74.0	75.0	75.3	75.3	74.9
2003	75.8	76.0	75.9	75.3	75.4	75.4	75.9	75.7	76.2	76.2	76.8	76.8	75.9	75.4	75.9	76.6	75.9
2004	77.0	77.4	77.1	77.4	78.0	77.4	78.0	78.1	78.1	78.9	79.0	79.5	77.2	77.6	78.1	79.1	78.0
2005	79.8	80.3	80.1	80.1	80.2	80.4	80.1	80.1	78.4	79.3	79.9	80.3	80.1	80.2	79.5	79.8	79.9
2006	80.2	80.2	80.3	80.4	80.2	80.4	80.3	80.4	80.1	79.9	79.7	80.3	80.2	80.4	80.3	80.0	80.2
2007	79.7	80.4	80.4	80.8	80.7	80.6	80.5	80.5	80.8	80.4	80.8	80.8	80.2	80.7	80.6	80.7	80.5
2008	80.7	80.5	80.3	79.8	79.4	79.3	78.9	77.7	74.3	74.9	73.9	71.7	80.5	79.5	77.0	73.5	77.6
2009	70.1	69.5	68.5	67.9	67.2	66.9	67.6	68.3	68.9	69.3	69.7	70.0	69.4	67.3	68.3	69.7	68.7
2010	71.0	71.4	72.1	72.5	73.8	74.1	74.7	75.0	75.3	75.1	75.3	76.0	71.5	73.5	75.0	75.5	73.8
2011	76.0	75.6	76.3	75.8	76.0	76.1	76.4	76.6	76.6	76.8	76.7	76.8	75.9	76.0	76.5	76.8	76.3
2012	77.3	77.4	76.9	77.4	77.4	77.3	77.6	77.0	77.0	76.9	77.5	77.5	77.2	77.4	77.2	77.3	77.3
2013	77.4	77.8	78.0	77.8	77.8	77.8	77.5	77.8	78.3	78.2	78.5	78.4	77.7	77.8	77.9	78.4	77.9
2014	78.1	78.4															

NOTE: Estimates from October 2013 through February 2014 are subject to further revision in the upcoming monthly releases.

Table 2
RATES OF CHANGE IN INDUSTRIAL PRODUCTION, MARKET AND INDUSTRY GROUP SUMMARY: 2009–13[1]

Item		Revised change (percent)					Difference between revised and earlier changes (percentage points)				
		2009	2010	2011	2012	2013	2009	2010	2011	2012	2013
Total IP		-5.5	6.2	3.2	3.2	3.4	.0	.0	-.1	.5	.1
MARKET GROUPS											
Final products and nonindustrial supplies		-6.3	3.7	2.3	2.7	3.2	.0	.0	-.1	.1	.1
Consumer goods		-3.1	.3	2.0	1.6	3.2	.0	.0	.1	.2	.1
Durable		-3.8	2.3	8.0	6.2	9.0	.0	-.1	.1	-.2	.6
Automotive products		7.7	.5	15.1	6.6	11.3	-.1	-.1	.4	-.5	.7
Home electronics		-32.8	-21.1	5.2	-2.5	4.5	-.2	-1.1	-.4	-.7	3.9
Appliances, furniture, carpeting		-15.8	.7	1.3	3.7	7.2	.0	.0	.1	.4	.2
Miscellaneous goods		-10.5	8.0	.8	7.5	6.7	.0	.0	-.2	.2	.5
Nondurable		-3.0	-.3	.5	.4	1.6	.0	.0	.0	.3	.0
Non-energy		-3.7	-.8	1.1	.2	.2	.0	.0	.1	.3	.0
Foods and tobacco		-.7	.7	.9	3.1	.7	.0	.0	.2	.8	.0
Clothing		-27.2	11.4	-7.8	-1.5	6.3	.1	.0	.1	.9	.4
Chemical products		-7.1	-2.9	2.6	-3.8	-.4	-.1	.2	-.4	-.8	.0
Paper products		-5.6	-4.4	-.3	-6.3	-3.0	.1	-.4	1.1	1.9	-.4
Energy		-.6	1.3	-1.2	1.0	5.7	.0	-.1	-.1	.3	.0
Business equipment		-9.9	12.0	4.6	6.6	3.5	-.2	.0	-.4	-.6	.3
Transit		12.8	11.0	7.1	14.6	3.6	-.4	-.4	.6	.9	1.0
Information processing		-8.1	3.6	.9	6.3	4.0	.0	.1	-.5	-1.5	.2
Industrial and other		-17.3	16.4	5.3	3.7	3.2	-.2	.0	-.8	-.9	.1
Defense and space equipment		-.6	5.1	-.5	4.6	1.8	.2	.5	-.3	-.2	.0
Construction supplies		-16.6	8.1	2.5	3.8	5.0	.0	.0	-.2	-.3	-.3
Business supplies		-5.7	2.3	.5	2.1	3.0	.0	.0	-.2	.7	-.1
Materials		-4.4	9.4	4.1	3.8	3.5	.0	.0	-.2	.9	.0
Non-energy		-6.0	11.6	3.7	4.5	2.8	.1	.0	-.3	1.5	.1
Durable		-10.5	18.3	7.1	6.1	4.5	.0	.0	-.4	2.2	.2
Consumer parts		-12.3	28.4	5.2	8.6	6.4	-.2	.6	-1.3	-4.5	2.3
Equipment parts		-8.0	23.6	11.8	8.2	4.6	.1	-.2	-.3	6.4	.0
Other		-12.1	11.6	4.1	3.8	3.8	-.1	-.1	-.2	1.0	-.2
Nondurable		1.0	2.7	-1.1	2.1	.1	.2	.0	-.1	.3	.0
Textile		-4.3	5.2	-2.4	-1.6	1.7	-.2	.3	-1.1	-.5	2.1
Paper		-4.9	.8	-1.3	-2.3	-.5	.0	.0	.0	-.1	-.1
Chemical		5.0	5.0	-1.6	4.5	.1	-.1	.0	-.1	.8	.1
Energy		-2.0	5.8	4.7	2.6	4.8	.0	-.1	.0	-.1	-.1
INDUSTRY GROUPS											
Manufacturing		-6.1	6.4	3.1	3.5	2.9	.0	.0	-.2	.6	.1
Manufacturing (NAICS)	31–33	-5.9	7.0	3.3	3.9	3.2	.0	.0	-.2	.6	.1
Durable manufacturing		-9.0	12.2	6.0	6.2	5.0	-.1	.0	-.3	.8	.3
Wood products	321	-13.2	4.5	1.0	7.8	8.8	-.4	.3	-.3	.7	.8
Nonmetallic mineral products	327	-18.0	9.4	-.1	2.2	3.3	.0	-.1	.2	.9	-.3
Primary metals	331	-2.7	12.4	8.5	-1.4	3.8	.0	.1	-.3	1.2	.5
Fabricated metal products	332	-18.8	12.8	6.4	5.4	4.8	.0	-.1	.1	-.4	-.4
Machinery	333	-18.9	21.5	8.1	1.8	4.8	.0	.3	-.3	-1.2	.8
Computer and electronic products	334	-1.6	17.6	6.7	12.9	4.7	.1	-.2	-.6	7.4	-.1
Electrical equip., appliances, and components	335	-18.3	12.6	2.2	4.1	2.4	.2	-.3	-.2	.5	.5
Motor vehicles and parts	3361–3	2.3	15.5	11.3	11.5	9.1	-.2	.3	-.5	-2.3	2.0
Aerospace and miscellaneous transportation equipment	3364–9	.9	1.5	6.4	5.0	2.4	-.1	.1	.0	.2	.2
Furniture and related products	337	-22.4	4.0	-.1	4.3	4.6	-.8	-1.1	-2.0	1.0	-3.7
Miscellaneous	339	-3.9	3.0	-.5	7.4	6.7	-.1	.1	-.4	-1.0	.7
Nondurable manufacturing		-2.5	1.5	.4	1.3	1.2	.0	.0	-.1	.3	-.1
Food, beverage, and tobacco products	311,2	.2	.3	.7	3.3	.9	.2	.0	.2	.8	.0
Textile and product mills	313,4	-10.5	4.2	-.6	-1.0	.8	-.1	.2	-.7	-.5	1.6
Apparel and leather	315,6	-20.1	6.5	-5.1	-1.9	5.9	.1	.0	.1	.7	.4
Paper	322	-1.5	.9	-.4	-2.1	-1.4	.0	.0	.1	.2	-.1
Printing and support	323	-12.6	2.4	-3.7	-2.7	3.1	.0	.2	-.4	-.9	.0
Petroleum and coal products	324	-2.2	.7	3.0	-1.5	1.7	.0	.1	-.3	-.3	-.6
Chemicals	325	-1.3	1.3	.1	1.0	.6	-.1	.1	-.2	.3	-.1
Plastics and rubber products	326	-7.4	7.7	.8	4.9	4.4	.0	.0	.1	.3	-.1
Other manufacturing (non-NAICS)	**1133,5111**	-10.1	-5.9	-.2	-6.2	-3.3	.1	-.3	.1	1.5	-.2
Mining	**21**	-5.6	8.6	7.4	4.2	4.9	.0	-.1	-.1	-.1	-.2
Utilities	**2211,2**	-1.1	2.7	-2.2	.1	4.2	.0	-.1	.0	.0	.1
Electric	2211	-1.4	2.6	-1.7	-.4	3.4	.0	.0	.0	.0	-.3
Natural gas	2212	.2	3.5	-5.8	4.0	10.5	.1	-.2	-.1	.3	2.8

1. Rates of change are calculated as the percent change in the seasonally adjusted index from the fourth quarter of the previous year to the fourth quarter of the year specified in the column heading.

Table 3

RATES OF CHANGE IN INDUSTRIAL PRODUCTION, SPECIAL AGGREGATES AND SELECTED DETAIL: 2009–13[1]

Item		Revised change (percent)					Difference between revised and earlier changes (percentage points)				
		2009	2010	2011	2012	2013	2009	2010	2011	2012	2013
Total industry		-5.5	6.2	3.2	3.2	3.4	.0	.0	-.1	.5	.1
Energy		-2.8	5.0	3.3	1.8	4.7	.0	-.1	.0	.0	-.1
Consumer products		-.6	1.3	-1.2	1.0	5.7	.0	-.1	-.1	.3	.0
Commercial products		-1.3	1.7	-.2	1.4	4.0	.0	.0	.0	.0	.1
Oil and gas well drilling	213111	-42.3	45.2	21.3	-7.5	-1.2	.0	.0	.0	.1	.0
Converted fuel		-.2	3.0	-1.3	.3	1.0	.0	.0	.0	.2	-.5
Primary energy		-2.8	6.9	6.6	3.3	5.8	.0	-.2	.0	-.2	.0
Non-energy		-6.4	6.6	3.1	3.7	2.9	.0	.0	-.2	.6	.1
Selected high-technology industries		2.1	26.7	8.8	16.9	6.4	.3	-.5	-.8	14.6	.0
Computers and peripheral equipment	3341	-19.8	-15.2	-20.0	2.6	14.3	.0	.1	-1.6	-1.0	8.5
Communications equipment	3342	-9.6	3.3	11.2	-1.5	2.3	.1	.1	-.4	-1.1	-.8
Semiconductors and related electronic components	334412–9	18.4	48.4	13.7	23.9	6.3	.4	-.9	-1.0	21.0	-1.0
Excluding selected high-technology industries		-6.9	5.6	2.8	3.1	2.7	.0	.0	-.2	.0	.1
Motor vehicles and parts	3361–3	2.3	15.5	11.3	11.5	9.1	-.2	.3	-.5	-2.3	2.0
Motor vehicles	3361	9.4	9.7	18.0	12.7	12.0	-.1	-.1	.9	-.6	1.1
Motor vehicle parts	3363	-4.9	23.8	4.8	9.7	5.9	-.2	.8	-1.7	-4.6	2.6
Excluding motor vehicles and parts		-7.5	4.9	2.3	2.5	2.3	.0	.0	-.1	.1	.0
Consumer goods		-5.4	.0	1.4	1.1	1.2	.0	.0	.1	.3	.0
Business equipment		-9.2	11.9	5.4	6.0	3.8	-.2	-.1	-.5	-.6	.1
Construction supplies		-16.6	8.2	2.4	3.9	5.0	.0	.0	-.2	-.3	-.3
Business supplies		-8.3	.9	.2	1.5	2.3	.0	.0	-.2	.2	-.2
Materials		-7.4	7.5	2.8	2.4	2.1	.1	.0	-.1	.3	.0
Measures excluding selected high-technology industries											
Total industry		-5.8	5.5	2.9	2.7	3.2	.0	.0	-.1	.0	.0
Manufacturing[2]		-6.6	5.4	2.8	2.8	2.8	.0	.0	-.1	.0	.1
Durable		-10.3	10.7	5.7	5.1	4.9	-.1	.1	-.3	-.5	.3
Measures excluding motor vehicles and parts											
Total industry		-5.8	5.8	2.8	2.8	3.1	.0	.0	-.1	.6	.0
Manufacturing[2]		-6.7	5.8	2.7	3.0	2.6	.0	.0	-.1	.8	.0
Durable		-10.5	11.7	5.4	5.5	4.5	.0	.0	-.3	1.3	.1
Measures excluding selected high-technology industries and motor vehicles and parts											
Total industry		-6.2	4.9	2.6	2.3	3.0	.0	.0	-.1	.1	.0
Manufacturing[2]		-7.2	4.7	2.3	2.3	2.4	.0	.0	-.1	.1	.0
Stage-of-process components of non-energy materials, measures of the input to											
Finished processors		-8.1	18.8	7.3	6.0	4.0	.0	.1	-.5	2.6	.6
Primary and semifinished processors		-4.5	6.9	1.4	3.5	1.9	.1	.0	-.1	.7	-.2
STAGE-OF-PROCESS GROUPS											
Crude		-.9	6.3	4.6	3.9	3.6	.0	-.1	-.1	.3	-.4
Primary and semifinished		-7.1	8.1	2.2	2.6	3.5	.0	.0	-.2	.9	.2
Finished		-5.7	3.8	3.7	3.7	3.0	.0	.0	-.1	-.1	.2

1. Rates of change are calculated as the percent change in the seasonally adjusted index from the fourth quarter of the previous year to the fourth quarter of the year specified in the column heading.
2. Manufacturing consists of those industries included in the North American Industry Classification System, or NAICS, definition of manufacturing plus those industries–logging and newspaper, periodical, book, and directory publishing–that have traditionally been considered to be a part of manufacturing and are included in the industrial sector.

