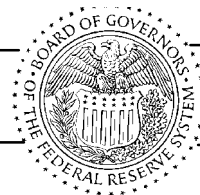


FEDERAL RESERVE statistical release



G.17 (419) 2013 Historical and Annual Revision

**For release at 12:00 noon (EDT)
March 22, 2013**

Industrial Production and Capacity Utilization: The 2013 Annual Revision

The Federal Reserve has revised its index of industrial production (IP) and the related measures of capacity and capacity utilization.¹ Measured from fourth quarter to fourth quarter, total IP is now reported to have increased 0.7 percentage point less in 2011 than was previously published. The revisions to IP for other years were smaller: Compared to the previous estimates, industrial production fell slightly less in 2008 and 2009 and increased slightly less in 2010 and 2012. At 97.7 percent of its 2007 average, the index in the fourth quarter of 2012 now stands 0.4 percent below its previous estimate. With these revisions, IP is still estimated to have advanced about 6 percent in 2010, the first full year following the trough in June 2009 of the most recent recession, but it is now estimated to have risen about 3 percent both in 2011 and in 2012. Since the trough of the recession, total IP has reversed about 90 percent of its peak-to-trough decline.

The revised IP indexes incorporate detailed data on factory activity for 2011 and revised data for 2010 from the U.S. Census Bureau's Annual Survey of Manufactures (ASM). In addition, annual data from the U.S. Geological Survey (USGS) regarding metallic and nonmetallic minerals (except fuels) for 2012 were used in the revised estimates. 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 several production indexes.

Capacity utilization rates for recent years were revised down. The revisions show that the rate of capacity utilization for total industry was 0.8 percentage point lower in the fourth quarter of 2011 and 1.4 percentage points lower in the fourth quarter of 2012 than previously estimated; the decrease resulted both from an industrial production index that was lower than previously estimated and from a capacity index that increased more rapidly in 2011 and 2012 than previously estimated. Capacity utilization rates for the fourth quarters of 2009 and 2010 were little changed.

The revised estimates of capacity and capacity utilization incorporate data from the Census Bureau's Quarterly Survey of Plant Capacity Utilization (QSPC) for the fourth quarter of 2012, which covered the manufacturing sector, along with new data on capacity in the energy and mining sectors from the USGS, the U.S. Department of Energy, and other organizations, as well as data on capital spending by industry from the 2011 ASM.

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 utilization for January 1983 through February 2013, along with the percentage changes in total IP. Tables 2 through 4 show the revised rates

¹The 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.

of change in IP from 2008 through 2012 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 2009–13 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 final quarters of 2009 through 2012 and the differences between the revised and previous estimates. Table 7 reports revised semiannual rates of change for IP for 2008 through 2012. Table 8 contains revised capacity utilization rates for the second and fourth quarters of 2008 through 2012. Tables 9A, 9B, 10A, 10B, 11A, and 11B report the revised production, capacity, and utilization series 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 2005 through 2012. Table 13 reports revised IP indexes and capacity utilization rates for the major market and industry groups for the previous six months. Table 14 shows price indexes for data networking equipment for 2000 through 2012.

Industrial Production

Revisions to the changes in total IP in recent years show a somewhat slower rebound after the trough of the recent recession than previously reported (chart 1 and tables 2 and 7). The decline from late 2007 to June 2009 remains around 17 percent; the current estimate shows that about 15 percentage points of that decrease had been recovered by February 2013, whereas the previous estimates showed that about 16 percentage points had been recovered.²

Production by Industry Group

The recent recession was more pronounced in manufacturing than in mining and utilities, with factory output falling 20 percent from late 2007 to June 2009.³ Through February 2013, manufacturing production had recovered about three-fourths of this decline. Factory output is now estimated to have moved up about 3 percent in both 2011 and 2012 after having advanced more than 6 percent in 2010. The revision reduced the gain for manufacturing production in 2011 by about 1 percentage point.

Output fell for all major manufacturing industries during the recession, but, as has historically been the case during recessions, the magnitude of the decline for durable goods industries was notably greater than that for nondurable goods industries. Even so, the production of durables has now fully reversed its decrease of 27 percent during the recession, with the index in February 2013 standing 0.4 percent above its pre-recession peak. In contrast, the output of nondurables declined by about 14 percent during the recession and is still about 9 percent below its pre-recession peak.

After having advanced 12.2 percent in 2010, the output of durable goods industries moved up 6.3 percent in 2011 and 5.4 percent in 2012 (table 2). The gains in 2011 and 2012 were about 1 percentage point and ½ percentage point slower than previously estimated, respectively; in contrast, the rates of change for 2008, 2009, and 2010 were each revised up by about ½ percentage point. The largest downward revisions in 2011 were in motor vehicles and parts, in aerospace and miscellaneous transportation equipment, and in miscellaneous manufacturing. The output of semiconductors is now reported to be stronger than previously estimated for 2007 through 2012. The stronger semiconductor index was the primary contributor to the upward revisions for overall durables for 2008 through 2010 but only partly offset downward revisions elsewhere in 2011 and 2012.

Although overall production for durables has reached its pre-recession level, the recovery has not been uniform across its major components. By February 2013, the indexes for machinery, for computer and electronic

²In 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. Rates of change on a half-year basis are shown in table 7.

³Manufacturing 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.

products, for motor vehicles and parts, 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 all more than 25 percent below their previous peaks.

After having increased 1.5 percent in 2010, the production of nondurable manufacturing industries moved up 0.5 percent in 2011 and 0.9 percent in 2012. The gains in 2010 and 2011 are now estimated to be about 1 percentage point slower than previously reported, whereas the increase in 2012 is little changed. The downward revisions in 2010 and 2011 were broadly distributed among nondurables industries, with only paper and printing showing improved growth rates from those previously reported. Among the major categories of nondurables, only the indexes for food, beverage, and tobacco products and for petroleum and coal products were near their pre-recession levels in February 2013; neither of these industries had shown much reduction in output during the recession. The post-recession recovery has been particularly subdued for textiles and product mills, for apparel and leather, and for printing and support; production in each remained at least 25 percent below the pre-recession peaks. Likewise, although output fell about 20 percent from its pre-recession peak for the paper industry, its production index in February 2013 was only up about 5 percent from the trough. Of the nondurable goods industries most affected by the recession, the plastics and rubber products industry has shown the most substantial recovery; it has reversed about 20 percentage points of its peak-to-trough decrease of 30 percent.

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 each year from 2008 through 2012. The declines since 2009, however, are now reported to have been less steep.

The output indexes for mining and utilities were little changed from those previously reported. Strong increases in oil and natural gas extraction have boosted mining output in each of the last three years. After moving up in 2007 and into 2008, mining output fell from mid-2008 through the end of 2009 to about 10 percent below its previous peak. Mining output advanced substantially in 2010, 2011, and 2012; by February 2013, mining output was about 10 percent above its 2008 peak. The index for utilities rose 2.7 percent in 2010, fell back 2.3 percent in 2011, and was unchanged in 2012.

After increasing 27.2 percent in 2010, the output of high-technology industries—computers and peripheral equipment, communications equipment, and semiconductors and related electronic components—moved up 9.7 percent in 2011 and 2.3 percent in 2012 (table 3). These gains, as well as the rates of change from 2007 to 2010, were higher than the previous estimates. More-rapid advances in the production of microprocessors, which reflected greater improvements in chip quality than previously estimated, contributed importantly to the upward revisions in every year since 2007 (discussed under technical notes).

Among the other components of the selected high-technology group, the index for computers and peripherals is now estimated to have fallen between 15 and 20 percent in every year from 2009 to 2011. The decline in 2011 was substantially steeper than previously reported as a result of incorporating data from the 2011 ASM. In 2011, the output of communications equipment is now reported to have increased 11.6 percent; the index was previously reported to have decreased 1.0 percent. The level of the index in February 2013, however, ended up only about 3 percent higher than previously estimated, as a downward revision to the index in 2009 delayed the start of the recovery and growth was slower in 2010 and 2012.

Production by Market Group

The production index for final products and nonindustrial supplies rose about 3¾ percent in 2010 and about 2½ percent in each of 2011 and 2012 (tables 2 and 7). Previously, the index was reported to have increased about 4 percent in 2010 and 2011; the gain in 2012 is little changed from its previous estimate. Since mid-2009, increases in this index have partially reversed the substantial losses during the recession: After having recorded a

peak-to-trough decline of 17 percent, the index had recouped 11 percentage points of that loss by February 2013.

The production of consumer goods has rebounded slowly after the recession. The index edged up only 0.3 percent in 2010, but strengthened somewhat in 2011 and 2012, with gains of 2.0 percent and 1.3 percent, respectively. By February 2013, the index had reversed about one-half of its decrease of 14 percent during the recession. The improvements in both 2010 and 2011 are somewhat less than previously reported.

Downward revisions for consumer goods were concentrated in durables, but nonetheless the output of durable consumer goods advanced 7.9 percent in 2011 and 6.6 percent in 2012. By February 2013, the index for consumer durables had recouped 25 percentage points of its drop of 33 percent that occurred from mid-2007 to mid-2009. Gains in the indexes for automotive products—particularly in 2011—and for miscellaneous durables were the principal drivers of the rebound in consumer durables. By contrast, since the middle of 2009, the output of home electronics has fallen substantially, on net, and the production index for appliances, furniture, and carpeting has increased only modestly, with a gain of 3 percent in 2012 following increases of about 1 percent both in 2010 and in 2011.

The index for consumer nondurables was little changed by the revision. Over the course of 2010 to 2012, the production of consumer nondurables barely increased, on net, and, by February 2013, the index had recovered only about 2½ percentage points of its 10 percent peak-to-trough decrease. The output of non-energy nondurables rose very slightly, on net, from 2010 through 2012. The output of foods and tobacco moved up each year, with a gain of 2.2 percent in 2012 following increases of 0.7 percent in each of 2010 and 2011. After having dropped substantially in 2008 and 2009, the output of clothing rose 11.4 percent in 2010, only to be followed by decreases of 8.0 percent in 2011 and 2.4 percent in 2012. Production of chemical products has fallen, on balance, since mid-2009, with a gain of 3 percent in 2011 sandwiched between losses of 3 percent in 2010 and 2012. Despite upward revisions for 2009 through 2012, the output of consumer paper products has fallen every year since 2005, with its drop of 8.6 percent in 2012 outpacing even its decreases in 2008 and 2009. The production of consumer energy products increased moderately in 2008, 2010, and 2012, but it decreased moderately in 2009 and 2011; the rates of change for the index in 2010 and 2011 were about ¾ percentage point lower than previously reported.

Increases in the production of business equipment were somewhat lower in 2010 through 2012 than previously reported. Even so, the index has risen substantially since the 2009 trough, with gains of 12 percent, 5 percent, and 7 percent for 2010, 2011, and 2012, respectively. By February 2013, the indexes for all three major components of business equipment had increased to near their pre-recession peaks. Transit equipment, which reached its trough in late 2008 after a rapid drop of nearly 50 percent, has climbed to within 6 percent of its pre-recession peak, despite downward revisions to the index in 2011 and 2012. A gain of 7.8 percent in 2012 for information processing equipment followed increases of 1.4 percent in 2011 and 3.5 percent in 2010; the index was revised downward in 2010 and 2011 as a result of lower estimates for computer output. The index for information processing equipment fell 17 percent from peak to trough and had reversed 12 percentage points of that decline by February 2013. The production of industrial and other equipment is somewhat stronger than previously reported for 2010 and 2011. After having surged 16.4 percent in 2010, output rose 6.0 percent in 2011 and 4.5 percent in 2012. Despite having fallen 26 percent from early 2008 to mid-2009, the index for industrial and other equipment has essentially returned to its pre-recession level.

The production of defense and space equipment increased substantially in both 2010 and 2012; it fell slightly in both 2009 and 2011, and decreased more notably in 2008. Relative to the previous estimates, the rates of change for 2008, 2010, and particularly 2011 were lower, but the rates of change for 2009 and 2012 were higher.

Relative to the previous estimates, the output of construction supplies advanced more slowly in 2010 and

2011 but moved up more rapidly in 2012. With gains of 8.1 percent in 2010, 2.7 percent in 2011, and 4.4 percent in 2012, the index for construction supplies had reversed only 15 percentage points of its peak-to-trough drop of 35 percent by February 2013. Similarly, the index for business supplies has reversed less than one-half of its decline during the recession, though its peak-to-trough decrease of 16 percent was much less than that for construction supplies. Business supplies posted increases of 2.3 percent in 2010, 0.7 percent in 2011, and 1.6 percent in 2012; the gain in 2011 was lower than previously reported.

The index for materials was little changed by this revision. After decreases of 9.0 percent in 2008 and 4.4 percent in 2009, output advanced 9.4 percent in 2010, 4.3 percent in 2011, and 2.9 percent in 2012. The index for materials in February 2013 was 3 percent above its pre-recession level; it had fallen 17 percent from late 2007 to mid-2009.

In February 2013, the indexes for both durable goods materials and energy materials were above their pre-recession levels. The production of nondurable goods materials, by contrast, had recovered less than one-half of its drop-off during the recession and remained more than 10 percent below its 2007 peak. All of the categories of durable goods materials increased substantially over 2010 to 2012, with the largest gains coming in 2010. The index for durable goods materials was revised upward in each year from 2008 to 2012 and stood about 4 percent higher in February 2013 than was previously estimated. The faster rates of increase in each year were more than accounted for by upward revisions to the production of semiconductors. In contrast, among the components of nondurable materials, only chemical materials has recovered even one-half of its losses during the recession. Output for this group began increasing in early 2009 and rose about 5 percent in 2009 and 2010; it slipped 1.6 percent in 2011 and went back up 3.5 percent in 2012. The index for textile materials initially moved up after the recession, advancing 4.9 percent in 2010, but it fell off in both 2011 and 2012. The output of paper materials moved up 0.8 percent in 2010 but decreased by 1.3 percent in 2011 and 2.2 percent in 2012; its level in February 2013 was only slightly above its trough in 2009. Gains in oil and natural gas extraction have contributed to substantial increases for energy materials over the past three years; the index advanced 5.9 percent in 2010, 4.8 percent in 2011, and 2.6 percent in 2012. The decrease in energy materials output during the recession was relatively mild, and the index stood about 8 percent above its mid-2008 peak in February 2013.

Capacity

Total industrial capacity edged down in 2009, declined further in 2010, and then expanded in 2011 and 2012 (table 5). Capacity is expected to expand further in 2013. Relative to previous estimates, the decrease in total industrial capacity in 2009 is now shallower and the gains in 2011 and 2012 are somewhat larger.

Following declines in 2009 and 2010, manufacturing capacity began to expand in 2011, with a step-up in the pace of the gains in 2012. Manufacturing capacity is expected to increase further in 2013. Relative to earlier estimates, the rate of change for manufacturing capacity is higher in each year from 2009 to 2012, and is expected to be lower in 2013. As a result of the faster rates of change from 2009 to 2012, the revised level of capacity in the fourth quarter of 2012 is 1.6 percent higher than the earlier estimate. Capacity in durable manufacturing industries declined in 2009 and 2010 and then expanded by about 2½ percent in 2011 and 2012, with a similarly sized gain expected in 2013. For nondurable manufacturing, capacity contracted in 2009 and 2010, declined a bit less steeply in 2011, and then rebounded modestly in 2012; a moderate expansion is also expected in 2013. Capacity in high-technology industries advanced in each year from 2009 to 2012, and it is expected to expand further in 2013; these advances, particularly in 2010 and 2011, are now reported to be substantially larger than previously estimated. Upward revisions to high-technology capacity more than accounted for the upward revisions to manufacturing capacity; excluding these industries, the level of manufacturing capacity at the end of 2012 was about the same as previously estimated.

Capacity at mines jumped in 2009, fell back slightly in 2010, and then expanded rapidly in 2011 and

2012; further gains are expected in 2013. Relative to previous estimates, the increases in 2011 and 2012 are now larger. Capacity at utilities increased in each year from 2009 to 2012, with another increase expected in 2013; these gains are now reported to be smaller, especially in 2010 and 2011, than stated previously.

By stage of processing, capacity in the crude stage increased in 2009, fell in 2010, and recorded solid gains in 2011 and 2012; capacity is expected to increase in 2013. Relative to previous estimates, capacity for the crude stage contracted more sharply in 2010 and expanded more rapidly in 2011 and 2012. Capacity at the primary and semifinished stage declined in 2009 and 2010 before recording moderate increases in 2011 and 2012; another modest expansion is expected in 2013. Relative to previous estimates, capacity at the primary and semifinished stage is now reported to have increased more rapidly, on average, for 2009 to 2012 but is now expected to expand somewhat less in 2013. For finished goods industries, capacity declined in 2009 and 2010, began to expand in 2011, and then increased more briskly in 2012. Capacity for producers of finished goods is expected to increase in 2013. The rates of change for capacity in the finished goods stage were similar to the previous estimates.

Capacity Utilization

In 2009, the rate of capacity utilization for total industry, at 69.7 percent, was 10.5 percentage points below its long-run (1972–2012) average of 80.2 percent (table 6).⁴ Utilization rates rose rapidly through 2010, with further gains reported in 2011 and 2012. In 2012, capacity utilization for total industry was 77.5 percent, a rate 2.7 percentage points below its long-run average. Compared with earlier estimates, capacity utilization for total industry is now reported to have been lower in 2011 and 2012.

The capacity utilization rate for manufacturing rose briskly in 2010; smaller gains were recorded in 2011 and 2012. Relative to previous reports, the pace of capacity expansion is higher and rates of change for factory output are, on average, lower; consequently, the factory operating rate is now estimated to have been lower in 2011 and 2012. At 75.7 percent, the rate for 2012 was 1.5 percentage points below its earlier estimate and 3.0 percentage points below its long-run average. The utilization rate for durable manufacturing has risen in recent years, from 62.8 percent in 2009 to 75.5 percent in 2012, but the gains in 2011 and 2012 are now somewhat smaller than reported earlier. The utilization rate for nondurable manufacturing increased less steeply than that for durable manufacturing; it rose from 72.1 percent in 2009 to 77.2 percent in 2012. The rates for nondurables in 2010, 2011, and 2012 are now reported to have been lower than previously estimated.

As of 2012, most major manufacturing industry groups were still operating at rates below their industry-specific long-run averages. For nondurable manufacturing industries, each of the eight industry groups shown in table 6 was operating at a rate below its long-run average, with the rates for textile and product mills, for apparel and leather, for printing and support, and for plastics and rubber products well below their long-run averages. Among durable goods manufacturers, three of the eleven industry groups in table 6 were operating at utilization rates above their long-run averages: fabricated metal products, machinery, and miscellaneous manufacturing.

Capacity utilization in mining surged in 2010 and continued to increase in 2011; utilization fell back slightly in 2012 but remained high. The rates in 2011 and especially in 2012 are now lower than reported earlier. Nevertheless, the operating rate for mining in 2012 was 1.1 percentage points above its long-run average. The revised operating rates for utilities are higher than previously estimated for the 2010–12 period, but the rate at the end of 2012 was still 8.5 percentage points below its long-run average.

⁴Unless otherwise noted, rates of capacity utilization are reported for the fourth quarter of the reference year.

TECHNICAL ASPECTS OF THE REVISION

This revision incorporated new comprehensive data from the 2011 ASM and revised data from the 2010 ASM for production and value added by manufacturing industries. Revised price indexes from the Bureau of Economic Analysis (BEA) and updated price indexes constructed by the Federal Reserve for a few selected industries were also incorporated.⁵ In addition, the updated production indexes include revisions to the measures of employment and production-worker hours from the Current Employment Statistics monthly survey conducted by the Bureau of Labor Statistics (BLS). The benchmark indexes for logging and publishing (included in the IP index for manufacturing but no longer included in manufacturing under NAICS) were updated through 2011 based on data from the U.S. Forest Service and the U.S. Census Bureau.

The revised IP indexes incorporated information from the QSPC for 2012 and from other industry reports. The indexes also incorporated revised monthly and quarterly source data on production, shipments, and inventories.

Annual Benchmark Output Indexes

As part of the annual revision, a benchmark output index—defined to be the nominal gross output divided by a price index—is constructed for each six-digit industry defined by the 2007 NAICS.

The benchmark indexes of production are measures of real gross output. The Census Bureau provides annual measures for value added and for the cost of materials, which can be summed to obtain nominal gross output.⁶ The benchmark indexes for this revision incorporated new estimates of nominal gross output for 2011, as well as revisions to the 2010 estimates, from the ASM. The IP index is a Fisher index that aggregates the individual real gross output benchmarks using value-added weights. To obtain real gross output, the measures of nominal gross output are deflated by annual price deflators. The deflators for the IP benchmarks primarily reflect industry shipments deflators, most recently issued by the BEA in December 2012. The BEA deflators are available on a 2002 NAICS basis, so they needed to be converted to the 2007 NAICS structure before being applied to the detailed nominal gross output data.

Since 2003, the ASM has not included separate data for every six-digit manufacturing industry; data for some industries were included only as part of a larger group of industries. The 2007 Census, however, still contained separate data for each six-digit industry. For 2003 through 2006, the IP benchmark indexes were calculated by allocating the data from these combined industries to their six-digit components; the shares for each year were computed from a linear interpolation between the shares reported in the 2002 and the 2007 Economic Censuses. Data from the 2008, 2009, 2010, and 2011 ASMs were allocated to the component six-digit industries solely based on shares from the 2007 Economic Census.

Changes to annual benchmarks for semiconductors

The industrial production indexes for semiconductors use monthly shipments data from the Semiconductor Industry Association (SIA) deflated by a price index. This revision updates the methods for calculating the price index used in the output index for microprocessors (MPUs) (NAICS 334413, part). The updated methods also affect the price index for metal-oxide semiconductor (MOS) logic chips excluding MPUs (NAICS 334413, part).

⁵Price indexes for pharmaceuticals (NAICS 325412), semiconductors (NAICS 334413), and most components of communications equipment (NAICS 3342) were constructed by the Federal Reserve from alternative sources. Table 14 lists annual and quarterly price indexes for the networking equipment component of communications equipment.

⁶Historically, the Census Bureau also provided measures of the cost of resales at the six-digit level and those were included in the nominal benchmark. In recent years, however, the cost of resales has not always been available, so, to maintain consistency, the benchmarks since 2003 have excluded the cost of resales.

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. Prior to this revision, both the annual benchmark deflator and the monthly deflator for MPUs came from the BLS's Producer Price Index (PPI) for MPUs. With this revision, the Federal Reserve incorporated new data for the annual benchmark deflator for MPUs but continued to use the PPI as the monthly price indicator.

The new MPU annual benchmark deflator covers the period beginning in 2007 and is developed using a hedonic regression. Hedonic price indexes use data on product characteristics to remove the effect on prices of changing product quality. The hedonic index includes prices for specific MPU models that were collected from published wholesale price lists from Intel Corporation. Information on the relative quality of the chips came from measures of MPU performance for specific representative tasks estimated by the System Performance Evaluation Corporation (SPEC), a non-profit corporation that publishes these measures as a service to the technology industry and user communities.

The hedonic model is a regression of the specific MPU prices on a constructed measure of performance derived from the SPEC measures along with other control variables and quarterly time indicator variables. Coefficients on the time indicators were used to construct a price index.⁷ The new annual hedonic price index falls substantially more than the previously used annual price deflator derived from the PPI, and the result is a notable increase in MPU output beginning in 2007.

