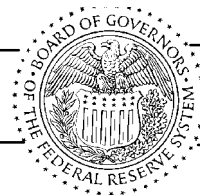


FEDERAL RESERVE statistical release



G.17 (419) 2012 Historical and Annual Revision

For release at 12:00 noon (EDT)
March 30, 2012

Industrial Production and Capacity Utilization: The 2012 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 dropped 0.3 percentage point more in 2009; its gains in both 2010 and 2011 were essentially unchanged from what was previously reported. With these minor revisions, the broad contour of total IP in recent years is similar to previous estimates. Since the trough of the last recession in June 2009, total IP has reversed about three-fourths of its peak-to-trough decline.

The revised IP indexes incorporate detailed data on factory activity for 2010 and revised data for 2009 from the U.S. Census Bureau's Annual Survey of Manufactures (ASM). In addition, data from selected editions of the Census Bureau's Current Industrial Reports (CIR) for 2010 and annual data from the U.S. Geological Survey regarding metallic and nonmetallic minerals (except fuels) for 2010 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.

Capacity utilization rates for recent years were revised down. The revisions show that the rate of capacity utilization for total industry was 0.7 percentage point lower than previously estimated in the fourth quarter of 2010 and 0.4 percentage point lower in 2011, primarily as a result of small upward revisions to estimates of industrial capacity. The capacity utilization rate for the fourth quarter of 2008 was revised down 0.3 percentage point, and the rate in the final quarter of 2009 was revised down about 0.8 percentage point.

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 2011, which covered the manufacturing sector, along with new data on capacity in the energy and mining sectors from the U.S. Geological Survey (USGS), the U.S. Department of Energy (DOE), and other organizations, as well as data on industry capital spending from the 2010 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 1982 through February 2012, along with the percentage changes in total IP. Tables 2 through 4 show the revised rates of change in IP from 2007 through 2011 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 2008–12 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 2008 through 2011 and the differences

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.

between the revised and previous estimates. Table 7 reports revised semiannual rates of change for IP for 2007 through 2011. Table 8 contains revised capacity utilization rates for the second and fourth quarters of 2007 through 2011. Tables 9A, 9B, 10A, 10B, 11A, and 11B report the revised production, capacity, and utilization series for total 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 2004 through 2011. 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.

Industrial Production

Revisions to changes in total IP in recent years were very small (tables 2 and 7). As can be seen in chart 1, the overall contour for IP in recent years was little changed: A steep decline from late 2007 to June 2009 was followed by steady gains beginning in the second half of 2009 and continuing through early 2012.²

Production by Industry Group

Following modest gains in 2007, manufacturing production contracted sharply in 2008 and the first half of 2009, falling by 20 percent over that period; since June 2009, manufacturing production has recovered about two-thirds of this decline.³ The drop in 2008 was widespread, as output fell for all major manufacturing industries, and the magnitudes of these declines were little revised. The decline in manufacturing for the first half of 2009 was also broadly based and essentially unchanged from earlier estimates. Manufacturing output advanced solidly in the second half of 2009 through 2011; the gain in 2010 is now reported to have been slightly stronger than previously estimated while the rise in 2011 is about the same as previously reported.

For durable goods industries, output fell sharply in 2008 and the first half of 2009, and those declines are now reported to have been a bit steeper in both years. The production of durable goods surged in the second half of 2009 and in both 2010 and 2011; those gains are now reported to have been stronger in 2010 and slightly less strong in 2011 than previously estimated. All major categories of durables with the exception of nonmetallic mineral products increased in 2011, although for most industries, these gains are now reported to have been somewhat weaker than stated earlier.

Production in nondurable manufacturing industries was little changed in 2007 before falling markedly in 2008 and in the first half of 2009. Beginning in the second half of 2009, the output of nondurables began to increase and it has continued to advance at a moderate pace through 2011. Relative to earlier estimates, the rate of change in nondurable goods production in 2007 is little changed, while the decline for 2008 is now reported to be somewhat less steep and the decline for 2009 is now a bit larger. The increase in the output of nondurables was revised down in 2010, but it revised slightly up in 2011.

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 2007 through 2011. The declines are now reported to have been noticeably less steep in 2008 but somewhat larger in other recent years.

In the mining sector, output advanced modestly in 2007 and retreated nearly the same amount in 2008 before falling in 2009 and expanding strongly in 2010 and 2011. The rise in mining output was revised down in 2010 but revised up in 2011.

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.

The output of utilities advanced in 2007 before declining in 2008 and 2009, gaining in 2010, and falling in 2011. The estimates for utilities output for recent years are very similar to previous reports. The increase in the index for utilities in 2010 was revised down due entirely to a revision to natural gas utilities.

Output in high-technology industries—computers and peripheral equipment, communications equipment, and semiconductors and related electronic components—increased notably in 2007, fell somewhat in 2008, was little changed in 2009, moved up in 2010, and advanced modestly in 2011 (table 3). Relative to earlier estimates, production in the high-technology industries was lower, on net, over the 2007–11 period. Notably, output of computers and peripheral equipment was revised down substantially in 2009 and 2010 as the ASM values for computer output reflected a new, lower trajectory for the industry. Previously, the industrial production index for computers showed solid gains in 2009 and 2010, but the current estimates reflect sizable declines. The rates of change in the index for communications equipment are lower, on net, than previously reported. Revisions to the output of semiconductors were generally small. One exception was for 2010 when output is now reported to have expanded substantially more than in previous estimates.

Production by Market Group

The production index for final products and nonindustrial supplies (tables 2 and 7) posted a modest gain, on net, in 2007 and then fell markedly in 2008 and the first half of 2009 before advancing solidly in 2010 and 2011. Relative to earlier reports, the decline in 2009 is now reported to have been steeper and the gain in 2010 less strong; the increase in 2011 is slightly larger than previously stated.

The production of consumer goods declined modestly in 2007 before falling more rapidly in 2008 and in the first half of 2009. Compared with the previous estimates, the decrease in output for 2009 as a whole was deeper, while the gain in 2010 was flatter; the increase in 2011 is now larger than previously reported. The production of durable consumer goods advanced modestly in 2007 and then dropped steeply in 2008 through the first half of 2009; output has increased consistently since the second half of 2009, with moderate gains in 2010 and a noticeable step-up in 2011. Among durable consumer goods, the index for automotive products increased in 2007 and fell sharply in 2008; gains in 2009 were followed by a moderate increase in 2010 and a surge in 2011. The output of home electronics was revised substantially in 2009 and 2010; as a result, a small gain in 2009 is now reported as a decrease, and the decline in 2010 is much steeper than previously reported.

The index for consumer nondurables declined in the period from 2007 through the first half of 2009 before edging up in the second half of 2009 and in 2010 and 2011. Compared with the previously reported index, the gain in 2010 is slower, and a small decrease in 2011 is now a small increase. The revised index for consumer nondurable non-energy goods displays a similar contour to nondurables as a whole, although production is now reported to have edged down in 2010 whereas it had previously increased. Revisions to the production index for clothing made declines steeper in 2008, 2009, and 2011 and added to gains in 2010. The production of chemical products increased in 2011 following declines in 2007 through 2010. The index for consumer energy products advanced in 2007, 2008, and 2010, with small declines in 2009 and 2011.

The production of business equipment rose moderately in the second half of 2009 before posting rapid gains in 2010 and 2011; these increases followed sharp declines in 2008 and in the first half of 2009. Downward revisions contributed to a steeper decline for 2009 as a whole and a smaller increase in 2011. Among its components, the production of transit equipment declined sharply in 2008 before advancing strongly in the period from 2009 to 2011. The revised output of information processing equipment expanded in 2007 and fell in 2008 and 2009 before advancing in 2010 and 2011. The index for industrial and other equipment advanced at a modest pace in 2007, declined steeply in 2008 and 2009, advanced rapidly in 2010, and continued to expand in 2011.

The production of defense and space equipment surged in 2007, declined in 2008 and 2009, and increased in 2010 and 2011; previous estimates had shown small gains in 2008 and 2009.

The output of construction supplies edged down in 2007 and declined steeply in 2008 and 2009 before advancing in 2010 and 2011. The index was little changed from earlier estimates. The production of business supplies edged up in 2007, fell in 2008 and 2009, and then increased moderately in 2010 and 2011. The revisions in this category were also relatively small, and the index now shows slightly larger gains in 2010 and a smaller increase in 2011 than previously reported.

The index for materials increased in 2007, declined in 2008 and in the first half of 2009, and advanced strongly in the second half of 2009 and in 2010 and 2011. The decline in 2009 as a whole is now reported to have been less steep and the increase in 2010 more robust than previously stated; revisions in other years were small. The indexes for durable and nondurable materials show similar patterns through 2008 with moderate gains in 2007, followed by steep declines in 2008. In 2009, the output of durable materials continued to contract sharply, but it then rebounded strongly in 2010 and continued to increase in 2011. The production of nondurable materials edged up in 2009 and rose moderately in 2010 before ticking down in 2011. The index for energy materials moved up in 2007, declined modestly in 2008 and 2009, and then increased robustly in 2010 and 2011.

Capacity

Total industrial capacity was little changed in 2008, declined in 2009, and fell more in 2010 (table 5). Capacity moved up in 2011 and is expected to expand modestly in 2012. Relative to previous estimates, the decline in capacity in 2009 is now shallower and the increase in 2011 is less robust.

Capacity in manufacturing declined in each year from 2008 through 2010, with the largest decreases in 2009 and 2010; manufacturing capacity was little changed in 2011 and is expected to expand in 2012. The contour of manufacturing capacity was little altered by revisions. Durable manufacturing capacity stepped down in 2008, decreased more sharply in 2009 and 2010, and then advanced in 2011; it is expected to expand more rapidly in 2012. Nondurable manufacturing capacity decreased in every year from 2008 through 2011. For high-technology industries, capacity expanded solidly in 2011 and is expected to post further gains in 2012; however, increases in both years are now smaller than previously reported.

Capacity at mines expanded in 2008 and 2009, edged down in 2010, and increased in 2011; capacity is expected to increase in 2012. Relative to previous estimates, the rates of change are now stronger in all years with the exception of 2012, when the expected increase is now smaller than reported earlier. Capacity at electric and natural gas utilities increased steadily over the 2008–11 period; revisions were modest and boosted, on net, the gains in recent years.

By stage of processing, capacity in the crude stage rose in 2008 and 2009, declined in 2010, and then advanced in 2011 and 2012. In contrast, capacity at the primary and semifinished stage was little changed in 2008 and declined in both 2009 and 2010; capacity increased moderately in 2011 and is expected to post further gains in 2012. Upward revisions boosted capacity gains at the crude stage in 2009 and made the decline in capacity less steep for the primary and semifinished stage in 2009 and 2010. Capacity at the finished stage declined in each year from 2008 through 2010 and then advanced in 2011 and 2012. Downward revisions to capacity in the finished stage added to declines in 2009 and 2010 and subtracted from gains in 2011.

Capacity Utilization

In 2008, the rate of capacity utilization for total industry, at 73.2 percent, was 7.1 percentage points below

its long-run (1972 through 2011) average of 80.3 percent (table 6).⁴ Utilization rates fell in the first half of 2009 before increasing steadily through the end of 2011. Nevertheless, after these gains, the level in the fourth quarter of 2011, at 77.8 percent, was 2.5 percentage points below its long-run average. Downward revisions lowered capacity utilization for total industry in every year from 2008 through 2011.