Table 4

Annual Rates of Change for Industrial Production: 2009–13[1]

Item	Revised change (percent)					Difference between revised and earlier changes (percentage points)				
	2009	2010	2011	2012	2013	2009	2010	2011	2012	2013
Total IP	-11.3	5.7	3.3	3.8	2.9	.0	.0	.0	.1	.3
Market Groups										
Consumer goods	-6.9	1.1	1.5	1.7	2.4	.0	.0	.0	.1	.1
Durable	-16.7	7.3	5.0	8.1	7.6	.0	.0	.0	-.2	.4
Nondurable	-3.9	-.5	.6	.1	1.0	.0	.0	.0	.2	.1
Business equipment	-18.1	8.3	5.6	7.5	3.6	.0	-.1	-.1	-.8	-.1
Defense and space equipment	-4.2	7.9	-3.4	4.7	2.4	.1	.4	.2	-.6	.4
Construction supplies	-22.9	3.7	3.0	4.6	4.2	.0	.0	.0	-.6	-.2
Business supplies	-10.4	2.3	1.0	1.8	2.0	.0	.0	-.1	.4	.3
Materials	-11.3	8.8	4.7	4.5	3.2	.0	.0	.0	.4	.5
Non-energy	-16.6	11.6	5.3	4.7	2.9	.0	.0	.0	.6	.9
Energy	-2.4	4.2	3.8	4.3	3.8	.0	.0	.0	.1	-.1
Industry Groups										
Manufacturing[2]	-13.6	6.1	3.4	4.1	2.6	.0	.0	.0	.2	.4
Manufacturing (NAICS)	-13.6	6.6	3.6	4.4	2.9	.0	.0	.0	.1	.4
Durable manufacturing	-18.6	11.0	6.8	7.3	4.5	.0	.0	.0	.2	.6
Nondurable manufacturing	-7.7	2.2	.2	1.2	1.2	.0	.0	.0	.1	.1
Other manufacturing (non-NAICS)	-13.7	-5.3	-2.8	-2.0	-5.3	.0	.0	-.7	1.6	.3
Mining	-5.4	5.2	6.1	6.3	4.7	.0	.0	.0	.0	-.1
Utilities	-2.5	3.6	-.2	-2.1	2.1	.0	.0	.0	.0	.2

1. The rates of change are calculated as the percent change in the annual averages of not seasonally adjusted industrial production indexes, rather than as the percent change between the fourth quarter of one year and the fourth quarter of the next.
2. See footnote 2 to table 3.

Table 5

Rates of Change in Capacity, by Industry Groups: 2010–14[1]

Item	Revised change (percent)					Difference between revised and earlier changes (percentage points)				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Total industry	-2.0	1.4	2.6	1.9	3.0	.1	.1	.4	.1	.6
Manufacturing[2]	-1.9	.5	2.2	1.8	2.6	.1	-.1	.6	.2	.7
Manufacturing (NAICS)	-2.0	.6	2.4	1.9	2.8	.1	-.1	.6	.2	.8
Durable manufacturing	-.6	2.6	4.0	3.1	3.9	.0	.0	1.5	.5	.9
Nondurable manufacturing	-3.5	-1.4	.6	.7	1.5	.3	-.2	-.4	-.2	.6
Other manufacturing (non-NAICS)	-.7	-.3	-1.2	-1.3	-.5	-1.0	-.5	-.3	.8	-.5
Mining	.0	5.9	4.8	4.0	5.8	.9	1.3	.1	-.4	.3
Utilities	1.0	1.8	1.3	.4	1.0	.0	-.2	-.7	-.5	.3
Selected high-technology industries	11.7	25.9	19.0	4.7	10.7	.6	-.6	14.9	-3.0	3.2
Manufacturing[2] ex. selected high-technology industries	-2.6	-.6	1.4	1.7	2.2	.0	-.1	-.1	.5	.6
Stage-of-process groups										
Crude	-.7	4.6	3.5	3.1	4.8	.8	1.2	.3	-.4	.4
Primary and semifinished	-1.1	1.0	2.0	.7	2.2	.0	-.4	1.3	.0	.9
Finished	-2.1	.5	2.6	2.9	2.9	.1	.1	-.7	.4	.4

1. Rates of change are calculated as the percent change in the seasonally adjusted index from the fourth quarter of the previous year to the fourth quarter of the year specified in the column heading.
2. See footnote 2 to table 3.

Table 6

REVISED AND EARLIER CAPACITY UTILIZATION RATES, BY INDUSTRY GROUPS

Percent of capacity, seasonally adjusted

Item		Revised Rate					Difference between revised and earlier rates (percentage points)			
		1972-2013 Ave.	2010 Q4	2011 Q4	2012 Q4	2013 Q4	2010 Q4	2011 Q4	2012 Q4	2013 Q4
Total industry		80.1	75.5	76.8	77.3	78.4	-.2	-.3	-.3	-.3
Manufacturing[1]		78.7	72.7	74.6	75.5	76.4	-.1	-.2	-.2	-.3
Manufacturing (NAICS)	31–33	78.5	73.1	75.0	76.1	77.0	-.1	-.2	-.2	-.3
Durable manufacturing		77.0	71.0	73.3	74.9	76.3	.1	-.1	-.6	-.8
Wood products	321	76.7	57.5	60.4	66.6	72.5	-1.2	-1.0	-.4	.4
Nonmetallic mineral products	327	74.5	51.3	53.4	56.3	59.6	-.6	-.5	.0	-.3
Primary metals	331	79.0	70.9	76.0	75.1	77.2	.1	.2	1.1	.0
Fabricated metal products	332	77.5	75.0	79.7	80.3	80.9	.2	.4	-2.7	-6.1
Machinery	333	78.1	75.7	79.5	77.9	78.7	.4	-1.1	-2.2	-2.6
Computer and electronic products	334	78.0	79.7	73.7	73.9	73.6	.2	-.1	-.7	.9
Electrical equip., appliances, and components	335	82.6	77.3	80.3	82.7	83.3	.0	.0	.7	1.2
Motor vehicles and parts	3361–3	75.0	60.8	67.4	72.8	78.3	-.2	-.5	-1.1	.9
Aerospace and miscellaneous transportation equipment	3364–9	73.4	71.6	73.5	75.6	75.5	1.3	1.6	2.1	2.5
Furniture and related products	337	76.5	63.7	65.7	70.3	73.9	.2	-1.1	-.4	-3.2
Miscellaneous	339	76.0	75.4	75.2	77.1	75.8	-.2	-.2	-.7	-2.8
Nondurable manufacturing		80.7	75.6	76.9	77.5	77.8	-.4	-.3	.2	.3
Food, beverage, and tobacco products	311,2	81.0	76.9	78.4	80.4	80.0	-.1	-.5	.0	-.1
Textile and product mills	313,4	79.6	64.3	66.4	68.0	70.4	-.7	-.9	-2.1	-2.1
Apparel and leather	315,6	77.5	67.2	66.6	68.2	75.0	-1.5	-.6	1.0	.5
Paper	322	86.7	82.3	82.1	82.5	82.4	.1	.5	1.2	1.1
Printing and support	323	80.7	66.6	66.4	67.0	70.8	-.3	.6	1.0	.9
Petroleum and coal products	324	85.5	82.5	85.1	82.1	83.1	-.4	-.1	-1.2	-.4
Chemicals	325	77.6	74.6	75.7	75.6	75.2	-.6	-.5	.5	.7
Plastics and rubber products	326	82.0	71.7	72.4	74.8	76.5	-1.0	-.2	.9	1.7
Other manufacturing (non-NAICS)	**1133,5111**	81.7	65.9	66.0	62.6	61.3	-.5	.0	1.1	.5
Mining	21	87.3	86.2	87.4	86.9	87.7	-.3	-1.5	-1.6	-1.5
Utilities	2211,2	86.1	82.6	79.3	78.4	81.3	-.1	.0	.6	1.0
Selected high-technology industries		77.9	83.5	72.3	71.0	72.2	.0	-.3	-.3	1.7
Computers and peripheral equipment	3341	78.2	90.9	72.0	69.7	69.4	.0	1.4	1.9	-4.8
Communications equipment	3342	76.7	80.7	77.0	76.6	78.1	-.2	.0	-1.1	-1.4
Semiconductors and related electronic components	334412–9	79.7	83.2	71.1	70.0	71.5	.1	-.6	-.5	3.4
Measures excluding selected high-technology industries										
Total industry		80.3	75.2	76.9	77.5	78.6	-.2	-.3	-.2	-.4
Manufacturing[1]		78.7	72.3	74.7	75.8	76.6	-.1	-.2	-.2	-.4
STAGE-OF-PROCESS GROUPS										
Crude		86.3	85.2	85.7	85.7	86.0	-.3	-1.3	-1.4	-1.3
Primary and semifinished		80.8	73.7	74.5	75.0	77.2	-.3	-.1	-.4	-.3
Finished		77.1	73.3	75.4	76.2	76.1	.1	-.1	.3	.2

1. See footnote 2 to table 3.

Table 7
RATES OF CHANGE IN INDUSTRIAL PRODUCTION, 2009–13

Item	NAICS code	2009 H1	2009 H2	2010 H1	2010 H2	2011 H1	2011 H2	2012 H1	2012 H2	2013 H1	2013 H2
Total IP		-15.5	5.7	8.5	4.0	1.8	4.5	4.5	2.0	3.0	3.7
MARKET GROUPS											
Final products and nonindustrial supplies		-15.5	3.8	5.3	2.1	1.1	3.6	4.4	1.1	3.1	3.3
Consumer goods		-10.2	4.5	-.1	.7	1.5	2.5	2.3	1.0	3.2	3.1
Durable		-25.6	24.4	3.4	1.2	3.6	12.6	8.7	3.8	10.2	7.9
Automotive products		-28.3	61.8	-1.0	2.1	5.4	25.6	10.2	3.1	13.1	9.5
Home electronics		-5.6	-52.2	-34.9	-4.2	14.1	-3.0	-.8	-4.3	7.2	2.0
Appliances, furniture, carpeting		-25.6	-4.6	6.8	-5.0	-.3	2.9	5.5	1.9	5.4	9.0
Miscellaneous goods		-24.3	5.9	14.6	1.7	1.2	.4	8.5	6.4	8.1	5.3
Nondurable		-5.6	-.2	-1.1	.5	1.0	.0	.6	.2	1.3	1.8
Non-energy		-6.6	-.7	-1.4	-.1	.9	1.3	1.1	-.7	.2	.2
Foods and tobacco		-1.4	.0	.5	.9	-.3	2.2	4.7	1.6	.4	.9
Clothing		-41.8	-8.9	16.8	6.2	-7.6	-8.0	1.4	-4.4	3.6	9.0
Chemical products		-10.3	-3.8	-4.1	-1.7	5.9	-.5	-4.0	-3.6	1.3	-2.0
Paper products		-13.9	3.6	-6.9	-1.9	-4.5	4.2	-6.1	-6.4	-5.5	-.5
Energy		-2.4	1.2	.0	2.6	1.1	-3.5	-.7	2.7	4.6	6.7
Business equipment		-21.6	3.6	15.8	8.2	1.7	7.6	10.5	2.9	4.1	2.8
Transit		-1.0	28.5	18.7	3.9	-3.1	18.4	18.2	11.1	4.8	2.3
Information processing		-10.3	-5.8	8.0	-.5	-2.5	4.4	8.5	4.2	2.6	5.4
Industrial and other		-32.0	.6	18.7	14.2	5.4	5.1	8.4	-.8	4.4	2.1
Defense and space equipment		-7.8	7.2	15.8	-4.7	-6.8	6.2	2.9	6.3	.2	3.4
Construction supplies		-29.0	-1.9	13.5	3.1	.4	4.6	6.6	1.2	4.7	5.3
Business supplies		-13.5	2.8	3.5	1.2	.3	.7	4.3	.0	2.5	3.5
Materials		-15.6	8.3	12.7	6.2	2.7	5.5	4.6	2.9	2.9	4.1
Non-energy		-21.3	12.4	16.5	6.9	2.9	4.6	5.7	3.4	1.9	3.6
Durable		-30.7	15.5	25.7	11.4	7.1	7.1	9.1	3.2	2.8	6.2
Consumer parts		-46.8	44.5	42.7	15.5	-.4	11.1	12.6	4.8	4.5	8.3
Equipment parts		-23.8	11.1	27.8	19.6	12.4	11.2	14.5	2.1	3.6	5.7
Other		-31.0	12.0	19.3	4.4	5.3	2.9	4.0	3.5	1.6	5.9
Nondurable		-5.9	8.5	4.8	.6	-3.1	1.0	.5	3.7	.7	-.4
Textile		-22.6	18.2	9.3	1.3	-2.0	-2.8	3.7	-6.6	-.1	3.6
Paper		-15.2	6.7	1.6	.1	-.6	-2.0	-2.2	-2.3	1.5	-2.4
Chemical		-3.8	14.6	9.8	.4	-4.9	1.7	.9	8.3	.9	-.6
Energy		-5.7	1.8	6.5	5.1	2.5	7.0	3.0	2.2	4.5	5.0
INDUSTRY GROUPS											
Manufacturing[2]		-17.6	6.9	9.2	3.6	1.4	4.8	5.1	1.8	2.8	3.1
Manufacturing (NAICS)	31–33	-17.5	7.3	10.1	4.0	1.7	4.8	5.5	2.3	3.1	3.2
Durable manufacturing		-25.8	11.6	16.8	7.8	3.8	8.2	9.4	3.0	4.6	5.4
Wood products	321	-27.8	4.4	12.2	-2.7	.6	1.3	7.5	8.1	6.2	11.4
Nonmetallic mineral products	327	-29.7	-4.4	14.6	4.5	.5	-.6	3.5	1.0	4.3	2.4
Primary metals	331	-38.1	52.8	25.0	1.0	7.2	9.8	-1.8	-1.1	.7	6.9
Fabricated metal products	332	-34.4	.7	15.0	10.7	6.8	6.0	9.9	1.2	3.6	6.0
Machinery	333	-35.4	1.8	25.0	18.1	7.7	8.6	9.8	-5.7	4.9	4.8
Computer and electronic products	334	-9.4	6.8	23.7	11.8	6.4	7.0	15.4	10.5	4.6	4.9
Selected high-technology industries		-8.1	13.5	34.9	19.0	11.4	6.4	19.3	14.5	6.3	6.6
Computers and peripheral equipment	3341	-10.2	-28.4	-12.0	-18.3	-17.7	-22.2	6.4	-1.1	12.1	16.6
Communications equipment	3342	-9.5	-9.7	2.8	3.9	11.5	10.8	-2.4	-.6	-.9	5.7
Semiconductors and related electronic components	334412–9	-6.7	50.4	65.0	33.5	17.4	10.2	27.1	20.7	7.1	5.5
Electrical equip., appliances, and components	335	-29.4	-5.4	13.8	11.4	2.5	1.9	4.3	3.8	1.4	3.5
Motor vehicles and parts	3361–3	-45.6	92.4	21.0	10.3	1.0	22.6	18.1	5.3	9.4	8.8
Aerospace and miscellaneous transportation equipment	3364–9	3.3	-1.5	6.5	-3.3	-1.3	14.6	4.9	5.1	3.3	1.4
Furniture and related products	337	-36.3	-5.5	4.0	4.1	2.5	-2.7	7.6	1.0	6.9	2.4
Miscellaneous	339	-13.3	6.5	5.0	1.1	-.8	-.2	9.0	5.7	6.6	6.9
Nondurable manufacturing		-7.6	3.0	3.2	-.2	-.5	1.4	1.2	1.4	1.5	.8
Food, beverage, and tobacco products	311,2	.3	.0	-.3	.9	-.8	2.2	4.5	2.1	.5	1.2
Textile and product mills	313,4	-26.4	8.8	9.0	-.4	.3	-1.4	2.2	-4.0	-1.6	3.3
Apparel and leather	315,6	-32.4	-5.5	7.2	5.8	-5.3	-5.0	.6	-4.4	4.1	7.7
Paper	322	-8.8	6.5	2.1	-.4	-.1	-.8	-3.3	-.9	1.2	-3.9
Printing and support	323	-22.7	-1.2	3.2	1.5	-2.1	-5.2	.5	-5.8	2.7	3.6
Petroleum and coal products	324	.2	-4.4	3.2	-1.7	-.7	6.8	-2.5	-.6	1.0	2.4
Chemicals	325	-7.8	5.7	3.8	-1.2	-.3	.5	-.5	2.5	1.7	-.4
Plastics and rubber products	326	-22.9	11.4	14.9	.9	.8	.8	4.8	5.0	5.2	3.5
Other manufacturing (non-NAICS)	**1133,5111**	-19.3	.1	-8.4	-3.3	-4.6	4.4	-3.1	-9.1	-5.7	-.9
Mining	**21**	-11.9	1.2	10.4	6.7	6.3	8.6	3.1	5.3	4.2	5.6
Utilities	**2211,2**	-5.1	3.0	2.5	2.8	-1.3	-3.2	1.9	-1.7	2.8	5.6