The price deflator for the industrial production 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 in recent years, the output index for MOS logic excluding MPUs, which relies on this price deflator, registered stronger gains.

Changes to annual benchmarks for communications equipment

Industrial production for communications equipment (NAICS 3342) is organized into six component indexes. For the years when detailed U.S. Census Bureau Current Industrial Reports (CIR) were available, the benchmark indexes for each of the six components used disaggregate product information to construct a measure of nominal output. With this revision, some product categories have been reassigned. Previously, nominal output of "other communications systems and equipment" had been assigned to the category for radio and TV broadcasting equipment, which was deflated by the relevant PPI; with this revision, these products were assigned to the wireless system equipment category, which is deflated by a price index developed by the Federal Reserve.

Changes to Individual Production Series

Several production indicators were affected by methodological changes in this revision. In particular, new indicators were found for some industries whose high-frequency movements had been based on data from the CIR, which were discontinued in mid-2011.

Soybean and other oilseed processing

With this revision, the IP index for soybean and other oilseed processing (NAICS 311222 and 311223) uses data on soybean and cottonseed products as the primary indicator of output. This revision incorporates monthly production data for soybean oil and for soybean meal from the National Oilseed Processors Association (NOPA) and monthly production data for cottonseed oil and cottonseed meal from the National Cottonseed Products Association (NCPA). For many years, the Federal Reserve used monthly information on soybean and

⁷ Additional details on the construction of the price index can be found on the Federal Reserve's website at www.federalreserve.gov/releases/g17/MpuPriceIndex.htm.

cottonseed products from the CIR. With the 2012 annual revision, the industrial production index used production-worker hours to extend the CIR data. With this revision, the NOPA and the NCPA information will be used to extend the CIR data.

Brick and structural clay tile

The index for brick and structural clay tile (NAICS 327121) is based on monthly data on unit production of bricks from the Brick Industry Association (BIA). For the period through 2006, this index is based on quarterly production data from the CIR. With the 2012 annual revision, the industrial production index used production-worker hours to extend the CIR data beginning in mid-2011, but now the monthly BIA data are used for the period from 2007 to the present.

Speed changers, drives, gears, and power transmission

This revision incorporates monthly data on shipments of gears from the American Gear Manufacturers Association (AGMA) as a primary measure of output for the index for speed changers, drives, gears, and power transmissions (NAICS 333612 and 333613) for the period beginning with 2004. The AGMA data include information on coarse pitch and fine pitch gears, on worm/speed reducers and gearmotors, on concentric gearmotors, and on shaft-mounted speed reducers. Previously, the Federal Reserve estimated output for this index from production-worker hours.

Periodical publishers

The IP index for periodical publishers (NAICS 51112) has been updated with this revision. Previously, output was inferred from monthly production-worker hour data from the BLS. This revision incorporates quarterly data back to 2003 on total operating revenue for periodical publishers from the U.S. Census Bureau's Quarterly Services Survey.

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 ASM. 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. The weights for aggregation, expressed as value added per unit, were estimated with the latest data on producer prices for the period after 2011. Table 12 shows the annual value-added proportions in the IP index from 2005 through 2012.

Revised Quarterly and Monthly Data

This revision incorporates 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 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 2013. The updated factors for the physical product series, which include adjustments for holiday and workday patterns, used data through December 2012 where available. Seasonal factors for unit motor vehicle assemblies have been updated, and projections through September 2013 are on the Board's website at www.federalreserve.gov/releases/g17/mvsf.htm.

The 2010 annual revision introduced a pre-adjustment to many seasonal factors to account for the effects of the recent recession. The current revision continued those pre-adjustments where necessary. A more detailed description of these methods will be included in a forthcoming Federal Reserve publication.

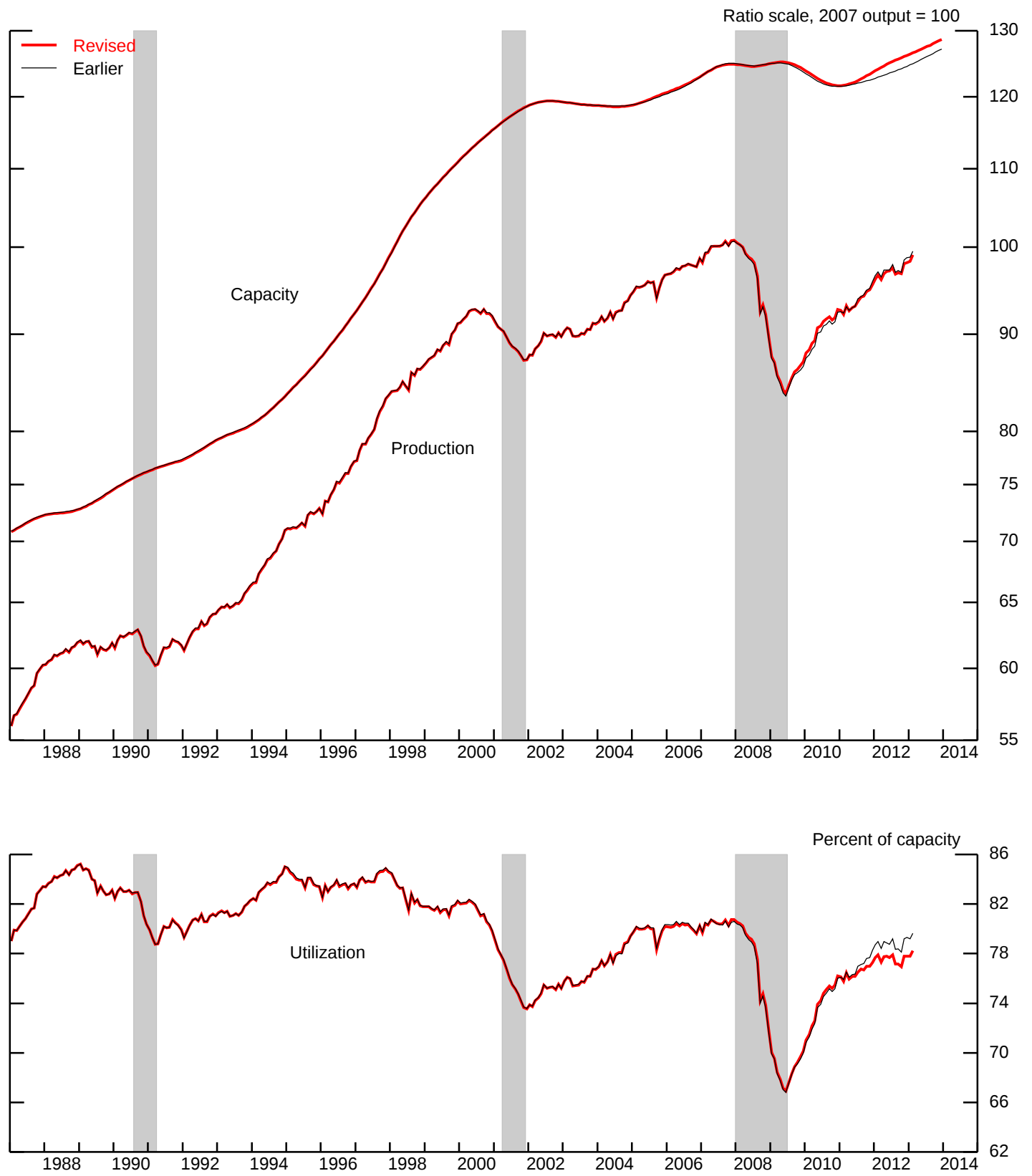
Data Availability and Publication Changes

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.

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.

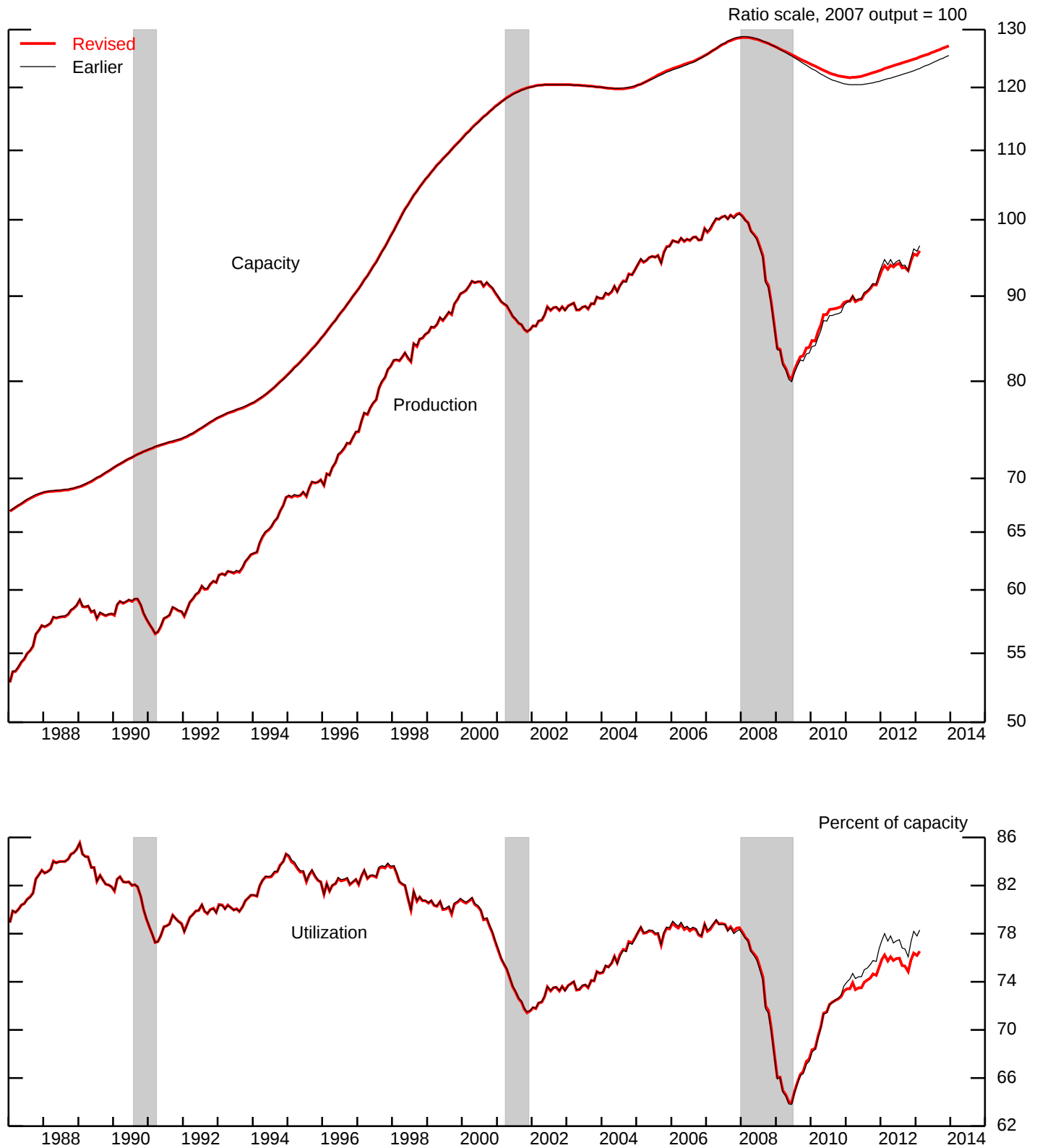
An expanded version of this release will be published in a forthcoming report that will be available on the Board's website.

1. Total industrial production, capacity, and utilization



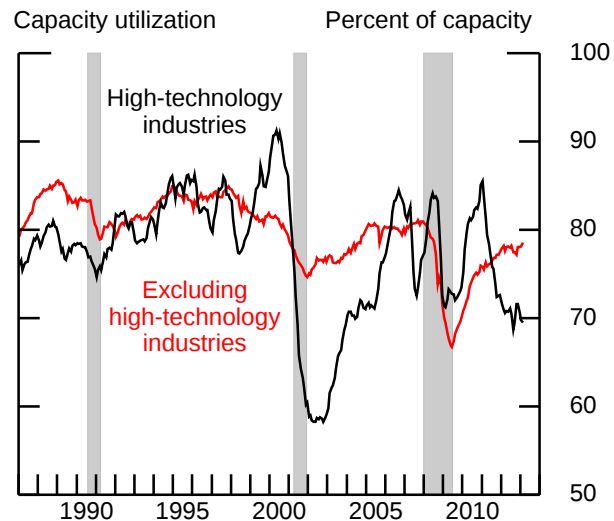
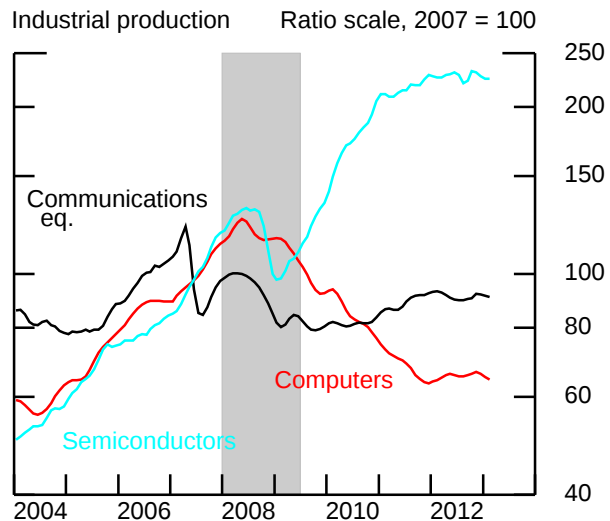
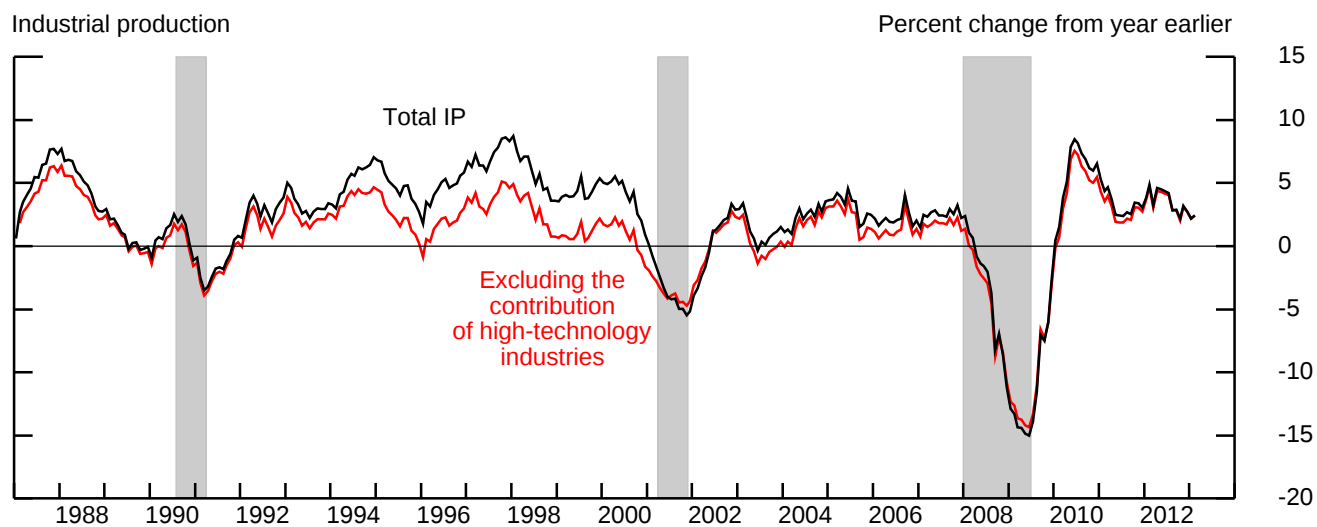
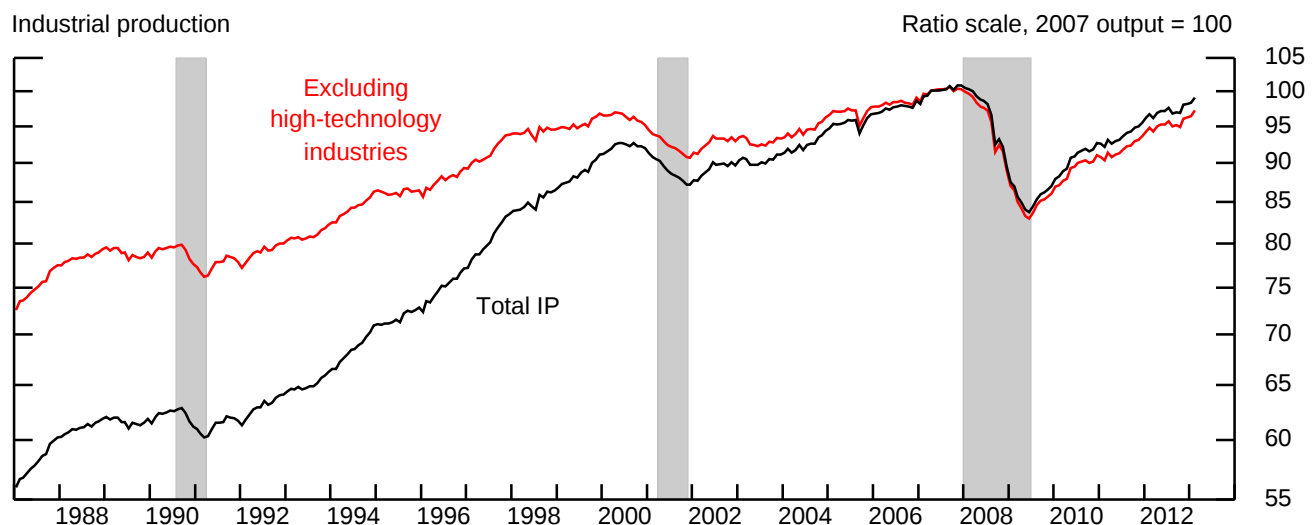
Note: The shaded areas represent periods of business recession as defined by the National Bureau of Economic Research (NBER).

2. Manufacturing industrial production, capacity, and utilization



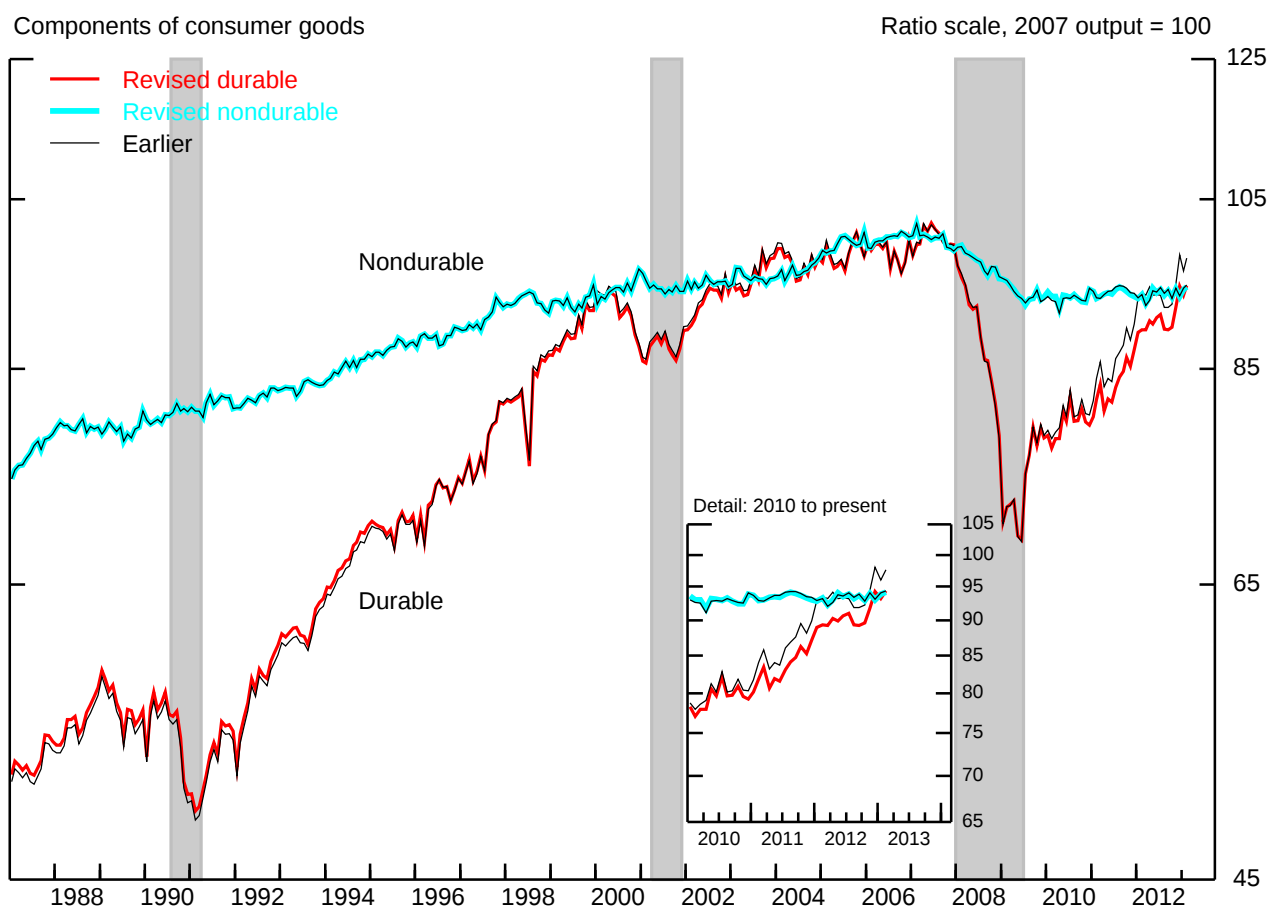
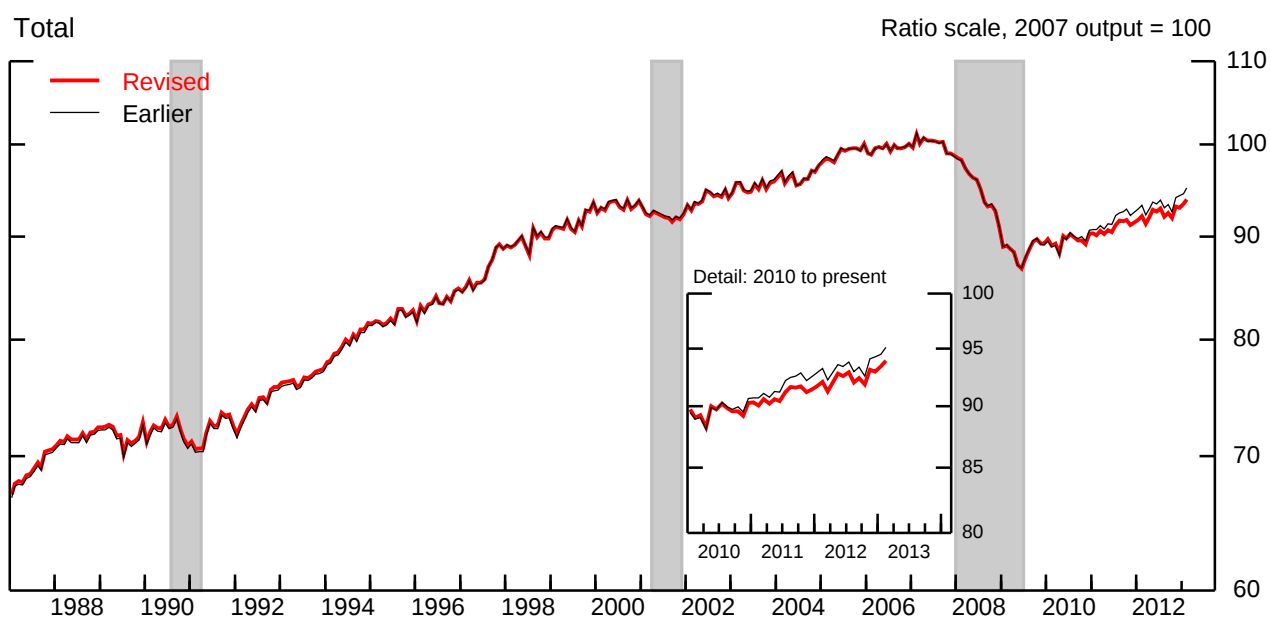
Notes: The shaded areas represent periods of business recession as defined by the NBER. Manufacturing consists of those industries in the North American Industry Classification System, or NAICS, definition of manufacturing plus those industries--logging and newspaper, periodical, book, and directory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

3. Industrial production and capacity utilization



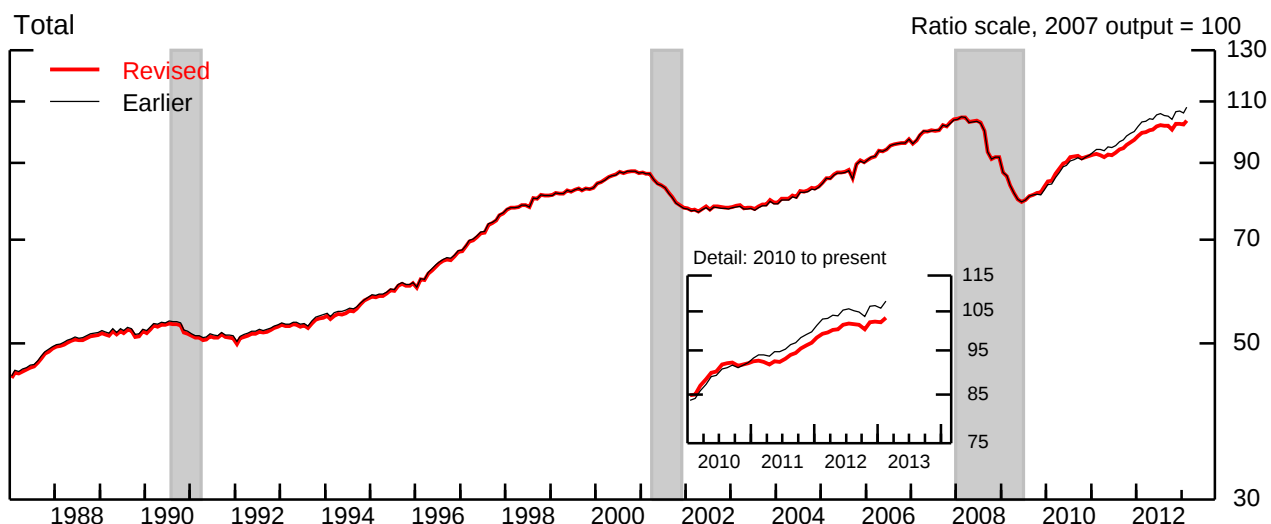
Notes: High-technology industries are defined as semiconductors and related electronic components (NAICS 334412-9), computers (NAICS 3341), and communications equipment (NAICS 3342). The shaded areas represent periods of business recession as defined by the NBER.