Capacity utilization rates for manufacturing IP declined in 2008 and 2009 before gaining in 2010 and 2011. The factory operating rate is now estimated to have been lower in 2008 through 2010; capacity utilization was revised slightly higher in 2011. After revisions, the utilization rate at the June 2009 trough of the recent recession was 63.8 percent, the lowest level in the history of the series, which begins in 1948. By the fourth quarter of 2011, the capacity utilization rate had risen to 76.0 percent, 2.8 percentage points below its long-run average. The factory operating rate for durable manufacturing declined in 2009 and then increased in 2010 and 2011; revisions made the decline in 2009 more steep. In contrast, the utilization rate for nondurable manufacturing increased for each year from 2009 through 2011, although revisions decreased the magnitude of the gains in 2009 and 2010.

As of the fourth quarter of 2011, most major manufacturing industry groups were operating at rates below their industry-specific long-run averages, although capacity utilization for manufacturing as a whole has recovered most of the losses from the previous recession. Apart from petroleum and coal products, every major industry in nondurable manufacturing was operating at utilization rates below its long-run average, with textile and product mills; apparel and leather; and printing and support operating well below long-run averages. In contrast, a number of durable goods industries including fabricated metal products; machinery; computer and electronic products; aerospace and miscellaneous transportation equipment; and miscellaneous manufacturing were operating at capacity utilization rates above their long-run averages. The selected high-technology industries were operating at a capacity utilization rate of 75.1 percent in 2011, about 3 percentage points below their long-run averages. Within high-technology industries, upward revisions in 2011 pushed factory operating rates for computers and peripheral equipment and for communications equipment to near or above their long-run averages.

Capacity utilization in mining was slightly above its long-run average in 2008 before falling in 2009 and then increasing robustly in 2010 and 2011. Revisions lowered reported capacity utilization in every year from 2008 to 2011, but utilization was above its long-run average in 2011. The rate of capacity utilization for utilities was 3.2 percentage points below its long-run average in 2008 and stepped down in each year from 2009 through 2011. The rate of utilization at utilities stood at 75.6 percent in 2011, 10.7 percentage points below its long-run average of 86.3 percent.

TECHNICAL ASPECTS OF THE REVISION

This revision incorporated new comprehensive data from the 2010 ASM and revised data from the 2009 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 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 2010 based on data from the U.S. Forest Service and the Census Bureau.

The revised IP indexes incorporated information from selected CIRs for 2011, the QSPC for 2011, and

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

⁵Price indexes for pharmaceuticals (NAICS 325412), for semiconductors (NAICS 334413), and for most components of communications equipment (NAICS 3342) are constructed by the Federal Reserve from alternative sources. A table that lists annual and quarterly price indexes for the networking equipment component of communications equipment follows the text.

other annual industry reports.⁶ The indexes also incorporated revised monthly and quarterly source data on production, shipments, and inventories.

Annual Benchmark Output Indexes and the Conversion to the 2007 North American Industry Classification System

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 under the NAICS. In this revision, the benchmark indexes were calculated for 1972 forward based on industries defined by the 2007 NAICS; previously the benchmark indexes were based on the 2002 NAICS definitions of industries. Likewise, the industry basis for capacity and utilization was changed to the 2007 NAICS. The 2007 NAICS included 16 six-digit manufacturing industries that had different coverage than in the 2002 NAICS. For example, one industry included in the 2002 NAICS, laboratory apparatus and furniture manufacturing (NAICS 339111), was eliminated; its various components were distributed among seven different six-digit industries in the 2007 NAICS.

The conversion to the 2007 NAICS did not affect the number or structure of individual IP series that are published because the changes to NAICS occurred at a finer level of industrial detail than the corresponding published IP series. For example, the most disaggregated IP index that included NAICS 339111 is the IP series for medical equipment and supplies (NAICS 3391), which includes several other six-digit industries (NAICS 339112, 339113, 339114, 339115, and 339116) that are present in both the 2002 NAICS and the 2007 NAICS.

Although the published IP series were not affected by the transition to the 2007 NAICS, the benchmark indexes for some industries needed to be updated. Looking again to the eliminated NAICS 339111, an establishment that was assigned to this industry under the 2002 NAICS was reassigned to one of a handful of other industries in the 2007 NAICS. To create a consistent history, new benchmarks needed to be constructed for each receiving industry. The Census Bureau issued in 2011 a concordance between industries under the 2007 NAICS and those under the 2002 NAICS as part of the 2007 Census of Manufactures. This concordance provided data on how shipments from 2002 NAICS industries would have been allocated to 2007 NAICS industries, and vice-versa. These estimated allocations were then used on historic data to construct both gross output estimates and price indexes on a 2007 NAICS basis going back to 1972. The revised benchmark indexes mean that the adjustment factors to align the monthly production indicator with the benchmark for the IP series associated with some of these industries also needed to be reestimated, both for series being used to estimate the IP indexes for recent years as well as those that were only used in earlier periods.⁷

Benchmark indexes are measures of real gross output at the six-digit NAICS level. The Census Bureau provides annual values for value added and the cost of materials, which can be summed to obtain nominal gross output.⁸ The benchmark indexes for this revision incorporated new estimates of nominal gross output for 2010, as well as revisions to the 2009 estimates, from the ASM. The IP index is a Fisher index and the individual real gross output benchmarks are aggregated 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 2011. 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

⁶The Census Bureau's Current Industrial Reports were discontinued in mid-2011.

⁷The monthly production indicators include product data, production-worker-hour data, and, from the 1960s to 1997, electric power use by industry.

⁸Historically, 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.

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 based on interpolating between each component's share of the total in the 2002 and 2007 Economic Censuses. Data from the 2008, 2009, and 2010 ASMs were allocated to the component six-digit industries solely based on shares from the 2007 Economic Census.

Changes to Individual Production and Capacity Series

A few production indicators were affected by methodological changes in this revision.

Computers

This revision updates the methods used to calculate four IP series for computers (business desktop computers, consumer desktop computers, business mobile computers, and consumer mobile computers). These four IP series are all components of NAICS 334111. The source data for computers come from the International Data Corporation (IDC) and measure quarterly domestic absorption of computers. The 2010 annual revision reported that the Federal Reserve received measures of absorption of only total desktops and total mobiles but had ceased to acquire detailed information on the business and consumer components of these platforms. This revision resumes the acquisition of absorption data from the IDC on business and consumer desktops and mobiles. In addition to current-quarter data, the IDC has provided historical information, so the four IP series can be constructed with a consistent methodology from the beginning of the IDC data in 1994 and continuing through the present.

Natural gas extraction

The IP series for natural gas extraction (NAICS 211111, pt.) uses as primary source data the marketed production of natural gas from the DOE's Natural Gas Monthly report. The DOE report is generally issued with a three-month lag; for example, when IP is published in mid-April, natural gas data are only available through January even though the IP window would run through March. This revision incorporates new, more timely, source data from Bentek Energy to supplement the DOE data. Bentek provides daily information on the production of natural gas. The Federal Reserve converts the data from Bentek to a monthly frequency and uses them as a secondary source to inform early estimates for natural gas extraction until the data from the DOE become available.

Trucks

This revision incorporates new data and methods for constructing the share of light truck output that is associated with business output and the share associated with consumer output. The IP indexes for trucks (NAICS 336112) are constructed from data on total assemblies from WardsAuto. Because the IP structure parses industry output into demand-based segments called market groups, it is necessary to assign vehicle assemblies into business and consumer components. The IP indexes use data from the BEA and annual data from CNW Research on the number of leased trucks to help determine the business and consumer shares of both car and truck production. With this revision, the Federal Reserve incorporated monthly data on factory shipments of class 2 and 3 truck chassis from the National Truck Equipment Association and factory shipments of light trucks for classes 1 through 3 from WardsAuto to extend and interpolate the annual figures for the business share of overall light truck production.

Veneer, plywood, and engineered wood product

The capacity series for veneer, plywood, and engineered wood product (NAICS 3212) has been updated with this revision. Previously, the series used data from the Composite Panel Association (CPA) on the capacity of particleboard and fiberboard producers. This revision incorporates additional data. The capacity series continues to use the CPA data but now also uses information from APA - The Engineered Wood Association on the capacity of producers of plywood and oriented strand board.

Discontinuation of the U.S. Census Bureau's CIRs

In mid-2011, the U.S. Census Bureau discontinued its CIR series. These data releases provided detailed product information at the monthly, quarterly, and annual frequencies for a variety of industries. The last release for monthly data was for July 2011, and the last release of quarterly data was for the second quarter of 2011. The Federal Reserve extensively used the CIRs in the indexes of industrial production and capacity utilization, and their elimination necessitated changes in underlying source data for several IP series. The following list shows the monthly CIRs that were used in industrial production and their corresponding IP series:

1. M311J: Fats and Oil: Oilseed Crushings (Corn oil; Soybean and other oilseed processing)
2. M311K: Fats and Oils: Production, Consumption, and Stocks (Fats and oils refining and blending)
3. M313P: Consumption on the Cotton System and Stocks (Fiber, yarn, and thread mills).

With this revision, each of the three affected IP series will use production-worker hours to extend the discontinued CIR data.

The list below shows the discontinued quarterly CIRs that were used in industrial production and their associated IP series:

1. MQ311A: Flour Milling Products (Flour milling and malt)
2. MQ325A: Inorganic Chemicals (Acids, phosphates, and sulfates; Other inorganic chemicals)
3. MQ325B: Fertilizers and Related Chemicals (Other inorganic chemicals; Fertilizer)
4. MQ325F: Paint, Varnish, and Lacquer (Construction paints; Industrial paints)
5. MQ327D: Clay Construction Products (Ceramic tile and refractory; Brick and structural clay tile; Other structural clay product)
6. MQ333W: Metalworking Machinery (Machine tools)
7. MQ334P: Telecommunications (Data networking equipment; Transmission, local loop, and legacy central office equipment; Enterprise and home voice equipment; Satellites and earth station equipment; Wireless system equipment; Radio and TV broadcasting equipment excluding satellites and other communications equipment)
8. MQ334R: Computers and Peripheral Equipment (Computer storage and terminals, business; Computer storage and terminals, consumer; Computer printers, business; Computer printers, consumer).

Other than the changes to IP series described below, this revision uses production-worker hours to extend the IP series associated with the discontinued quarterly CIRs.

For some of the IP series related to discontinued quarterly CIRs, the Federal Reserve used alternate measures of physical output to replace the lost data.

Fertilizer

With this revision, the IP series for fertilizer (NAICS 32531) uses monthly data on nitrogen and phosphate fertilizer from the Fertilizer Institute (TFI) as the primary source of data on output. Previously, the monthly TFI data were used as a secondary source for months in which the quarterly CIR data were not yet available, and they were also used to interpolate the quarterly data to a monthly frequency.

Communications Equipment

This revision updates the data and methods used to calculate the six IP series for communications equipment (data networking equipment; transmission, local loop, and legacy central office equipment; enterprise and home voice equipment; satellites and earth station equipment; wireless system equipment; radio and TV broadcasting equipment excluding satellites and other communications equipment). These six series are all components of NAICS 3342. With the discontinuation of the CIR for telecommunications equipment, the Federal Reserve has begun using information from the QSPC to extend each of the six IP series from the third quarter of 2011 through the present.