NOTE: The data are semiannual. Rates of change are calculated as the annualized percent change in the seasonally adjusted index from the second quarter of the previous half-year to the second quarter of the half-year specified in the column heading.

1. See footnote 2 to table 3.

Table 8
CAPACITY UTILIZATION RATES, BY INDUSTRY GROUPS, 2009–13

Percent of capacity, seasonally adjusted

Item	NAICS code	2009 Q2	2009 Q4	2010 Q2	2010 Q4	2011 Q2	2011 Q4	2012 Q2	2012 Q4	2013 Q2	2013 Q4
Total industry		67.3	69.7	73.5	75.5	76.0	76.8	77.4	77.3	77.8	78.4
Manufacturing[1]		64.2	67.1	70.8	72.7	73.4	74.6	75.6	75.5	75.9	76.4
Manufacturing (NAICS)	31–33	63.9	67.0	71.0	73.1	73.8	75.0	76.1	76.1	76.6	77.0
Durable manufacturing		59.2	62.9	68.3	71.0	71.7	73.3	75.1	74.9	75.5	76.3
Wood products	321	50.9	53.0	57.1	57.5	58.9	60.4	63.5	66.6	69.0	72.5
Nonmetallic mineral products	327	44.6	44.7	49.1	51.3	52.5	53.4	55.3	56.3	58.3	59.6
Primary metals	331	49.3	61.5	70.0	70.9	73.0	76.0	75.4	75.1	75.1	77.2
Fabricated metal products	332	62.4	64.2	70.3	75.0	77.9	79.7	81.8	80.3	80.0	80.9
Machinery	333	61.1	62.1	69.8	75.7	77.7	79.5	81.7	77.9	78.3	78.7
Computer and electronic products	334	71.1	71.3	77.4	79.7	77.4	73.7	73.6	73.9	73.7	73.6
Selected high-technology industries		74.0	73.6	80.7	83.5	79.7	72.3	70.7	71.0	71.4	72.2
Computers and peripheral equipment	3341	90.5	94.5	98.5	90.9	82.1	72.0	73.2	69.7	68.5	69.4
Communications equipment	3342	84.1	77.7	79.5	80.7	79.2	77.0	74.9	76.6	76.9	78.1
Semiconductors and related electronic components	334412–9	64.5	67.3	77.7	83.2	79.6	71.1	69.3	70.0	70.8	71.5
Electrical equip., appliances, and components	335	67.2	66.6	72.3	77.3	79.1	80.3	81.8	82.7	82.6	83.3
Motor vehicles and parts	3361–3	37.3	52.6	58.1	60.8	61.1	67.4	72.1	72.8	75.5	78.3
Aerospace and miscellaneous transportation equipment	3364–9	73.5	72.1	73.8	71.6	69.8	73.5	74.5	75.6	75.9	75.5
Furniture and related products	337	57.6	58.6	61.4	63.7	65.5	65.7	69.1	70.3	73.1	73.9
Miscellaneous	339	68.3	71.4	74.2	75.4	75.5	75.2	77.3	77.1	76.4	75.8
Nondurable manufacturing		69.5	71.9	74.4	75.6	76.2	76.9	77.2	77.5	77.8	77.8
Food, beverage, and tobacco products	311,2	75.8	75.9	76.0	76.9	77.2	78.4	80.0	80.4	80.1	80.0
Textile and product mills	313,4	54.8	58.8	63.0	64.3	65.7	66.4	68.3	68.0	68.5	70.4
Apparel and leather	315,6	59.1	59.5	63.6	67.2	66.9	66.6	68.3	68.2	71.0	75.0
Paper	322	74.6	79.0	81.6	82.3	82.3	82.1	81.7	82.5	83.7	82.4
Printing and support	323	60.3	62.0	64.9	66.6	67.0	66.4	67.9	67.0	68.9	70.8
Petroleum and coal products	324	78.9	77.2	80.6	82.5	83.1	85.1	83.0	82.1	82.2	83.1
Chemicals	325	66.6	70.5	73.7	74.6	75.3	75.7	75.1	75.6	75.8	75.2
Plastics and rubber products	326	58.8	64.2	70.5	71.7	72.3	72.4	73.6	74.8	76.1	76.5
Other manufacturing (non-NAICS)	**1133,5111**	69.4	69.5	66.7	65.9	64.5	66.0	65.2	62.6	61.3	61.3
Mining	**21**	79.6	79.4	84.0	86.2	86.6	87.4	86.3	86.9	87.2	87.7
Utilities	**2211,2**	80.4	81.3	82.0	82.6	81.3	79.3	79.4	78.4	79.3	81.3

1. See footnote 2 to table 3.

Table 9A
INDUSTRIAL PRODUCTION: Manufacturing[1]
Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual[2]
IP (*percent change*)																	
1984	1.8	1.1	.5	.5	.2	.5	.5	.2	-.2	.4	.3	.4	12.6	6.3	3.6	2.6	9.8
1985	-.4	-.3	.8	-.4	.2	.2	-.6	.6	.1	-.3	.6	.4	.1	.8	.0	2.2	1.6
1986	1.1	-.6	-.3	.4	.2	-.4	.6	.2	.2	.4	.5	.8	4.5	.0	2.5	4.9	2.2
1987	-.3	1.4	.1	.6	.7	.4	.7	.6	.6	1.6	.6	.6	5.9	7.0	7.5	11.7	5.7
1988	-.2	.2	.3	.9	-.2	.2	.0	.1	.4	.5	.3	.5	2.7	4.3	.8	4.4	5.3
1989	.8	-.9	-.1	.2	-.9	.2	-1.1	.9	-.2	-.2	.2	.1	2.1	-2.8	-3.2	.4	.8
1990	-.2	1.5	.5	-.2	.1	.3	-.2	.3	.0	-.8	-1.1	-.7	4.2	3.1	1.0	-6.7	.8
1991	-.8	-.6	-.7	.3	.7	1.0	.3	.3	1.0	-.2	-.2	-.2	-8.8	1.9	7.1	1.5	-2.0
1992	-.6	.9	1.0	.5	.6	.2	.9	-.4	.1	.7	.4	-.1	.5	8.2	4.1	3.2	3.6
1993	1.0	.2	-.2	.5	-.1	-.2	.2	-.2	.6	.9	.4	.5	4.5	1.3	.7	7.0	3.5
1994	.2	.1	1.3	.8	.7	.3	.4	.8	.5	1.0	.8	1.1	4.9	9.6	6.2	10.1	5.9
1995	.2	-.2	.2	-.1	.1	.5	-.6	1.2	.9	-.1	.1	.4	4.6	1.0	3.3	4.3	5.2
1996	-.8	1.6	-.2	1.1	.7	1.0	.2	.6	.8	-.2	.8	.8	1.8	9.7	7.4	5.7	4.8
1997	.1	1.4	1.1	-.2	.8	.7	.8	1.2	.9	.9	1.1	.4	9.4	7.4	11.0	11.4	8.4
1998	.8	.1	-.1	.5	.5	-.8	-.4	2.5	-.3	1.0	.2	.5	6.1	1.9	3.1	7.8	6.6
1999	.3	.8	-.1	.3	1.0	-.3	.4	.6	-.4	1.5	.6	.7	4.9	4.3	3.4	8.9	5.0
2000	.1	.2	.7	.7	-.1	.2	.1	-.7	.4	-.3	-.3	-.6	4.7	5.1	-.5	-2.8	4.2
2001	-.7	-.6	-.3	-.3	-.8	-.7	-.5	-.5	-.2	-.6	-.3	.3	-6.5	-5.7	-6.2	-4.2	-4.1
2002	.5	.0	.8	.2	.6	1.1	-.3	.2	.1	-.4	.4	-.5	3.5	5.9	3.1	-.4	.3
2003	.5	.1	.2	-.9	.1	.4	.4	-.5	.8	.1	1.0	-.3	1.8	-2.1	2.4	3.8	1.3
2004	.0	.6	-.2	.4	.8	-.7	.9	.4	.0	1.0	-.1	.6	2.1	3.0	3.7	5.4	2.8
2005	.8	.8	-.4	.3	.4	.2	-.2	.3	-1.1	1.5	.8	.1	6.4	2.4	-.4	5.9	4.0
2006	.8	-.2	-.1	.5	-.5	.3	-.2	.6	.0	-.4	.0	1.5	3.9	.9	.9	1.5	2.5
2007	-.5	.4	.8	.7	-.1	.3	.2	-.4	.5	-.4	.5	.1	4.0	5.8	.9	.7	2.7
2008	-.4	-.6	-.3	-1.1	-.5	-.6	-1.1	-1.2	-3.4	-.6	-2.4	-3.4	-2.6	-7.5	-13.4	-21.6	-4.7
2009	-2.9	-.3	-1.8	-.7	-1.1	-.3	1.4	1.0	.8	.2	1.0	-.1	-23.9	-10.9	7.0	6.9	-13.6
2010	1.1	-.1	1.3	.9	1.5	.0	.8	.1	.1	.1	.2	.4	7.0	11.4	5.7	1.6	6.1
2011	.2	.0	.7	-.6	.2	.1	.8	.3	.4	.5	-.1	.7	2.9	.0	5.4	4.3	3.4
2012	1.0	.6	-.3	.8	-.2	.4	.4	-.5	.2	-.4	1.3	.7	7.3	3.0	1.2	2.5	4.1
2013	-.2	.6	.1	-.2	.3	.3	-.4	.7	.3	.4	.3	.1	4.4	1.3	1.9	4.3	2.6
2014	-.9	.9															
IP (*2007=100*)																	
1984	48.7	49.3	49.5	49.8	49.9	50.1	50.3	50.4	50.3	50.5	50.7	50.8	49.2	49.9	50.3	50.7	50.0
1985	50.7	50.5	50.9	50.7	50.8	50.9	50.6	50.9	50.9	50.8	51.1	51.3	50.7	50.8	50.8	51.1	50.8
1986	51.9	51.6	51.4	51.6	51.7	51.5	51.9	52.0	52.1	52.3	52.5	53.0	51.6	51.6	52.0	52.6	52.0
1987	52.8	53.6	53.6	53.9	54.3	54.5	54.9	55.2	55.6	56.4	56.8	57.1	53.3	54.3	55.2	56.8	54.9
1988	57.0	57.2	57.3	57.8	57.7	57.8	57.8	57.8	58.0	58.3	58.5	58.7	57.2	57.8	57.9	58.5	57.8
1989	59.2	58.7	58.6	58.7	58.2	58.3	57.7	58.2	58.0	57.9	58.0	58.1	58.8	58.4	57.9	58.0	58.3
1990	57.9	58.8	59.1	58.9	59.0	59.2	59.1	59.3	59.3	58.8	58.1	57.7	58.6	59.0	59.2	58.2	58.8
1991	57.2	56.9	56.5	56.6	57.1	57.7	57.8	58.0	58.6	58.4	58.3	58.2	56.9	57.1	58.1	58.3	57.6
1992	57.9	58.4	59.0	59.3	59.6	59.8	60.3	60.1	60.1	60.5	60.8	60.7	58.4	59.6	60.2	60.6	59.7
1993	61.3	61.4	61.3	61.6	61.5	61.4	61.6	61.5	61.8	62.4	62.6	63.0	61.3	61.5	61.6	62.7	61.8
1994	63.1	63.2	64.0	64.5	65.0	65.2	65.4	66.0	66.3	66.9	67.4	68.2	63.4	64.9	65.9	67.5	65.4
1995	68.3	68.2	68.3	68.2	68.3	68.7	68.3	69.1	69.6	69.6	69.6	69.9	68.3	68.4	69.0	69.7	68.8
1996	69.4	70.4	70.3	71.1	71.6	72.3	72.5	72.9	73.5	73.4	74.0	74.6	70.0	71.7	73.0	74.0	72.2
1997	74.7	75.7	76.6	76.4	77.0	77.6	78.2	79.1	79.8	80.5	81.4	81.7	75.7	77.0	79.0	81.2	78.2
1998	82.4	82.5	82.4	82.8	83.2	82.5	82.2	84.2	83.9	84.7	84.9	85.4	82.4	82.8	83.4	85.0	83.4
1999	85.6	86.3	86.2	86.5	87.3	87.0	87.4	88.0	87.7	89.0	89.6	90.2	86.0	87.0	87.7	89.6	87.6
2000	90.3	90.5	91.1	91.8	91.7	91.8	92.0	91.3	91.6	91.4	91.1	90.5	90.6	91.8	91.6	91.0	91.3
2001	89.9	89.4	89.1	88.8	88.1	87.5	87.1	86.7	86.5	85.9	85.6	85.9	89.5	88.2	86.7	85.8	87.5
2002	86.3	86.3	87.0	87.2	87.6	88.6	88.3	88.5	88.6	88.3	88.7	88.3	86.6	87.8	88.5	88.4	87.8
2003	88.7	88.8	88.9	88.2	88.2	88.6	88.9	88.5	89.1	89.2	90.1	89.8	88.8	88.3	88.8	89.7	88.9
2004	89.8	90.4	90.2	90.6	91.3	90.6	91.4	91.8	91.8	92.7	92.6	93.2	90.2	90.8	91.6	92.9	91.4
2005	93.9	94.7	94.3	94.6	94.9	95.1	94.9	95.2	94.2	95.6	96.3	96.4	94.3	94.9	94.8	96.1	95.0
2006	97.2	97.0	96.9	97.5	97.0	97.3	97.1	97.6	97.7	97.3	97.4	98.8	97.0	97.3	97.5	97.8	97.4
2007	98.3	98.7	99.5	100.2	100.1	100.4	100.5	100.1	100.6	100.2	100.7	100.8	98.8	100.2	100.4	100.6	100.0
2008	100.4	99.8	99.5	98.5	98.0	97.5	96.4	95.2	92.0	91.4	89.2	86.2	99.9	98.0	94.5	88.9	95.3
2009	83.7	83.5	82.0	81.4	80.5	80.3	81.4	82.1	82.8	82.9	83.8	83.7	83.1	80.7	82.1	83.5	82.4
2010	84.6	84.5	85.6	86.4	87.6	87.6	88.4	88.5	88.5	88.6	88.7	89.1	84.9	87.2	88.4	88.8	87.3
2011	89.3	89.2	89.8	89.3	89.5	89.6	90.3	90.6	90.9	91.4	91.3	92.0	89.4	89.4	90.6	91.6	90.3
2012	92.9	93.5	93.2	93.9	93.7	94.0	94.4	94.0	94.1	93.7	94.9	95.6	93.2	93.9	94.2	94.7	94.0
2013	95.4	95.9	96.0	95.8	96.1	96.4	96.0	96.7	96.9	97.3	97.6	97.7	95.8	96.1	96.5	97.5	96.5
2014	96.8	97.7															