4. Consumer goods

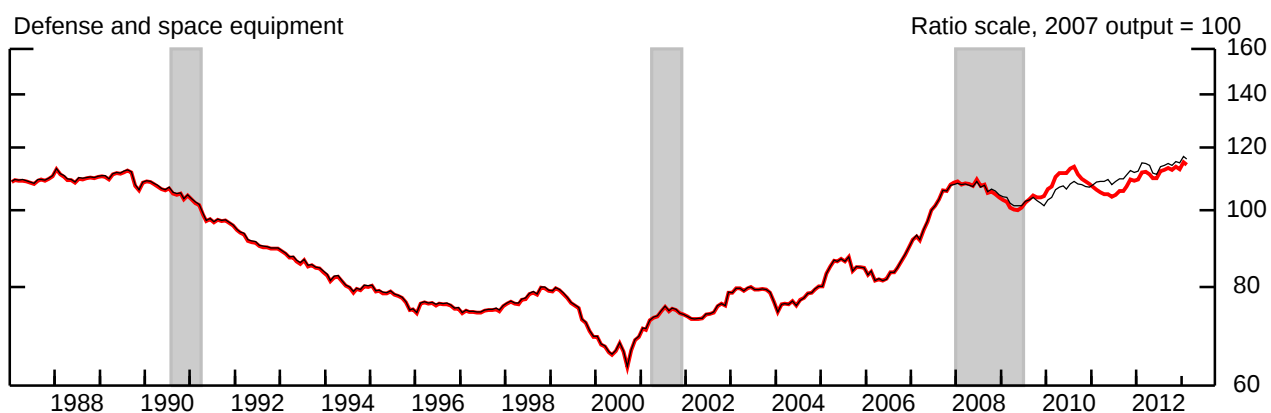
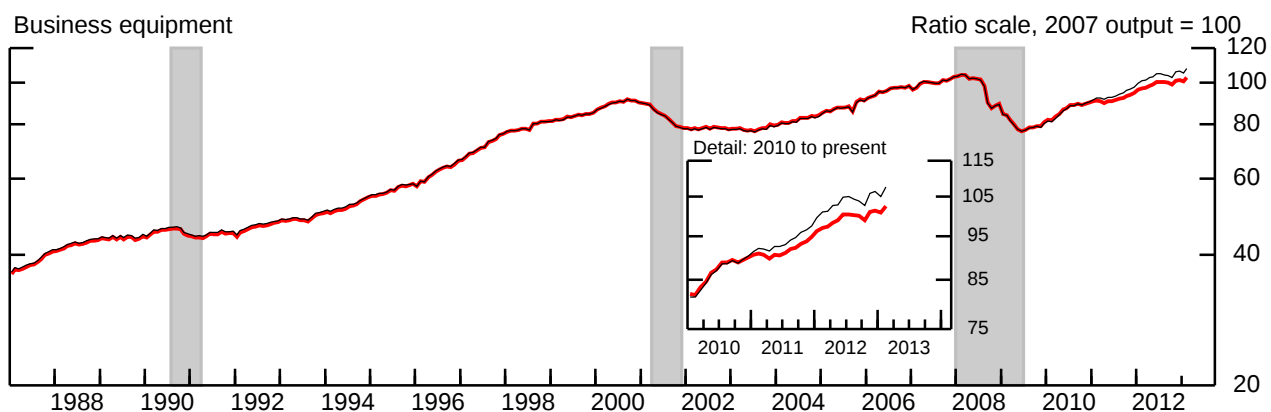


Note: The shaded areas represent periods of business recession as defined by the NBER.

5. Equipment

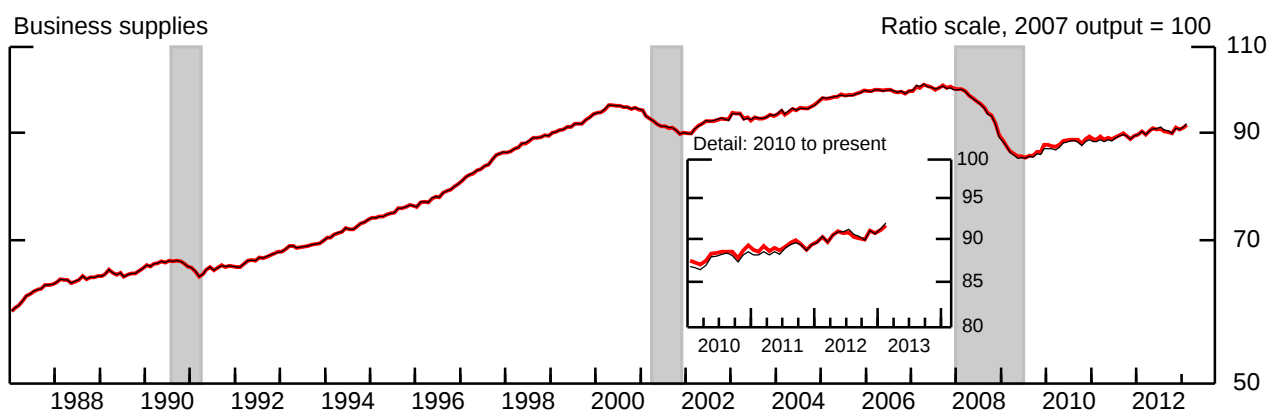
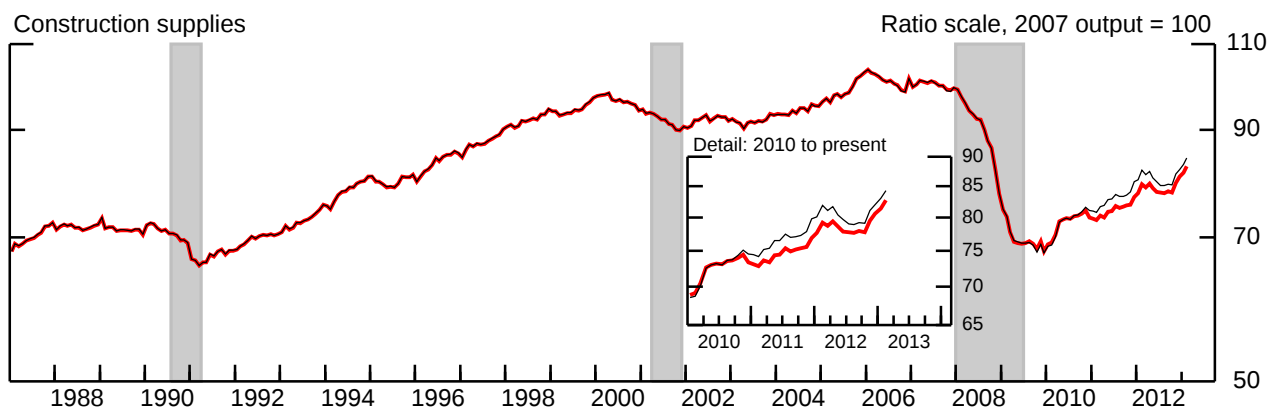
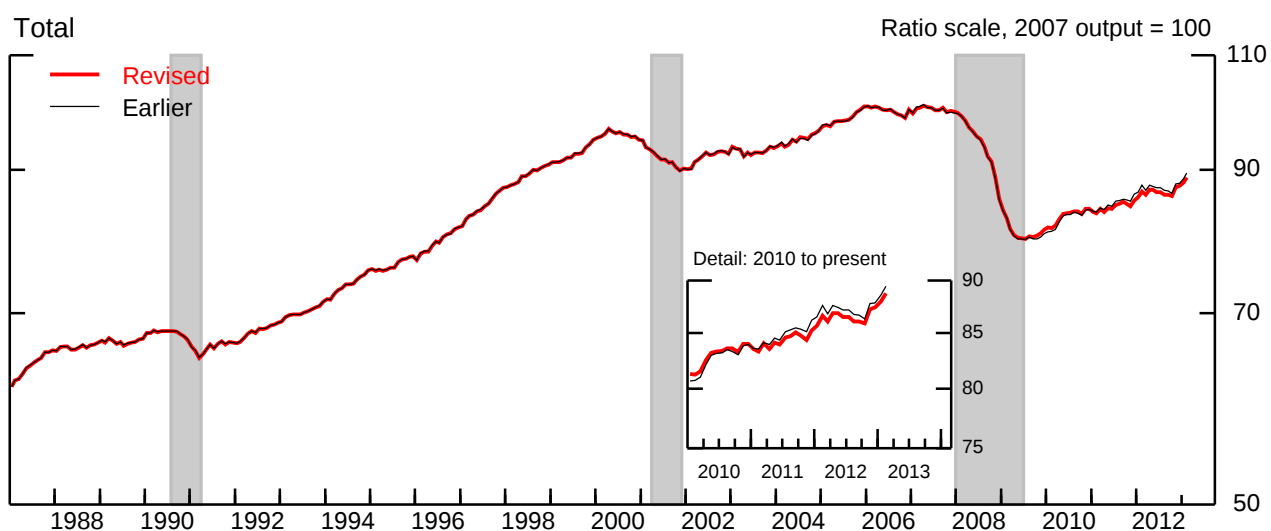


Note: Includes business equipment, defense and space equipment, oil and gas well drilling, and manufactured homes.



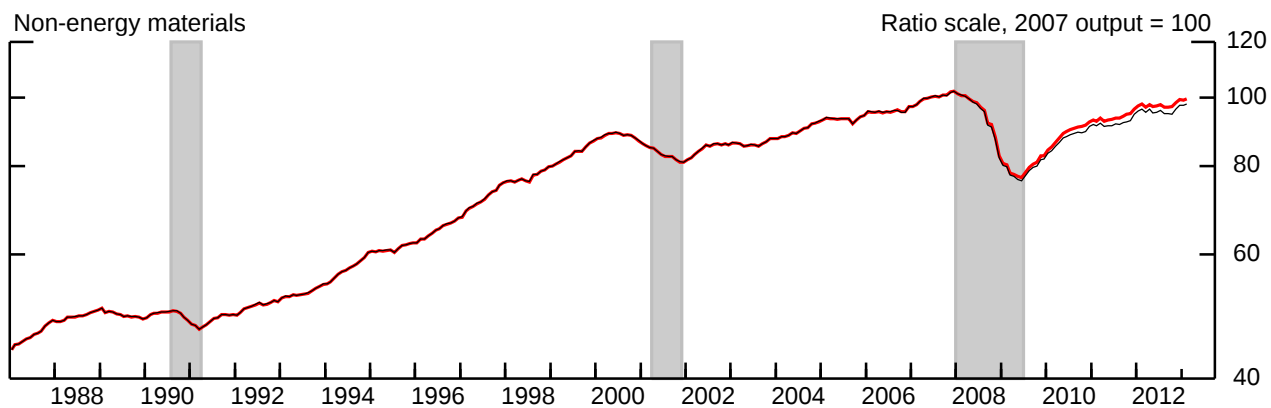
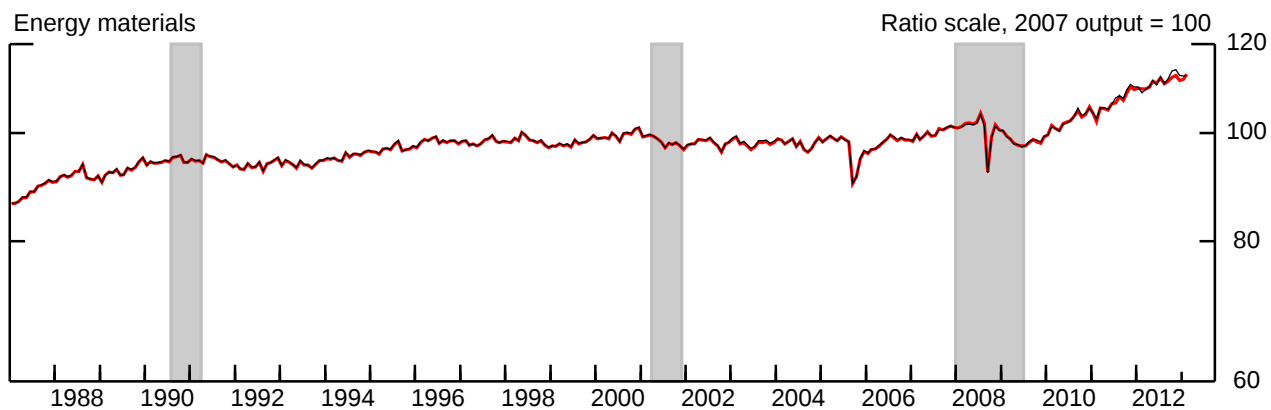
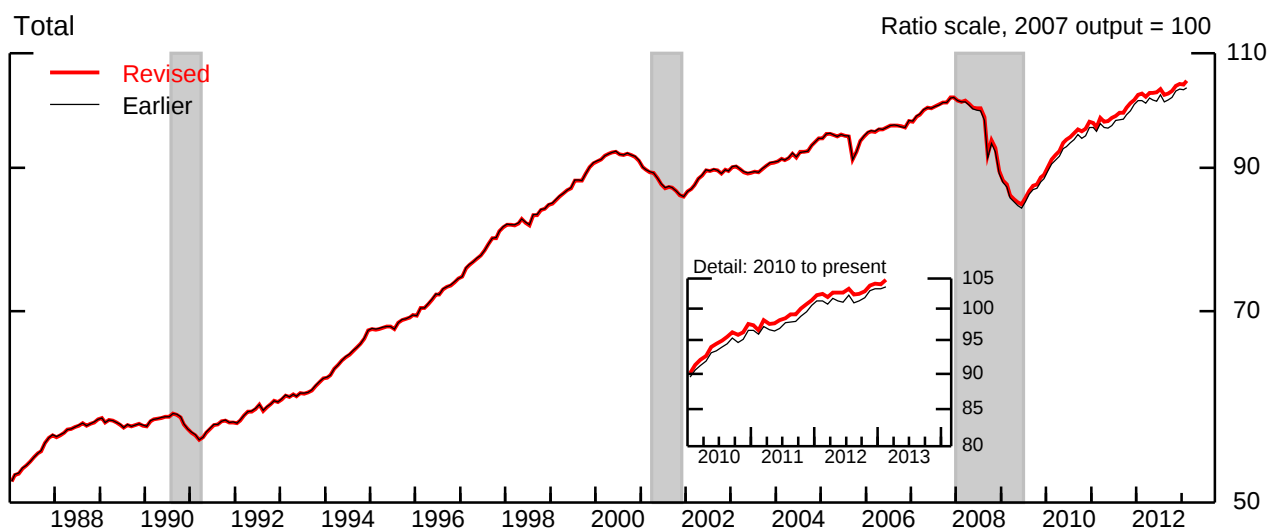
Note: The shaded areas represent periods of business recession as defined by the NBER.

6. Nonindustrial supplies



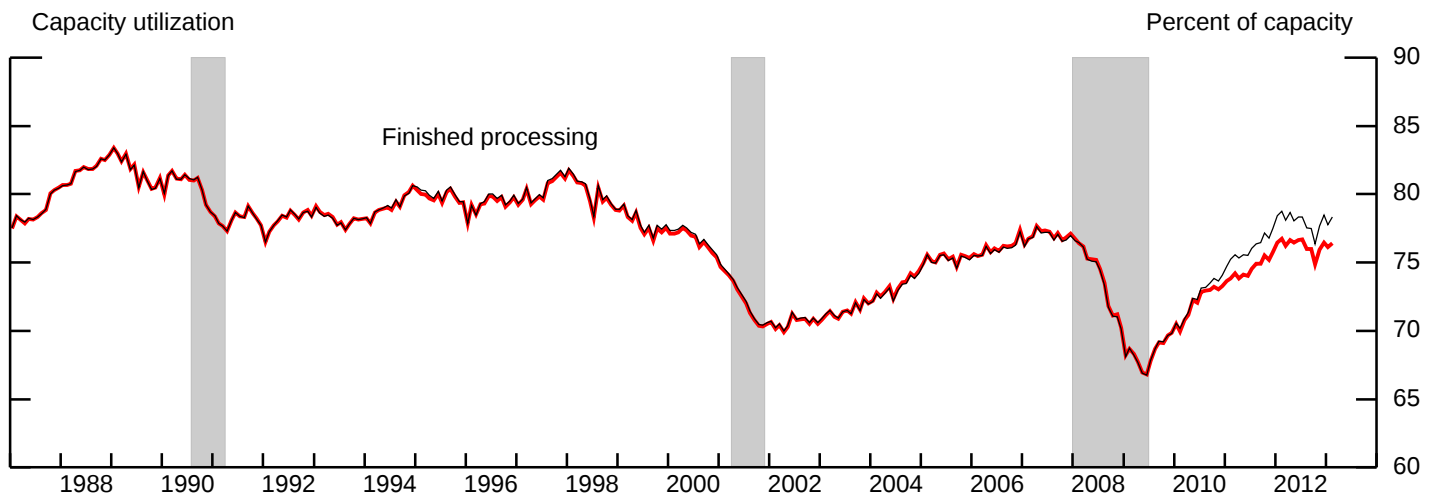
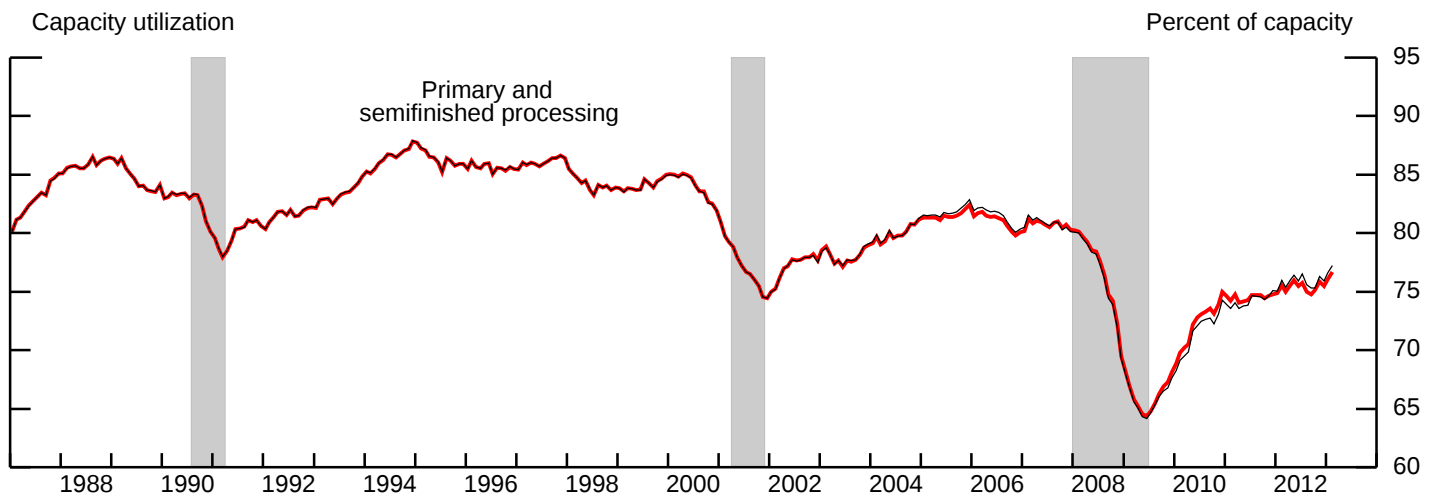
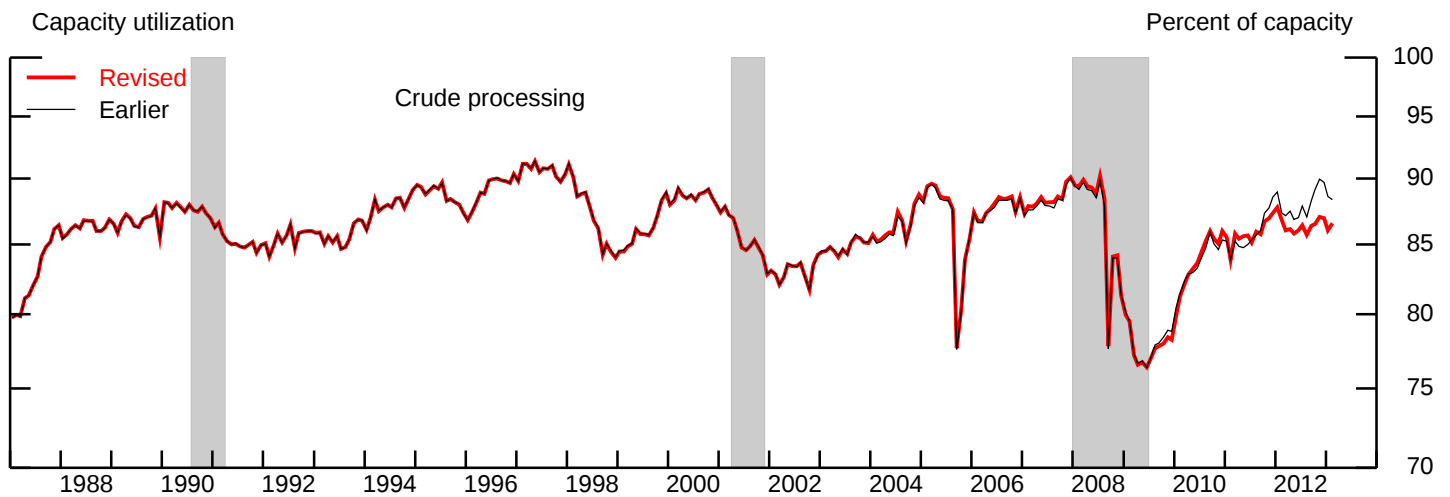
Note: The shaded areas represent periods of business recession as defined by the NBER.