The QSPC, conducted since 2007, reports capacity utilization rates for manufacturing industries on a quarterly frequency. In recent years, the utilization rates from that survey for communications equipment have tracked nominal output of that industry, as measured by the discontinued CIR, fairly well. With this revision, the nominal data on communications equipment from the CIR are being extended based on the change in the industry operating rate from the QSPC and an interpolated change in capital services for this industry (constructed based on historical investment data and a survey of investment plans). The resulting estimate for nominal output continues to be deflated by price indexes calculated from price data from Dell’Oro and producer price indexes from the BLS.

Computers

The discontinued quarterly CIR for computers and peripheral equipment was used for four IP series (Computer storage and terminals, business; Computer storage and terminals, consumer; Computer printers, business; Computer printers, consumer). These four series cover part of NAICS 3341; six other IP series cover the remainder of NAICS 3341 and rely on data from the IDC on domestic absorption of desktops, mobiles, and servers. In the absence of the CIR data, IDC data on personal computers are used to extend IP series for computer storage and terminals, and IDC data on non-x86 servers are used to extend IP series for computer printers.

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 2010. Table 12 shows the annual value-added proportions in the IP index from 2004 through 2011.

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 all series were reestimated using data that extend into 2012. Factors for production-worker hours—which adjust for timing, holiday, and monthly seasonal patterns—were updated with data through January 2012. The updated factors for the physical product series, which include adjustments for holiday and workday patterns, used data through December 2011 where available. Seasonal factors for unit motor vehicle assemblies have been updated, and projections through December 2012 are on the Board’s website

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.

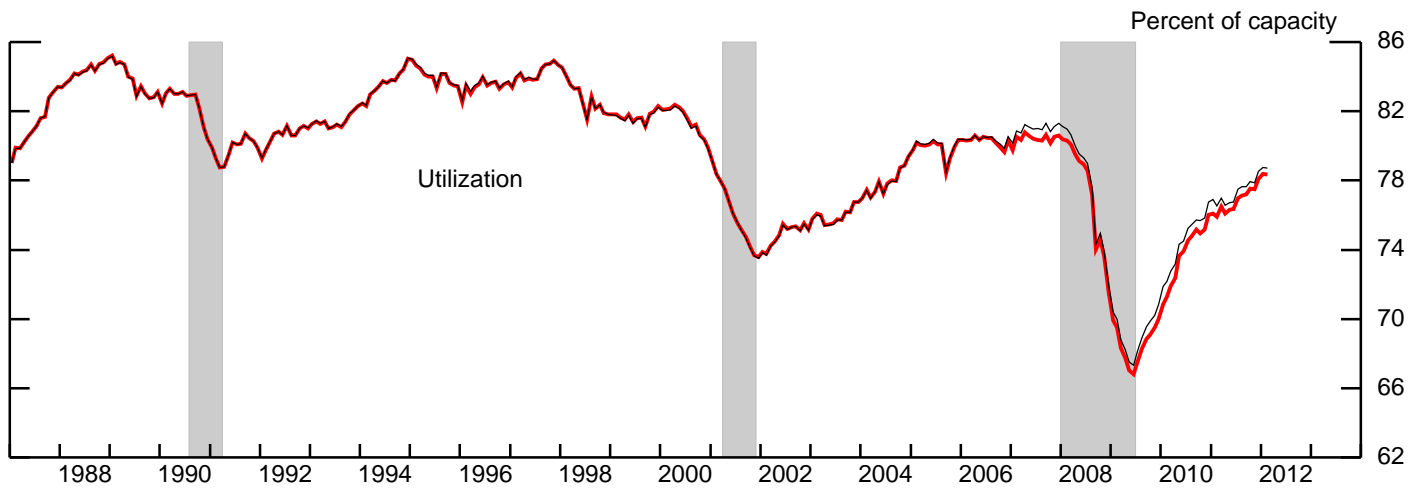
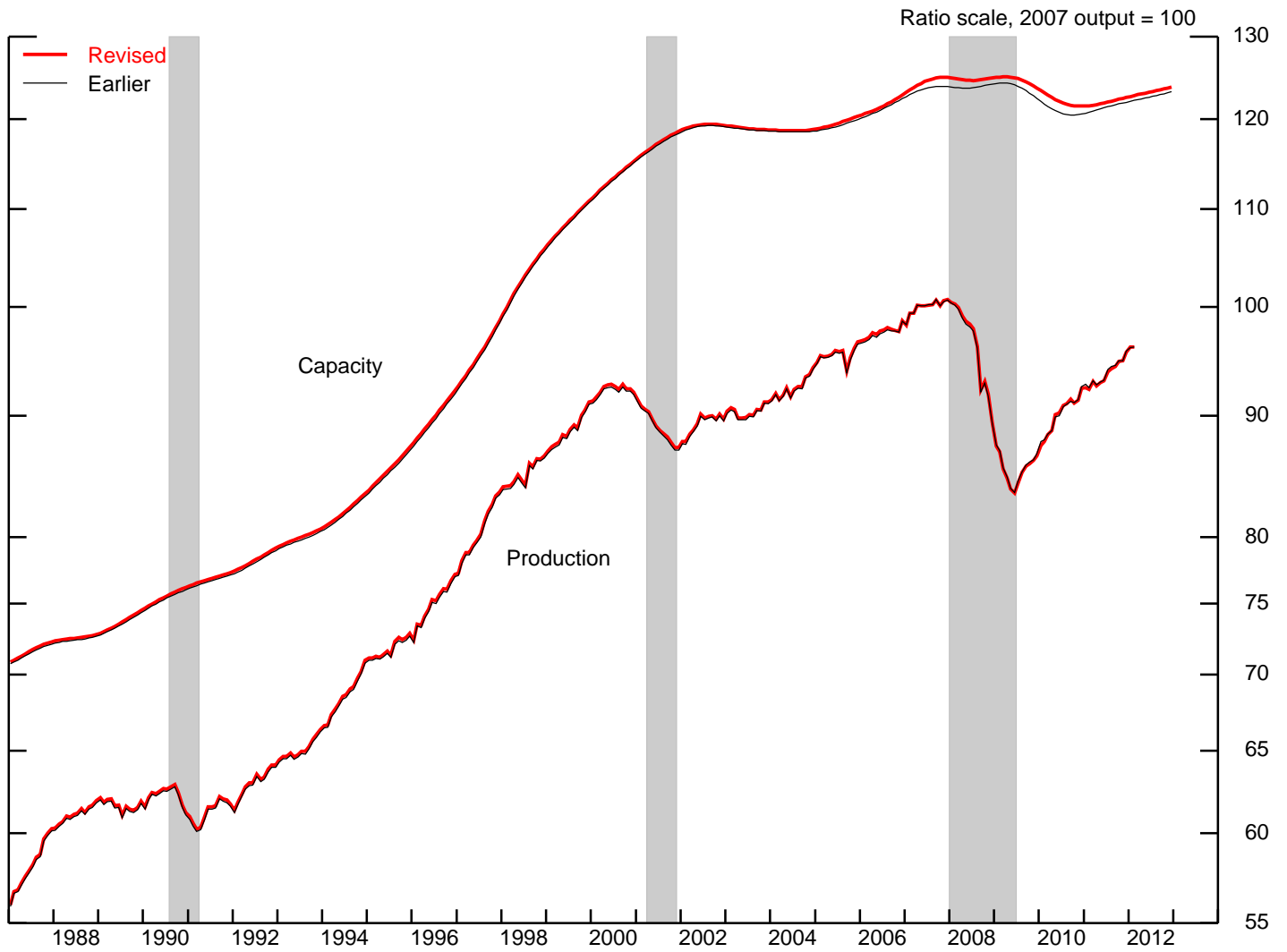
Data Availability and Publication Changes

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. Further information on these revisions is available from the Board's Industrial Output Section (telephone 202-452-3197).

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.

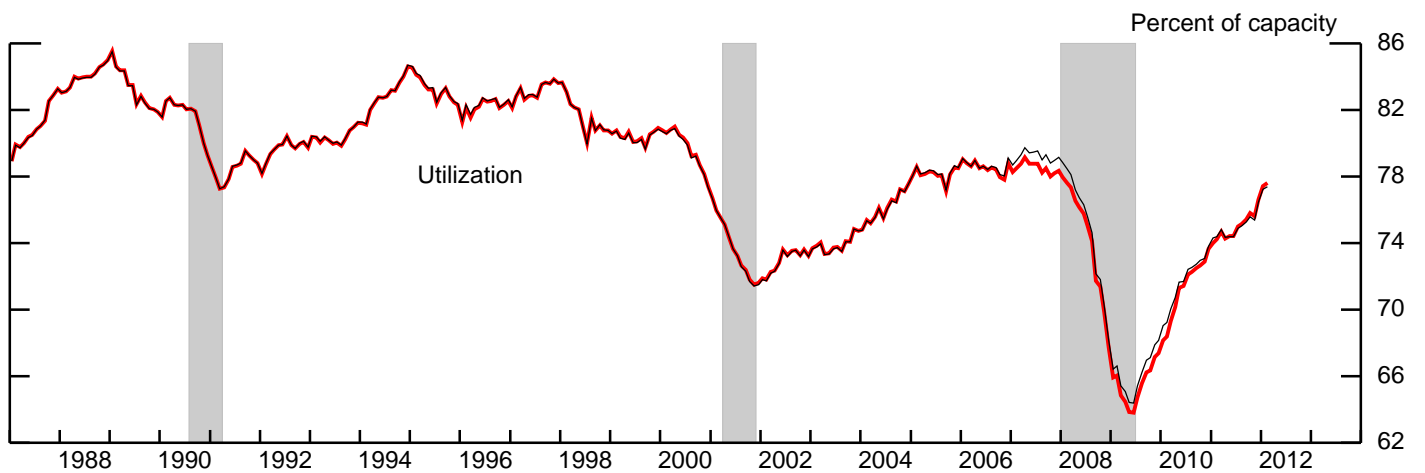
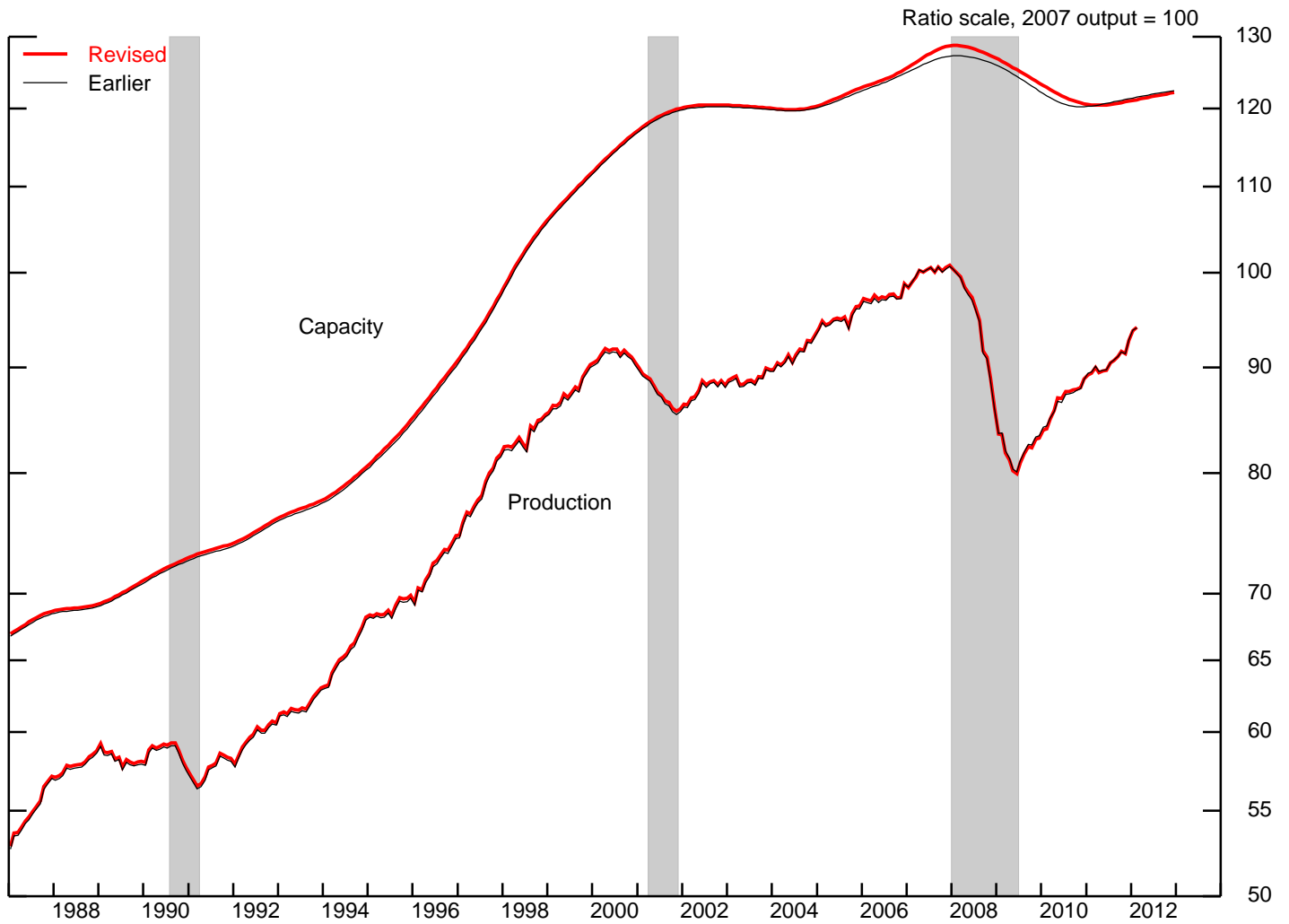
An expanded version of this release will be published in a forthcoming report that will be available on the Board's website.