NOTE: Estimates from October 2013 through February 2014 are subject to further revision in the upcoming monthly releases.

1. See footnote 2 to table 3.

2. Annual averages of industrial production are calculated from not seasonally adjusted indexes.

Table 9B
CAPACITY AND UTILIZATION: Manufacturing[1]
Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
Capacity (*percent of 2007 output*)																	
1984	62.3	62.4	62.5	62.7	62.8	62.9	63.1	63.2	63.4	63.6	63.8	64.0	62.4	62.8	63.2	63.8	63.1
1985	64.2	64.3	64.5	64.7	64.9	65.1	65.2	65.4	65.5	65.6	65.7	65.8	64.3	64.9	65.4	65.7	65.1
1986	65.9	65.9	66.0	66.1	66.1	66.2	66.2	66.3	66.4	66.5	66.6	66.8	65.9	66.1	66.3	66.6	66.2
1987	66.9	67.1	67.2	67.4	67.6	67.8	67.9	68.1	68.2	68.3	68.4	68.5	67.1	67.6	68.1	68.4	67.8
1988	68.6	68.7	68.7	68.7	68.8	68.8	68.8	68.8	68.9	68.9	69.0	69.1	68.7	68.8	68.8	69.0	68.8
1989	69.2	69.3	69.4	69.5	69.7	69.8	70.0	70.2	70.3	70.5	70.7	70.9	69.3	69.7	70.2	70.7	69.9
1990	71.0	71.2	71.4	71.6	71.7	71.9	72.1	72.2	72.4	72.5	72.6	72.8	71.2	71.7	72.2	72.6	71.9
1991	72.9	73.0	73.1	73.2	73.3	73.4	73.4	73.5	73.6	73.7	73.8	73.8	73.0	73.3	73.5	73.8	73.4
1992	74.0	74.1	74.3	74.5	74.6	74.8	75.0	75.2	75.5	75.7	75.9	76.0	74.1	74.6	75.2	75.8	75.0
1993	76.2	76.3	76.5	76.6	76.7	76.8	76.9	77.0	77.1	77.2	77.4	77.5	76.3	76.7	77.0	77.4	76.8
1994	77.7	77.8	78.1	78.3	78.5	78.8	79.0	79.3	79.6	79.9	80.3	80.6	77.9	78.5	79.3	80.3	79.0
1995	80.9	81.3	81.6	81.9	82.3	82.6	83.0	83.4	83.7	84.1	84.5	84.9	81.3	82.3	83.4	84.5	82.9
1996	85.4	85.8	86.2	86.7	87.1	87.6	88.0	88.5	89.0	89.5	90.0	90.5	85.8	87.1	88.5	90.0	87.8
1997	91.0	91.5	92.1	92.6	93.2	93.8	94.4	95.1	95.8	96.5	97.2	97.9	91.5	93.2	95.1	97.2	94.3
1998	98.7	99.4	100.1	100.8	101.6	102.2	102.9	103.5	104.1	104.7	105.2	105.8	99.4	101.6	103.5	105.2	102.4
1999	106.3	106.8	107.3	107.8	108.2	108.7	109.2	109.6	110.1	110.6	111.1	111.6	106.8	108.2	109.6	111.1	108.9
2000	112.1	112.6	113.1	113.5	114.0	114.5	114.9	115.3	115.8	116.2	116.6	117.0	112.6	114.0	115.3	116.6	114.6
2001	117.3	117.7	118.0	118.4	118.7	118.9	119.2	119.4	119.6	119.7	119.9	120.0	117.7	118.6	119.4	119.9	118.9
2002	120.1	120.2	120.2	120.3	120.3	120.3	120.3	120.4	120.4	120.4	120.4	120.4	120.2	120.3	120.4	120.4	120.3
2003	120.4	120.4	120.4	120.4	120.4	120.4	120.3	120.3	120.3	120.2	120.2	120.1	120.4	120.4	120.3	120.2	120.3
2004	120.1	120.0	119.9	119.8	119.8	119.7	119.7	119.7	119.7	119.8	119.9	120.0	120.0	119.8	119.7	119.9	119.8
2005	120.2	120.4	120.6	120.8	121.1	121.3	121.6	121.9	122.1	122.4	122.6	122.9	120.4	121.1	121.9	122.6	121.5
2006	123.1	123.3	123.5	123.7	123.8	124.0	124.2	124.4	124.6	124.8	125.1	125.4	123.3	123.8	124.4	125.1	124.2
2007	125.6	125.9	126.2	126.5	126.8	127.1	127.4	127.6	127.8	128.0	128.1	128.2	125.9	126.8	127.6	128.1	127.1
2008	128.3	128.3	128.3	128.2	128.1	128.0	127.8	127.7	127.5	127.3	127.1	126.9	128.3	128.1	127.7	127.1	127.8
2009	126.7	126.5	126.2	126.0	125.8	125.6	125.3	125.1	124.9	124.7	124.5	124.2	126.5	125.8	125.1	124.5	125.5
2010	124.0	123.8	123.6	123.3	123.1	122.9	122.7	122.5	122.3	122.2	122.1	121.9	123.8	123.1	122.5	122.1	122.9
2011	121.9	121.8	121.8	121.8	121.9	121.9	122.0	122.2	122.3	122.5	122.7	122.9	121.8	121.9	122.2	122.7	122.1
2012	123.2	123.4	123.6	123.9	124.1	124.4	124.6	124.8	125.0	125.2	125.4	125.6	123.4	124.1	124.8	125.4	124.5
2013	125.8	126.0	126.2	126.3	126.5	126.7	126.9	127.1	127.3	127.5	127.7	127.9	126.0	126.5	127.1	127.7	126.8
2014	128.2	128.5															
Utilization (*percent*)																	
1984	78.1	78.9	79.1	79.4	79.4	79.6	79.8	79.7	79.3	79.4	79.5	79.5	78.7	79.5	79.6	79.5	79.3
1985	79.0	78.5	78.9	78.3	78.3	78.2	77.5	77.8	77.8	77.4	77.8	78.0	78.8	78.3	77.7	77.7	78.1
1986	78.8	78.2	77.9	78.2	78.3	77.9	78.3	78.4	78.4	78.6	78.8	79.3	78.3	78.1	78.4	78.9	78.4
1987	79.0	79.9	79.8	80.0	80.4	80.5	80.9	81.2	81.5	82.6	83.0	83.4	79.5	80.3	81.2	83.0	81.0
1988	83.1	83.2	83.4	84.1	83.9	84.0	84.0	84.0	84.3	84.6	84.8	85.1	83.3	84.0	84.1	84.8	84.1
1989	85.6	84.7	84.4	84.5	83.5	83.5	82.4	82.9	82.5	82.1	82.1	81.9	84.9	83.8	82.6	82.0	83.3
1990	81.5	82.5	82.7	82.3	82.3	82.3	82.0	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	77.9	78.6	78.7	78.8	79.6	79.3	79.1	78.9	77.9	78.0	79.0	79.1	78.5
1992	78.2	78.7	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	79.6
1993	80.4	80.4	80.1	80.4	80.2	80.0	80.1	79.8	80.2	80.8	81.0	81.3	80.3	80.2	80.0	81.0	80.4
1994	81.3	81.2	82.0	82.5	82.8	82.7	82.8	83.1	83.2	83.7	84.0	84.6	81.5	82.7	83.0	84.1	82.8
1995	84.4	83.9	83.7	83.3	83.1	83.1	82.3	82.8	83.2	82.7	82.4	82.3	84.0	83.2	82.8	82.5	83.1
1996	81.3	82.1	81.5	82.0	82.2	82.6	82.3	82.4	82.6	82.0	82.2	82.4	81.6	82.3	82.4	82.2	82.1
1997	82.1	82.7	83.1	82.5	82.7	82.7	82.8	83.2	83.3	83.4	83.8	83.5	82.6	82.6	83.1	83.6	83.0
1998	83.5	83.0	82.3	82.1	81.9	80.7	79.9	81.3	80.6	81.0	80.7	80.7	82.9	81.5	80.6	80.8	81.5
1999	80.6	80.8	80.4	80.3	80.7	80.1	80.1	80.2	79.6	80.5	80.6	80.8	80.6	80.3	80.0	80.6	80.4
2000	80.6	80.4	80.6	80.8	80.4	80.2	80.0	79.2	79.2	78.6	78.1	77.4	80.5	80.5	79.5	78.0	79.6
2001	76.6	75.9	75.5	75.1	74.3	73.6	73.1	72.6	72.3	71.7	71.4	71.6	76.0	74.3	72.7	71.6	73.6
2002	71.9	71.8	72.3	72.5	72.8	73.7	73.4	73.5	73.6	73.3	73.7	73.3	72.0	73.0	73.5	73.4	73.0
2003	73.7	73.8	73.9	73.2	73.3	73.6	73.9	73.5	74.1	74.2	74.9	74.8	73.8	73.4	73.8	74.6	73.9
2004	74.8	75.3	75.3	75.6	76.2	75.7	76.4	76.7	76.6	77.4	77.3	77.7	75.1	75.8	76.6	77.4	76.2
2005	78.2	78.7	78.2	78.3	78.4	78.4	78.0	78.1	77.1	78.1	78.6	78.5	78.3	78.3	77.7	78.4	78.2
2006	79.0	78.7	78.5	78.8	78.3	78.5	78.2	78.5	78.4	78.0	77.8	78.8	78.7	78.5	78.3	78.2	78.4
2007	78.2	78.4	78.8	79.2	78.9	79.0	78.9	78.5	78.7	78.3	78.6	78.6	78.5	79.0	78.7	78.5	78.7
2008	78.3	77.8	77.6	76.8	76.5	76.2	75.4	74.6	72.1	71.8	70.2	67.9	77.9	76.5	74.0	70.0	74.6
2009	66.1	66.0	65.0	64.6	64.0	63.9	64.9	65.7	66.3	66.5	67.3	67.4	65.7	64.2	65.6	67.1	65.6
2010	68.2	68.3	69.3	70.0	71.2	71.3	72.0	72.2	72.4	72.5	72.7	73.0	68.6	70.8	72.2	72.7	71.1
2011	73.2	73.3	73.8	73.3	73.4	73.5	74.0	74.2	74.3	74.6	74.4	74.8	73.4	73.4	74.2	74.6	73.9
2012	75.5	75.8	75.4	75.8	75.5	75.6	75.8	75.3	75.3	74.8	75.7	76.1	75.5	75.6	75.4	75.5	75.5
2013	75.8	76.1	76.1	75.8	75.9	76.1	75.6	76.1	76.2	76.4	76.4	76.3	76.0	75.9	76.0	76.4	76.1
2014	75.5	76.0															

NOTE: Estimates from October 2013 through February 2014 are subject to further revision in the upcoming monthly releases.
1. See footnote 2 to table 3.