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)																	
1983	1.9	-6	.8	1.2	.7	.5	1.5	1.1	1.5	.8	.3	.5	4.7	9.2	14.2	10.7	2.7
1984	2.0	.5	.5	.6	.5	.4	.3	.1	-2	-1	.4	.1	12.4	6.3	3.0	.3	8.9
1985	-2	.4	.1	-2	.1	.1	-7	.4	.4	-4	.3	1.0	1.1	.3	-7	2.4	1.2
1986	.5	-7	-6	.1	.2	-3	.6	-2	.2	.5	.5	.9	2.4	-2.3	1.6	4.5	1.0
1987	-3	1.3	.2	.6	.7	.5	.6	.7	.3	1.5	.5	.5	5.4	7.3	7.4	10.2	5.2
1988	.0	.4	.2	.5	-1	.2	.1	.4	-3	.5	.2	.4	3.6	3.4	1.7	2.8	5.2
1989	.3	-4	.3	.0	-7	.1	-1.0	.9	-3	-1	.3	.6	1.7	-1.3	-2.6	1.6	.9
1990	-6	.9	.5	-1	.2	.3	-1	.3	.2	-8	-1.2	-7	2.8	3.1	1.6	-6.1	1.0
1991	-4	-6	-5	.2	1.0	1.0	.0	.1	.9	-2	-1	-4	-7.4	2.4	5.5	.9	-1.5
1992	-6	.8	.8	.7	.4	.0	.9	-5	.2	.8	.4	.0	-5	7.2	2.9	4.3	2.8
1993	.5	.4	.0	.3	-4	.2	.3	.0	.5	.7	.4	.5	3.6	.9	1.9	6.1	3.3
1994	.4	.1	1.0	.5	.5	.7	.2	.6	.3	.9	.6	1.0	5.1	7.5	5.2	8.5	5.3
1995	.2	-1	.2	.0	.3	.4	-4	1.3	.4	-2	.3	.4	4.5	1.4	3.8	3.3	4.7
1996	-7	1.6	-2	.8	.7	.9	-1	.7	.5	.0	.8	.6	2.8	8.4	5.3	5.5	4.4
1997	.1	1.2	.8	.0	.7	.5	.6	1.3	.9	.7	.9	.4	7.8	6.5	9.7	10.1	7.2
1998	.5	.1	.1	.4	.7	-6	-4	2.1	-3	.8	-1	.4	4.5	2.9	2.9	5.5	5.8
1999	.4	.4	.2	.2	.7	-2	.7	.4	-3	1.3	.5	.8	4.1	3.9	4.0	7.6	4.3
2000	.1	.4	.4	.6	.2	.1	-2	-3	.5	-4	.0	-3	4.7	4.6	-6	-1.3	4.0
2001	-7	-6	-3	-3	-7	-7	-4	-3	-3	-5	-5	.0	-5.6	-5.3	-5.5	-4.5	-3.4
2002	.6	.0	.7	.4	.5	1.0	-3	.1	.1	-3	.5	-5	2.7	6.5	2.4	-.2	.2
2003	.7	.4	-2	-8	.0	.0	.4	-1	.6	.0	.8	-1	3.1	-3.3	1.9	3.3	1.2
2004	.3	.6	-5	.4	.7	-8	.8	.2	.0	1.0	.2	.7	2.8	1.8	2.5	5.7	2.3
2005	.4	.6	-1	.1	.2	.4	-1	.1	-2.0	1.2	1.0	.6	5.4	2.1	-1.5	3.2	3.2
2006	.1	.1	.3	.4	-1	.4	.0	.2	-1	-1	-1	1.0	3.8	2.6	1.5	.6	2.2
2007	-5	1.1	.1	.7	.1	.0	.0	.1	.4	-5	.6	.0	3.8	4.8	1.1	1.0	2.5
2008	-3	-2	-3	-8	-5	-2	-5	-1.6	-4.2	.8	-1.2	-2.8	-1.4	-5.5	-12.1	-15.9	-3.4
2009	-2.2	-6	-1.5	-8	-1.0	-4	.9	1.1	.7	.3	.5	.5	-19.8	-10.9	4.9	6.6	-11.3
2010	1.1	.4	.8	.3	1.6	.2	.6	.3	.3	-3	.3	1.0	8.5	8.7	6.2	1.7	5.7
2011	-1	-5	1.0	-6	.4	.2	.6	.5	.1	.6	.2	.6	2.6	1.0	5.0	4.7	3.4
2012	.7	.5	-5	.7	.3	.0	.4	-8	.2	-1	1.2	.1	5.4	2.9	.3	2.4	3.6
2013	.1	.8															
IP (2007=100)																	
1983	47.7	47.4	47.8	48.4	48.7	49.0	49.8	50.3	51.1	51.5	51.6	51.9	47.7	48.7	50.4	51.7	49.6
1984	52.9	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	55.1	55.4	55.6	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	58.7	59.6	60.0	60.2	56.5	57.5	58.5	59.9	58.1
1988	60.3	60.5	60.6	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	62.0	61.8	62.0	62.0	61.6	61.6	61.0	61.5	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	63.0	63.0	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	64.6	64.6	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	66.5	66.6	67.3	67.6	68.0	68.4	68.6	68.9	69.2	69.8	70.2	70.9	66.8	68.0	68.9	70.3	68.5
1995	71.1	71.0	71.2	71.1	71.3	71.6	71.3	72.2	72.5	72.4	72.6	72.8	71.1	71.3	72.0	72.6	71.8
1996	72.4	73.5	73.4	74.0	74.5	75.2	75.1	75.6	76.0	76.0	76.6	77.1	73.1	74.6	75.6	76.6	74.9
1997	77.2	78.1	78.7	78.8	79.3	79.7	80.1	81.2	81.9	82.5	83.2	83.5	78.0	79.2	81.1	83.1	80.4
1998	83.9	84.0	84.1	84.4	84.9	84.4	84.1	85.9	85.6	86.3	86.2	86.5	84.0	84.6	85.2	86.3	85.0
1999	86.9	87.3	87.5	87.7	88.3	88.1	88.7	89.1	88.9	90.0	90.4	91.2	87.2	88.0	88.9	90.5	88.7
2000	91.2	91.6	91.9	92.5	92.7	92.7	92.5	92.3	92.7	92.3	92.3	92.0	91.6	92.6	92.5	92.2	92.2
2001	91.3	90.8	90.5	90.3	89.6	89.0	88.6	88.4	88.1	87.7	87.2	87.2	90.9	89.6	88.4	87.4	89.1
2002	87.8	87.7	88.4	88.7	89.2	90.1	89.8	89.9	89.9	89.6	90.1	89.7	88.0	89.3	89.9	89.8	89.3
2003	90.4	90.7	90.5	89.8	89.8	89.8	90.1	90.0	90.5	90.5	91.2	91.1	90.5	89.8	90.2	90.9	90.3
2004	91.4	91.9	91.4	91.8	92.4	91.7	92.4	92.6	92.6	93.5	93.7	94.3	91.5	92.0	92.5	93.8	92.5
2005	94.7	95.3	95.2	95.3	95.5	95.9	95.8	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	97.8	98.0	97.8	97.7	97.6	98.6	96.9	97.5	97.9	98.0	97.6
2007	98.2	99.3	99.3	100.1	100.1	100.1	100.1	100.3	100.7	100.2	100.8	100.8	98.9	100.1	100.4	100.6	100.0
2008	100.5	100.3	100.0	99.2	98.8	98.6	98.1	96.5	92.5	93.2	92.2	89.6	100.3	98.9	95.7	91.7	96.6
2009	87.5	87.0	85.7	84.9	84.1	83.8	84.5	85.4	86.0	86.2	86.6	87.0	86.7	84.3	85.3	86.6	85.7
2010	88.0	88.3	89.0	89.3	90.7	90.9	91.4	91.6	91.9	91.6	91.8	92.7	88.4	90.3	91.6	92.0	90.6
2011	92.6	92.2	93.1	92.6	92.9	93.1	93.6	94.1	94.2	94.7	95.0	95.5	92.6	92.9	94.0	95.1	93.6
2012	96.2	96.7	96.1	96.9	97.1	97.1	97.6	96.8	97.0	96.8	98.0	98.2	96.3	97.0	97.1	97.7	97.0
2013	98.3	99.0															

NOTE: Estimates from October 2012 through February 2013 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 <i>(percent of 2007 output)</i>																	
1983	66.1	66.1	66.1	66.2	66.2	66.2	66.2	66.2	66.3	66.3	66.4	66.4	66.1	66.2	66.3	66.4	66.2
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	67.3	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	69.7	68.3	68.8	69.3	69.6	69.0
1986	69.8	69.9	70.0	70.0	70.1	70.2	70.2	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	71.7	71.8	71.9	72.0	72.1	72.2	70.9	71.4	71.8	72.1	71.6
1988	72.3	72.3	72.4	72.4	72.4	72.4	72.5	72.5	72.5	72.6	72.6	72.7	72.3	72.4	72.5	72.7	72.5
1989	72.8	72.9	73.0	73.2	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	76.0	76.1	74.8	75.2	75.6	76.0	75.4
1991	76.2	76.4	76.4	76.5	76.6	76.7	76.8	76.9	77.0	77.0	77.1	77.2	76.3	76.6	76.9	77.1	76.7
1992	77.3	77.5	77.6	77.7	77.9	78.1	78.2	78.4	78.6	78.8	78.9	79.1	77.5	77.9	78.4	78.9	78.2
1993	79.2	79.4	79.5	79.6	79.7	79.8	79.9	80.0	80.1	80.3	80.4	80.6	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	84.0	84.4	84.7	85.0	85.3	85.6	85.9	86.2	86.6	86.9	87.3	84.1	85.0	85.9	86.9	85.5
1996	87.7	88.1	88.4	88.8	89.2	89.6	90.0	90.4	90.9	91.3	91.7	92.2	88.1	89.2	90.5	91.7	89.9
1997	92.6	93.1	93.6	94.1	94.6	95.1	95.7	96.2	96.8	97.4	98.1	98.7	93.1	94.6	96.2	98.1	95.5
1998	99.4	100.0	100.7	101.3	102.0	102.6	103.2	103.7	104.3	104.8	105.3	105.8	100.0	102.0	103.7	105.3	102.8
1999	106.2	106.7	107.1	107.6	108.0	108.4	108.8	109.2	109.6	110.1	110.5	110.9	106.7	108.0	109.2	110.5	108.6
2000	111.2	111.6	112.0	112.4	112.8	113.1	113.5	113.9	114.2	114.5	114.9	115.2	111.6	112.8	113.8	114.9	113.3
2001	115.6	115.9	116.2	116.5	116.8	117.1	117.4	117.7	117.9	118.2	118.4	118.6	115.9	116.8	117.7	118.4	117.2
2002	118.8	119.0	119.1	119.2	119.3	119.4	119.4	119.4	119.4	119.4	119.3	119.3	119.0	119.3	119.4	119.3	119.2
2003	119.2	119.2	119.1	119.1	119.0	119.0	118.9	118.9	118.8	118.8	118.8	118.7	119.2	119.0	118.9	118.8	119.0
2004	118.7	118.7	118.7	118.6	118.6	118.6	118.6	118.6	118.6	118.7	118.7	118.7	118.7	118.6	118.6	118.7	118.6
2005	118.8	118.9	119.1	119.2	119.4	119.5	119.7	119.9	120.0	120.2	120.4	120.5	118.9	119.4	119.9	120.4	119.6
2006	120.7	120.9	121.0	121.2	121.3	121.5	121.7	121.9	122.2	122.4	122.7	122.9	120.9	121.4	121.9	122.7	121.7
2007	123.2	123.4	123.7	124.0	124.2	124.4	124.6	124.7	124.8	124.8	124.9	124.8	123.4	124.2	124.7	124.8	124.3
2008	124.8	124.7	124.7	124.6	124.5	124.5	124.5	124.5	124.6	124.7	124.8	124.9	124.7	124.5	124.6	124.8	124.7
2009	125.0	125.1	125.1	125.2	125.2	125.1	125.1	124.9	124.8	124.6	124.3	124.1	125.1	125.2	124.9	124.3	124.9
2010	123.8	123.5	123.3	123.0	122.7	122.4	122.2	122.0	121.9	121.8	121.7	121.6	123.5	122.7	122.0	121.7	122.5
2011	121.6	121.7	121.8	121.9	122.0	122.2	122.4	122.6	122.8	123.1	123.3	123.6	121.7	122.0	122.6	123.3	122.4
2012	123.9	124.1	124.3	124.6	124.8	125.0	125.2	125.4	125.6	125.8	126.0	126.2	124.1	124.8	125.4	126.0	125.1
2013	126.4	126.6															
Utilization <i>(percent)</i>																	
1983	72.2	71.7	72.3	73.2	73.7	74.0	75.1	75.9	77.0	77.6	77.8	78.1	72.1	73.6	76.0	77.8	74.9
1984	79.6	79.9	80.1	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	78.9	78.5	78.6	79.3	79.9	79.4	78.8	78.8	79.2
1986	79.6	79.0	78.4	78.4	78.4	78.1	78.5	78.3	78.3	78.6	78.8	79.4	79.0	78.3	78.4	79.0	78.7
1987	79.0	79.9	79.9	80.2	80.6	80.8	81.2	81.6	81.7	82.8	83.1	83.4	79.6	80.5	81.5	83.1	81.2
1988	83.4	83.7	83.8	84.2	84.1	84.3	84.4	84.7	84.4	84.7	84.8	85.1	83.6	84.2	84.5	84.9	84.3
1989	85.2	84.7	84.8	84.7	84.0	83.9	82.9	83.4	83.0	82.8	82.8	83.1	84.9	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	81.1	80.4	82.9	83.0	82.9	81.2	82.5
1991	79.9	79.3	78.8	78.8	79.5	80.2	80.1	80.1	80.7	80.5	80.3	79.9	79.3	79.5	80.3	80.2	79.8
1992	79.3	79.8	80.3	80.7	80.8	80.6	81.2	80.6	80.6	81.0	81.2	81.0	79.8	80.7	80.8	81.1	80.6
1993	81.3	81.5	81.3	81.4	81.0	81.1	81.2	81.1	81.4	81.8	82.0	82.3	81.3	81.2	81.2	82.0	81.4
1994	82.4	82.3	82.9	83.2	83.4	83.7	83.6	83.8	83.7	84.2	84.4	85.0	82.6	83.4	83.7	84.5	83.6
1995	84.9	84.5	84.4	84.0	83.9	83.9	83.3	84.1	84.1	83.6	83.5	83.4	84.6	84.0	83.8	83.5	84.0
1996	82.5	83.5	83.0	83.3	83.5	83.9	83.4	83.6	83.6	83.2	83.5	83.6	83.0	83.6	83.5	83.5	83.4
1997	83.3	83.9	84.1	83.7	83.9	83.8	83.8	84.4	84.6	84.6	84.8	84.6	83.8	83.8	84.3	84.7	84.1
1998	84.4	84.0	83.5	83.3	83.3	82.3	81.5	82.8	82.1	82.3	81.9	81.8	84.0	82.9	82.1	82.0	82.8
1999	81.8	81.8	81.6	81.5	81.8	81.3	81.5	81.6	81.0	81.8	81.9	82.2	81.7	81.5	81.4	82.0	81.6
2000	82.0	82.0	82.1	82.3	82.2	81.9	81.5	81.0	81.2	80.6	80.3	79.8	82.0	82.1	81.2	80.2	81.4
2001	79.0	78.3	77.9	77.5	76.7	76.0	75.5	75.1	74.7	74.2	73.6	73.5	78.4	76.7	75.1	73.8	76.0
2002	73.9	73.7	74.2	74.4	74.8	75.5	75.2	75.3	75.3	75.1	75.5	75.2	73.9	74.9	75.3	75.3	74.8
2003	75.8	76.1	76.0	75.4	75.4	75.5	75.8	75.7	76.2	76.2	76.8	76.7	76.0	75.4	75.9	76.5	76.0
2004	77.0	77.4	77.0	77.4	77.9	77.3	77.9	78.1	78.1	78.8	78.9	79.4	77.1	77.5	78.0	79.1	77.9
2005	79.7	80.1	80.0	80.0	80.0	80.2	80.0	80.0	78.3	79.2	79.8	80.2	79.9	80.1	79.4	79.7	79.8
2006	80.2	80.1	80.2	80.4	80.2	80.4	80.3	80.3	80.1	79.9	79.6	80.2	80.2	80.3	80.3	79.9	80.2
2007	79.7	80.4	80.3	80.7	80.6	80.5	80.4	80.4	80.7	80.3	80.7	80.8	80.1	80.6	80.5	80.6	80.5
2008	80.5	80.4	80.2	79.6	79.3	79.2	78.8	77.5	74.2	74.8	73.9	71.7	80.4	79.4	76.8	73.5	77.5
2009	70.0	69.6	68.5	67.9	67.2	66.9	67.6	68.3	68.9	69.2	69.7	70.1	69.4	67.3	68.3	69.7	68.7
2010	71.0	71.5	72.2	72.6	73.9	74.2	74.8	75.1	75.4	75.2	75.5	76.2	71.6	73.6	75.1	75.6	74.0
2011	76.1	75.7	76.5	76.0	76.1	76.2	76.5	76.8	76.7	77.0	77.0	77.3	76.1	76.1	76.7	77.1	76.5
2012	77.7	77.9	77.3	77.7	77.8	77.7	77.9	77.2	77.2	77.0	77.8	77.8	77.6	77.7	77.4	77.5	77.6
2013	77.8	78.3															

NOTE: Estimates from October 2012 through February 2013 are subject to further revision in the upcoming monthly releases.

Table 2
RATES OF CHANGE IN INDUSTRIAL PRODUCTION, MARKET AND INDUSTRY GROUP SUMMARY: 2008–12¹

Item		Revised change (percent)					Difference between revised and earlier changes (percentage points)				
		2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Total IP		-8.9	-5.5	6.2	3.3	2.7	.1	.2	-.1	-.7	-.2
MARKET GROUPS											
Final products and nonindustrial supplies		-8.9	-6.3	3.7	2.4	2.6	-.1	.3	-.5	-1.4	-.1
Consumer goods		-6.7	-3.1	.3	2.0	1.3	-.1	.1	-.4	-.8	.1
Durable		-18.2	-3.8	2.3	7.9	6.6	.2	-.6	-.8	-2.4	.1
Automotive products		-22.0	7.8	.6	14.7	7.5	-.1	.3	-1.1	-1.9	.0
Home electronics		1.7	-32.7	-20.0	5.7	-2.1	6.0	-15.9	1.4	3.5	1.7
Appliances, furniture, carpeting		-22.4	-15.8	.7	1.1	3.0	.0	.2	-1.6	-1.4	1.4
Miscellaneous goods		-13.2	-10.5	8.0	1.1	7.3	.0	.4	-1.2	-2.3	.1
Nondurable		-2.9	-3.0	-.2	.4	.0	-.3	.4	-.3	-.2	.3
Non-energy		-4.3	-3.7	-.8	1.0	-.3	-.3	.5	-.2	.0	.3
Foods and tobacco		-2.8	-.7	.7	.7	2.2	-.1	.4	-.5	-.5	.9
Clothing		-16.2	-27.3	11.4	-8.0	-2.4	-.2	.6	1.0	-1.3	-.2
Chemical products		-6.0	-7.0	-3.1	3.1	-3.2	-.1	.3	.4	1.0	-.7
Paper products		-6.5	-5.7	-4.1	-1.4	-8.6	-1.5	1.4	.3	2.5	2.2
Energy		2.0	-.6	1.4	-1.1	.6	-.2	-.1	-.7	-.8	.3
Business equipment		-13.4	-9.7	12.0	5.0	7.0	.0	.2	-.7	-3.0	-1.6
Transit		-35.8	13.2	11.4	6.5	12.7	-.1	1.6	-1.8	-11.1	-5.2
Information processing		-5.0	-8.1	3.5	1.4	7.8	.1	-.1	-2.5	-4.9	.6
Industrial and other		-8.6	-17.1	16.4	6.0	4.5	.0	-.1	.6	1.4	-.3
Defense and space equipment		-2.4	-.8	4.6	-.2	4.1	-1.0	2.5	-.5	-4.3	1.4
Construction supplies		-17.2	-16.5	8.1	2.7	4.4	-.1	.4	-1.7	-2.2	1.3
Business supplies		-8.2	-5.6	2.3	.7	1.6	.0	.5	-.1	-.6	.0
INDUSTRY GROUPS											
Manufacturing		-11.6	-6.1	6.4	3.3	2.8	.2	.4	-.1	-.9	-.1
Manufacturing (NAICS)	31–33	-11.7	-5.9	6.9	3.4	3.3	.2	.4	-.2	-1.1	-.2
Durable manufacturing		-13.5	-9.0	12.2	6.3	5.4	.5	.4	.5	-1.0	-.5
Wood products	321	-22.6	-12.8	4.2	1.2	6.9	.1	.0	-.9	-1.3	-.3
Nonmetallic mineral products	327	-20.3	-18.0	9.5	-.2	1.4	.0	.0	-1.0	-.5	.7
Primary metals	331	-17.6	-2.7	12.3	8.8	-1.5	.1	.0	.3	.1	.5
Fabricated metal products	332	-12.0	-18.8	12.9	6.3	5.8	-.1	.2	-1.5	-1.4	-.1
Machinery	333	-9.2	-18.9	21.2	8.4	2.9	.3	-.3	.9	1.1	-.3
Computer and electronic products	334	-4.5	-1.8	17.8	7.2	5.6	2.7	1.4	5.6	1.5	1.7
Electrical equip., appliances, and components	335	-10.8	-18.5	12.9	2.4	3.5	.2	-.4	.4	2.3	-2.3
Motor vehicles and parts	3361–3	-29.8	2.5	15.3	11.7	14.1	.0	.2	-.5	-2.9	-1.6
Aerospace and miscellaneous transportation equipment	3364–9	-15.9	.9	1.4	6.4	4.1	-.3	1.0	-1.1	-4.1	-.8
Furniture and related products	337	-20.9	-21.6	5.2	1.8	3.3	-.1	.7	-.6	-1.6	1.9
Miscellaneous	339	-1.0	-3.9	2.9	-.1	8.4	.0	.2	-1.3	-2.5	-1.1
Nondurable manufacturing		-9.7	-2.5	1.5	.5	.9	-.1	.4	-.8	-1.1	.2
Food, beverage, and tobacco products	311,2	-2.1	.0	.2	.5	2.4	-.2	.5	-.7	-1.2	1.2
Textile and product mills	313,4	-16.7	-10.4	4.0	.2	-1.0	.0	.0	-1.3	-.6	.7
Apparel and leather	315,6	-21.0	-20.2	6.5	-5.3	-2.6	.1	-.2	-3.0	-2.6	.2
Paper	322	-12.5	-1.5	.9	-.5	-2.3	.1	-.2	.6	1.3	-.5
Printing and support	323	-11.3	-12.6	2.2	-3.3	-1.7	.2	-.2	1.1	2.6	-1.2
Petroleum and coal products	324	-3.6	-2.1	.7	3.3	-1.3	-.2	.5	-1.9	-4.0	.8
Chemicals	325	-14.4	-1.2	1.2	.3	.5	.0	.3	-.7	-.1	-.7
Plastics and rubber products	326	-15.5	-7.4	7.7	.7	4.6	-.3	1.0	-2.9	-5.8	1.1
Other manufacturing (non-NAICS)	1133,5111	-8.9	-10.2	-5.6	-.3	-7.1	-1.3	1.2	.4	2.8	1.7
Mining	21	-.3	-5.6	8.7	7.6	4.1	.1	-.5	.4	-.3	-.2
Utilities	2211,2	-.4	-1.2	2.7	-2.3	.0	-.1	-.1	.1	.0	-.3
Electric	2211	-1.4	-1.4	2.6	-1.8	-.3	.0	.0	.0	.3	-.3
Natural gas	2212	4.3	.0	3.8	-5.7	3.0	-.3	-.7	.3	-2.3	-.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: 2008–12¹