1. Total industrial production, capacity, and utilization



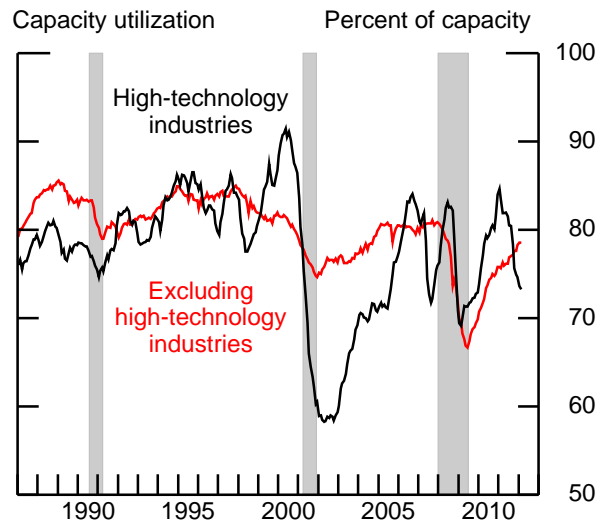
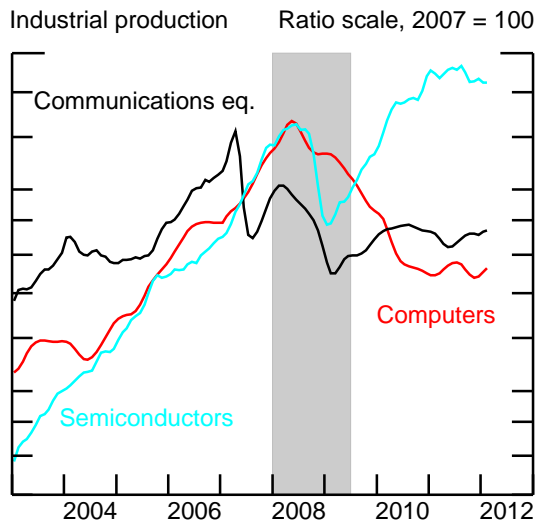
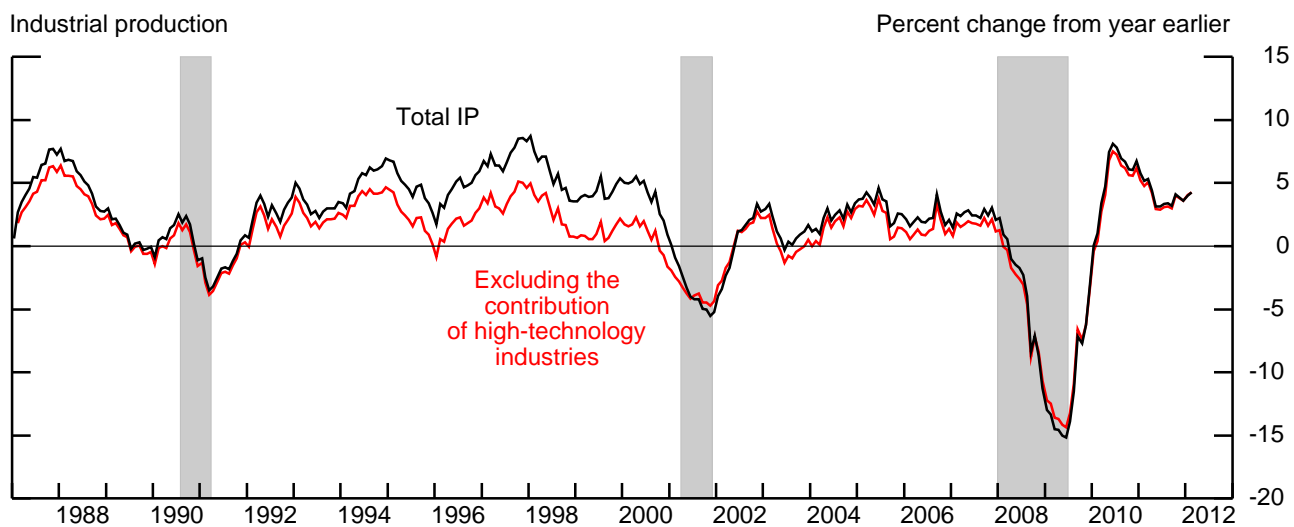
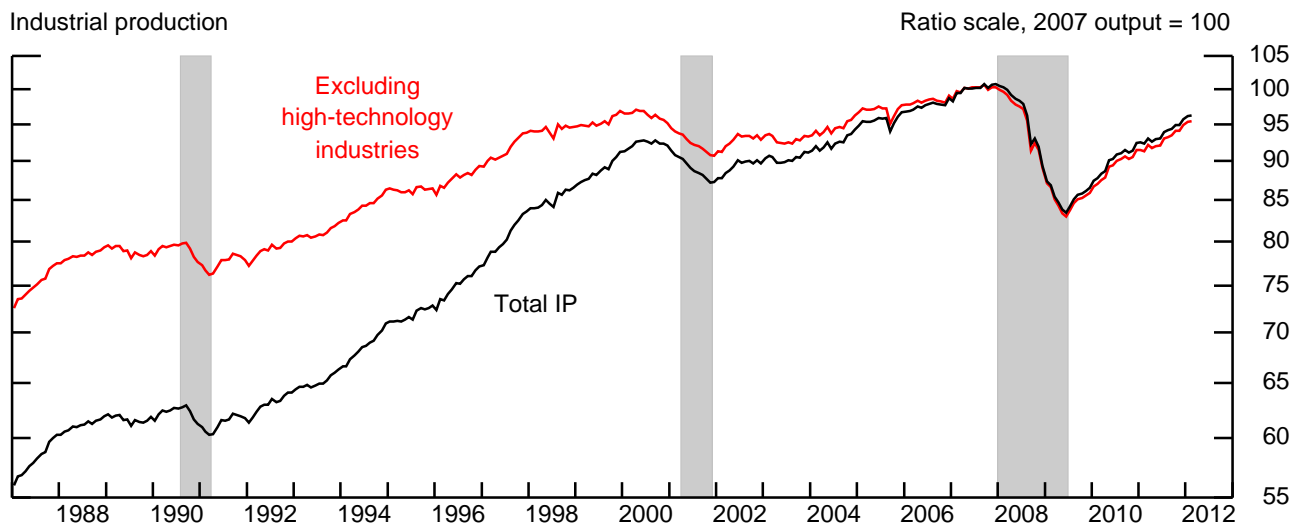
Note: The shaded areas are periods of business recession as defined by the National Bureau of Economic Research (NBER).