Table 10A
INDUSTRIAL PRODUCTION: Total Industry Excluding Selected High-Technology Industries[1]
Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual[2]
IP (*percent change*)																	
1984	2.0	.3	.4	.6	.4	.2	.3	.0	-.2	-.2	.4	.1	11.4	5.2	1.8	-.4	7.9
1985	-.3	.5	.1	-.1	.1	.0	-.6	.4	.5	-.4	.3	1.1	1.0	.9	-.3	2.5	1.0
1986	.5	-.7	-.7	.1	.2	-.2	.4	-.3	.1	.4	.4	.8	2.4	-2.5	.6	3.9	.9
1987	-.4	1.2	.2	.5	.6	.4	.5	.7	.2	1.4	.5	.4	4.4	6.4	6.2	9.2	4.3
1988	.0	.4	.2	.5	-.2	.2	.0	.5	-.3	.4	.2	.5	3.2	2.6	1.0	2.6	4.4
1989	.3	-.4	.3	.0	-.7	.0	-1.1	.9	-.3	-.2	.3	.6	2.1	-1.6	-3.5	.8	.6
1990	-.7	.9	.5	-.1	.1	.3	-.1	.3	.2	-.8	-1.3	-.7	2.1	2.6	1.2	-6.7	.3
1991	-.4	-.8	-.6	.2	1.0	.9	.0	.1	.9	-.2	-.2	-.5	-8.0	2.0	5.3	.4	-2.0
1992	-.8	.7	.8	.6	.3	-.2	.8	-.6	.1	.6	.3	.0	-2.0	6.1	1.9	3.0	1.9
1993	.5	.3	-.1	.3	-.4	.2	.3	-.1	.4	.7	.3	.5	3.1	.2	1.3	5.3	2.5
1994	.4	.0	.9	.3	.4	.6	.0	.4	.1	.6	.4	.9	4.4	5.4	3.2	5.7	4.0
1995	.1	-.2	-.1	-.3	.1	.2	-.6	1.1	.1	-.4	.1	.1	2.8	-1.2	1.5	.4	2.5
1996	-1.0	1.3	-.3	.8	.6	.6	-.5	.4	.4	-.4	.7	.5	-.5	6.6	2.0	2.9	1.7
1997	.0	.9	.4	-.2	.3	.2	.6	.7	.6	.7	.6	.1	5.1	2.5	6.4	7.5	4.2
1998	.3	.0	.0	.2	.6	-.9	-.7	1.9	-.6	.5	-.3	.1	2.0	.7	-.3	2.3	3.0
1999	.2	.1	-.1	-.1	.6	-.5	.3	.4	-.5	1.2	.2	.5	.7	.3	1.0	5.5	1.1
2000	-.3	.0	.1	.4	-.1	-.1	-.4	-.5	.3	-.4	-.2	-.5	.4	1.6	-3.1	-2.7	1.0
2001	-.7	-.5	-.3	-.2	-.6	-.5	-.3	-.1	-.4	-.5	-.5	-.1	-5.9	-4.5	-4.4	-4.5	-4.0
2002	.7	-.1	.8	.4	.5	.9	-.3	-.1	.1	-.3	.5	-.6	2.6	6.4	1.8	-.8	.3
2003	.6	.1	-.3	-.9	-.1	-.1	.4	-.4	.5	.0	.7	-.1	1.5	-4.7	.9	2.4	.2
2004	.2	.5	-.6	.4	.8	-.8	.8	.0	.0	1.0	.2	.6	2.1	2.0	2.1	5.2	1.7
2005	.4	.6	-.2	.0	.1	.4	-.3	.0	-2.2	1.2	1.0	.5	4.8	1.3	-3.0	2.1	2.5
2006	.1	.0	.2	.4	-.2	.3	.0	.2	-.3	-.1	-.2	1.0	3.4	1.9	.7	.1	1.4
2007	-.5	1.0	-.1	.6	.1	.1	.0	.1	.3	-.7	.4	-.1	3.0	4.0	1.1	-1.0	1.8
2008	-.3	-.4	-.4	-.8	-.6	-.2	-.4	-1.6	-4.3	1.1	-1.1	-2.7	-2.5	-6.4	-12.3	-14.9	-4.2
2009	-2.2	-.7	-1.6	-.9	-1.1	-.4	1.0	1.0	.7	.3	.3	.3	-19.7	-11.7	5.0	5.8	-11.3
2010	1.1	.1	.6	.3	1.6	.2	.6	.2	.2	-.4	.1	.8	7.2	7.9	6.2	.7	5.0
2011	.0	-.6	1.1	-.5	.3	.2	.7	.4	.1	.6	.1	.4	1.8	1.1	5.0	3.8	2.9
2012	.9	.3	-.5	.8	.3	.0	.6	-.6	.2	-.2	1.0	.1	4.9	3.0	1.3	1.8	3.5
2013	.0	.7	.4	-.2	.1	.2	-.2	.5	.8	.1	.5	.1	4.3	1.6	2.3	4.9	2.6
2014	-.2	.6															
IP (*2007=100*)																	
1984	69.6	69.8	70.1	70.5	70.7	70.9	71.1	71.1	70.9	70.8	71.0	71.1	69.8	70.7	71.0	71.0	70.6
1985	70.9	71.2	71.3	71.2	71.3	71.3	70.9	71.2	71.6	71.3	71.5	72.3	71.1	71.3	71.2	71.7	71.3
1986	72.6	72.1	71.6	71.6	71.7	71.6	71.9	71.7	71.8	72.1	72.4	72.9	72.1	71.7	71.8	72.4	72.0
1987	72.6	73.5	73.6	74.0	74.4	74.7	75.1	75.6	75.8	76.8	77.2	77.5	73.2	74.4	75.5	77.2	75.1
1988	77.5	77.9	78.0	78.3	78.2	78.3	78.3	78.7	78.4	78.8	78.9	79.3	77.8	78.3	78.5	79.0	78.4
1989	79.6	79.2	79.5	79.5	78.9	78.9	78.0	78.7	78.4	78.3	78.5	78.9	79.4	79.1	78.4	78.5	78.9
1990	78.3	79.1	79.5	79.3	79.4	79.7	79.5	79.7	79.9	79.2	78.2	77.6	79.0	79.5	79.7	78.3	79.1
1991	77.3	76.7	76.2	76.4	77.1	77.8	77.8	77.9	78.6	78.4	78.3	77.9	76.7	77.1	78.1	78.2	77.5
1992	77.2	77.8	78.4	78.9	79.1	79.0	79.6	79.2	79.3	79.8	80.0	80.0	77.8	79.0	79.3	79.9	79.0
1993	80.4	80.7	80.6	80.8	80.4	80.6	80.8	80.7	81.0	81.6	81.9	82.2	80.5	80.6	80.8	81.9	81.0
1994	82.5	82.5	83.2	83.5	83.8	84.3	84.3	84.6	84.7	85.2	85.6	86.3	82.8	83.9	84.5	85.7	84.2
1995	86.5	86.3	86.2	85.9	86.0	86.2	85.7	86.7	86.7	86.3	86.4	86.5	86.3	86.0	86.4	86.4	86.3
1996	85.7	86.8	86.5	87.2	87.7	88.2	87.8	88.1	88.5	88.2	88.9	89.3	86.3	87.7	88.2	88.8	87.7
1997	89.2	90.0	90.4	90.2	90.5	90.7	91.2	91.9	92.4	93.1	93.7	93.8	89.9	90.4	91.9	93.5	91.4
1998	94.0	94.0	94.0	94.1	94.6	93.7	93.1	94.9	94.3	94.8	94.5	94.6	94.0	94.2	94.1	94.6	94.2
1999	94.7	94.9	94.8	94.6	95.2	94.8	95.0	95.4	94.9	96.1	96.3	96.8	94.8	94.9	95.1	96.4	95.3
2000	96.5	96.5	96.6	97.0	96.9	96.8	96.4	95.9	96.2	95.7	95.6	95.1	96.5	96.9	96.1	95.5	96.3
2001	94.5	94.0	93.7	93.5	92.9	92.4	92.1	92.0	91.7	91.2	90.8	90.7	94.0	93.0	91.9	90.9	92.5
2002	91.3	91.2	91.9	92.3	92.7	93.6	93.3	93.3	93.3	93.0	93.4	92.9	91.5	92.9	93.3	93.1	92.7
2003	93.5	93.6	93.3	92.5	92.4	92.3	92.7	92.3	92.8	92.7	93.4	93.3	93.5	92.4	92.6	93.1	92.9
2004	93.5	94.0	93.4	93.9	94.6	93.8	94.6	94.6	94.6	95.5	95.6	96.3	93.6	94.1	94.6	95.8	94.5
2005	96.6	97.1	97.0	97.0	97.1	97.5	97.2	97.2	95.0	96.2	97.1	97.7	96.9	97.2	96.5	97.0	96.9
2006	97.7	97.7	97.9	98.3	98.1	98.4	98.4	98.6	98.3	98.2	98.1	99.0	97.8	98.2	98.4	98.5	98.2
2007	98.5	99.6	99.5	100.1	100.2	100.3	100.3	100.4	100.7	100.0	100.4	100.3	99.2	100.2	100.4	100.2	100.0
2008	100.0	99.5	99.2	98.4	97.8	97.6	97.2	95.6	91.5	92.5	91.5	89.0	99.6	97.9	94.8	91.0	95.8
2009	87.0	86.4	85.0	84.2	83.3	83.0	83.8	84.6	85.2	85.5	85.7	86.0	86.1	83.5	84.5	85.7	85.0
2010	87.0	87.1	87.6	87.9	89.3	89.5	90.0	90.2	90.4	90.1	90.2	90.9	87.2	88.9	90.2	90.4	89.2
2011	90.9	90.3	91.3	90.8	91.1	91.3	91.9	92.3	92.4	92.9	93.0	93.3	90.8	91.1	92.2	93.1	91.8
2012	94.1	94.4	94.0	94.7	95.0	95.0	95.5	94.9	95.1	95.0	95.9	96.0	94.2	94.9	95.2	95.6	95.0
2013	96.1	96.7	97.1	96.9	97.0	97.2	97.0	97.5	98.2	98.3	98.9	98.9	96.6	97.0	97.6	98.7	97.5
2014	98.8	99.4															

NOTE: Estimates from October 2013 through February 2014 are subject to further revision in the upcoming monthly releases.

1. High-technology industries include computers, communications equipment, and semiconductors and related electronic components.