Item	Revised change (percent)					Difference between revised and earlier changes (percentage points)				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Total industry	-8.9	-5.5	6.2	3.3	2.7	.1	.2	-.1	-.7	-.2
Energy	.0	-2.8	5.1	3.3	1.7	.1	-.3	.0	-.5	-.3
Consumer products	2.0	-.6	1.4	-1.1	.6	-.2	-.1	-.7	-.8	.3
Commercial products	-.6	-1.3	1.7	-.2	1.3	.0	.0	-.2	.2	-.1
Oil and gas well drilling 213111	6.9	-42.3	45.2	21.3	-7.6	.0	.1	.2	.2	.1
Converted fuel	-5.7	-.2	3.0	-1.3	.1	.1	.2	.0	-.1	-.6
Primary energy	.9	-2.8	7.0	6.6	3.3	.2	-.7	.3	-.7	-.4
Non-energy	-11.9	-6.4	6.6	3.3	3.1	.2	.4	-.1	-.8	-.1
Selected high-technology industries	-2.8	1.9	27.2	9.7	2.3	4.4	2.2	14.3	7.9	3.1
Computers and peripheral equipment 3341	4.0	-19.8	-15.2	-18.4	3.4	2.1	-3.2	4.8	-15.9	6.6
Communications equipment 3342	-6.3	-9.7	3.3	11.6	-.3	1.1	-5.3	-1.9	12.6	-3.5
Semiconductors and related electronic components 334412-9	-4.1	18.0	49.3	14.7	2.8	6.7	8.7	22.3	11.1	4.3
Excluding selected high-technology industries	-12.5	-6.9	5.6	3.0	3.1	-.1	.3	-.8	-1.2	-.3
Motor vehicles and parts 3361-3	-29.8	2.5	15.3	11.7	14.1	.0	.2	-.5	-2.9	-1.6
Motor vehicles 3361	-31.7	9.5	9.8	17.2	13.6	-.1	.5	-1.8	-4.2	-2.3
Motor vehicle parts 3363	-26.2	-4.7	23.0	6.5	14.4	.1	-.2	1.6	1.5	-1.7
Excluding motor vehicles and parts	-11.2	-7.5	4.9	2.4	2.4	-.1	.3	-.8	-1.0	.1
Consumer goods	-6.6	-5.4	.0	1.3	.7	-.2	.4	-.4	-.3	.2
Business equipment	-13.7	-9.0	11.9	5.9	6.3	.0	.3	-.6	-1.7	-.6
Construction supplies	-17.2	-16.6	8.2	2.7	4.4	-.1	.5	-1.7	-2.3	1.3
Business supplies	-11.3	-8.3	.9	.4	1.6	-.3	.4	-.8	-1.4	-.2
Materials	-13.3	-7.4	7.5	2.9	2.2	.1	-.1	-1.0	-.7	-.1
Measures excluding selected high-technology industries										
Total industry	-9.2	-5.8	5.5	3.1	2.7	-.1	.2	-.6	-1.0	-.3
Manufacturing ²	-12.2	-6.6	5.3	3.0	2.9	-.1	.3	-.8	-1.4	-.3
Durable	-14.8	-10.2	10.6	5.9	5.6	.0	.2	-1.0	-1.8	-.8
Measures excluding motor vehicles and parts										
Total industry	-7.8	-5.9	5.8	3.0	2.2	.1	.2	.0	-.5	.1
Manufacturing ²	-10.3	-6.7	5.8	2.8	2.2	.2	.4	-.1	-.7	.2
Durable	-11.1	-10.4	11.7	5.6	4.2	.6	.4	.7	-.5	.0
Measures excluding selected high-technology industries and motor vehicles and parts										
Total industry	-8.1	-6.2	4.9	2.7	2.2	-.1	.2	-.6	-.9	-.1
Manufacturing ²	-10.9	-7.2	4.6	2.4	2.1	-.1	.3	-.8	-1.1	.0
Stage-of-process components of non-energy materials, measures of the input to										
Finished processors	-12.6	-8.1	18.8	7.8	3.4	1.5	.7	3.6	2.4	-.4
Primary and semifinished processors	-14.9	-4.6	6.9	1.6	2.8	-.1	.3	-1.1	-1.0	.2
STAGE-OF-PROCESS GROUPS										
Crude	-5.4	-.9	6.4	4.7	3.4	.2	-.5	.1	-.2	-.7
Primary and semifinished	-10.3	-7.1	8.2	2.3	1.8	.3	.5	.3	-.1	.3
Finished	-8.9	-5.6	3.7	3.9	3.6	-.1	.2	-.6	-1.9	-.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. 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: 2008–12¹

Item	Revised change (percent)					Difference between revised and earlier changes (percentage points)				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Total IP	-3.4	-11.3	5.7	3.4	3.6	.2	.1	.3	-.7	-.1
MARKET GROUPS										
Consumer goods	-4.9	-6.9	1.1	1.5	1.5	.0	.0	.0	-.8	.0
Durable	-11.2	-16.7	7.3	5.0	8.3	.0	.0	-.9	-2.2	.1
Nondurable	-2.8	-3.9	-.5	.6	-.2	.0	.0	.2	-.4	.2
Business equipment	-2.3	-18.1	8.3	5.6	8.2	.1	.1	.1	-2.6	-1.8
Defense and space equipment	7.0	-4.3	7.5	-3.6	5.2	.0	-.1	3.5	-6.3	1.4
Construction supplies	-9.3	-22.9	3.6	3.0	5.3	.0	.1	-.2	-2.5	.6
Business supplies	-4.0	-10.4	2.3	1.1	1.5	.1	.2	.2	-.2	-.4
Materials	-2.4	-11.3	8.8	4.7	4.1	.3	.2	.4	.1	.1
Non-energy	-4.4	-16.6	11.7	5.3	4.1	.4	.5	.7	.4	.1
Energy	.9	-2.4	4.2	3.8	4.2	.2	-.3	.1	-.4	.1
INDUSTRY GROUPS										
Manufacturing²	-4.7	-13.6	6.1	3.4	3.9	.2	.2	.3	-.9	-.2
Manufacturing (NAICS)	-4.6	-13.6	6.6	3.6	4.2	.2	.2	.4	-1.2	-.2
Durable manufacturing	-3.4	-18.6	11.0	6.8	7.1	.4	.4	.7	-.9	-.4
Nondurable manufacturing	-5.9	-7.7	2.2	.2	1.1	.0	.0	.0	-1.4	.0
Other manufacturing (non-NAICS)	-6.5	-13.7	-5.3	-2.1	-3.5	-.2	.1	-.1	4.2	-.3
Mining	1.2	-5.4	5.2	6.1	6.2	.2	-.3	.1	-.2	.6
Utilities	-.1	-2.5	3.6	-.2	-2.1	.0	.0	.1	.1	-.3

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: 2009–13¹

Item	Revised change (percent)					Difference between revised and earlier changes (percentage points)				
	2009	2010	2011	2012	2013	2009	2010	2011	2012	2013
Total industry	-.4	-2.1	1.3	2.2	1.9	.3	-.2	.6	.6	-.2
Manufacturing²	-2.3	-2.0	.6	1.6	1.8	.4	.4	.5	.2	-.3
Manufacturing (NAICS)	-2.3	-2.1	.7	1.7	1.9	.5	.4	.5	.1	-.3
Durable manufacturing	-1.1	-.5	2.5	2.4	2.4	.5	.9	1.3	-.3	-.3
Nondurable manufacturing	-3.5	-3.7	-1.2	1.0	1.6	.5	-.1	-.5	.5	-.2
Other manufacturing (non-NAICS)	-3.2	.3	.2	-.8	-1.2	-.4	1.4	2.0	1.8	-.2
Mining	4.9	-1.0	4.6	4.7	3.9	-.1	-.7	1.9	2.5	.8
Utilities	1.0	1.0	2.0	1.9	.7	-.1	-3.5	-1.2	-.4	-.4
Selected high-technology industries	6.7	11.1	26.4	4.1	4.9	3.7	10.8	16.1	.9	.4
Manufacturing ² ex. selected high-technology industries	-2.9	-2.7	-.5	1.5	1.6	.2	-.1	-.1	.2	-.3
STAGE-OF-PROCESS GROUPS										
Crude	3.3	-1.5	3.4	3.2	3.1	.3	-1.1	1.4	1.5	.8
Primary and semifinished	-.7	-1.1	1.4	.7	.8	.3	.0	1.1	.6	-.4
Finished	-3.2	-2.1	.4	3.3	2.9	.4	.1	-.5	-.2	-.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. 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)			
		1972-2012 Ave.	2009 Q4	2010 Q4	2011 Q4	2012 Q4	2009 Q4	2010 Q4	2011 Q4	2012 Q4
Total industry		80.2	69.7	75.6	77.1	77.5	.1	.2	-.8	-1.4
Manufacturing¹		78.7	67.2	72.9	74.8	75.7	.2	-.2	-1.3	-1.5
Manufacturing (NAICS)	31–33	78.6	67.0	73.2	75.2	76.3	.2	-.2	-1.4	-1.6
Durable manufacturing		77.0	62.8	70.8	73.4	75.5	.3	.0	-1.7	-1.8
Wood products	321	76.8	53.0	58.7	61.4	66.8	-2.0	-1.9	-2.8	-3.8
Nonmetallic mineral products	327	74.8	45.1	51.9	53.9	56.3	.2	-.3	-.9	-.8
Primary metals	331	79.1	61.7	70.8	75.8	74.9	.7	.7	.5	.7
Fabricated metal products	332	77.4	64.0	74.8	79.3	83.0	1.2	.4	-.8	-.8
Machinery	333	78.1	62.0	75.3	80.5	80.1	-.7	-.1	-.6	-1.2
Computer and electronic products	334	78.1	70.9	79.6	73.8	74.6	.6	-.1	-4.1	-1.4
Electrical equip., appliances, and components	335	82.5	66.5	77.3	80.3	81.9	-.9	-.9	.5	-2.6
Motor vehicles and parts	3361–3	75.0	53.0	61.1	67.9	74.0	.5	.5	-1.5	-3.1
Aerospace and miscellaneous transportation equipment	3364–9	73.0	71.1	70.3	72.0	73.0	.8	-.3	-4.6	-5.1
Furniture and related products	337	76.8	58.0	63.5	66.8	70.6	-.3	-.5	-1.2	.8
Miscellaneous	339	76.0	71.7	75.5	75.4	77.9	.3	-1.3	-1.9	-2.4
Nondurable manufacturing		80.7	72.1	76.0	77.3	77.2	.0	-.5	-1.0	-1.2
Food, beverage, and tobacco products	311,2	81.0	75.9	77.1	78.9	80.3	-.2	-.3	-.1	1.1
Textile and product mills	313,4	80.0	59.5	65.1	67.2	69.8	-.1	-.6	-.7	1.5
Apparel and leather	315,6	77.7	60.3	68.7	67.2	67.2	-.6	-.2	-1.8	-1.3
Paper	322	86.8	79.2	82.2	81.6	81.3	.2	.1	.1	-.7
Printing and support	323	81.0	62.7	67.0	65.8	66.0	.7	1.1	1.6	2.3
Petroleum and coal products	324	85.6	77.5	82.8	85.2	83.3	.4	-.7	-1.1	-3.3
Chemicals	325	77.6	70.7	75.1	76.2	74.9	-.7	-1.4	-1.5	-2.7
Plastics and rubber products	326	82.2	65.0	72.7	72.6	73.8	2.4	.9	-4.9	-5.0
Other manufacturing (non-NAICS)	1133,5111	82.3	70.5	66.3	66.0	61.8	1.1	.4	1.0	.9
Mining	21	87.3	78.8	86.5	88.9	88.4	-.3	.6	-1.3	-3.7
Utilities	2211,2	86.2	81.3	82.7	79.2	77.7	.0	2.8	3.6	3.6
Selected high-technology industries		78.0	73.0	83.6	72.5	71.3	.4	1.8	-2.9	-1.3
Computers and peripheral equipment	3341	78.2	92.8	90.9	70.6	67.7	4.6	2.2	-10.2	-9.4
Communications equipment	3342	76.7	77.8	81.0	76.9	77.8	-.9	1.0	.1	-1.1
Semiconductors and related electronic components	334412–9	79.9	66.7	83.1	71.7	70.4	.2	2.0	-2.4	.1
Measures excluding selected high-technology industries										
Total industry		80.3	69.6	75.3	77.3	77.7	.1	.2	-.7	-1.4
Manufacturing ¹		78.8	66.9	72.4	74.9	75.9	.2	-.3	-1.2	-1.5
STAGE-OF-PROCESS GROUPS										
Crude		86.3	78.2	85.5	87.0	86.9	-.5	.5	-.9	-2.8
Primary and semifinished		81.0	67.4	74.0	74.6	75.5	.4	.8	-.1	-.3
Finished		77.1	69.5	73.2	75.5	75.8	.0	-.7	-1.7	-1.7

1. See footnote 2 to table 3.

Table 7
RATES OF CHANGE IN INDUSTRIAL PRODUCTION, 2008–12

Item	NAICS code	2008 H1	H2	2009 H1	H2	2010 H1	H2	2011 H1	H2	2012 H1	H2
Total IP		-3.5	-14.0	-15.5	5.7	8.6	3.9	1.8	4.8	4.2	1.3
MARKET GROUPS											
Final products and nonindustrial supplies		-4.3	-13.2	-15.4	3.8	5.4	2.0	1.2	3.7	4.5	.8
Consumer goods		-5.2	-8.1	-10.2	4.5	-1	.8	1.7	2.2	2.3	.4
Durable		-14.4	-21.9	-25.6	24.6	3.4	1.3	3.7	12.3	9.6	3.6
Automotive products		-21.2	-22.7	-28.2	62.0	-1.0	2.2	5.7	24.4	11.9	3.2
Home electronics		9.9	-5.9	-6.3	-51.7	-33.0	-4.5	14.7	-2.7	-1	-3.9
Appliances, furniture, carpeting		-13.8	-30.1	-25.8	-4.4	6.5	-4.7	-3	2.7	4.9	1.1
Miscellaneous goods		-7.6	-18.5	-24.4	6.0	14.5	1.8	1.0	1.1	8.8	5.8
Nondurable		-2.0	-3.7	-5.6	-3	-1.1	.6	1.1	-2	.3	-.4
Non-energy		-3.6	-5.0	-6.5	-7	-1.4	-.2	1.1	.9	.8	-1.3
Foods and tobacco		-3.3	-2.2	-1.4	-1	.5	.9	-2	1.6	3.9	.7
Clothing		-4.8	-26.2	-41.8	-9.1	17.0	6.0	-7.4	-8.5	1.3	-6.0
Chemical products		-4.7	-7.3	-10.2	-3.7	-4.0	-2.1	5.9	.3	-2.5	-3.9
Paper products		-4.0	-9.0	-14.0	3.4	-7.1	-9	-3.5	.7	-9.9	-7.2
Energy		2.8	1.1	-2.4	1.2	.0	2.9	1.2	-3.4	-.8	2.1
Business equipment		.0	-25.0	-21.2	3.4	16.4	7.7	1.9	8.2	11.7	2.5
Transit		3.1	-60.1	-.8	29.0	19.5	3.9	-1.5	15.1	17.8	7.9
Information processing		7.5	-16.0	-10.7	-5.4	7.4	-.3	-3.3	6.3	9.6	6.1
Industrial and other		-5.0	-12.1	-31.2	-1	19.9	13.1	5.5	6.6	10.2	-1.0
Defense and space equipment		1.7	-6.3	-8.3	7.4	15.0	-4.9	-7.6	7.7	3.2	5.0
Construction supplies		-11.2	-22.8	-28.9	-2.0	13.7	2.9	.3	5.2	7.2	1.7
Business supplies		-4.7	-11.7	-13.4	2.8	3.4	1.2	.4	1.0	3.5	-.3
MATERIALS											
Non-energy		-5.1	-22.0	-21.5	12.5	16.5	6.8	2.7	5.3	4.5	1.7
Durable		-2.5	-23.2	-30.7	15.6	25.8	11.3	6.9	8.0	7.2	.9
Consumer parts		-15.9	-38.7	-46.8	45.1	43.1	14.1	-.3	13.7	20.2	6.7
Equipment parts		6.7	-17.1	-23.8	10.9	28.5	19.2	12.6	11.6	8.1	-4.1
Other		-4.7	-22.6	-31.1	12.3	18.9	4.8	4.8	3.7	3.0	3.0
Nondurable		-9.2	-20.0	-6.4	8.6	4.7	.5	-3.2	1.4	.4	2.9
Textile		-14.8	-19.9	-23.2	19.6	8.2	1.6	-3.5	.9	4.9	-6.7
Paper		-4.3	-17.1	-15.1	6.5	1.7	-.2	-.4	-2.2	-1.7	-2.7
Chemical		-14.2	-28.3	-3.7	14.7	9.5	.6	-5.2	2.3	.3	6.9
Energy		1.6	-3.0	-5.7	1.7	6.5	5.3	2.2	7.4	2.7	2.5
INDUSTRY GROUPS											
Manufacturing²		-5.3	-17.5	-17.6	6.9	9.3	3.5	1.5	5.1	4.8	1.0
Manufacturing (NAICS)	31–33	-5.2	-17.8	-17.5	7.3	10.2	3.8	1.7	5.2	5.2	1.3
Durable manufacturing		-3.7	-22.3	-25.7	11.6	17.1	7.6	3.8	8.7	8.9	1.9
Wood products	321	-16.5	-28.2	-27.9	5.6	11.5	-2.7	.2	2.3	4.2	9.6
Nonmetallic mineral products	327	-13.6	-26.5	-29.7	-4.5	14.6	4.6	.5	-.9	2.6	.3
Primary metals	331	4.6	-35.1	-38.1	52.8	25.1	.8	7.2	10.4	-2.2	-.8
Fabricated metal products	332	-5.6	-17.9	-34.6	.9	14.7	11.1	6.5	6.1	9.4	2.3
Machinery	333	-4.6	-13.6	-35.2	1.5	25.8	16.7	8.5	8.3	12.6	-6.0
Computer and electronic products	334	11.9	-18.5	-9.6	6.7	24.2	11.8	6.1	8.4	7.3	3.9
Selected high-technology industries		22.9	-23.1	-8.4	13.2	35.9	19.0	11.1	8.3	3.8	.8
Computers and peripheral equipment	3341	25.9	-14.1	-11.3	-27.5	-13.0	-17.4	-19.3	-17.4	5.9	1.0
Communications equipment	3342	12.5	-21.9	-10.2	-9.3	2.4	4.2	10.7	12.5	-2.3	1.6
Semiconductors and related electronic components	334412–9	26.5	-27.4	-6.4	48.9	67.7	33.0	17.6	11.8	5.0	.7
Electrical equip., appliances, and components	335	-2.2	-18.7	-29.7	-5.4	13.6	12.3	1.9	3.0	4.3	2.7
Motor vehicles and parts	3361–3	-25.2	-34.1	-45.5	92.7	21.3	9.6	1.3	23.3	23.7	5.2
Aerospace and miscellaneous transportation equipment	3364–9	3.0	-31.3	3.2	-1.3	6.5	-3.5	-1.0	14.3	4.7	3.5
Furniture and related products	337	-12.3	-28.7	-33.2	-8.1	8.0	2.4	1.8	1.9	8.2	-1.5
Miscellaneous	339	3.1	-4.9	-13.6	6.9	4.6	1.2	-1.3	1.2	9.9	6.9
Nondurable manufacturing		-7.0	-12.3	-7.7	3.0	3.2	-.2	-.6	1.5	1.2	.7
Food, beverage, and tobacco products	311,2	-2.7	-1.6	-.1	.0	-.3	.8	-.7	1.7	4.0	.9
Textile and product mills	313,4	-11.4	-21.6	-27.0	10.0	7.9	.3	-1.1	1.5	2.3	-4.3
Apparel and leather	315,6	-17.1	-24.8	-32.3	-5.8	7.5	5.6	-5.1	-5.5	.6	-5.8
Paper	322	-2.8	-21.2	-8.8	6.4	2.2	-.4	.0	-.9	-3.5	-1.1
Printing and support	323	-8.5	-14.0	-22.6	-1.3	3.5	.9	-1.9	-4.7	2.5	-5.7
Petroleum and coal products	324	-3.3	-3.9	.1	-4.4	3.1	-1.6	-1.1	7.8	-2.1	-.4
Chemicals	325	-10.3	-18.3	-7.7	5.7	3.7	-1.3	-.5	1.1	-.4	1.4
Plastics and rubber products	326	-12.4	-18.5	-23.0	11.4	14.9	.9	.9	.5	4.6	4.7
Other manufacturing (non-NAICS)	1133,5111	-6.6	-11.2	-19.4	.0	-8.6	-2.6	-3.3	2.8	-5.3	-8.9
Mining	21	2.8	-3.2	-12.0	1.3	10.1	7.3	5.5	9.7	2.3	5.9
Utilities	2211,2	1.6	-2.4	-5.1	2.9	2.7	2.8	-1.0	-3.5	2.3	-2.2