2. Manufacturing industrial production, capacity, and utilization



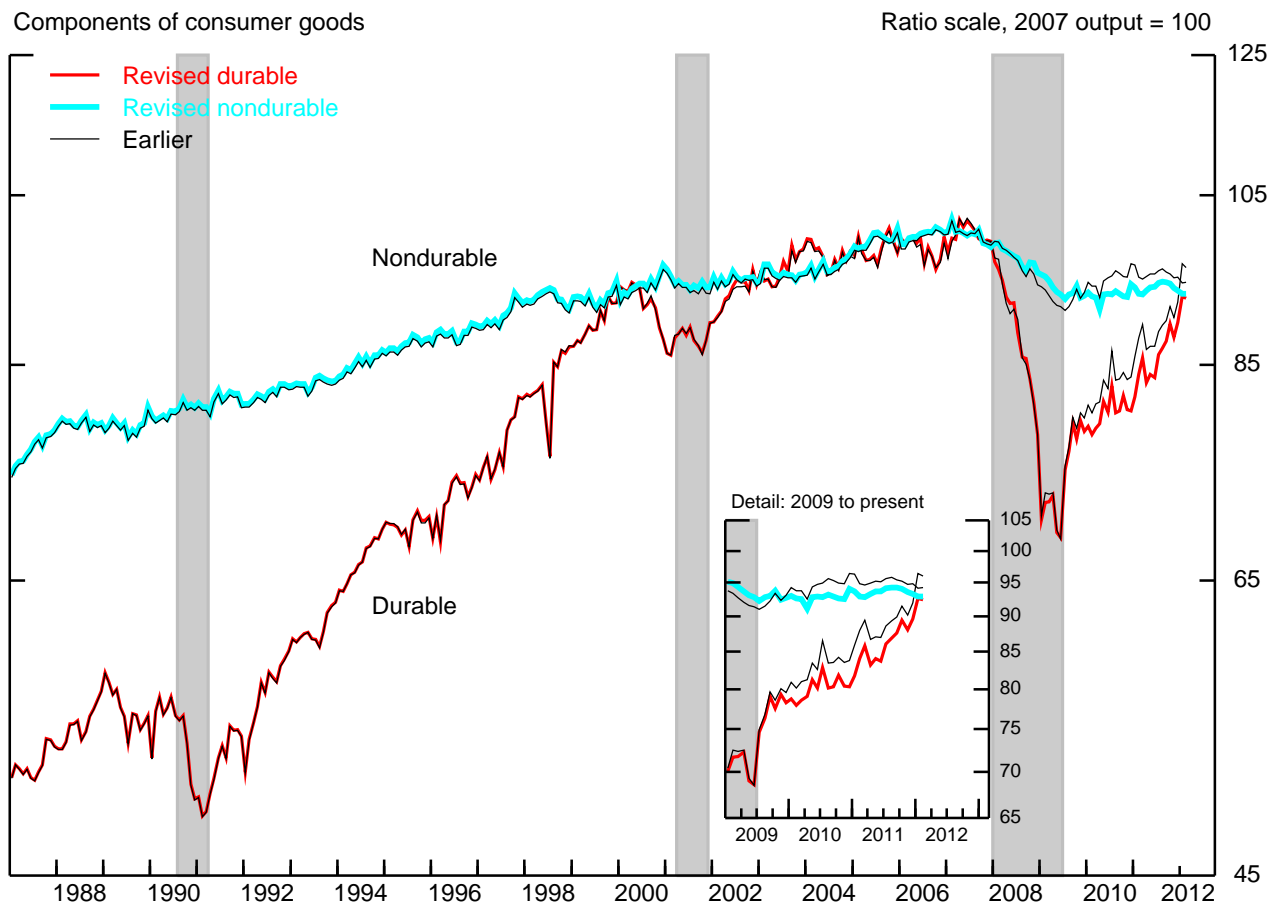
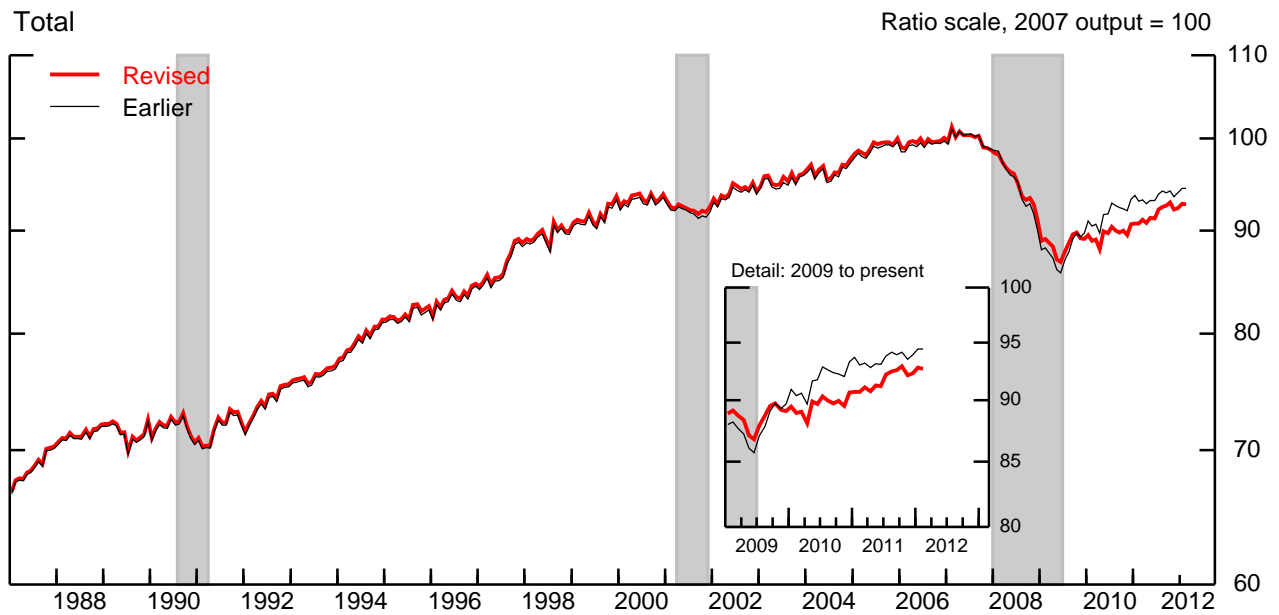
Notes: The shaded areas are periods of business recession as defined by the NBER. Manufacturing consists of those industries in the North American Industry Classification System, or NAICS, definition of manufacturing plus those industries--logging and newspaper, periodical, book, and directory publishing--that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

3. Industrial production and capacity utilization



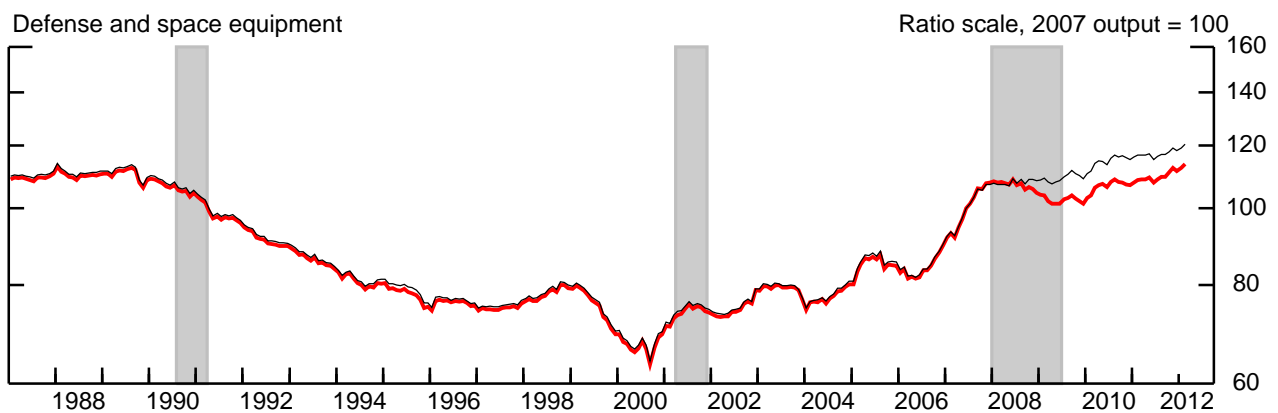
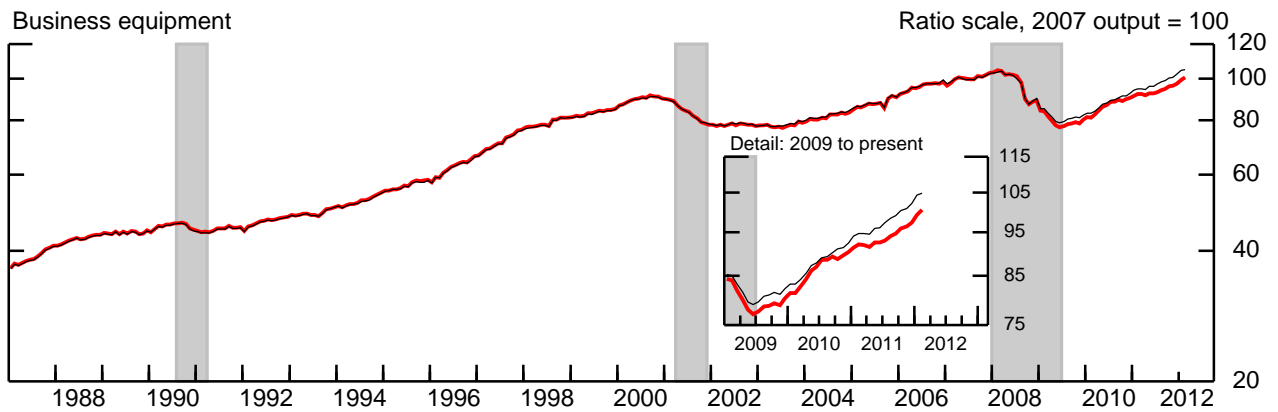
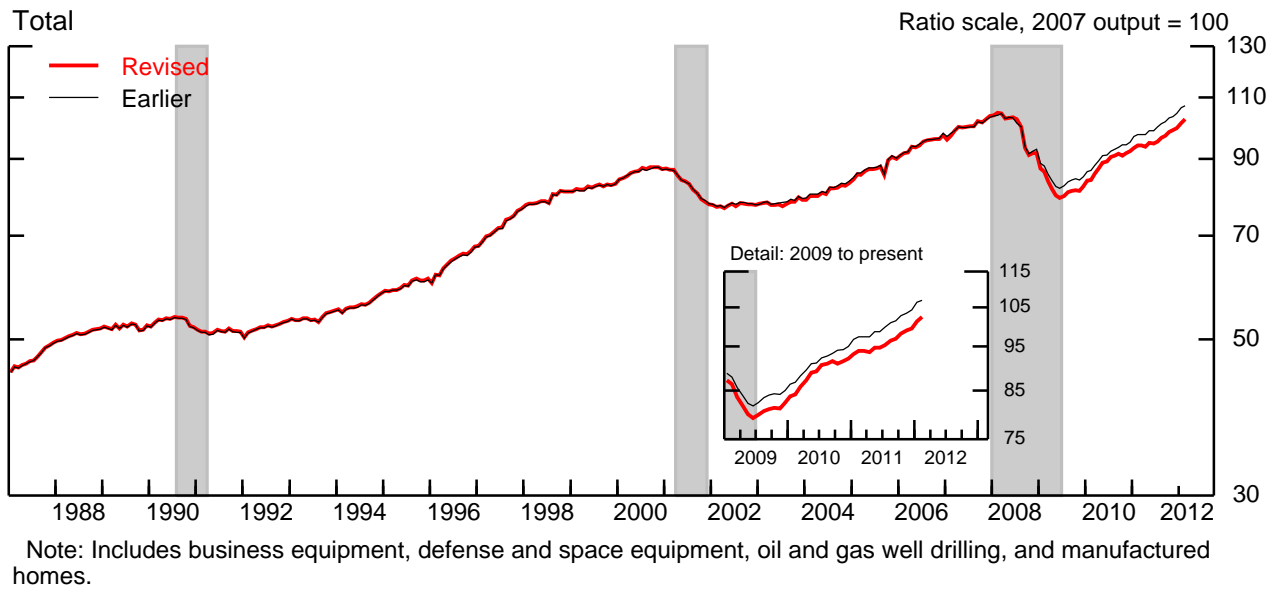
Notes: High-technology industries are defined as semiconductors and related electronic components (NAICS 334412-9), computers (NAICS 3341), and communications equipment (NAICS 3342). The shaded areas are periods of business recession as defined by the NBER.