2. Annual averages of industrial production are calculated from not seasonally adjusted indexes.

Table 10B
CAPACITY AND UTILIZATION: Total Industry Excluding Selected High-Technology Industries[1]
Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
Capacity (*percent of 2007 output*)																	
1984	87.7	87.8	87.8	87.9	88.0	88.1	88.2	88.3	88.5	88.6	88.8	88.9	87.8	88.0	88.3	88.8	88.2
1985	89.1	89.2	89.4	89.5	89.7	89.9	90.0	90.2	90.3	90.4	90.5	90.6	89.2	89.7	90.2	90.5	89.9
1986	90.7	90.8	90.9	91.0	91.0	91.1	91.2	91.2	91.3	91.4	91.5	91.6	90.8	91.0	91.2	91.5	91.1
1987	91.7	91.8	91.9	92.0	92.1	92.2	92.3	92.3	92.4	92.5	92.5	92.6	91.8	92.1	92.3	92.5	92.2
1988	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.7	92.7	92.8	92.8	92.6	92.6	92.6	92.8	92.6
1989	92.9	93.0	93.1	93.3	93.4	93.6	93.7	93.9	94.1	94.2	94.4	94.6	93.0	93.4	93.9	94.4	93.7
1990	94.8	94.9	95.1	95.2	95.4	95.5	95.6	95.8	95.9	96.0	96.1	96.2	94.9	95.4	95.8	96.1	95.5
1991	96.3	96.5	96.6	96.7	96.8	96.9	97.0	97.1	97.1	97.2	97.3	97.4	96.5	96.8	97.1	97.3	96.9
1992	97.5	97.6	97.7	97.8	97.9	98.0	98.1	98.2	98.3	98.4	98.5	98.6	97.6	97.9	98.2	98.5	98.1
1993	98.7	98.8	98.9	99.0	99.1	99.2	99.3	99.4	99.5	99.6	99.7	99.8	98.8	99.1	99.4	99.7	99.3
1994	99.9	100.1	100.2	100.3	100.5	100.6	100.8	101.0	101.1	101.3	101.5	101.7	100.1	100.5	101.0	101.5	100.8
1995	101.9	102.1	102.3	102.5	102.7	102.9	103.0	103.2	103.4	103.6	103.8	104.0	102.1	102.7	103.2	103.8	102.9
1996	104.1	104.3	104.5	104.6	104.8	105.0	105.2	105.4	105.7	105.9	106.2	106.5	104.3	104.8	105.4	106.2	105.2
1997	106.7	107.0	107.4	107.7	108.1	108.4	108.8	109.2	109.6	110.0	110.5	110.9	107.0	108.1	109.2	110.5	108.7
1998	111.3	111.7	112.1	112.5	113.0	113.3	113.7	114.1	114.5	114.8	115.1	115.5	111.7	112.9	114.1	115.1	113.5
1999	115.8	116.1	116.3	116.6	116.9	117.1	117.3	117.6	117.8	118.0	118.1	118.3	116.1	116.9	117.6	118.1	117.2
2000	118.5	118.6	118.8	118.9	119.0	119.2	119.3	119.4	119.5	119.7	119.8	119.9	118.6	119.0	119.4	119.8	119.2
2001	120.1	120.2	120.3	120.5	120.6	120.7	120.9	121.0	121.2	121.3	121.4	121.5	120.2	120.6	121.0	121.4	120.8
2002	121.6	121.7	121.8	121.8	121.9	121.9	121.9	121.9	121.8	121.7	121.7	121.6	121.7	121.9	121.9	121.7	121.8
2003	121.5	121.4	121.3	121.2	121.1	121.1	121.0	120.9	120.9	120.8	120.8	120.8	121.4	121.1	120.9	120.8	121.1
2004	120.7	120.7	120.6	120.6	120.5	120.5	120.5	120.4	120.4	120.3	120.3	120.3	120.7	120.5	120.4	120.3	120.5
2005	120.3	120.4	120.4	120.4	120.5	120.6	120.7	120.8	121.0	121.1	121.3	121.4	120.4	120.5	120.8	121.3	120.7
2006	121.6	121.8	121.9	122.1	122.3	122.5	122.7	122.9	123.1	123.2	123.4	123.5	121.8	122.3	122.9	123.4	122.6
2007	123.7	123.8	123.9	124.0	124.0	124.1	124.1	124.0	124.0	123.9	123.8	123.8	123.8	124.0	124.0	123.8	123.9
2008	123.7	123.6	123.5	123.5	123.5	123.5	123.6	123.7	123.8	124.0	124.1	124.2	123.6	123.5	123.7	124.1	123.7
2009	124.4	124.4	124.5	124.5	124.5	124.4	124.3	124.1	123.9	123.6	123.4	123.1	124.4	124.5	124.1	123.4	124.1
2010	122.7	122.4	122.1	121.8	121.5	121.2	121.0	120.7	120.5	120.4	120.2	120.1	122.4	121.5	120.7	120.3	121.2
2011	120.1	120.0	120.0	120.1	120.1	120.2	120.3	120.4	120.6	120.8	121.0	121.2	120.0	120.1	120.4	121.0	120.4
2012	121.4	121.6	121.8	122.0	122.2	122.4	122.6	122.8	123.0	123.2	123.4	123.5	121.6	122.2	122.8	123.4	122.5
2013	123.7	123.8	124.0	124.2	124.3	124.5	124.7	124.9	125.1	125.3	125.6	125.8	123.8	124.3	124.9	125.6	124.7
2014	126.1	126.3															
Utilization (*percent*)																	
1984	79.3	79.6	79.8	80.2	80.4	80.5	80.6	80.5	80.1	79.9	80.0	80.0	79.6	80.4	80.4	79.9	80.1
1985	79.6	79.8	79.8	79.6	79.5	79.4	78.8	79.0	79.3	78.8	79.0	79.7	79.7	79.5	79.0	79.2	79.4
1986	80.1	79.4	78.7	78.7	78.8	78.6	78.8	78.5	78.6	78.8	79.1	79.6	79.4	78.7	78.6	79.2	79.0
1987	79.2	80.1	80.1	80.4	80.8	81.1	81.4	81.9	82.0	83.1	83.4	83.7	79.8	80.8	81.8	83.4	81.4
1988	83.7	84.1	84.2	84.6	84.4	84.6	84.6	85.0	84.7	85.0	85.1	85.4	84.0	84.5	84.7	85.2	84.6
1989	85.6	85.2	85.3	85.2	84.4	84.3	83.2	83.8	83.4	83.0	83.1	83.4	85.4	84.7	83.5	83.2	84.2
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	83.2	81.5	82.8
1991	80.2	79.5	78.9	79.0	79.7	80.3	80.3	80.3	80.9	80.6	80.4	79.9	79.5	79.7	80.5	80.3	80.0
1992	79.2	79.7	80.2	80.6	80.8	80.5	81.1	80.6	80.6	81.0	81.2	81.1	79.7	80.6	80.8	81.1	80.6
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	84.4	83.6
1995	84.9	84.5	84.3	83.9	83.8	83.8	83.2	83.9	83.8	83.3	83.3	83.2	84.6	83.8	83.6	83.3	83.8
1996	82.3	83.2	82.8	83.3	83.6	84.0	83.4	83.6	83.8	83.3	83.7	83.9	82.8	83.7	83.6	83.6	83.4
1997	83.6	84.1	84.2	83.7	83.7	83.6	83.9	84.1	84.3	84.6	84.8	84.6	84.0	83.7	84.1	84.7	84.1
1998	84.5	84.1	83.8	83.6	83.8	82.7	81.8	83.1	82.4	82.6	82.1	81.9	84.1	83.4	82.5	82.2	83.0
1999	81.8	81.7	81.5	81.2	81.5	80.9	81.0	81.1	80.6	81.5	81.5	81.8	81.7	81.2	80.9	81.6	81.3
2000	81.4	81.3	81.3	81.6	81.4	81.2	80.8	80.3	80.4	80.0	79.8	79.3	81.4	81.4	80.5	79.7	80.7
2001	78.7	78.2	77.9	77.7	77.1	76.6	76.2	76.0	75.7	75.2	74.8	74.6	78.2	77.1	76.0	74.9	76.5
2002	75.1	74.9	75.5	75.8	76.1	76.8	76.6	76.5	76.6	76.4	76.8	76.4	75.2	76.2	76.6	76.5	76.1
2003	77.0	77.1	76.9	76.3	76.3	76.2	76.6	76.3	76.8	76.7	77.3	77.2	77.0	76.3	76.6	77.1	76.7
2004	77.4	77.9	77.5	77.8	78.5	77.8	78.5	78.5	78.6	79.3	79.5	80.0	77.6	78.0	78.5	79.6	78.4
2005	80.3	80.7	80.6	80.6	80.6	80.8	80.5	80.5	78.6	79.4	80.1	80.4	80.5	80.7	79.8	80.0	80.3
2006	80.4	80.3	80.3	80.5	80.2	80.3	80.2	80.3	79.9	79.7	79.5	80.2	80.3	80.3	80.1	79.8	80.1
2007	79.7	80.4	80.3	80.7	80.7	80.8	80.8	80.9	81.2	80.7	81.0	81.0	80.1	80.8	81.0	80.9	80.7
2008	80.8	80.5	80.3	79.6	79.2	79.0	78.6	77.3	73.9	74.6	73.7	71.7	80.5	79.3	76.6	73.3	77.4
2009	70.0	69.4	68.3	67.6	66.9	66.7	67.4	68.2	68.8	69.1	69.5	69.9	69.2	67.1	68.1	69.5	68.5
2010	70.9	71.1	71.8	72.2	73.5	73.8	74.4	74.8	75.0	74.9	75.0	75.7	71.3	73.2	74.7	75.2	73.6
2011	75.7	75.3	76.0	75.7	75.9	76.0	76.4	76.6	76.6	76.9	76.9	77.0	75.7	75.8	76.6	76.9	76.2
2012	77.6	77.7	77.2	77.6	77.7	77.6	77.9	77.3	77.3	77.1	77.8	77.7	77.5	77.6	77.5	77.5	77.5
2013	77.7	78.1	78.3	78.0	78.0	78.0	77.8	78.1	78.5	78.5	78.8	78.6	78.0	78.0	78.1	78.6	78.2
2014	78.4	78.7															

NOTE: Estimates from October 2013 through February 2014 are subject to further revision in the upcoming monthly releases.
1. High-technology industries include computers, communications equipment, and semiconductors and related electronic components.

Table 11A
INDUSTRIAL PRODUCTION: Manufacturing Excluding Selected High-Technology Industries[1,2]
Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual[3]
IP (*percent change*)																	
1984	1.7	1.0	.4	.4	.1	.3	.4	.1	-.3	.4	.3	.3	11.5	4.7	2.2	1.9	8.5
1985	-.5	-.2	.8	-.2	.2	.1	-.5	.6	.2	-.3	.6	.4	-.1	1.5	.5	2.3	1.4
1986	1.2	-.6	-.3	.4	.1	-.2	.3	.1	.2	.3	.4	.7	4.7	-.1	1.3	4.1	2.2
1987	-.5	1.4	.1	.4	.6	.3	.6	.4	.5	1.5	.6	.5	4.6	6.0	5.9	10.5	4.6
1988	-.2	.2	.2	.8	-.3	.1	-.1	.1	.3	.4	.3	.5	2.1	3.4	.0	4.2	4.4
1989	.9	-1.0	-.1	.2	-.9	.2	-1.3	.8	-.3	-.3	.1	.0	2.4	-3.1	-4.3	-.7	.4
1990	-.3	1.5	.4	-.3	.1	.2	-.2	.3	-.1	-.9	-1.2	-.8	3.5	2.5	.5	-7.5	.0
1991	-.8	-.8	-.8	.4	.7	1.0	.3	.2	1.1	-.2	-.3	-.3	-9.6	1.3	7.0	1.1	-2.6
1992	-.9	.9	1.0	.4	.5	.1	.9	-.5	-.1	.5	.3	-.2	-1.2	7.0	2.8	1.5	2.6
1993	1.1	.1	-.3	.5	-.1	-.2	.2	-.3	.5	.8	.3	.5	4.0	.5	.2	6.0	2.5
1994	.1	.1	1.1	.6	.5	.2	.2	.6	.2	.7	.6	.9	4.0	7.1	3.8	7.0	4.4
1995	.1	-.4	-.1	-.4	-.1	.3	-.8	.9	.5	-.4	-.1	.1	2.7	-2.3	.3	.7	2.5
1996	-1.2	1.3	-.4	1.0	.6	.8	-.1	.3	.6	-.5	.7	.7	-2.0	7.4	4.0	2.6	1.5
1997	-.1	1.1	.8	-.6	.5	.4	.5	.9	.5	.7	.8	.1	6.2	2.9	7.0	7.9	4.9
1998	.6	-.1	-.3	.2	.4	-1.2	-.8	2.3	-.7	.7	-.1	.2	3.3	-.3	-.6	4.1	3.4
1999	-.1	.4	-.4	-.1	.8	-.7	.0	.6	-.5	1.4	.3	.4	.8	.3	.2	6.7	1.4
2000	-.3	-.2	.3	.4	-.6	.0	-.2	-1.0	.3	-.4	-.6	-.8	.2	.7	-3.8	-4.7	.7
2001	-.6	-.5	-.3	-.1	-.7	-.6	-.2	-.5	-.2	-.7	-.2	.2	-7.0	-4.5	-4.6	-4.2	-4.8
2002	.6	-.2	.8	.2	.6	1.1	-.4	.1	.1	-.4	.4	-.6	3.2	5.7	2.5	-1.1	.4
2003	.4	-.1	.1	-1.0	-.1	.2	.2	-.7	.7	-.1	.9	-.3	.5	-4.0	.2	2.6	.0
2004	-.1	.7	-.2	.4	.8	-.8	1.0	.4	-.1	1.0	-.1	.6	1.6	3.3	3.7	4.9	2.0
2005	.6	.7	-.5	.2	.3	.1	-.4	.2	-1.4	1.5	.7	.0	5.2	1.3	-2.0	4.4	3.1
2006	.8	-.3	-.1	.5	-.6	.2	-.3	.5	-.1	-.4	.0	1.5	3.3	.1	-.2	.6	1.5
2007	-.6	.3	.6	.5	.0	.5	.2	-.5	.3	-.6	.3	.0	3.2	4.7	1.0	-1.6	1.8
2008	-.5	-.8	-.4	-1.2	-.6	-.6	-1.1	-1.3	-3.5	-.4	-2.1	-3.2	-4.3	-9.2	-13.7	-20.5	-5.8
2009	-2.9	-.3	-2.0	-.9	-1.2	-.3	1.4	1.0	.8	.1	1.0	-.2	-23.8	-12.1	6.8	6.2	-13.8
2010	1.0	-.3	1.2	.9	1.5	.0	.8	.0	.0	.0	.0	.2	5.4	10.4	5.3	.6	5.1
2011	.1	.0	.7	-.7	.2	.1	.9	.2	.4	.6	-.1	.7	2.0	-.1	5.2	4.3	2.8
2012	1.1	.5	-.4	.7	-.3	.3	.4	-.5	.1	-.6	1.3	.7	7.0	1.9	.8	1.7	3.7
2013	-.3	.7	.1	-.3	.2	.3	-.5	.7	.3	.4	.2	.1	4.6	.8	1.6	4.2	2.3
2014	-.9	.8															
IP (*2007=100*)																	
1984	67.3	68.0	68.2	68.5	68.6	68.8	69.0	69.1	68.9	69.1	69.3	69.6	67.8	68.6	69.0	69.3	68.7
1985	69.2	69.1	69.6	69.5	69.6	69.7	69.3	69.8	69.9	69.7	70.1	70.4	69.3	69.6	69.7	70.1	69.7
1986	71.2	70.8	70.6	70.8	70.9	70.8	71.0	71.1	71.2	71.4	71.7	72.3	70.9	70.9	71.1	71.8	71.2
1987	71.9	72.9	73.0	73.3	73.8	74.0	74.4	74.7	75.1	76.2	76.6	77.0	72.6	73.7	74.7	76.6	74.4
1988	76.9	77.0	77.2	77.8	77.6	77.7	77.6	77.6	77.9	78.2	78.5	78.8	77.0	77.7	77.7	78.5	77.7
1989	79.5	78.7	78.7	78.8	78.1	78.2	77.2	77.8	77.6	77.3	77.4	77.4	79.0	78.4	77.5	77.4	78.0
1990	77.2	78.3	78.6	78.4	78.5	78.6	78.5	78.7	78.6	77.9	77.0	76.4	78.0	78.5	78.6	77.1	78.1
1991	75.8	75.2	74.6	74.8	75.3	76.1	76.3	76.5	77.3	77.1	76.9	76.7	75.2	75.4	76.7	76.9	76.0
1992	76.0	76.6	77.4	77.7	78.1	78.2	78.8	78.4	78.3	78.7	78.9	78.8	76.7	78.0	78.5	78.8	78.0
1993	79.6	79.7	79.4	79.8	79.7	79.5	79.7	79.5	80.0	80.6	80.9	81.3	79.6	79.7	79.7	80.9	80.0
1994	81.4	81.4	82.3	82.8	83.2	83.3	83.5	84.0	84.1	84.7	85.2	86.0	81.7	83.1	83.9	85.3	83.5
1995	86.1	85.8	85.7	85.4	85.3	85.5	84.8	85.6	86.0	85.7	85.6	85.6	85.9	85.4	85.5	85.6	85.6
1996	84.6	85.7	85.3	86.2	86.7	87.4	87.2	87.5	88.0	87.6	88.2	88.7	85.2	86.7	87.6	88.2	86.9
1997	88.6	89.6	90.3	89.7	90.2	90.5	91.0	91.8	92.3	92.9	93.7	93.8	89.5	90.1	91.7	93.4	91.2
1998	94.3	94.3	94.0	94.3	94.6	93.5	92.8	94.9	94.3	94.9	94.8	95.1	94.2	94.1	94.0	94.9	94.3
1999	95.0	95.4	95.0	94.9	95.7	95.0	95.0	95.6	95.1	96.5	96.8	97.2	95.1	95.2	95.3	96.8	95.6
2000	96.9	96.7	97.0	97.4	96.9	96.9	96.7	95.7	96.0	95.6	95.0	94.3	96.9	97.1	96.1	95.0	96.3
2001	93.7	93.2	92.9	92.8	92.2	91.6	91.5	91.0	90.8	90.2	90.0	90.2	93.3	92.2	91.1	90.1	91.7
2002	90.7	90.6	91.3	91.4	91.9	93.0	92.6	92.7	92.8	92.4	92.7	92.2	90.8	92.1	92.7	92.4	92.0
2003	92.6	92.5	92.6	91.6	91.5	91.7	91.9	91.2	91.9	91.8	92.6	92.3	92.5	91.6	91.7	92.3	92.0
2004	92.3	92.9	92.7	93.1	93.9	93.1	94.0	94.4	94.3	95.2	95.1	95.7	92.6	93.4	94.2	95.4	93.9
2005	96.3	97.0	96.4	96.6	97.0	97.1	96.7	96.9	95.6	97.0	97.7	97.7	96.6	96.9	96.4	97.4	96.8
2006	98.5	98.2	98.0	98.6	98.0	98.2	97.9	98.4	98.3	97.9	97.9	99.3	98.2	98.3	98.2	98.3	98.3
2007	98.7	99.0	99.6	100.1	100.1	100.6	100.7	100.2	100.6	99.9	100.2	100.2	99.1	100.3	100.5	100.1	100.0
2008	99.7	98.9	98.4	97.2	96.7	96.1	95.1	93.9	90.6	90.2	88.3	85.4	99.0	96.7	93.2	88.0	94.2
2009	82.9	82.7	81.0	80.3	79.4	79.1	80.2	81.0	81.6	81.7	82.5	82.3	82.2	79.6	80.9	82.1	81.2
2010	83.1	82.8	83.8	84.5	85.7	85.7	86.4	86.4	86.4	86.5	86.5	86.7	83.2	85.3	86.4	86.6	85.4
2011	86.8	86.8	87.4	86.8	87.0	87.1	87.8	88.0	88.4	88.9	88.8	89.4	87.0	87.0	88.1	89.0	87.8
2012	90.3	90.8	90.4	91.0	90.8	91.0	91.4	90.9	91.0	90.5	91.7	92.4	90.5	90.9	91.1	91.5	91.0
2013	92.1	92.7	92.8	92.5	92.7	93.0	92.6	93.2	93.5	93.9	94.1	94.2	92.5	92.7	93.1	94.1	93.1
2014	93.3	94.1															