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, 2008–12

Percent of capacity, seasonally adjusted

Item	NAICS code	2008 Q2	Q4	2009 Q2	Q4	2010 Q2	Q4	2011 Q2	Q4	2012 Q2	Q4
Total industry		79.4	73.5	67.3	69.7	73.6	75.6	76.1	77.1	77.7	77.5
Manufacturing¹		76.3	69.9	64.2	67.2	71.0	72.9	73.5	74.8	75.9	75.7
Manufacturing (NAICS)	31–33	76.3	69.6	63.9	67.0	71.2	73.2	73.9	75.2	76.5	76.3
Durable manufacturing		77.0	68.2	59.1	62.8	68.3	70.8	71.5	73.4	75.6	75.5
Wood products	321	66.4	57.7	50.2	53.0	57.8	58.7	59.9	61.4	63.4	66.8
Nonmetallic mineral products	327	61.2	52.6	44.9	45.1	49.6	51.9	53.1	53.9	55.5	56.3
Primary metals	331	82.0	63.7	49.5	61.7	70.1	70.8	72.8	75.8	74.9	74.9
Fabricated metal products	332	82.8	75.2	62.1	64.0	70.1	74.8	77.3	79.3	82.5	83.0
Machinery	333	80.9	75.4	61.1	62.0	69.8	75.3	78.2	80.5	84.1	80.1
Computer and electronic products	334	79.2	74.0	70.6	70.9	77.4	79.6	76.4	73.8	74.1	74.6
Selected high-technology industries		83.2	76.5	73.0	73.0	81.0	83.6	78.4	72.5	70.9	71.3
Computers and peripheral equipment	3341	78.3	76.2	87.3	92.8	97.4	90.9	80.5	70.6	69.3	67.7
Communications equipment	3342	86.3	86.4	83.5	77.8	79.7	81.0	78.8	76.9	75.0	77.8
Semiconductors and related electronic components	334412–9	84.5	73.4	64.0	66.7	78.3	83.1	78.0	71.7	70.1	70.4
Electrical equip., appliances, and components	335	87.8	79.3	67.1	66.5	72.1	77.3	78.8	80.3	81.6	81.9
Motor vehicles and parts	3361–3	61.3	49.9	37.5	53.0	58.6	61.1	61.5	67.9	73.9	74.0
Aerospace and miscellaneous transportation equipment	3364–9	89.7	72.8	72.5	71.1	72.7	70.3	68.5	72.0	72.7	73.0
Furniture and related products	337	74.0	66.5	57.8	58.0	61.8	63.5	65.1	66.8	70.5	70.6
Miscellaneous	339	74.3	72.9	68.5	71.7	74.3	75.5	75.4	75.4	77.5	77.9
Nondurable manufacturing		75.5	71.3	69.6	72.1	74.8	76.0	76.6	77.3	77.4	77.2
Food, beverage, and tobacco products	311,2	76.4	76.0	75.9	75.9	76.1	77.1	77.7	78.9	80.4	80.3
Textile and product mills	313,4	68.8	62.8	55.1	59.5	63.6	65.1	65.6	67.2	69.6	69.8
Apparel and leather	315,6	77.3	69.7	59.5	60.3	64.9	68.7	68.2	67.2	68.3	67.2
Paper	322	84.1	76.2	74.7	79.2	81.7	82.2	82.1	81.6	80.9	81.3
Printing and support	323	72.6	67.4	60.9	62.7	65.7	67.0	66.9	65.8	67.3	66.0
Petroleum and coal products	324	83.6	80.6	79.2	77.5	81.0	82.8	83.0	85.2	83.6	83.3
Chemicals	325	72.8	67.2	66.6	70.7	74.0	75.1	75.8	76.2	75.4	74.9
Plastics and rubber products	326	72.6	65.9	59.4	65.0	71.6	72.7	73.0	72.6	73.4	73.8
Other manufacturing (non-NAICS)	1133,5111	77.4	76.1	70.0	70.5	67.4	66.3	65.1	66.0	64.4	61.8
Mining	21	91.5	87.5	79.1	78.8	83.5	86.5	87.2	88.9	87.7	88.4
Utilities	2211,2	85.0	83.1	80.4	81.3	82.1	82.7	81.5	79.2	79.2	77.7

1. See footnote 2 to table 3.

Table 9A
INDUSTRIAL PRODUCTION: Manufacturing¹
Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual ²
IP (percent change)																	
1983	2.4	-1	.9	1.1	1.3	.7	1.4	.8	1.9	1.1	.3	.3	9.2	11.9	14.8	12.4	4.8
1984	1.8	1.1	.5	.5	.3	.5	.5	.2	-2	.4	.3	.4	12.8	6.2	3.7	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	.9	4.5	.0	2.5	4.9	2.2
1987	-3	1.5	.1	.5	.7	.4	.7	.5	.6	1.6	.6	.6	5.9	7.1	7.3	11.7	5.7
1988	-2	.2	.3	.8	-1	.1	.1	.0	.3	.6	.3	.4	2.6	4.4	.9	4.4	5.3
1989	.8	-9	-1	.2	-8	.2	-1.1	.8	-2	-2	.2	.1	2.0	-2.7	-3.1	.4	.8
1990	-2	1.5	.5	-3	.2	.3	-2	.3	.0	-8	-1.2	-7	4.2	3.0	1.0	-6.7	.8
1991	-8	-6	-7	.3	.7	1.1	.2	.3	1.1	-2	-2	-1	-8.8	1.9	7.2	1.6	-2.0
1992	-6	.9	1.0	.5	.6	.3	.9	-4	.0	.7	.4	-2	.5	8.2	4.0	3.1	3.6
1993	1.0	.2	-2	.5	-1	-2	.3	-1	.6	.8	.4	.5	4.5	1.4	1.0	6.9	3.5
1994	.2	.1	1.3	.8	.7	.3	.4	.8	.4	1.0	.8	1.1	4.9	9.6	6.1	10.3	5.9
1995	.2	-2	.2	-1	.1	.5	-6	1.1	.8	-1	.1	.4	4.7	.9	3.2	4.1	5.2
1996	-8	1.6	-2	1.1	.7	1.1	.3	.6	.7	-1	.8	.9	2.0	9.5	7.8	5.7	4.8
1997	.1	1.4	1.2	-2	.9	.6	.5	1.6	.8	.6	1.1	.4	9.3	7.6	10.8	10.9	8.4
1998	.8	.1	-1	.5	.6	-7	-5	2.5	-4	1.0	.1	.5	6.1	2.3	3.2	7.6	6.6
1999	.3	.7	.0	.4	.9	-4	.5	.6	-3	1.5	.7	.7	4.7	4.4	3.7	9.0	5.0
2000	.2	.3	.7	.6	-2	.2	.0	-6	.5	-4	-3	-6	5.3	4.4	-8	-2.9	4.2
2001	-6	-6	-3	-3	-8	-7	-3	-6	-2	-6	-3	.3	-6.4	-5.5	-6.0	-4.2	-4.1
2002	.5	-1	.7	.2	.6	1.2	-5	.4	.1	-4	.5	-4	3.3	5.9	3.1	-3	.3
2003	.5	.2	.2	-9	.0	.4	.1	-4	.8	-1	1.0	-2	2.4	-2.4	1.5	3.7	1.3
2004	.0	.7	-2	.4	.7	-7	.9	.6	.0	1.0	-1	.6	2.5	3.0	4.2	5.5	2.8
2005	.7	.8	-4	.3	.4	.2	-1	.3	-1.0	1.5	.8	.1	6.0	2.3	-1	5.7	4.0
2006	.8	-2	-1	.6	-4	.3	-2	.4	.1	-4	.1	1.5	3.9	1.1	.7	1.2	2.5
2007	-5	.4	.7	.7	-1	.3	.1	-4	.5	-4	.5	.2	4.2	5.7	1.0	1.0	2.7
2008	-4	-6	-3	-1.1	-5	-5	-1.1	-1.3	-3.4	-6	-2.2	-3.4	-2.6	-7.8	-13.4	-21.5	-4.7
2009	-2.9	-2	-1.9	-8	-1.1	-3	1.2	1.1	.8	.1	1.1	.0	-23.7	-11.1	6.6	7.3	-13.6
2010	1.0	.0	1.3	.9	1.4	.0	.7	.1	.1	.1	.2	.6	7.3	11.3	5.2	1.8	6.1
2011	.2	.0	.7	-7	.3	.1	.7	.4	.4	.6	.0	1.0	3.4	-4	5.0	5.2	3.4
2012	1.0	.6	-5	.6	-3	.3	.2	-7	.1	-4	1.4	.9	8.1	1.6	-5	2.4	3.9
2013	-2	.6															
IP (2007=100)																	
1983	43.4	43.3	43.8	44.3	44.8	45.1	45.8	46.1	47.0	47.5	47.7	47.8	43.5	44.7	46.3	47.7	45.6
1984	48.7	49.3	49.5	49.7	49.9	50.1	50.3	50.4	50.3	50.5	50.7	50.9	49.1	49.9	50.4	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	55.5	56.4	56.8	57.1	53.3	54.3	55.2	56.8	54.9
1988	57.0	57.1	57.3	57.8	57.7	57.8	57.8	57.8	58.0	58.3	58.5	58.7	57.1	57.8	57.9	58.5	57.8
1989	59.2	58.6	58.6	58.7	58.2	58.3	57.7	58.1	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	59.2	59.2	58.8	58.1	57.6	58.6	59.0	59.2	58.2	58.7
1991	57.2	56.9	56.5	56.6	57.0	57.7	57.8	58.0	58.6	58.4	58.3	58.2	56.8	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	60.7	60.6	58.4	59.6	60.2	60.6	59.7
1993	61.3	61.4	61.2	61.6	61.5	61.4	61.6	61.5	61.9	62.4	62.7	63.0	61.3	61.5	61.6	62.7	61.8
1994	63.1	63.2	64.0	64.6	65.0	65.2	65.4	66.0	66.2	66.9	67.4	68.2	63.4	64.9	65.9	67.5	65.4
1995	68.3	68.2	68.4	68.3	68.3	68.7	68.3	69.0	69.6	69.6	69.6	69.9	68.3	68.4	69.0	69.7	68.8
1996	69.3	70.4	70.3	71.0	71.5	72.3	72.5	73.0	73.4	73.4	74.0	74.6	70.0	71.6	73.0	74.0	72.2
1997	74.7	75.7	76.6	76.4	77.1	77.6	78.0	79.3	79.9	80.4	81.3	81.7	75.7	77.1	79.1	81.1	78.2
1998	82.3	82.4	82.3	82.7	83.2	82.6	82.2	84.3	84.0	84.8	84.9	85.4	82.4	82.8	83.5	85.0	83.4
1999	85.6	86.2	86.2	86.5	87.3	87.0	87.4	88.0	87.7	89.0	89.6	90.3	86.0	86.9	87.7	89.6	87.6
2000	90.4	90.7	91.3	91.8	91.7	91.8	91.8	91.2	91.7	91.3	91.0	90.4	90.8	91.8	91.6	90.9	91.3
2001	89.8	89.3	89.0	88.8	88.1	87.5	87.2	86.7	86.5	86.0	85.7	85.9	89.4	88.1	86.8	85.9	87.5
2002	86.4	86.3	86.9	87.1	87.6	88.7	88.2	88.6	88.6	88.3	88.7	88.3	86.6	87.8	88.5	88.4	87.8
2003	88.8	89.0	89.1	88.3	88.3	88.6	88.7	88.4	89.1	89.0	89.9	89.7	88.9	88.4	88.7	89.5	88.9
2004	89.7	90.3	90.2	90.5	91.2	90.5	91.3	91.9	91.8	92.8	92.7	93.3	90.1	90.8	91.7	92.9	91.4
2005	93.9	94.7	94.3	94.5	94.9	95.1	94.9	95.2	94.2	95.6	96.3	96.4	94.3	94.8	94.8	96.1	95.0
2006	97.2	97.0	96.9	97.5	97.1	97.4	97.2	97.6	97.7	97.2	97.3	98.8	97.0	97.3	97.5	97.8	97.4
2007	98.3	98.7	99.4	100.1	100.0	100.3	100.5	100.1	100.6	100.3	100.8	100.9	98.8	100.2	100.4	100.6	100.0
2008	100.5	99.9	99.6	98.5	98.0	97.5	96.4	95.1	91.9	91.3	89.3	86.3	100.0	98.0	94.5	89.0	95.3
2009	83.8	83.6	82.0	81.4	80.5	80.3	81.2	82.1	82.8	82.9	83.8	83.8	83.1	80.7	82.0	83.5	82.4
2010	84.6	84.6	85.7	86.4	87.7	87.7	88.3	88.4	88.5	88.5	88.7	89.2	85.0	87.3	88.4	88.8	87.4
2011	89.3	89.3	89.9	89.3	89.5	89.6	90.2	90.6	90.9	91.4	91.4	92.3	89.5	89.5	90.6	91.7	90.3
2012	93.3	93.9	93.4	93.9	93.7	94.0	94.2	93.5	93.6	93.2	94.5	95.3	93.5	93.9	93.8	94.3	93.9
2013	95.2	95.8															

NOTE: Estimates from October 2012 through February 2013 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: Manufacturing¹
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)																	
1983	61.9	61.9	61.9	61.9	62.0	62.0	62.0	62.1	62.1	62.1	62.2	62.3	61.9	62.0	62.1	62.2	62.0
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	66.0	66.1	66.2	66.2	66.3	66.4	66.5	66.6	66.7	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	68.4	68.5	68.6	67.1	67.6	68.1	68.5	67.8
1988	68.6	68.7	68.7	68.8	68.8	68.8	68.8	68.9	68.9	68.9	69.0	69.1	68.7	68.8	68.9	69.0	68.8
1989	69.2	69.3	69.4	69.5	69.7	69.8	70.0	70.2	70.4	70.5	70.7	70.9	69.3	69.7	70.2	70.7	70.0
1990	71.1	71.2	71.4	71.6	71.7	71.9	72.0	72.2	72.3	72.5	72.6	72.7	71.2	71.7	72.2	72.6	71.9
1991	72.9	73.0	73.1	73.2	73.3	73.4	73.5	73.5	73.6	73.7	73.8	73.9	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	75.4	75.6	75.8	76.0	74.1	74.6	75.2	75.8	75.0
1993	76.2	76.3	76.4	76.6	76.7	76.8	76.9	77.0	77.1	77.3	77.4	77.5	76.3	76.7	77.0	77.4	76.8
1994	77.7	77.9	78.1	78.3	78.6	78.8	79.1	79.4	79.6	79.9	80.3	80.6	77.9	78.6	79.4	80.3	79.0
1995	80.9	81.2	81.5	81.9	82.2	82.6	82.9	83.3	83.7	84.1	84.5	84.9	81.2	82.2	83.3	84.5	82.8
1996	85.3	85.7	86.2	86.6	87.1	87.5	88.0	88.5	88.9	89.4	89.9	90.4	85.7	87.1	88.5	89.9	87.8
1997	90.9	91.5	92.0	92.5	93.1	93.7	94.3	95.0	95.7	96.3	97.1	97.8	91.5	93.1	95.0	97.1	94.2
1998	98.5	99.3	100.0	100.7	101.4	102.1	102.8	103.4	104.0	104.6	105.2	105.7	99.3	101.4	103.4	105.2	102.3
1999	106.2	106.8	107.3	107.8	108.3	108.7	109.2	109.7	110.2	110.7	111.1	111.6	106.8	108.3	109.7	111.1	109.0
2000	112.1	112.6	113.0	113.5	113.9	114.4	114.8	115.3	115.7	116.1	116.5	116.9	112.6	113.9	115.3	116.5	114.6
2001	117.3	117.6	118.0	118.3	118.6	118.9	119.2	119.4	119.6	119.8	119.9	120.1	117.6	118.6	119.4	119.9	118.9
2002	120.2	120.3	120.4	120.4	120.4	120.5	120.5	120.5	120.5	120.5	120.5	120.5	120.3	120.4	120.5	120.5	120.4
2003	120.4	120.4	120.4	120.4	120.4	120.3	120.3	120.3	120.2	120.2	120.1	120.0	120.4	120.4	120.3	120.1	120.3
2004	120.0	119.9	119.9	119.8	119.8	119.8	119.8	119.8	119.8	119.9	120.0	120.2	119.9	119.8	119.8	120.0	119.9
2005	120.4	120.5	120.8	121.0	121.3	121.5	121.8	122.1	122.3	122.5	122.8	123.0	120.6	121.3	122.0	122.8	121.7
2006	123.2	123.4	123.5	123.7	123.9	124.0	124.2	124.4	124.6	124.9	125.1	125.4	123.4	123.9	124.4	125.1	124.2
2007	125.7	126.0	126.3	126.6	126.9	127.2	127.5	127.8	128.0	128.2	128.4	128.5	126.0	126.9	127.8	128.4	127.3
2008	128.6	128.6	128.5	128.5	128.4	128.2	128.0	127.9	127.7	127.5	127.2	127.0	128.6	128.3	127.9	127.2	128.0
2009	126.8	126.5	126.3	126.0	125.8	125.5	125.3	125.0	124.8	124.5	124.3	124.1	126.5	125.8	125.0	124.3	125.4
2010	123.8	123.6	123.3	123.1	122.9	122.6	122.4	122.2	122.1	121.9	121.8	121.7	123.6	122.9	122.3	121.8	122.6
2011	121.7	121.7	121.7	121.7	121.8	121.9	122.0	122.1	122.3	122.5	122.6	122.8	121.7	121.8	122.1	122.6	122.1
2012	123.0	123.1	123.3	123.5	123.6	123.8	124.0	124.1	124.3	124.4	124.6	124.8	123.1	123.6	124.1	124.6	123.9
2013	125.0	125.1															
Utilization (percent)																	
1983	70.1	70.0	70.7	71.4	72.3	72.8	73.8	74.3	75.7	76.5	76.7	76.8	70.3	72.2	74.6	76.7	73.4
1984	78.1	78.9	79.1	79.4	79.4	79.6	79.8	79.7	79.4	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	78.2	78.2	77.5	77.8	77.7	77.4	77.8	78.0	78.8	78.3	77.7	77.7	78.1
1986	78.8	78.2	78.0	78.2	78.3	77.9	78.3	78.4	78.4	78.6	78.8	79.4	78.3	78.1	78.4	78.9	78.4
1987	78.9	79.9	79.8	80.0	80.4	80.5	80.9	81.1	81.4	82.6	82.9	83.3	79.5	80.3	81.1	82.9	81.0
1988	83.1	83.2	83.4	84.0	83.9	84.0	84.0	84.0	84.2	84.6	84.8	85.0	83.2	84.0	84.1	84.8	84.0
1989	85.6	84.6	84.4	84.4	83.5	83.5	82.4	82.8	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	77.8	78.6	78.7	78.8	79.5	79.3	79.0	78.8	77.9	77.9	79.0	79.1	78.5
1992	78.2	78.8	79.4	79.6	79.9	79.9	80.4	79.8	79.7	80.0	80.1	79.8	78.8	79.8	80.0	80.0	79.6
1993	80.4	80.4	80.1	80.4	80.2	80.0	80.1	79.8	80.2	80.8	81.0	81.2	80.3	80.2	80.0	81.0	80.4
1994	81.2	81.1	82.0	82.4	82.7	82.7	82.7	83.1	83.2	83.7	84.0	84.6	81.4	82.6	83.0	84.1	82.8
1995	84.5	84.0	83.8	83.4	83.1	83.2	82.3	82.9	83.2	82.8	82.4	82.3	84.1	83.2	82.8	82.5	83.2
1996	81.3	82.2	81.6	82.0	82.2	82.6	82.4	82.5	82.6	82.1	82.3	82.5	81.7	82.3	82.5	82.3	82.2
1997	82.1	82.8	83.3	82.6	82.8	82.8	82.7	83.4	83.6	83.5	83.8	83.5	82.7	82.7	83.2	83.6	83.1
1998	83.6	83.0	82.3	82.1	82.0	80.8	80.0	81.5	80.7	81.1	80.7	80.7	83.0	81.7	80.7	80.8	81.5
1999	80.6	80.8	80.3	80.3	80.6	80.0	80.1	80.2	79.6	80.5	80.6	80.9	80.6	80.3	80.0	80.7	80.4
2000	80.7	80.6	80.8	80.9	80.4	80.3	79.9	79.1	79.3	78.6	78.1	77.4	80.7	80.5	79.5	78.0	79.7
2001	76.6	75.9	75.5	75.1	74.3	73.6	73.2	72.6	72.3	71.8	71.4	71.6	76.0	74.3	72.7	71.6	73.6
2002	71.9	71.8	72.2	72.3	72.8	73.6	73.2	73.5	73.6	73.3	73.6	73.3	72.0	72.9	73.4	73.4	72.9
2003	73.7	73.9	74.0	73.3	73.4	73.7	73.8	73.5	74.1	74.1	74.8	74.7	73.9	73.5	73.8	74.6	73.9
2004	74.8	75.3	75.2	75.6	76.1	75.6	76.3	76.7	76.6	77.4	77.2	77.6	75.1	75.8	76.5	77.4	76.2
2005	78.0	78.5	78.0	78.1	78.2	78.2	78.0	78.0	77.0	78.0	78.5	78.4	78.2	78.2	77.7	78.3	78.1
2006	78.9	78.6	78.5	78.8	78.4	78.5	78.2	78.4	78.4	77.9	77.8	78.8	78.7	78.6	78.3	78.1	78.4
2007	78.2	78.3	78.7	79.1	78.8	78.9	78.8	78.3	78.6	78.2	78.5	78.5	78.4	78.9	78.6	78.4	78.6
2008	78.1	77.7	77.5	76.6	76.3	76.0	75.3	74.4	72.0	71.6	70.2	67.9	77.8	76.3	73.9	69.9	74.5
2009	66.1	66.1	65.0	64.6	64.0	64.0	64.8	65.7	66.3	66.5	67.4	67.6	65.7	64.2	65.6	67.2	65.7
2010	68.4	68.5	69.5	70.2	71.4	71.5	72.1	72.3	72.5	72.6	72.8	73.3	68.8	71.0	72.3	72.9	71.3
2011	73.4	73.4	73.9	73.4	73.5	73.5	74.0	74.2	74.3	74.7	74.5	75.2	73.6	73.5	74.2	74.8	74.0
2012	75.8	76.2	75.7	76.1	75.8	75.9	76.0	75.4	75.3	74.9	75.8	76.4	75.9	75.9	75.5	75.7	75.8
2013	76.2	76.6															