4. Consumer goods



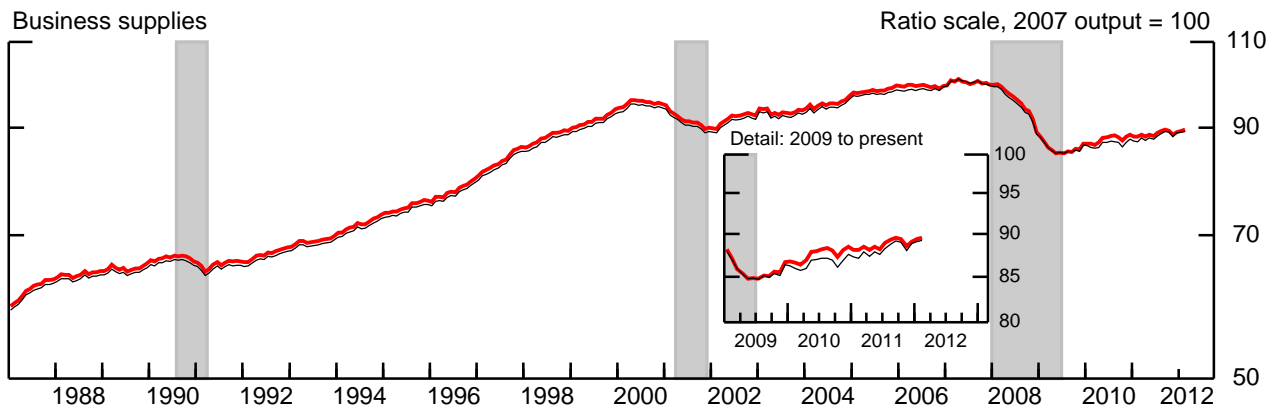
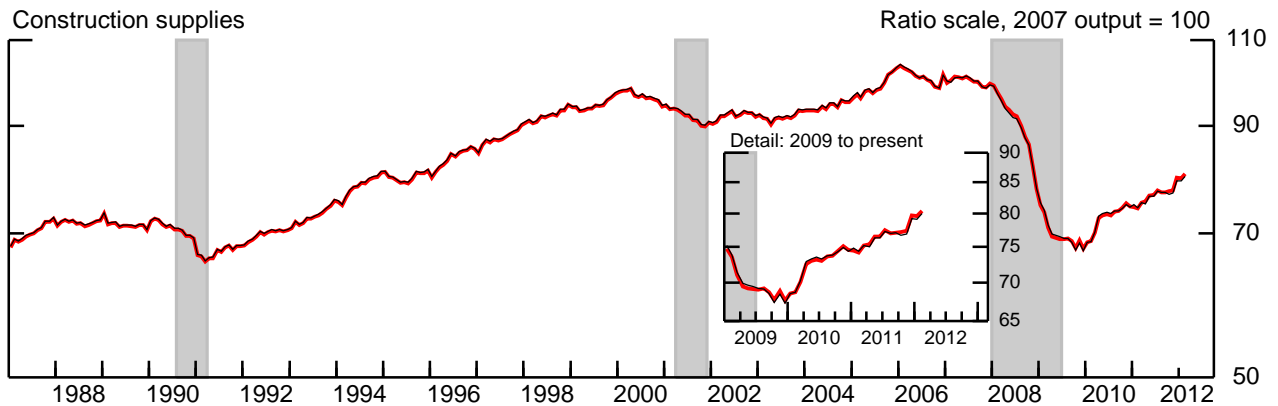
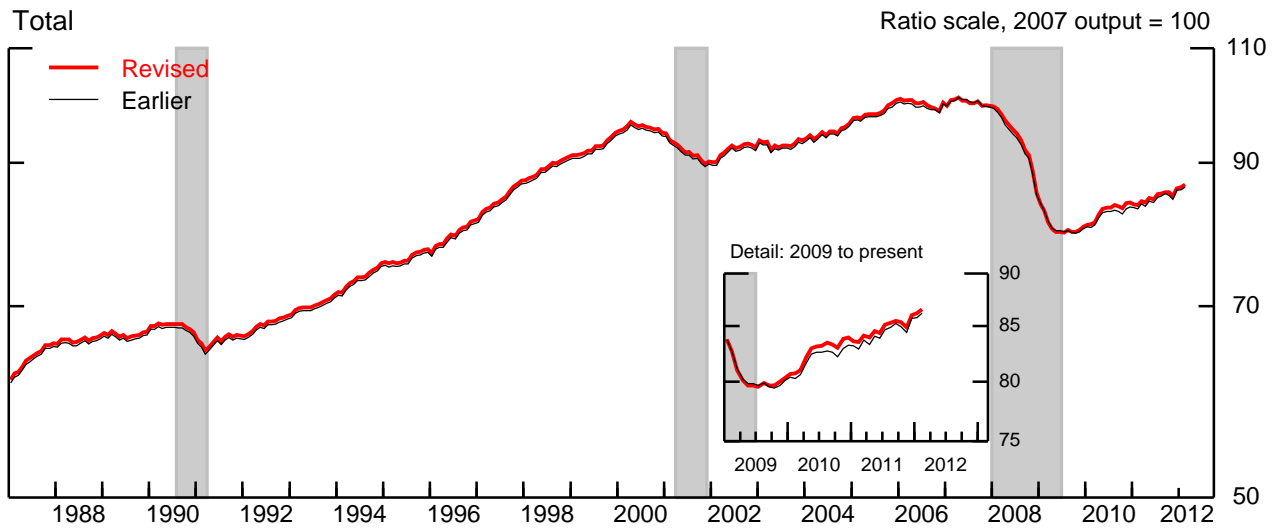
Note: The shaded areas represent periods of business recession as defined by the NBER.

5. Equipment



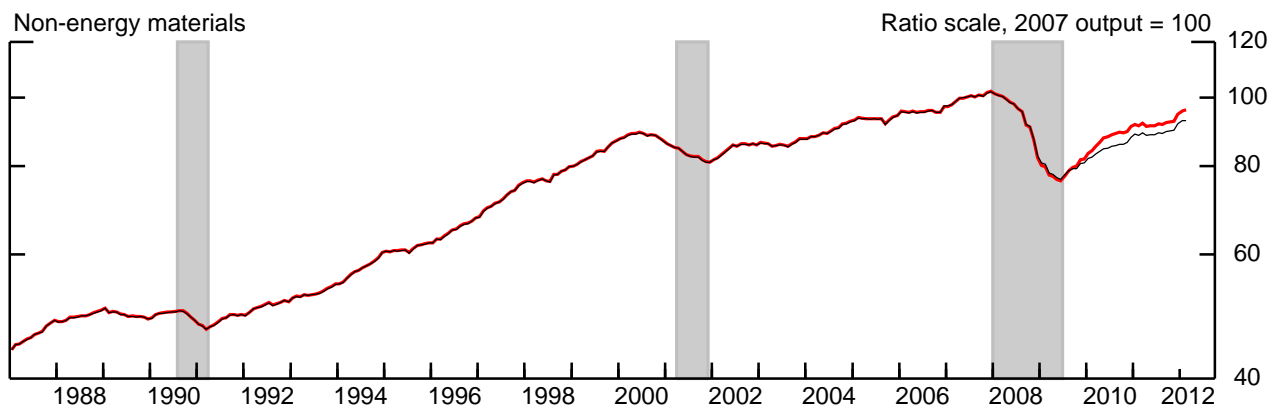
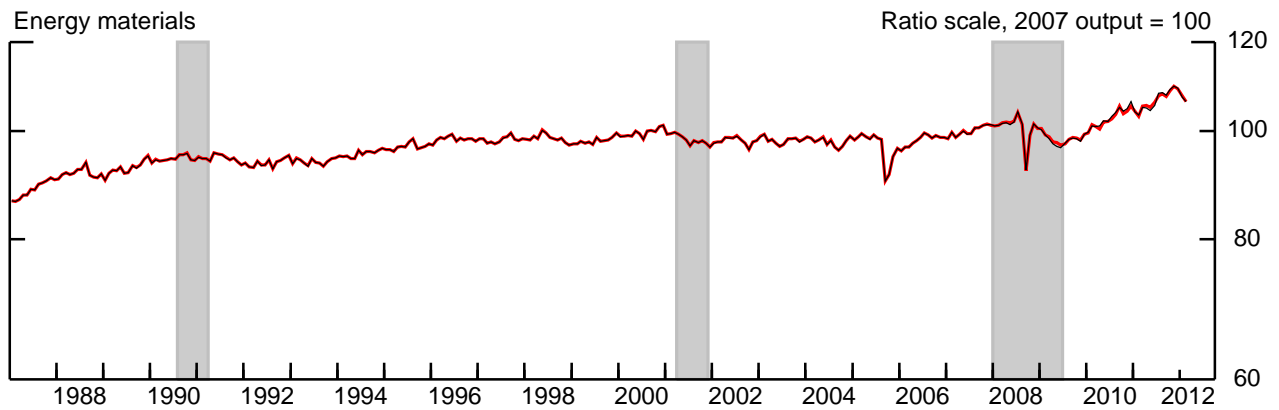
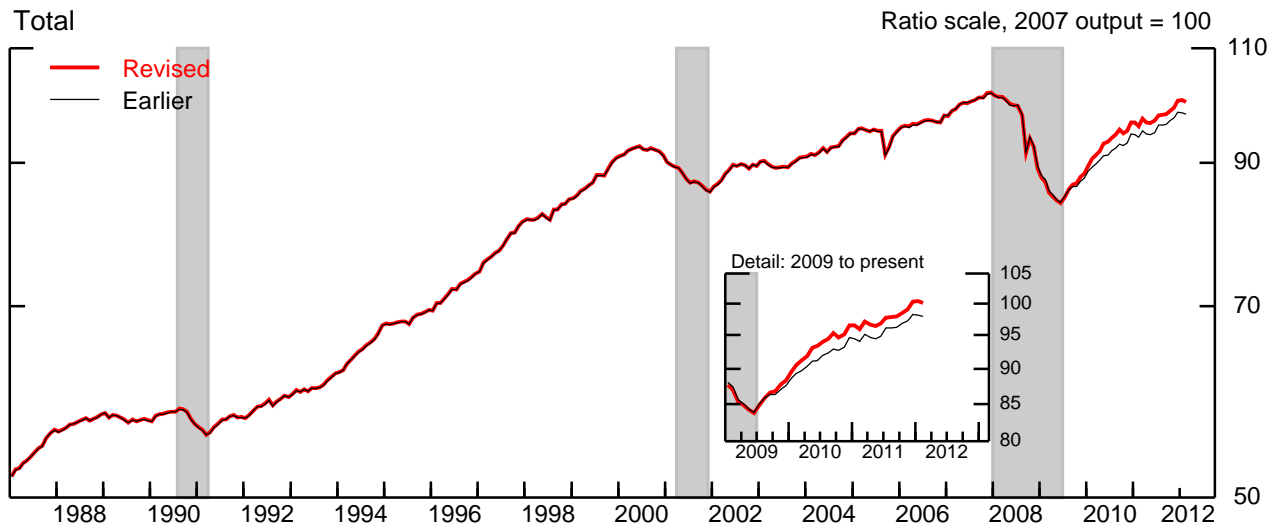
Note: The shaded areas represent periods of business recession as defined by the NBER.