NOTE: Estimates from October 2013 through February 2014 are subject to further revision in the upcoming monthly releases.

1. See footnote 2 to table 3.
2. High-technology industries include computers, communications equipment, and semiconductors and related electronic components.
3. Annual averages of industrial production are calculated from not seasonally adjusted indexes.

Table 11B
CAPACITY AND UTILIZATION: Manufacturing Excluding Selected High-Technology Industries[1,2]
Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
Capacity (*percent of 2007 output*)																	
1984	86.7	86.7	86.8	86.9	87.0	87.1	87.2	87.3	87.5	87.6	87.8	88.0	86.7	87.0	87.3	87.8	87.2
1985	88.2	88.4	88.5	88.7	88.9	89.1	89.2	89.4	89.5	89.6	89.7	89.8	88.4	88.9	89.4	89.7	89.1
1986	89.9	90.0	90.0	90.1	90.1	90.2	90.3	90.3	90.4	90.5	90.6	90.7	90.0	90.1	90.3	90.6	90.3
1987	90.9	91.0	91.1	91.3	91.4	91.6	91.7	91.8	91.9	92.0	92.0	92.1	91.0	91.4	91.8	92.0	91.6
1988	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.2	92.3	92.1	92.1	92.1	92.2	92.1
1989	92.4	92.5	92.6	92.8	92.9	93.1	93.3	93.4	93.6	93.8	94.0	94.2	92.5	92.9	93.4	94.0	93.2
1990	94.3	94.5	94.7	94.9	95.0	95.2	95.3	95.5	95.6	95.7	95.9	96.0	94.5	95.0	95.5	95.9	95.2
1991	96.1	96.3	96.4	96.5	96.6	96.7	96.8	96.9	97.0	97.1	97.2	97.3	96.3	96.6	96.9	97.2	96.8
1992	97.4	97.5	97.6	97.8	97.9	98.0	98.1	98.2	98.4	98.5	98.6	98.7	97.5	97.9	98.2	98.6	98.1
1993	98.8	99.0	99.1	99.2	99.3	99.4	99.5	99.6	99.7	99.8	99.9	100.0	99.0	99.3	99.6	99.9	99.4
1994	100.1	100.2	100.3	100.5	100.6	100.8	100.9	101.1	101.3	101.4	101.6	101.8	100.2	100.6	101.1	101.6	100.9
1995	102.0	102.2	102.5	102.7	102.9	103.1	103.3	103.6	103.8	104.0	104.2	104.4	102.3	102.9	103.6	104.2	103.2
1996	104.6	104.8	105.1	105.3	105.5	105.7	105.9	106.2	106.5	106.7	107.0	107.4	104.8	105.5	106.2	107.1	105.9
1997	107.7	108.0	108.4	108.8	109.2	109.6	110.1	110.5	111.0	111.5	112.0	112.4	108.0	109.2	110.5	112.0	109.9
1998	112.9	113.4	113.9	114.3	114.8	115.3	115.7	116.1	116.5	116.9	117.3	117.7	113.4	114.8	116.1	117.3	115.4
1999	118.0	118.4	118.7	119.0	119.3	119.6	119.9	120.1	120.4	120.6	120.9	121.1	118.4	119.3	120.1	120.9	119.7
2000	121.3	121.5	121.7	121.9	122.1	122.2	122.4	122.6	122.7	122.9	123.0	123.2	121.5	122.1	122.6	123.0	122.3
2001	123.3	123.4	123.5	123.6	123.7	123.8	123.9	124.0	124.0	124.0	124.1	124.1	123.4	123.7	124.0	124.1	123.8
2002	124.1	124.1	124.1	124.1	124.0	124.0	124.0	123.9	123.9	123.8	123.7	123.7	124.1	124.0	123.9	123.7	123.9
2003	123.6	123.5	123.5	123.4	123.3	123.3	123.2	123.1	123.1	123.0	122.9	122.8	123.5	123.3	123.1	122.9	123.2
2004	122.8	122.7	122.6	122.5	122.5	122.4	122.4	122.4	122.3	122.3	122.4	122.4	122.7	122.5	122.4	122.4	122.5
2005	122.5	122.6	122.7	122.8	123.0	123.1	123.3	123.5	123.7	123.9	124.1	124.3	122.6	123.0	123.5	124.1	123.3
2006	124.6	124.8	125.0	125.2	125.3	125.5	125.7	125.9	126.0	126.1	126.3	126.4	124.8	125.3	125.8	126.3	125.6
2007	126.5	126.6	126.7	126.8	126.9	127.0	127.1	127.1	127.2	127.2	127.3	127.3	126.6	126.9	127.1	127.3	127.0
2008	127.3	127.3	127.3	127.2	127.2	127.1	127.0	126.9	126.8	126.6	126.4	126.2	127.3	127.2	126.9	126.4	126.9
2009	126.0	125.8	125.5	125.2	124.9	124.6	124.3	124.0	123.7	123.4	123.0	122.7	125.8	124.9	124.0	123.0	124.4
2010	122.4	122.1	121.8	121.5	121.2	121.0	120.7	120.5	120.2	120.0	119.8	119.6	122.1	121.2	120.5	119.8	120.9
2011	119.4	119.3	119.1	119.0	119.0	118.9	118.9	118.9	118.9	119.0	119.1	119.2	119.3	119.0	118.9	119.1	119.1
2012	119.3	119.4	119.5	119.7	119.8	120.0	120.1	120.3	120.5	120.6	120.8	120.9	119.4	119.8	120.3	120.8	120.1
2013	121.1	121.3	121.4	121.6	121.7	121.9	122.1	122.2	122.4	122.6	122.8	123.0	121.3	121.7	122.2	122.8	122.0
2014	123.2	123.4															
Utilization (*percent*)																	
1984	77.7	78.4	78.6	78.8	78.8	79.0	79.2	79.1	78.7	78.9	78.9	79.0	78.2	78.9	79.0	78.9	78.8
1985	78.5	78.2	78.7	78.3	78.3	78.2	77.7	78.1	78.1	77.8	78.1	78.4	78.5	78.3	78.0	78.1	78.2
1986	79.3	78.7	78.4	78.6	78.7	78.5	78.7	78.7	78.7	78.9	79.2	79.6	78.8	78.6	78.7	79.2	78.8
1987	79.2	80.1	80.1	80.3	80.7	80.8	81.2	81.4	81.7	82.9	83.3	83.7	79.8	80.6	81.4	83.3	81.3
1988	83.5	83.6	83.8	84.5	84.3	84.3	84.2	84.3	84.6	84.9	85.1	85.4	83.6	84.4	84.4	85.1	84.4
1989	86.1	85.1	85.0	85.0	84.0	84.0	82.7	83.3	82.8	82.4	82.4	82.2	85.4	84.3	82.9	82.3	83.7
1990	81.8	82.9	83.0	82.7	82.6	82.6	82.3	82.4	82.3	81.4	80.3	79.5	82.6	82.6	82.3	80.4	82.0
1991	78.8	78.1	77.4	77.5	78.0	78.7	78.8	78.9	79.7	79.4	79.1	78.8	78.1	78.1	79.1	79.1	78.6
1992	78.0	78.6	79.3	79.5	79.8	79.8	80.3	79.8	79.6	79.9	80.0	79.8	78.6	79.7	79.9	79.9	79.5
1993	80.5	80.5	80.2	80.5	80.3	80.0	80.2	79.9	80.2	80.8	81.0	81.3	80.4	80.3	80.1	81.0	80.4
1994	81.3	81.2	82.1	82.4	82.7	82.7	82.8	83.1	83.1	83.5	83.8	84.5	81.5	82.6	83.0	83.9	82.8
1995	84.4	83.9	83.7	83.2	82.9	83.0	82.1	82.6	82.9	82.4	82.1	82.0	84.0	83.0	82.5	82.2	82.9
1996	80.9	81.7	81.2	81.9	82.2	82.6	82.4	82.4	82.7	82.0	82.4	82.7	81.3	82.2	82.5	82.3	82.1
1997	82.3	82.9	83.3	82.5	82.6	82.6	82.6	83.0	83.1	83.3	83.7	83.4	82.8	82.5	82.9	83.5	82.9
1998	83.5	83.1	82.6	82.4	82.4	81.2	80.2	81.8	80.9	81.2	80.9	80.8	83.1	82.0	81.0	80.9	81.7
1999	80.5	80.6	80.0	79.8	80.2	79.4	79.3	79.6	79.0	80.0	80.1	80.2	80.4	79.8	79.3	80.1	79.9
2000	79.9	79.6	79.7	79.9	79.4	79.2	79.0	78.1	78.2	77.8	77.3	76.5	79.7	79.5	78.4	77.2	78.7
2001	76.0	75.5	75.2	75.1	74.5	74.0	73.8	73.4	73.2	72.7	72.5	72.6	75.6	74.5	73.5	72.6	74.1
2002	73.1	73.0	73.5	73.7	74.1	75.0	74.7	74.8	74.9	74.6	74.9	74.6	73.2	74.3	74.8	74.7	74.2
2003	74.9	74.9	75.0	74.2	74.2	74.4	74.6	74.1	74.7	74.6	75.4	75.2	74.9	74.3	74.4	75.1	74.7
2004	75.2	75.7	75.6	76.0	76.6	76.1	76.8	77.1	77.1	77.8	77.7	78.2	75.5	76.2	77.0	77.9	76.7
2005	78.6	79.1	78.6	78.7	78.8	78.8	78.4	78.4	77.2	78.2	78.7	78.6	78.8	78.8	78.0	78.5	78.5
2006	79.1	78.7	78.5	78.7	78.2	78.3	77.9	78.2	78.0	77.6	77.5	78.6	78.7	78.4	78.0	77.9	78.3
2007	78.0	78.2	78.6	78.9	78.9	79.2	79.3	78.8	79.1	78.5	78.7	78.7	78.3	79.0	79.1	78.7	78.7
2008	78.3	77.7	77.4	76.4	76.0	75.6	74.8	74.0	71.4	71.2	69.8	67.7	77.8	76.0	73.4	69.6	74.2
2009	65.8	65.7	64.5	64.1	63.5	63.5	64.5	65.3	66.0	66.2	67.0	67.1	65.3	63.7	65.3	66.8	65.3
2010	67.9	67.8	68.8	69.5	70.7	70.9	71.6	71.8	71.9	72.1	72.2	72.5	68.2	70.4	71.7	72.3	70.6
2011	72.7	72.7	73.4	72.9	73.1	73.2	73.9	74.0	74.3	74.7	74.6	75.0	72.9	73.1	74.1	74.7	73.7
2012	75.7	76.1	75.6	76.1	75.7	75.9	76.1	75.6	75.5	75.0	75.9	76.4	75.8	75.9	75.7	75.8	75.8
2013	76.1	76.5	76.4	76.1	76.1	76.3	75.8	76.3	76.4	76.6	76.6	76.6	76.3	76.2	76.2	76.6	76.3
2014	75.7	76.3															

NOTE: Estimates from October 2013 through February 2014 are subject to further revision in the upcoming monthly releases.
1. See footnote 2 to table 3.
2. High-technology industries include computers, communications equipment, and semiconductors and related electronic components.