NOTE: Estimates from October 2012 through February 2013 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 Industries¹
Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual ²
IP (percent change)																	
1983	1.9	-.7	.7	1.1	.6	.5	1.4	1.2	1.3	.7	.2	.5	3.8	8.1	13.3	9.5	1.8
1984	2.0	.4	.4	.5	.4	.2	.3	.0	-.2	-.2	.3	.1	11.6	5.2	1.9	-.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	-.8	-.7	.1	.1	-.2	.4	-.3	.1	.4	.4	.8	2.4	-2.5	.6	3.9	.9
1987	-.5	1.2	.2	.5	.6	.5	.5	.6	.2	1.5	.5	.4	4.4	6.4	6.1	9.2	4.3
1988	.0	.4	.2	.5	-.2	.2	.1	.4	-.4	.5	.2	.4	3.1	2.7	1.2	2.6	4.4
1989	.3	-.4	.3	.0	-.7	.0	-1.1	.8	-.3	-.2	.2	.6	1.9	-1.5	-3.5	.8	.6
1990	-.7	.9	.5	-.2	.1	.3	-.2	.3	.1	-.8	-1.3	-.7	2.1	2.6	1.2	-6.7	.3
1991	-.4	-.8	-.6	.2	1.0	1.0	.0	.1	.9	-.2	-.2	-.5	-8.0	2.0	5.4	.4	-2.0
1992	-.8	.8	.7	.6	.3	-.1	.8	-.6	.1	.6	.3	.0	-1.9	6.1	1.8	3.0	1.9
1993	.5	.3	-.1	.3	-.4	.2	.3	-.1	.4	.7	.3	.5	3.2	.2	1.4	5.1	2.5
1994	.4	.0	.9	.3	.4	.6	.0	.4	.1	.6	.4	.9	4.5	5.4	3.2	5.7	4.0
1995	.1	-.2	-.1	-.3	.1	.2	-.5	1.1	.1	-.4	.1	.1	2.9	-1.2	1.5	.2	2.5
1996	-1.0	1.4	-.3	.8	.5	.7	-.5	.4	.3	-.3	.8	.5	-.4	6.5	2.1	3.0	1.7
1997	-.1	.9	.5	-.3	.3	.2	.4	1.0	.7	.6	.6	.1	5.1	2.3	6.3	7.7	4.2
1998	.2	.0	-.1	.2	.6	-.9	-.8	2.0	-.7	.6	-.4	.1	1.9	.8	-.3	2.3	3.0
1999	.2	.2	-.1	-.1	.6	-.5	.3	.3	-.4	1.2	.2	.5	.7	.3	1.1	5.5	1.1
2000	-.3	.0	.1	.4	-.1	-.1	-.5	-.4	.4	-.6	-.2	-.5	.5	1.5	-3.0	-2.7	1.0
2001	-.7	-.5	-.3	-.2	-.6	-.5	-.3	-.2	-.4	-.5	-.5	-.1	-5.9	-4.4	-4.3	-4.5	-4.0
2002	.7	-.1	.8	.4	.5	.9	-.4	.1	.0	-.4	.5	-.6	2.8	6.2	1.7	-.8	.3
2003	.6	.2	-.3	-.9	-.1	-.1	.2	-.2	.6	-.1	.7	-.1	1.7	-4.7	.8	2.5	.2
2004	.2	.6	-.6	.5	.8	-.8	.8	.1	-.1	1.0	.2	.7	2.2	2.0	2.0	5.3	1.7
2005	.3	.6	-.1	.0	.1	.4	-.3	.0	-.2	1.2	1.0	.5	4.8	1.3	-2.9	2.1	2.5
2006	.1	.0	.2	.3	-.2	.3	.0	.1	-.2	-.1	-.2	1.0	3.4	1.8	.8	.0	1.4
2007	-.5	1.1	-.1	.6	.1	.1	.0	.1	.3	-.7	.4	-.1	3.1	3.9	1.1	-.8	1.8
2008	-.4	-.3	-.4	-.9	-.5	-.2	-.4	-1.6	-4.3	1.0	-1.0	-2.7	-2.6	-6.5	-12.3	-14.9	-4.2
2009	-2.3	-.7	-1.7	-1.0	-1.1	-.4	.9	1.1	.6	.3	.4	.4	-19.6	-11.8	4.8	6.1	-11.3
2010	1.0	.2	.7	.3	1.6	.2	.6	.2	.2	-.4	.2	.9	7.2	7.9	5.9	.9	5.0
2011	-.2	-.5	1.1	-.6	.3	.1	.6	.5	.1	.6	.2	.6	1.9	1.0	4.8	4.7	2.9
2012	.7	.5	-.6	.8	.3	.0	.5	-.7	.1	-.2	1.3	.2	5.4	2.9	.5	2.1	3.6
2013	.2	.8															
IP (2007=100)																	
1983	63.2	62.8	63.3	64.0	64.4	64.7	65.6	66.4	67.2	67.7	67.9	68.2	63.1	64.4	66.4	67.9	65.5
1984	69.6	69.8	70.1	70.4	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	71.7	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	74.8	75.1	75.6	75.7	76.8	77.2	77.5	73.2	74.4	75.5	77.2	75.1
1988	77.5	77.8	78.0	78.3	78.2	78.3	78.4	78.7	78.4	78.8	79.0	79.3	77.8	78.3	78.5	79.0	78.4
1989	79.5	79.2	79.5	79.4	78.9	78.9	78.0	78.7	78.5	78.3	78.5	78.9	79.4	79.1	78.4	78.6	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	79.1	79.2	79.7	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	81.8	82.2	80.5	80.6	80.9	81.9	81.0
1994	82.5	82.5	83.3	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	86.4	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	88.2	88.5	88.2	88.9	89.3	86.3	87.7	88.1	88.8	87.7
1997	89.2	90.0	90.5	90.2	90.5	90.7	91.0	91.9	92.6	93.1	93.7	93.8	89.9	90.4	91.8	93.5	91.4
1998	94.0	94.0	93.9	94.1	94.6	93.8	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	94.7	95.2	94.7	95.0	95.4	95.0	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	96.3	95.9	96.3	95.7	95.6	95.1	96.5	96.9	96.1	95.5	96.3
2001	94.5	93.9	93.7	93.5	92.9	92.4	92.2	92.0	91.7	91.2	90.8	90.7	94.0	93.0	91.9	90.9	92.5
2002	91.4	91.2	91.9	92.3	92.8	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	93.7	93.4	92.5	92.4	92.3	92.5	92.3	92.9	92.7	93.4	93.3	93.5	92.4	92.6	93.1	92.9
2004	93.4	94.0	93.4	93.9	94.6	93.8	94.5	94.6	94.5	95.4	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	95.1	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	98.4	98.2	98.1	99.1	97.8	98.2	98.4	98.4	98.2
2007	98.5	99.6	99.5	100.1	100.1	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	99.9	99.6	99.2	98.3	97.8	97.6	97.2	95.6	91.5	92.4	91.5	89.1	99.6	97.9	94.8	91.0	95.8
2009	87.0	86.5	85.0	84.2	83.3	83.0	83.7	84.6	85.2	85.4	85.7	86.1	86.2	83.5	84.5	85.7	85.0
2010	86.9	87.1	87.7	87.9	89.3	89.5	90.0	90.2	90.4	90.0	90.2	91.0	87.3	88.9	90.2	90.4	89.2
2011	90.8	90.4	91.4	90.8	91.1	91.3	91.8	92.3	92.4	92.9	93.1	93.6	90.8	91.1	92.1	93.2	91.8
2012	94.3	94.8	94.2	95.0	95.2	95.2	95.7	95.0	95.1	94.9	96.1	96.3	94.4	95.1	95.2	95.7	95.1
2013	96.4	97.2															

NOTE: Estimates from October 2012 through February 2013 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 Industries¹
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)																	
1983	87.8	87.8	87.8	87.7	87.7	87.7	87.7	87.6	87.6	87.6	87.6	87.7	87.8	87.7	87.6	87.7	87.7
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	89.6	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	92.4	92.4	92.5	92.6	92.6	91.8	92.1	92.4	92.6	92.2
1988	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.7	92.7	92.7	92.8	92.9	92.6	92.6	92.7	92.8	92.7
1989	92.9	93.0	93.2	93.3	93.4	93.6	93.8	93.9	94.1	94.3	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	95.7	95.9	96.0	96.1	96.2	94.9	95.4	95.7	96.1	95.5
1991	96.3	96.4	96.5	96.7	96.8	96.9	97.0	97.1	97.2	97.3	97.4	97.5	96.4	96.8	97.1	97.4	96.9
1992	97.6	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	100.0	100.1	100.2	100.3	100.5	100.6	100.8	100.9	101.1	101.3	101.5	101.7	100.1	100.5	100.9	101.5	100.7
1995	101.8	102.0	102.2	102.4	102.6	102.8	103.0	103.2	103.4	103.5	103.7	103.9	102.0	102.6	103.2	103.7	102.9
1996	104.1	104.2	104.4	104.6	104.8	105.0	105.2	105.4	105.6	105.8	106.1	106.4	104.2	104.8	105.4	106.1	105.1
1997	106.7	107.0	107.3	107.6	108.0	108.3	108.7	109.1	109.5	110.0	110.4	110.8	107.0	108.0	109.1	110.4	108.6
1998	111.2	111.7	112.1	112.5	112.9	113.3	113.7	114.1	114.4	114.8	115.1	115.4	111.6	112.9	114.1	115.1	113.4
1999	115.7	116.0	116.3	116.6	116.8	117.1	117.3	117.5	117.7	117.9	118.1	118.3	116.0	116.8	117.5	118.1	117.1
2000	118.4	118.6	118.7	118.9	119.0	119.1	119.3	119.4	119.5	119.7	119.8	119.9	118.6	119.0	119.4	119.8	119.2
2001	120.0	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	121.7	121.7	121.8	121.9	121.9	121.9	121.9	121.9	121.8	121.8	121.7	121.6	121.7	121.9	121.9	121.7	121.8
2003	121.5	121.4	121.4	121.3	121.2	121.1	121.0	121.0	120.9	120.9	120.9	120.8	121.4	121.2	121.0	120.9	121.1
2004	120.8	120.7	120.7	120.7	120.6	120.6	120.5	120.5	120.5	120.4	120.4	120.4	120.7	120.6	120.5	120.4	120.6
2005	120.4	120.5	120.5	120.6	120.6	120.7	120.8	121.0	121.1	121.2	121.4	121.6	120.5	120.7	121.0	121.4	120.9
2006	121.7	121.9	122.1	122.2	122.4	122.6	122.8	122.9	123.1	123.3	123.5	123.6	121.9	122.4	122.9	123.5	122.7
2007	123.8	123.9	124.0	124.1	124.2	124.2	124.2	124.2	124.1	124.1	124.0	123.9	123.9	124.2	124.2	124.0	124.1
2008	123.8	123.8	123.7	123.6	123.6	123.6	123.7	123.8	123.9	124.0	124.1	124.3	123.8	123.6	123.8	124.1	123.8
2009	124.4	124.4	124.5	124.5	124.5	124.4	124.3	124.1	123.8	123.6	123.3	123.0	124.4	124.5	124.1	123.3	124.1
2010	122.6	122.3	122.0	121.6	121.3	121.0	120.8	120.5	120.3	120.1	120.0	119.9	122.3	121.3	120.5	120.0	121.0
2011	119.8	119.8	119.7	119.7	119.8	119.9	120.0	120.1	120.2	120.4	120.6	120.8	119.8	119.8	120.1	120.6	120.1
2012	121.0	121.2	121.5	121.7	121.9	122.1	122.4	122.6	122.8	123.0	123.2	123.3	121.2	121.9	122.6	123.2	122.2
2013	123.5	123.7															
Utilization (percent)																	
1983	72.0	71.5	72.1	72.9	73.4	73.8	74.8	75.7	76.7	77.3	77.4	77.8	71.9	73.4	75.8	77.5	74.6
1984	79.3	79.5	79.8	80.1	80.4	80.5	80.6	80.5	80.2	79.9	80.0	79.9	79.5	80.3	80.4	79.9	80.1
1985	79.6	79.8	79.8	79.5	79.5	79.4	78.8	79.0	79.3	78.8	79.0	79.7	79.7	79.5	79.0	79.2	79.3
1986	80.1	79.4	78.8	78.7	78.8	78.6	78.8	78.5	78.6	78.8	79.1	79.7	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	81.8	81.9	83.0	83.4	83.7	79.8	80.8	81.7	83.4	81.4
1988	83.7	84.0	84.2	84.5	84.4	84.6	84.6	85.0	84.6	85.0	85.1	85.4	83.9	84.5	84.7	85.2	84.6
1989	85.6	85.1	85.3	85.2	84.5	84.3	83.2	83.8	83.4	83.0	83.1	83.4	85.3	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	80.4	80.3	80.2	80.9	80.6	80.4	79.9	79.6	79.7	80.5	80.3	80.0
1992	79.2	79.7	80.2	80.6	80.8	80.6	81.1	80.6	80.6	81.0	81.2	81.1	79.7	80.6	80.8	81.1	80.6
1993	81.5	81.6	81.5	81.6	81.2	81.2	81.4	81.2	81.4	81.9	82.1	82.3	81.5	81.3	81.3	82.1	81.6
1994	82.6	82.5	83.1	83.2	83.4	83.8	83.6	83.8	83.7	84.1	84.3	84.9	82.7	83.5	83.7	84.5	83.6
1995	84.9	84.6	84.3	83.9	83.8	83.8	83.2	84.0	83.9	83.4	83.3	83.3	84.6	83.9	83.7	83.3	83.9
1996	82.3	83.3	82.9	83.4	83.7	84.1	83.5	83.7	83.8	83.3	83.8	84.0	82.8	83.7	83.6	83.7	83.5
1997	83.7	84.2	84.3	83.8	83.8	83.7	83.7	84.2	84.5	84.7	84.9	84.7	84.1	83.8	84.1	84.7	84.2
1998	84.5	84.2	83.8	83.6	83.8	82.8	81.9	83.2	82.4	82.6	82.1	81.9	84.2	83.4	82.5	82.2	83.1
1999	81.8	81.8	81.5	81.2	81.5	80.9	81.0	81.1	80.7	81.5	81.5	81.9	81.7	81.2	80.9	81.6	81.4
2000	81.5	81.4	81.4	81.6	81.4	81.2	80.7	80.3	80.6	80.0	79.8	79.3	81.4	81.4	80.5	79.7	80.8
2001	78.7	78.2	77.9	77.7	77.1	76.6	76.3	76.0	75.6	75.2	74.7	74.6	78.2	77.1	76.0	74.8	76.5
2002	75.1	74.9	75.5	75.7	76.1	76.8	76.5	76.6	76.6	76.4	76.8	76.4	75.2	76.2	76.5	76.5	76.1
2003	76.9	77.1	76.9	76.3	76.2	76.2	76.4	76.3	76.8	76.7	77.3	77.2	77.0	76.2	76.5	77.1	76.7
2004	77.4	77.8	77.4	77.8	78.4	77.8	78.4	78.5	78.5	79.2	79.4	79.9	77.5	78.0	78.5	79.5	78.4
2005	80.2	80.6	80.5	80.5	80.5	80.8	80.5	80.4	78.5	79.3	80.0	80.4	80.4	80.6	79.8	79.9	80.2
2006	80.3	80.2	80.2	80.4	80.1	80.3	80.2	80.2	79.9	79.7	79.4	80.1	80.2	80.3	80.1	79.7	80.1
2007	79.6	80.4	80.2	80.6	80.6	80.7	80.7	80.8	81.1	80.6	81.0	81.0	80.1	80.7	80.9	80.8	80.6
2008	80.7	80.5	80.2	79.5	79.1	78.9	78.6	77.2	73.8	74.5	73.7	71.7	80.5	79.2	76.6	73.3	77.4
2009	70.0	69.5	68.3	67.6	66.9	66.7	67.4	68.2	68.8	69.1	69.6	70.0	69.3	67.1	68.1	69.6	68.5
2010	70.9	71.2	71.9	72.3	73.6	74.0	74.5	74.8	75.1	74.9	75.2	75.9	71.3	73.3	74.8	75.3	73.7
2011	75.8	75.5	76.3	75.8	76.1	76.1	76.5	76.8	76.8	77.2	77.2	77.5	75.9	76.0	76.7	77.3	76.5
2012	77.9	78.2	77.6	78.0	78.1	77.9	78.2	77.5	77.5	77.2	78.0	78.0	77.9	78.0	77.7	77.7	77.8
2013	78.1	78.6															

NOTE: Estimates from October 2012 through February 2013 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)																	
1983	2.5	-2	.8	1.0	1.2	.6	1.2	.9	1.5	1.0	.3	.2	8.2	10.6	13.5	10.9	3.7
1984	1.8	1.0	.4	.4	.1	.3	.4	.1	-3	.4	.3	.4	11.7	4.7	2.3	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	.1	.4	.4	.8	4.8	-1	1.2	4.2	2.2
1987	-5	1.4	.1	.4	.7	.3	.6	.3	.5	1.6	.6	.5	4.6	6.0	5.7	10.6	4.6
1988	-2	.2	.2	.8	-2	.1	.0	.0	.3	.5	.3	.4	2.0	3.5	.2	4.2	4.4
1989	.8	-1.0	.0	.1	-9	.2	-1.3	.8	-3	-3	.1	.0	2.3	-3.0	-4.3	-.7	.4
1990	-3	1.5	.4	-3	.1	.2	-2	.3	-1	-9	-1.2	-8	3.5	2.4	.5	-7.5	.0
1991	-8	-8	-8	.3	.7	1.1	.3	.2	1.1	-2	-3	-3	-9.6	1.3	7.1	1.1	-2.6
1992	-9	.9	.9	.4	.5	.1	.8	-5	-1	.5	.3	-2	-1.2	7.0	2.7	1.5	2.6
1993	1.1	.1	-3	.5	-1	-2	.3	-2	.5	.7	.3	.5	4.0	.6	.3	5.7	2.5
1994	.1	.1	1.1	.6	.5	.2	.2	.6	.1	.7	.6	.9	4.2	7.1	3.7	7.0	4.4
1995	.1	-3	-1	-4	-1	.3	-8	.9	.5	-4	-1	.0	2.8	-2.3	.4	.6	2.5
1996	-1.2	1.3	-5	1.0	.5	.8	-1	.3	.4	-4	.7	.7	-1.9	7.3	4.0	2.8	1.5
1997	-2	1.1	.8	-.7	.5	.4	.2	1.3	.6	.5	.8	.1	6.2	2.8	6.9	8.1	4.9
1998	.5	.0	-3	.3	.4	-1.1	-.9	2.4	-8	.7	-1	.2	3.2	-.2	-5	4.0	3.4
1999	-1	.5	-4	-1	.8	-.7	.0	.6	-4	1.4	.4	.4	.8	.3	-.2	6.7	1.4
2000	-3	-2	.3	.4	-6	.0	-4	-8	.4	-6	-6	-8	.3	.6	-3.8	-4.8	.7
2001	-6	-5	-3	-1	-7	-6	-1	-6	-2	-7	-2	.2	-7.0	-4.5	-4.6	-4.3	-4.8
2002	.6	-2	.7	.1	.6	1.1	-.6	.3	.0	-.5	.4	-6	3.4	5.5	2.4	-1.1	.4
2003	.4	.0	.1	-1.1	-1	.2	-1	-.5	.8	-2	.9	-3	.7	-4.0	.0	2.7	.0
2004	-1	.7	-.2	.4	.8	-.8	.9	.5	-2	1.0	-1	.6	1.7	3.3	3.7	4.9	2.0
2005	.6	.7	-.5	.2	.3	.1	-.3	.1	-1.3	1.4	.8	.0	5.2	1.3	-1.9	4.3	3.1
2006	.8	-3	-1	.5	-6	.2	-2	.3	.0	-.5	.0	1.5	3.3	.0	-1	.5	1.5
2007	-.6	.3	.6	.5	.0	.5	.1	-.5	.4	-.6	.3	.0	3.3	4.5	1.0	-1.4	1.8
2008	-.5	-.8	-.5	-1.3	-.6	-.6	-1.0	-1.4	-3.5	-.4	-2.0	-3.2	-4.3	-9.3	-13.8	-20.5	-5.8
2009	-2.9	-.2	-2.1	-.9	-1.2	-.3	1.2	1.1	.7	.1	1.1	.0	-23.5	-12.3	6.5	6.6	-13.8
2010	.8	-.2	1.2	.8	1.4	.0	.7	.0	.0	.0	.0	.4	5.6	10.3	4.8	.8	5.1
2011	.0	.0	.8	-.8	.2	.0	.7	.3	.4	.6	-1	1.0	2.4	-.4	4.8	5.1	2.8
2012	1.1	.7	-.5	.6	-.3	.3	.2	-.6	.0	-.6	1.4	1.0	8.2	1.5	-.2	2.0	3.9
2013	-1	.6															
IP (2007=100)																	
1983	60.6	60.5	61.0	61.7	62.4	62.8	63.6	64.2	65.1	65.8	66.0	66.1	60.7	62.3	64.3	66.0	63.3
1984	67.3	68.0	68.2	68.5	68.6	68.8	69.1	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	71.3	70.8	70.6	70.9	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	73.0	73.0	73.3	73.8	74.0	74.4	74.7	75.0	76.2	76.6	77.0	72.6	73.7	74.7	76.6	74.4
1988	76.8	77.0	77.2	77.8	77.6	77.6	77.6	77.6	77.9	78.3	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	78.1
1990	77.2	78.3	78.7	78.4	78.5	78.7	78.5	78.7	78.6	77.9	77.0	76.3	78.0	78.5	78.6	77.1	78.1
1991	75.7	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	76.7	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	79.6	80.0	80.6	80.8	81.2	79.6	79.7	79.8	80.9	80.0
1994	81.3	81.4	82.4	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	85.8	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	86.6	87.4	87.3	87.6	87.9	87.6	88.2	88.8	85.2	86.7	87.6	88.2	86.9
1997	88.6	89.6	90.3	89.7	90.2	90.5	90.7	91.8	92.4	92.9	93.7	93.8	89.5	90.1	91.6	93.5	91.2
1998	94.3	94.3	94.0	94.2	94.6	93.6	92.8	95.0	94.3	95.0	94.8	95.0	94.2	94.1	94.0	94.9	94.3
1999	95.0	95.4	95.0	95.0	95.7	95.0	95.0	95.6	95.2	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	96.5	95.7	96.1	95.6	95.0	94.2	96.9	97.0	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	93.2	92.2	91.1	90.1	91.7
2002	90.8	90.6	91.3	91.4	92.0	93.0	92.5	92.7	92.8	92.3	92.7	92.2	90.9	92.1	92.7	92.4	92.0
2003	92.6	92.5	92.6	91.6	91.5	91.7	91.7	91.3	92.0	91.8	92.6	92.3	92.6	91.6	91.6	92.2	92.0
2004	92.3	92.9	92.7	93.1	93.8	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	96.5	96.6	96.9	97.1	96.8	96.9	95.6	96.9	97.7	97.7	96.6	96.9	96.4	97.4	96.8
2006	98.5	98.2	98.1	98.5	98.0	98.2	98.0	98.3	98.3	97.8	97.8	99.3	98.2	98.2	98.2	98.3	98.3
2007	98.7	99.1	99.6	100.1	100.1	100.6	100.7	100.2	100.6	99.9	100.2	100.3	99.1	100.2	100.5	100.1	100.0
2008	99.7	99.0	98.5	97.2	96.7	96.1	95.1	93.8	90.5	90.1	88.3	85.4	99.0	96.7	93.1	87.9	94.2
2009	82.9	82.7	81.0	80.3	79.4	79.1	80.0	81.0	81.5	81.6	82.5	82.4	82.2	79.6	80.8	82.2	81.2
2010	83.1	82.9	83.9	84.6	85.8	85.8	86.4	86.4	86.4	86.4	86.4	86.8	83.3	85.4	86.4	86.5	85.4
2011	86.8	86.8	87.5	86.8	87.0	87.0	87.7	88.0	88.3	88.9	88.8	89.7	87.1	87.0	88.0	89.1	87.8
2012	90.6	91.3	90.8	91.3	91.0	91.3	91.5	91.0	91.0	90.5	91.8	92.7	90.9	91.2	91.2	91.6	91.2
2013	92.6	93.2															