6. Nonindustrial supplies



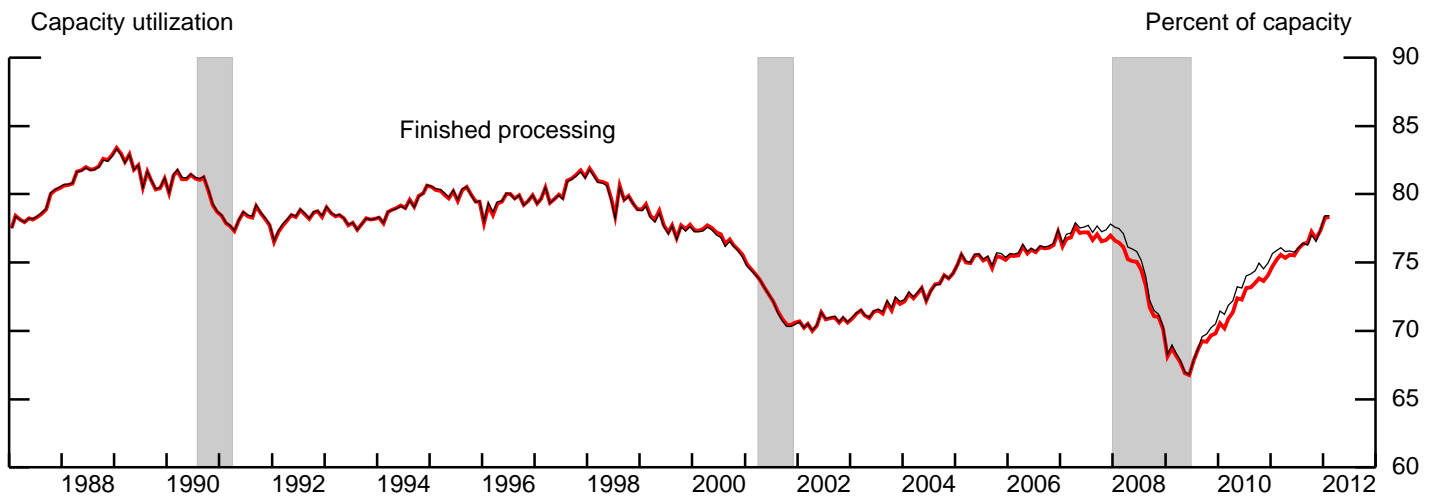
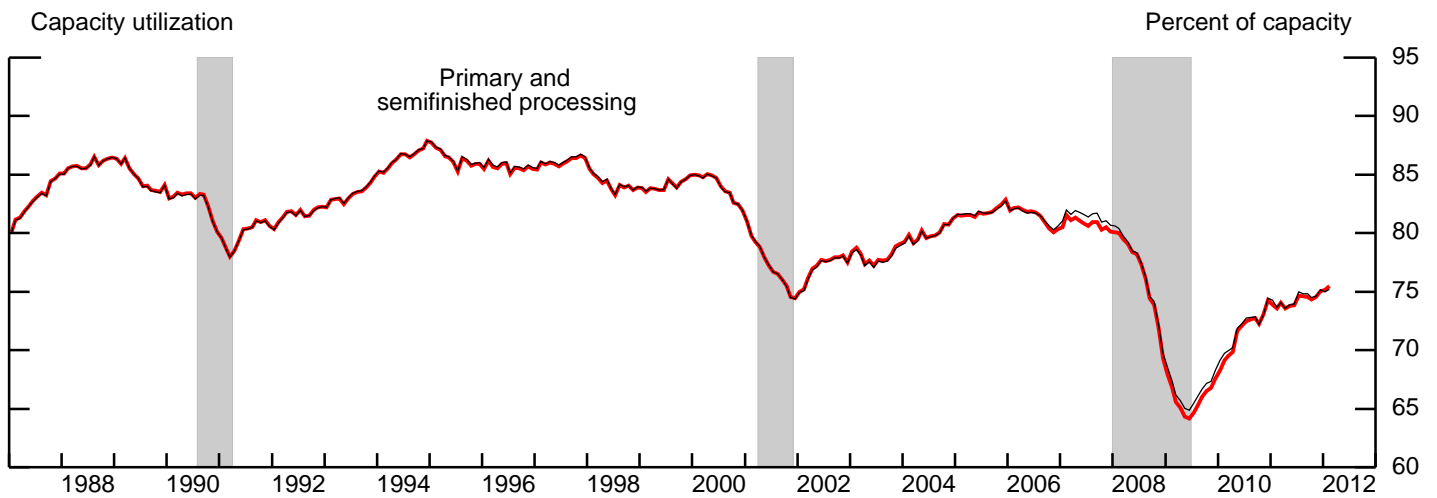
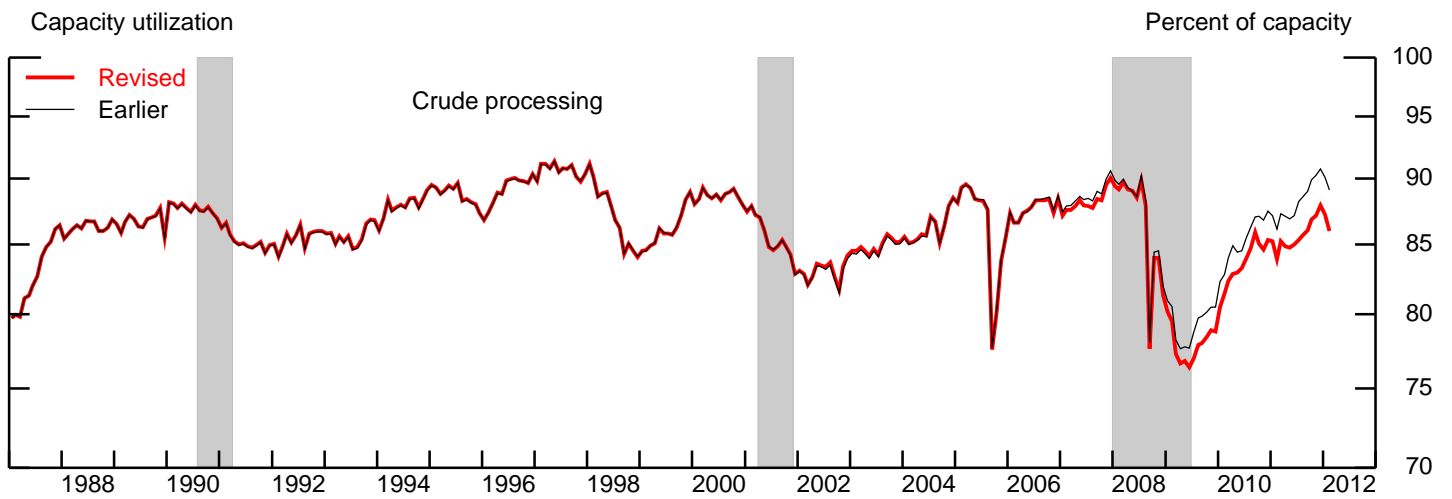
Note: The shaded areas represent periods of business recession as defined by the NBER.

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 are 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)																	
1982	-2.0	2.0	-7	-9	-6	-3	-3	-8	-4	-8	-4	-7	-7.9	-4.8	-5.5	-7.2	-5.2
1983	1.9	-6	.8	1.2	.7	.5	1.5	1.1	1.5	.8	.3	.5	4.7	9.2	14.3	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	.4	-7	2.4	1.2
1986	.5	-7	-6	.1	.2	-3	.6	-2	.2	.5	.5	.9	2.4	-2.3	1.6	4.6	1.0
1987	-3	1.3	.2	.6	.7	.5	.6	.7	.3	1.5	.5	.5	5.4	7.3	7.3	10.2	5.2
1988	.1	.4	.2	.5	-1	.2	.1	.5	-4	.5	.2	.4	3.6	3.4	1.8	2.8	5.2
1989	.3	-4	.3	.0	-7	.1	-1.0	.9	-3	-1	.3	.6	1.7	-1.4	-2.6	1.6	.9
1990	-6	.9	.5	-1	.2	.3	-1	.2	.2	-8	-1.2	-7	2.8	3.0	1.7	-6.2	1.0
1991	-4	-6	-5	.2	1.0	1.0	.0	.1	.9	-2	-1	-3	-7.4	2.5	5.5	.8	-1.5
1992	-6	.8	.8	.7	.4	.0	.9	-5	.2	.8	.4	.0	-5	7.3	2.9	4.1	2.8
1993	.5	.4	.0	.3	-4	.2	.3	.0	.5	.7	.4	.5	3.5	1.1	2.0	6.1	3.3
1994	.4	.0	1.0	.5	.6	.7	.2	.6	.2	.8	.6	1.1	5.1	7.5	5.1	8.1	5.3
1995	.3	.0	.2	-1	.2	.3	-4	1.3	.4	-2	.2	.3	5.0	1.2	3.8	3.2	4.7
1996	-7	1.6	-1	.9	.7	.9	-1	.6	.5	.0	.8	.6	2.6	8.7	5.5	5.3	4.4
1997	.1	1.2	.8	.0	.7	.5	.6	1.3	.9	.7	.9	.4	7.7	6.5	9.8	10.1	7.2
1998	.5	.1	.1	.4	.7	-6	-4	2.1	-3	.8	-1	.3	4.4	2.9	2.9	5.4	5.8
1999	.4	.4	.2	.2	.7	-2	.7	.4	-3	1.3	.5	.8	4.1	3.9	4.0	7.5	4.3
2000	.1	.4	.4	.6	.1	.1	-2	-3	.5	-4	.0	-3	4.7	4.6	-6	-1.3	4.0
2001	-7	-6	-3	-3	-7	-6	-5	-3	-3	-5	-5	.0	-5.6	-5.3	-5.5	-4.6	-3.4
2002	.6	.0	.8	.4	.6	.9	-3	.2	.1	-4	.5	-5	2.7	6.5	2.4	-4	.2
2003	.8	.4	-2	-8	.0	.0	.3	-1	.6	-1	.8	.0	3.2	-3.2	1.9	3.3	1.2
2004	.3	.6	-6	.4	.7	-9	.7	.3	.0	1.0	.2	.7	2.8	1.7	2.2	5.8	2.3
2005	.5	.6	-1	.0	.2	.4	-1	.1	-2.0	1.3	.9	.6	5.9	1.8	-1.6	3.2	3.3
2006	.1	.1	.2	.5	-2	.4	.1	.2	-2	-1	-1	1.0	4.0	2.5	1.5	.6	2.2
2007	-4	1.2	.0	.8	-1	.0	.1	.0	.5	-6	.5	.1	4.1	4.6	1.0	.6	2.5
2008	-3	-2	-4	-8	-5	-3	-5	-1.7	-4.1	.8	-1.2	-2.7	-1.2	-5.9	-12.5	-15.9	-3.5
2009	-2.2	-6	-1.7	-9	-1.1	-4	1.0	1.0	.6	.2	.4	.5	-19.6	-11.4	5.0	5.6	-11.4
2010	1.0	.4	.6	.4	1.6	.2	.7	.2	.4	-4	.3	1.1	7.9	8.6	6.6	2.2	5.4
2011	.1	-2	.8	-5	.3	.1	.9	.3	.2	.5	.0	.9	4.4	1.2	5.6	4.3	4.0
2012	.5	.0															
IP (2007=100)																	
1982	48.8	49.8	49.4	49.0	48.7	48.5	48.4	48.0	47.8	47.4	47.2	46.9	49.3	48.7	48.0	47.1	48.3
1983	47.8	47.5	47.9	48.4	48.8	49.0	49.8	50.3	51.1	51.5	51.7	51.9	47.7	48.7	50.4	51.7	49.6
1984	53.0	53.2	53.5	53.8	54.1	54.3	54.5	54.5	54.4	54.3	54.5	54.6	53.2	54.1	54.5	54.5	54.1
1985	54.5	54.7	54.8	54.7	54.7	54.7	54.4	54.6	54.8	54.6	54.8	55.4	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	55.1	55.2	55.4	55.7	56.2	55.3	54.9	55.1	55.8	55.3
1987	56.0	56.7	56.8	57.2	57.5	57.8	58.2	58.6	58.8	59.7	60.0	60.3	56.5	57.5	58.5	60.0	58.1
1988	60.3	60.5	60.7	61.0	61.0	61.1	61.2	61.5	61.2	61.6	61.7	61.9	60.5	61.0	61.3	61.7	61.1
1989	62.1	61.8	62.0	62.0	61.6	61.7	61.1	61.6	61.4	61.4	61.5	61.9	62.0	61.8	61.4	61.6	61.7
1990	61.6	62.1	62.4	62.4	62.5	62.7	62.6	62.8	62.9	62.4	61.7	61.2	62.0	62.5	62.8	61.8	62.3
1991	61.0	60.6	60.3	60.3	61.0	61.6	61.6	61.6	62.2	62.0	62.0	61.7	60.6	61.0	61.8	61.9	61.3
1992	61.4	61.8	62.3	62.8	63.0	63.0	63.5	63.2	63.4	63.8	64.1	64.1	61.8	62.9	63.4	64.0	63.0
1993	64.4	64.7	64.6	64.8	64.6	64.8	65.0	65.0	65.3	65.7	66.0	66.3	64.6	64.7	65.1	66.0	65.1
1994	66.6	66.6	67.3	67.7	68.1	68.5	68.6	69.0	69.2	69.8	70.2	71.0	66.9	68.1	68.9	70.3	68.5
1995	71.1	71.1	71.2	71.2	71.4	71.6	71.3	72.3	72.5	72.4	72.6	72.8	71.2	71.4	72.0	72.6	71.8
1996	72.4	73.5	73.4	74.1	74.6	75.3	75.2	75.7	76.1	76.1	76.7	77.2	73.1	74.6	75.6	76.6	75.0
1997	77.2	78.2	78.8	78.8	79.3	79.7	80.2	81.3	82.0	82.5	83.3	83.6	78.1	79.3	81.2	83.1	80.4
1998	84.0	84.0	84.1	84.4	85.0	84.5	84.1	85.9	85.7	86.3	86.3	86.6	84.0	84.6	85.2	86.4	85.1
1999	86.9	87.3	87.5	87.7	88.4	88.2	88.8	89.2	88.9	90.1	90.5	91.2	87.2	88.1	89.0	90.6	88.7
2000	91.3	91.6	92.0	92.6	92.7	92.8	92.6	92.3	92.8	92.3	92.3	92.0	91.6	92.7	92.5	92.2	92.3
2001	91.4	90.8	90.6	90.3	89.6	89.1	88.7	88.4	88.2	87.7	87.2	87.3	90.9	89.7	88.4	87.4	89.1
2002	87.8	87.7	88.4	88.8	89.3	90.1	89.8	89.9	90.0	89.7	90.1	89.7	88.0	89.4	89.9	89.8	89.3
2003	90.4	90.7	90.5	89.8	89.8	89.8	90.1	90.0	90.6	90.5	91.2	91.2	90.5	89.8	90.2	91.0	90.4
2004	91.4	91.9	91.4	91.8	92.5	91.7	92.3	92.6	92.5	93.5	93.7	94.3	91.6	92.0	92.5	93.8	92.5
2005	94.8	95.4	95.3	95.3	95.5	95.9	95.7	95.9	94.0	95.2	96.1	96.7	95.2	95.6	95.2	96.0	95.5
2006	96.8	96.9	97.1	97.5	97.4	97.7	97.8	98.0	97.8	97.8	97.6	98.7	96.9	97.5	97.9	98.0	97.6
2007	98.2	99.4	99.4	100.2	100.1	100.1	100.2	100.2	100.7	100.1	100.6	100.7	99.0	100.1	100.4	100.5	100.0
2008	100.4	100.3	99.9	99.1	98.6	98.4	97.9	96.2	92.3	93.0	91.9	89.4	100.2	98.7	95.5	91.4	96.5
2009	87.4	86.9	85.4	84.7	83.8	83.5	84.3	85.1	85.7	85.9	86.2	86.6	86.6	84.0	85.0	86.2	85.4
2010	87.4	87.8	88.3	88.7	90.1	90.2	90.9	91.1	91.4	91.1	91.4	92.4	87.8	89.7	91.1	91.6	90.1
2011	92.5	92.3	93.1	92.6	92.9	93.1	93.9	94.2	94.4	94.9	94.9	95.7	92.6	92.9	94.2	95.2	93.7
2012	96.2	96.2															