Table 12
ANNUAL PROPORTIONS IN INDUSTRIAL PRODUCTION, MARKET AND INDUSTRY GROUP SUMMARY

Item		2006	2007	2008	2009	2010	2011	2012	2013
Total IP		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
MARKET GROUPS									
Final products and nonindustrial supplies		55.9	54.7	55.1	56.4	54.1	53.4	53.4	52.7
Consumer goods		28.4	27.3	27.3	29.6	27.9	27.5	27.2	26.8
Durable		6.9	6.7	6.3	6.2	5.8	5.6	5.8	5.9
Automotive products		3.2	3.3	3.0	3.1	3.0	2.8	3.0	3.0
Home electronics		.4	.3	.3	.3	.2	.1	.1	.1
Appliances, furniture, carpeting		1.2	1.1	1.0	.9	.8	.8	.8	.8
Miscellaneous goods		2.2	2.0	2.0	1.9	1.9	1.9	1.9	2.0
Nondurable		21.5	20.6	21.0	23.4	22.1	21.9	21.4	20.9
Non-energy		16.2	15.6	16.2	17.9	16.4	16.2	16.1	15.6
Foods and tobacco		8.5	8.2	8.6	9.9	9.2	9.0	9.2	9.0
Clothing		.4	.3	.3	.2	.2	.2	.2	.2
Chemical products		5.0	5.0	5.1	5.5	4.9	5.0	4.8	4.6
Paper products		1.7	1.6	1.6	1.7	1.6	1.5	1.4	1.3
Energy		5.4	5.0	4.8	5.5	5.6	5.7	5.3	5.3
Business equipment		9.8	9.8	10.0	9.4	9.2	9.2	9.6	9.5
Transit		2.1	2.1	2.0	1.9	2.1	1.9	2.2	2.2
Information processing		2.8	2.7	2.7	2.6	2.3	2.1	2.1	2.0
Industrial and other		4.9	5.0	5.2	4.9	4.9	5.2	5.3	5.2
Defense and space equipment		1.5	1.8	2.0	2.3	2.4	2.2	2.3	2.3
Construction supplies		5.1	4.9	4.8	4.2	4.1	4.1	4.1	4.1
Business supplies		10.3	10.1	10.2	10.4	9.9	9.7	9.5	9.3
Materials		44.1	45.3	44.9	43.6	45.9	46.6	46.6	47.3
Non-energy		28.5	28.3	28.1	27.0	28.4	28.9	29.0	28.5
Durable		17.6	17.3	17.1	15.3	16.6	17.3	17.6	17.3
Consumer parts		3.1	2.9	2.6	1.9	2.3	2.4	2.5	2.5
Equipment parts		6.0	6.1	6.4	5.9	6.1	6.5	6.6	6.4
Other		8.5	8.4	8.2	7.5	8.2	8.5	8.5	8.5
Nondurable		10.9	11.0	11.0	11.7	11.8	11.6	11.4	11.2
Textile		.6	.5	.4	.4	.5	.4	.4	.4
Paper		2.3	2.2	2.3	2.3	2.2	2.1	2.0	1.9
Chemical		4.9	5.2	4.9	5.2	5.7	5.6	5.7	5.7
Energy		15.6	17.0	16.8	16.5	17.6	17.7	17.6	18.8
INDUSTRY GROUPS									
Manufacturing		77.6	76.1	75.8	75.7	74.8	74.8	75.5	74.3
Manufacturing (NAICS)	31–33	73.7	72.5	72.2	72.1	71.7	71.9	72.7	71.8
Durable manufacturing		39.3	39.2	39.2	36.5	36.9	37.2	38.2	38.0
Wood products	321	1.4	1.2	1.1	1.0	.9	.9	.9	.9
Nonmetallic mineral products	327	2.3	2.2	2.0	1.7	1.6	1.6	1.5	1.5
Primary metals	331	2.7	2.7	2.5	2.1	2.9	3.1	3.1	3.1
Fabricated metal products	332	5.5	5.8	6.0	5.3	5.2	5.4	5.6	5.6
Machinery	333	5.0	5.1	5.4	4.9	5.1	5.6	5.7	5.6
Computer and electronic products	334	7.0	6.8	7.0	6.6	6.4	6.2	6.3	6.1
Electrical equip., appliances, and components	335	1.9	1.9	2.0	1.9	1.8	1.8	1.8	1.8
Motor vehicles and parts	3361–3	5.5	5.2	4.5	4.0	4.5	4.2	4.5	4.5
Aerospace and miscellaneous transportation equipment	3364–9	3.4	4.0	4.3	4.6	4.4	4.3	4.6	4.6
Furniture and related products	337	1.5	1.4	1.4	1.1	1.0	1.0	1.0	1.0
Miscellaneous	339	3.1	2.9	3.2	3.4	3.2	3.1	3.1	3.2
Nondurable manufacturing		34.3	33.3	33.0	35.6	34.7	34.7	34.4	33.8
Food, beverage, and tobacco products	311,2	10.1	9.9	10.5	12.1	11.2	10.9	11.1	10.9
Textile and product mills	313,4	1.1	.9	.8	.7	.7	.7	.7	.7
Apparel and leather	315,6	.6	.4	.4	.3	.3	.3	.3	.2
Paper	322	2.6	2.5	2.6	2.8	2.6	2.6	2.4	2.3
Printing and support	323	1.9	1.9	1.9	1.8	1.6	1.5	1.4	1.3
Petroleum and coal products	324	4.0	3.3	2.7	3.1	3.6	4.0	3.9	3.8
Chemicals	325	10.9	11.3	11.2	11.9	11.8	11.8	11.7	11.6
Plastics and rubber products	326	3.2	3.0	3.0	2.9	2.9	2.9	2.9	3.0
Other manufacturing (non-NAICS)	**1133,5111**	3.9	3.6	3.6	3.6	3.1	3.0	2.8	2.5
Mining	**21**	12.8	14.1	13.7	12.6	14.0	14.6	14.6	15.9
Utilities	**2211,2**	9.6	9.8	10.5	11.7	11.2	10.6	9.9	9.8
Electric	2211	8.0	8.1	8.8	10.0	9.7	9.3	8.8	8.5
Natural gas	2212	1.6	1.7	1.7	1.7	1.5	1.3	1.1	1.3

NOTE: The IP proportion data are estimates of the industries' relative contributions to the overall change in IP between the reference year and the following year. For example, a 1 percent increase in durable goods manufacturing between 2013 and 2014 would account for a 0.383 percent increase in total IP.

Table 13

INDUSTRIAL PRODUCTION AND CAPACITY UTILIZATION: SUMMARY

Seasonally adjusted

Industrial production	2007=100						Percent change						
	2013 Sept.[r]	Oct.[r]	Nov.[r]	Dec.[r]	2014 Jan.[r]	Feb.[r]	2013 Sept.[r]	Oct.[r]	Nov.[r]	Dec.[r]	2014 Jan.[r]	Feb.[r]	Feb. '13 to Feb. '14
Total index	100.7	100.9	101.4	101.5	101.3	102.0	.7	.2	.6	.0	-.1	.6	3.0
Previous estimates	100.2	100.4	101.2	101.2	101.0	101.6	.6	.2	.8	.0	-.2	.6	2.8
Major market groups													
Final Products	97.7	98.1	98.3	98.7	98.3	99.1	.9	.3	.2	.4	-.4	.9	2.7
Consumer goods	94.9	95.4	95.8	96.5	95.9	96.7	.9	.5	.4	.7	-.5	.8	2.6
Business equipment	103.4	103.5	103.3	102.7	102.8	104.0	1.1	.1	-.2	-.6	.0	1.2	3.4
Nonindustrial supplies	89.4	89.8	90.1	90.1	89.6	90.2	.8	.5	.3	-.1	-.5	.6	2.2
Construction	82.0	82.8	83.0	82.4	82.3	82.3	.9	.9	.3	-.8	-.2	.1	.8
Materials	107.4	107.3	108.3	108.1	108.2	108.7	.5	-.1	.9	-.2	.1	.5	3.4
Major industry groups													
Manufacturing (see note below)	96.9	97.3	97.6	97.7	96.8	97.7	.3	.4	.3	.1	-.9	.9	1.8
Previous estimates	96.3	96.7	97.1	97.2	96.4	97.2	.2	.5	.4	.2	-.9	.8	1.5
Mining	122.6	120.3	121.6	121.3	122.7	122.7	1.6	-1.9	1.1	-.2	1.1	.0	5.9
Utilities	100.3	101.8	103.7	103.8	107.2	107.0	2.8	1.5	1.9	.1	3.3	-.2	7.2

Capacity utilization	Percent of capacity												Capacity growth
	Average 1972-2013	1988-89 high	1990-91 low	1994-95 high	2008-09 low	2013 Feb.	2013 Sept.[r]	Oct.[r]	Nov.[r]	Dec.[r]	2014 Jan.[r]	Feb.[r]	Feb. '13 to Feb. '14
Total industry	80.1	85.3	78.7	85.0	66.9	77.8	78.3	78.2	78.5	78.4	78.1	78.4	2.1
Previous estimates	80.1	85.2	78.8	85.0	66.9	78.1	78.4	78.4	78.9	78.8	78.5	78.8	1.9
Manufacturing (see note below)	78.7	85.6	77.3	84.6	63.9	76.1	76.2	76.4	76.4	76.3	75.5	76.0	2.0
Previous estimates	78.7	85.6	77.3	84.6	64.0	76.5	76.3	76.5	76.7	76.7	75.9	76.4	1.6
Mining	87.3	86.3	83.8	88.5	78.8	86.5	89.5	87.5	88.0	87.5	88.1	87.7	4.5
Utilities	86.1	92.9	84.3	93.3	78.5	79.0	79.2	80.3	81.8	81.8	84.5	84.2	.5
Stage-of-process groups													
Crude	86.3	87.7	84.4	89.6	76.8	85.3	87.4	85.9	86.2	85.8	85.6	85.7	3.6
Primary and semifinished	80.8	86.5	77.9	87.7	64.2	75.9	76.4	77.0	77.5	77.3	77.3	77.5	1.0
Finished	77.1	83.4	77.4	80.6	66.8	76.6	76.2	76.1	76.1	76.2	75.4	76.1	3.0

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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 of its industrial output data from the SIC system to NAICS.

Explanatory Note

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

Industrial Production

Coverage. The industrial production (IP) index measures the real output of the manufacturing, mining, and electric and gas utilities industries; the reference period for the index is 2007. Manufacturing consists of those industries included in the North American Industry Classification System, or NAICS, definition of manufacturing *plus* those industries–logging and newspaper, periodical, book and directory publishing–that have traditionally been considered to be manufacturing and included in the industrial sector. For the period since 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 website at (**www.federalreserve.gov/releases/G17/About.htm**).

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

Aggregation Methodology and Weights. The aggregation method for the IP index is a version of the Fisher-ideal index formula. (For a detailed discussion of the aggregation method, see The *Federal Reserve Bulletin* February 1997 and March 2001.) In the IP index, series that measure the output of an individual industry are combined using weights derived from their proportion in the total value-added output of all industries. The IP index, which extends back to 1919, is built as a chain-type index since 1972. The current formula for the growth in monthly IP (or any of the sub-aggregates) since 1972 is the geometric mean of the change in output (I), and, as can be seen below, is computed using the unit value added estimate for the current month (p_m) and the estimate for previous month:

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

The IP proportions (typically shown in the first column of the relevant tables in the monthly G.17 release) are estimates of the industries' relative contributions to overall growth in the following year. For example, the relative importance weight of the motor vehicles and parts industry is about 6 percent. If output in this industry increased 10 percent in a month, then this gain would boost growth in total IP by $6/10$ percentage point (0.06 x 10% = 0.6%). To assist users with calculations, the Federal Reserve's website provides supplemental monthly statistics that represent the exact proportionate contribution of a monthly change in a component index to the monthly change in the total index (**www.federalreserve.gov/releases/G17/ipdisk/ipweightssa.txt**).

Timing. The first estimate of output for a month is published around the 15th of the following month. The estimate is preliminary (denoted by the superscript "p" in tables) and subject to revision in each of the subsequent five months as new source data become available. (Revised estimates are denoted by the superscript "r" in tables.) For the first estimate of output for a given month, about 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 one-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 2014; for other series, the factors were estimated with data through at least December 2013. Series are pre-adjusted for the effects of holidays or the business cycle when appropriate. For the data since 1972, all seasonally adjusted aggregate indexes are calculated by aggregating the seasonally adjusted indexes of the individual series.

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. 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, or NAICS, definition of manufacturing *plus* those industries—logging and newspaper, periodical, book and directory publishing—that have traditionally been considered to be manufacturing and included in the industrial sector. Also, special aggregates are available, such as high-technology industries and manufacturing excluding high-technology industries.

Source Data. The monthly rates of capacity utilization are designed to be consistent with both the monthly data on production and the periodically available data on capacity and utilization. Because there is no direct monthly information on overall industrial capacity or utilization rates, the Federal Reserve first estimates annual capacity indexes from the source data. Capacity data reported in physical units from government sources (primarily from the U.S. Geological Survey and the Department of Energy's Energy Information Administration) and trade sources are available for portions of several industries in manufacturing (for example, paper, industrial chemicals, petroleum refining, motor vehicles), as well as for electric utilities and mining; these industries represent about 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 website (**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 with a Fisher index of its constituent monthly capacity series. Utilization rates for the individual series and aggregates are calculated by dividing the pertinent monthly production index by the related capacity index.

Consistency. A major aim is that the Federal Reserve utilization rates be consistent over time so that, for example, a rate of 85 percent means about the same degree of tightness that it meant in the past. A major task for the Federal Reserve in developing reasonable and consistent time series of capacity and utilization is dealing with inconsistencies between the movements of the industrial production index and the survey-based utilization rates. The McGraw-Hill/DRI Survey, now discontinued, was the primary source of manufacturing utilization rates for many years. This survey of large companies reported, on average, higher utilization rates than those reported by establishments covered by the annual Survey of Plant Capacity (the primary source of factory operating rates through 2006, after which it was discontinued) for the fourteen years they overlapped. Adjustments have been made to keep the industry utilization rates currently reported by the Federal Reserve (now based on the QSPC) roughly in line with rates formerly reported by McGraw-Hill. As a consequence, the rates reported by the Federal Reserve tend to be higher than the rates reported in the Census utilization surveys.

Perspective. Over the 1972–2013 period, the average total industry utilization rate was 80.1 percent; for manufacturing, the average factory operating rate was 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 annual revision published in June 2010 is described in an article published in the *Federal Reserve Bulletin*, available on the Board's website at **www.federalreserve.gov/releases/G17/About.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.151-76. 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).

Release Schedule

At 9:15 a.m. on

2014: 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.