NOTE: Estimates from October 2012 through February 2013 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)																	
1983	86.9	86.9	86.9	86.8	86.8	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.9	86.8	86.7	86.7	86.8
1984	86.7	86.7	86.8	86.9	87.0	87.1	87.2	87.4	87.5	87.7	87.8	88.0	86.8	87.0	87.4	87.8	87.2
1985	88.2	88.4	88.6	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	91.2	91.3	91.4	91.6	91.7	91.8	91.9	92.0	92.1	92.1	91.0	91.4	91.8	92.1	91.6
1988	92.1	92.2	92.2	92.1	92.1	92.1	92.1	92.1	92.1	92.2	92.2	92.3	92.2	92.1	92.1	92.2	92.2
1989	92.4	92.5	92.6	92.8	92.9	93.1	93.3	93.5	93.6	93.8	94.0	94.2	92.5	92.9	93.5	94.0	93.2
1990	94.4	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	97.0	97.1	97.2	97.3	97.4	96.2	96.6	97.0	97.3	96.8
1992	97.5	97.6	97.7	97.8	97.9	98.0	98.1	98.2	98.3	98.5	98.6	98.7	97.6	97.9	98.2	98.6	98.1
1993	98.8	98.9	99.0	99.1	99.3	99.4	99.5	99.6	99.7	99.8	99.9	100.0	98.9	99.3	99.6	99.9	99.4
1994	100.1	100.2	100.4	100.5	100.6	100.8	100.9	101.1	101.2	101.4	101.6	101.8	100.2	100.6	101.1	101.6	100.9
1995	102.0	102.2	102.4	102.6	102.8	103.1	103.3	103.5	103.7	103.9	104.1	104.4	102.2	102.8	103.5	104.1	103.2
1996	104.6	104.8	105.0	105.2	105.4	105.7	105.9	106.1	106.4	106.7	107.0	107.3	104.8	105.4	106.1	107.0	105.8
1997	107.6	108.0	108.3	108.7	109.1	109.5	110.0	110.4	110.9	111.4	111.9	112.4	108.0	109.1	110.4	111.9	109.8
1998	112.8	113.3	113.8	114.3	114.7	115.2	115.6	116.1	116.5	116.9	117.3	117.6	113.3	114.7	116.1	117.3	115.3
1999	118.0	118.3	118.7	119.0	119.3	119.6	119.8	120.1	120.4	120.6	120.8	121.1	118.3	119.3	120.1	120.8	119.6
2000	121.3	121.5	121.7	121.9	122.0	122.2	122.4	122.5	122.7	122.9	123.0	123.1	121.5	122.0	122.5	123.0	122.3
2001	123.3	123.4	123.5	123.6	123.7	123.8	123.9	124.0	124.0	124.1	124.1	124.1	123.4	123.7	124.0	124.1	123.8
2002	124.1	124.1	124.1	124.1	124.1	124.0	124.0	123.9	123.9	123.8	123.8	123.7	124.1	124.1	123.9	123.8	124.0
2003	123.6	123.6	123.5	123.4	123.4	123.3	123.2	123.2	123.1	123.0	123.0	122.9	123.6	123.4	123.2	123.0	123.3
2004	122.8	122.8	122.7	122.6	122.6	122.5	122.5	122.4	122.4	122.4	122.5	122.5	122.8	122.6	122.5	122.5	122.6
2005	122.6	122.7	122.8	123.0	123.1	123.3	123.5	123.7	123.9	124.1	124.3	124.5	122.7	123.1	123.7	124.3	123.5
2006	124.7	124.9	125.1	125.2	125.4	125.6	125.8	125.9	126.1	126.2	126.3	126.5	124.9	125.4	125.9	126.3	125.6
2007	126.6	126.7	126.8	126.9	127.0	127.1	127.2	127.3	127.4	127.4	127.5	127.5	126.7	127.0	127.3	127.5	127.1
2008	127.5	127.5	127.4	127.4	127.3	127.2	127.1	127.0	126.8	126.7	126.5	126.2	127.5	127.3	127.0	126.5	127.1
2009	126.0	125.7	125.4	125.1	124.8	124.5	124.2	123.8	123.5	123.2	122.8	122.5	125.7	124.8	123.8	122.8	124.3
2010	122.2	121.8	121.5	121.2	121.0	120.7	120.4	120.2	119.9	119.7	119.5	119.3	121.9	121.0	120.2	119.5	120.6
2011	119.2	119.0	118.9	118.8	118.8	118.7	118.7	118.7	118.8	118.8	118.9	119.0	119.0	118.8	118.7	118.9	118.9
2012	119.1	119.3	119.4	119.6	119.7	119.9	120.1	120.2	120.4	120.6	120.7	120.9	119.3	119.7	120.2	120.7	120.0
2013	121.0	121.2															
Utilization (percent)																	
1983	69.8	69.7	70.3	71.0	71.9	72.4	73.3	74.0	75.2	76.0	76.2	76.3	69.9	71.8	74.2	76.1	73.0
1984	77.6	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	78.6	78.3	78.3	78.2	77.7	78.1	78.1	77.7	78.1	78.4	78.4	78.3	77.9	78.1	78.2
1986	79.3	78.7	78.4	78.7	78.7	78.5	78.7	78.7	78.7	78.9	79.1	79.7	78.8	78.6	78.7	79.2	78.8
1987	79.2	80.2	80.1	80.3	80.7	80.8	81.2	81.3	81.6	82.8	83.2	83.6	79.8	80.6	81.4	83.2	81.2
1988	83.4	83.6	83.7	84.4	84.2	84.3	84.3	84.3	84.5	84.9	85.1	85.4	83.6	84.3	84.4	85.1	84.3
1989	86.0	85.1	84.9	84.9	84.0	84.0	82.7	83.2	82.8	82.4	82.3	82.2	85.3	84.3	82.9	82.3	83.7
1990	81.8	82.8	83.1	82.6	82.6	82.6	82.3	82.5	82.3	81.4	80.3	79.5	82.6	82.6	82.4	80.4	82.0
1991	78.8	78.1	77.4	77.5	77.9	78.7	78.8	78.9	79.7	79.4	79.1	78.7	78.1	78.0	79.1	79.1	78.6
1992	78.0	78.6	79.2	79.5	79.8	79.8	80.3	79.8	79.6	79.9	80.1	79.8	78.6	79.7	79.9	79.9	79.5
1993	80.6	80.6	80.2	80.5	80.3	80.1	80.2	79.9	80.2	80.7	80.9	81.2	80.4	80.3	80.1	81.0	80.4
1994	81.2	81.2	82.1	82.4	82.7	82.7	82.8	83.1	83.1	83.5	83.9	84.5	81.5	82.6	83.0	84.0	82.8
1995	84.4	84.0	83.7	83.2	82.9	83.0	82.2	82.7	83.0	82.4	82.2	82.0	84.0	83.1	82.6	82.2	83.0
1996	80.9	81.8	81.3	81.9	82.2	82.7	82.4	82.5	82.6	82.1	82.4	82.8	81.3	82.3	82.5	82.4	82.1
1997	82.4	83.0	83.4	82.5	82.6	82.6	82.5	83.2	83.3	83.4	83.7	83.5	82.9	82.6	83.0	83.5	83.0
1998	83.6	83.2	82.6	82.5	82.5	81.2	80.2	81.8	80.9	81.3	80.9	80.8	83.1	82.1	81.0	81.0	81.8
1999	80.5	80.6	80.1	79.8	80.2	79.4	79.3	79.6	79.1	80.0	80.1	80.3	80.4	79.8	79.3	80.1	79.9
2000	79.9	79.6	79.8	79.9	79.4	79.3	78.9	78.1	78.3	77.8	77.3	76.5	79.8	79.5	78.4	77.2	78.7
2001	76.0	75.5	75.2	75.1	74.5	74.0	73.9	73.4	73.2	72.7	72.5	72.7	75.6	74.5	73.5	72.6	74.1
2002	73.1	73.0	73.5	73.6	74.1	75.0	74.6	74.8	74.9	74.6	74.9	74.5	73.2	74.2	74.8	74.7	74.2
2003	74.9	74.9	75.0	74.2	74.2	74.4	74.4	74.1	74.7	74.6	75.3	75.1	74.9	74.3	74.4	75.0	74.6
2004	75.1	75.7	75.6	76.0	76.6	76.0	76.7	77.1	77.0	77.8	77.7	78.1	75.5	76.2	76.9	77.8	76.6
2005	78.5	79.0	78.5	78.6	78.7	78.7	78.4	78.3	77.2	78.1	78.6	78.5	78.7	78.7	78.0	78.4	78.4
2006	79.0	78.6	78.4	78.7	78.1	78.2	77.9	78.1	78.0	77.5	77.4	78.5	78.7	78.3	78.0	77.8	78.2
2007	78.0	78.2	78.5	78.9	78.8	79.1	79.1	78.7	79.0	78.4	78.6	78.6	78.2	78.9	78.9	78.6	78.7
2008	78.2	77.6	77.3	76.3	75.9	75.5	74.8	73.9	71.4	71.1	69.8	67.7	77.7	75.9	73.3	69.5	74.1
2009	65.8	65.8	64.6	64.2	63.6	63.5	64.5	65.4	66.0	66.3	67.1	67.3	65.4	63.8	65.3	66.9	65.3
2010	68.0	68.0	69.0	69.7	70.9	71.1	71.7	71.9	72.0	72.2	72.3	72.7	68.4	70.6	71.9	72.4	70.8
2011	72.9	73.0	73.6	73.1	73.3	73.3	73.9	74.1	74.4	74.8	74.6	75.3	73.1	73.2	74.1	74.9	73.8
2012	76.1	76.5	76.0	76.3	76.0	76.2	76.2	75.7	75.6	75.0	76.0	76.7	76.2	76.2	75.8	75.9	76.0
2013	76.5	76.9															

NOTE: Estimates from October 2012 through February 2013 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		2005	2006	2007	2008	2009	2010	2011	2012
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	55.9	54.7	55.1	56.4	54.0	53.4	53.5
Consumer goods		29.1	28.4	27.3	27.3	29.6	27.9	27.5	27.1
Durable		7.1	6.9	6.7	6.3	6.2	5.8	5.6	5.8
Automotive products		3.3	3.2	3.3	3.0	3.1	3.0	2.8	3.0
Home electronics		.4	.4	.3	.3	.3	.2	.2	.1
Appliances, furniture, carpeting		1.3	1.2	1.1	1.0	.9	.8	.8	.8
Miscellaneous goods		2.2	2.2	2.0	2.0	1.9	1.9	1.9	1.9
Nondurable		22.0	21.5	20.6	20.9	23.4	22.1	21.9	21.3
Non-energy		16.5	16.2	15.6	16.2	17.9	16.4	16.2	16.0
Foods and tobacco		8.8	8.5	8.2	8.6	9.9	9.2	9.0	9.1
Clothing		.5	.4	.3	.3	.2	.2	.2	.2
Chemical products		4.9	5.0	5.0	5.1	5.5	4.9	5.0	4.9
Paper products		1.7	1.7	1.6	1.6	1.7	1.6	1.5	1.4
Energy		5.5	5.4	5.0	4.8	5.5	5.6	5.7	5.3
Business equipment		9.3	9.8	9.7	10.0	9.4	9.2	9.2	9.6
Transit		1.8	2.1	2.1	2.0	1.9	2.1	1.9	2.2
Information processing		2.7	2.8	2.7	2.7	2.6	2.3	2.1	2.1
Industrial and other		4.8	4.9	5.0	5.2	4.9	4.9	5.2	5.4
Defense and space equipment		1.5	1.5	1.8	2.0	2.3	2.4	2.2	2.3
Construction supplies		4.9	5.1	4.9	4.8	4.2	4.1	4.1	4.2
Business supplies		10.4	10.3	10.1	10.2	10.4	9.9	9.7	9.5
Materials		44.1	44.1	45.3	44.9	43.6	46.0	46.6	46.5
Non-energy		28.8	28.5	28.3	28.1	27.0	28.4	28.9	29.0
Durable		17.7	17.6	17.3	17.1	15.3	16.6	17.3	17.6
Consumer parts		3.3	3.1	2.9	2.6	1.9	2.3	2.4	2.6
Equipment parts		6.1	6.0	6.1	6.4	5.9	6.1	6.5	6.5
Other		8.3	8.5	8.4	8.2	7.5	8.2	8.5	8.5
Nondurable		11.2	10.9	11.0	11.0	11.7	11.8	11.6	11.4
Textile		.7	.6	.5	.4	.4	.5	.4	.4
Paper		2.3	2.3	2.2	2.3	2.3	2.2	2.1	2.0
Chemical		5.1	4.9	5.2	4.9	5.2	5.7	5.6	5.6
Energy		15.2	15.6	17.0	16.8	16.5	17.6	17.7	17.5
INDUSTRY GROUPS									
Manufacturing		78.2	77.6	76.1	75.8	75.7	74.8	74.8	75.5
Manufacturing (NAICS)	31–33	74.2	73.7	72.5	72.2	72.1	71.6	71.9	72.7
Durable manufacturing		39.1	39.3	39.2	39.2	36.5	36.9	37.2	38.3
Wood products	321	1.5	1.4	1.2	1.1	1.0	.9	.9	.9
Nonmetallic mineral products	327	2.3	2.3	2.2	2.0	1.7	1.6	1.6	1.5
Primary metals	331	2.6	2.7	2.7	2.5	2.1	2.9	3.1	3.1
Fabricated metal products	332	5.3	5.5	5.8	6.0	5.3	5.2	5.4	5.6
Machinery	333	4.8	5.0	5.1	5.4	4.9	5.1	5.5	5.8
Computer and electronic products	334	7.2	7.0	6.8	7.0	6.6	6.4	6.3	6.1
Electrical equip., appliances, and components	335	1.9	1.9	1.9	2.0	1.9	1.8	1.8	1.8
Motor vehicles and parts	3361–3	5.8	5.5	5.2	4.5	4.0	4.5	4.2	4.6
Aerospace and miscellaneous transportation equipment	3364–9	3.2	3.4	4.0	4.3	4.6	4.4	4.3	4.6
Furniture and related products	337	1.6	1.5	1.4	1.4	1.1	1.0	1.0	1.0
Miscellaneous	339	3.0	3.1	2.9	3.2	3.4	3.2	3.1	3.2
Nondurable manufacturing		35.1	34.3	33.3	33.0	35.6	34.7	34.6	34.4
Food, beverage, and tobacco products	311,2	10.5	10.1	9.9	10.5	12.1	11.2	10.9	11.1
Textile and product mills	313,4	1.2	1.1	.9	.8	.7	.7	.7	.7
Apparel and leather	315,6	.6	.6	.4	.4	.3	.3	.3	.3
Paper	322	2.6	2.6	2.5	2.6	2.8	2.6	2.5	2.4
Printing and support	323	2.0	1.9	1.9	1.9	1.8	1.6	1.5	1.4
Petroleum and coal products	324	4.0	4.0	3.3	2.7	3.1	3.6	4.0	4.0
Chemicals	325	11.0	10.9	11.3	11.2	11.9	11.8	11.8	11.7
Plastics and rubber products	326	3.2	3.2	3.0	3.0	2.9	2.9	2.9	2.9
Other manufacturing (non-NAICS)	1133,5111	4.0	3.9	3.6	3.6	3.6	3.1	3.0	2.8
Mining	21	12.1	12.8	14.1	13.7	12.6	14.0	14.6	14.6
Utilities	2211,2	9.7	9.6	9.8	10.5	11.7	11.2	10.6	9.9
Electric	2211	7.9	8.0	8.1	8.8	10.0	9.7	9.3	8.8
Natural gas	2212	1.8	1.6	1.7	1.7	1.7	1.5	1.3	1.2

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 2012 and 2013 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						
	2012 Sept. ^r	Oct. ^r	Nov. ^r	Dec. ^r	2013 Jan. ^r	Feb. ^r	2012 Sept. ^r	Oct. ^r	Nov. ^r	Dec. ^r	2013 Jan. ^r	Feb. ^r	Feb. '12 to Feb. '13
Total index	97.0	96.8	98.0	98.2	98.3	99.0	.2	-.1	1.2	.1	.1	.8	2.5
<i>Previous estimates</i>	97.2	97.0	98.5	98.7	98.8	99.5	.2	-.2	1.5	.3	.0	.7	2.5
<u>Major market groups</u>													
Final Products	95.2	94.4	95.9	95.8	96.0	96.7	.3	-.8	1.5	-.1	.3	.8	2.7
Consumer goods	92.4	91.9	93.2	93.0	93.4	93.9	.4	-.6	1.4	-.2	.5	.5	2.0
Business equipment	100.1	98.9	101.1	101.4	100.8	102.6	-.2	-1.2	2.2	.3	-.6	1.8	5.7
Nonindustrial supplies	86.1	85.9	87.2	87.4	87.9	88.7	.0	-.2	1.5	.2	.6	.9	2.4
Construction	78.0	77.8	79.5	80.7	81.4	82.7	.4	-.2	2.2	1.4	1.0	1.6	4.4
Materials	102.4	102.9	103.8	104.1	104.1	104.8	.2	.4	.9	.3	-.1	.7	2.3
<u>Major industry groups</u>													
Manufacturing (see note below)	93.6	93.2	94.5	95.3	95.2	95.8	.1	-.4	1.4	.9	-.2	.6	2.0
<i>Previous estimates</i>	93.9	93.2	94.8	96.1	95.7	96.5	.0	-.7	1.7	1.3	-.3	.8	2.0
Mining	114.3	115.1	116.0	115.9	115.0	116.0	1.2	.6	.8	-.1	-.8	.9	3.2
Utilities	99.0	100.2	100.9	95.5	99.2	100.9	-.5	1.2	.7	-5.4	3.9	1.6	4.7
Capacity utilization	Percent of capacity												Capacity growth
	Average 1972- 2012	1988- 89 high	1990- 91 low	1994- 95 high	2008- 09 low	2012 Feb.	2012 Sept. ^r	Oct. ^r	Nov. ^r	Dec. ^r	2013 Jan. ^r	Feb. ^r	Feb. '12 to Feb. '13
Total industry	80.2	85.2	78.8	85.0	66.9	77.9	77.2	77.0	77.8	77.8	77.8	78.3	2.0
<i>Previous estimates</i>	80.2	85.2	78.8	85.0	66.8	79.0	78.4	78.1	79.2	79.3	79.2	79.6	1.7
Manufacturing (see note below)	78.7	85.6	77.3	84.6	64.0	76.2	75.3	74.9	75.8	76.4	76.2	76.6	1.6
<i>Previous estimates</i>	78.8	85.6	77.3	84.6	63.8	78.0	76.8	76.1	77.3	78.2	77.8	78.3	1.6
Mining	87.3	86.3	83.9	88.6	78.3	88.8	88.0	88.2	88.7	88.3	87.4	87.8	4.3
Utilities	86.2	92.9	84.3	93.3	78.6	76.8	78.1	78.9	79.3	75.0	77.9	79.1	1.7
<u>Stage-of-process groups</u>													
Crude	86.3	87.7	84.4	89.7	76.4	86.8	86.4	86.5	87.1	87.0	86.1	86.6	2.9
Primary and semifinished	81.0	86.5	78.0	87.9	64.4	75.5	74.8	75.2	75.9	75.5	76.1	76.7	.5
Finished	77.1	83.4	77.3	80.6	66.8	76.7	76.0	74.9	75.9	76.4	76.1	76.4	3.4

^r Revised.

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.

Table 14

NETWORKING EQUIPMENT, 2000–2012

	Production Index (2007=100)	Price Index (2007=100)	Value of Production (millions of dollars)
Annual Estimates			
2000	97.8	227.3	26,343.4
2001	104.2	199.5	24,640.7
2002	68.4	180.9	14,682.0
2003	70.4	154.6	12,900.4
2004	69.2	135.0	11,087.1
2005	87.8	120.6	12,540.0
2006	142.1	110.9	18,498.8
2007	100.0	100.0	12,188.4
2008	8.5	93.2	942.8
2009	24.6	82.4	2,395.9
2010	33.4	72.8	2,889.5
2011	35.0	60.7	2,510.2
2012	n.a.	56.3	n.a.
Quarterly Estimates			
2000Q1	98.6	233.2	25,206.1
Q2	108.6	216.9	25,840.0
Q3	107.7	226.6	26,777.4
Q4	107.9	232.8	27,545.8
2001Q1	122.4	206.7	27,755.3
Q2	114.7	201.4	25,347.5
Q3	109.3	196.0	23,500.4
Q4	102.8	194.6	21,956.5
2002Q1	80.3	192.0	16,906.5
Q2	73.2	183.8	14,756.4
Q3	71.2	177.6	13,867.6
Q4	70.3	171.7	13,234.2
2003Q1	68.4	162.9	12,214.8
Q2	78.0	162.9	13,930.0
Q3	83.3	153.9	14,057.6
Q4	74.7	139.6	11,442.5
2004Q1	80.7	146.6	12,978.7
Q2	71.2	137.5	10,739.2
Q3	72.7	131.6	10,498.3
Q4	77.0	125.2	10,572.8
2005Q1	76.1	122.3	10,205.2
Q2	86.4	120.1	11,386.9
Q3	104.7	120.3	13,812.8
Q4	119.2	120.0	15,694.0
2006Q1	105.6	118.3	13,696.5
Q2	122.4	111.8	15,002.3
Q3	172.8	108.1	20,494.0
Q4	234.3	105.6	27,136.4
2007Q1	195.3	103.8	22,234.3
Q2	168.0	102.4	18,863.9
Q3	17.3	98.5	1,866.4
Q4	19.4	95.2	2,023.3
2008Q1	9.8	97.6	1,050.8
Q2	7.2	94.5	749.5
Q3	8.4	92.6	848.5
Q4	11.8	87.8	1,136.9
2009Q1	12.0	83.7	1,100.5
Q2	22.1	84.3	2,040.1
Q3	34.0	79.5	2,966.6
Q4	40.7	81.8	3,655.4
2010Q1	36.4	77.8	3,109.3
Q2	34.2	73.5	2,761.1
Q3	37.4	71.1	2,915.9
Q4	35.6	68.6	2,676.0
2011Q1	30.6	64.5	2,165.9
Q2	35.3	60.3	2,336.4
Q3	40.3	59.9	2,646.3
Q4	45.1	58.1	2,871.0
2012Q1	n.a.	58.4	n.a.
Q2	n.a.	58.1	n.a.
Q3	n.a.	54.9	n.a.
Q4	n.a.	53.8	n.a.

NOTE: The production index in the table is calculated as the value of production divided by the price index and then indexed to 2007.
The production index does not reflect changes to IP for benchmark purposes and so it is not equivalent to the IP index for data networking equipment.
n.a.: not available

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 computers, communications equipment, and 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_t), and, as can be seen below, is computed using the unit value added estimate for the current month (p_m) and the estimate for previous month:

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

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

Timing. The first estimate of output for a month is published around the 15th of the following month. The estimate is preliminary (denoted by the superscript “p” in tables) and subject to revision in each of the subsequent five months as new source data become available. (Revised estimates are denoted by the superscript “r” in tables.) For the first estimate of output for a given month, about 67 percent of the source data (in value-added terms) are available; the fraction of available source data increases to 81 percent for estimates in the second month that the estimate is published, 93 percent in the third month, 96 percent in the fourth month, 99 percent in the fifth month, and 99 percent in the sixth month. Data availability by data type in early 2011 is summarized in the table below:

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

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

The physical product group includes series based on either monthly or quarterly data. As can be seen in the first row of the table, in the first month, a physical product indicator is available for about 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 2013; for other series, the factors were estimated with data through at least December 2012. Series are pre-adjusted for the effects of holidays or 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 1972–2012 period, the average total industry utilization rate was 80.2 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

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