NOTE: Estimates from October 2011 through February 2012 are subject to further revision in the upcoming monthly releases.
 1. Annual averages of industrial production are calculated from not seasonally adjusted indexes.

Table 1B
CAPACITY AND UTILIZATION: Total
 Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
Capacity (percent of 2007 output)																	
1982	65.0	65.2	65.3	65.4	65.6	65.7	65.8	65.9	65.9	66.0	66.0	66.1	65.2	65.6	65.9	66.0	65.7
1983	66.1	66.2	66.2	66.2	66.2	66.2	66.3	66.3	66.3	66.4	66.4	66.5	66.2	66.2	66.3	66.4	66.3
1984	66.6	66.6	66.7	66.8	67.0	67.1	67.2	67.4	67.5	67.7	67.9	68.0	66.6	67.0	67.4	67.9	67.2
1985	68.2	68.4	68.6	68.7	68.9	69.1	69.2	69.3	69.5	69.6	69.7	69.8	68.4	68.9	69.3	69.7	69.1
1986	69.9	70.0	70.0	70.1	70.1	70.2	70.3	70.3	70.4	70.5	70.6	70.7	70.0	70.1	70.3	70.6	70.3
1987	70.8	71.0	71.1	71.3	71.4	71.6	71.7	71.8	72.0	72.1	72.2	72.3	71.0	71.4	71.8	72.2	71.6
1988	72.3	72.4	72.4	72.4	72.5	72.5	72.5	72.6	72.6	72.6	72.7	72.8	72.4	72.5	72.6	72.7	72.5
1989	72.9	73.0	73.1	73.2	73.4	73.5	73.7	73.8	74.0	74.1	74.3	74.5	73.0	73.4	73.8	74.3	73.6
1990	74.6	74.8	75.0	75.1	75.3	75.4	75.5	75.7	75.8	75.9	76.1	76.2	74.8	75.3	75.7	76.1	75.4
1991	76.3	76.4	76.5	76.6	76.7	76.8	76.9	76.9	77.0	77.1	77.2	77.3	76.4	76.7	76.9	77.2	76.8
1992	77.4	77.5	77.7	77.8	78.0	78.1	78.3	78.5	78.6	78.8	79.0	79.1	77.5	78.0	78.5	79.0	78.2
1993	79.3	79.4	79.5	79.7	79.8	79.9	80.0	80.1	80.2	80.3	80.5	80.6	79.4	79.8	80.1	80.5	79.9
1994	80.8	81.0	81.1	81.4	81.6	81.8	82.1	82.3	82.6	82.9	83.1	83.4	81.0	81.6	82.3	83.1	82.0
1995	83.7	84.0	84.3	84.6	84.9	85.2	85.6	85.9	86.2	86.6	86.9	87.3	84.0	84.9	85.9	86.9	85.4
1996	87.7	88.0	88.4	88.8	89.2	89.6	90.1	90.5	90.9	91.3	91.8	92.2	88.1	89.2	90.5	91.8	89.9
1997	92.6	93.1	93.6	94.1	94.6	95.1	95.6	96.2	96.8	97.4	98.0	98.7	93.1	94.6	96.2	98.1	95.5
1998	99.3	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	102.7
1999	106.3	106.7	107.2	107.6	108.0	108.4	108.8	109.2	109.6	110.0	110.4	110.8	106.7	108.0	109.2	110.4	108.6
2000	111.2	111.6	112.0	112.4	112.7	113.1	113.5	113.8	114.2	114.5	114.9	115.2	111.6	112.7	113.8	114.9	113.3
2001	115.5	115.9	116.2	116.5	116.8	117.1	117.4	117.6	117.9	118.1	118.4	118.6	115.9	116.8	117.6	118.4	117.2
2002	118.8	118.9	119.1	119.2	119.3	119.4	119.4	119.4	119.4	119.4	119.3	119.3	118.9	119.3	119.4	119.3	119.2
2003	119.2	119.2	119.1	119.1	119.0	118.9	118.9	118.9	118.8	118.8	118.8	118.8	119.2	119.0	118.9	118.8	119.0
2004	118.7	118.7	118.7	118.7	118.7	118.7	118.7	118.7	118.7	118.7	118.7	118.8	118.7	118.7	118.7	118.7	118.7
2005	118.9	118.9	119.1	119.2	119.3	119.4	119.6	119.7	119.9	120.0	120.2	120.3	119.0	119.3	119.7	120.2	119.5
2006	120.5	120.6	120.8	121.0	121.2	121.4	121.6	121.8	122.0	122.3	122.6	122.9	120.6	121.2	121.8	122.6	121.5
2007	123.2	123.4	123.7	124.0	124.2	124.5	124.7	124.8	124.9	125.0	125.0	125.0	123.4	124.2	124.8	125.0	124.4
2008	124.9	124.9	124.8	124.7	124.6	124.6	124.6	124.6	124.7	124.7	124.8	124.9	124.9	124.7	124.6	124.8	124.7
2009	125.0	125.0	125.0	125.0	125.0	124.9	124.8	124.6	124.4	124.2	123.9	123.7	125.0	125.0	124.6	123.9	124.6
2010	123.4	123.1	122.8	122.6	122.3	122.1	121.9	121.8	121.6	121.6	121.5	121.5	123.1	122.3	121.8	121.5	122.2
2011	121.5	121.6	121.6	121.7	121.8	121.9	122.0	122.1	122.2	122.3	122.5	122.6	121.6	121.8	122.1	122.5	122.0
2012	122.7	122.8															
Utilization (percent)																	
1982	75.0	76.4	75.6	74.8	74.2	73.9	73.5	72.8	72.5	71.8	71.5	70.9	75.7	74.3	72.9	71.4	73.6
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	80.2	80.5	80.8	80.9	81.0	80.9	80.6	80.3	80.4	80.3	79.9	80.7	80.8	80.3	80.4
1985	79.9	80.0	79.9	79.5	79.4	79.3	78.6	78.7	78.9	78.5	78.6	79.3	79.9	79.4	78.7	78.8	79.2
1986	79.6	78.9	78.4	78.4	78.4	78.1	78.5	78.3	78.3	78.6	78.9	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	83.6	83.8	84.2	84.1	84.3	84.4	84.7	84.3	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	82.5	83.0	83.3	83.0	83.0	83.1	82.9	82.9	83.0	82.2	81.1	80.4	82.9	83.0	82.9	81.2	82.5
1991	79.9	79.3	78.8	78.8	79.5	80.2	80.1	80.1	80.7	80.5	80.3	79.9	79.3	79.5	80.3	80.2	79.8
1992	79.3	79.8	80.3	80.7	80.8	80.7	81.2	80.6	80.6	81.0	81.2	81.0	79.8	80.7	80.8	81.1	80.6
1993	81.3	81.4	81.3	81.4	81.0	81.1	81.2	81.1	81.4	81.8	82.0	82.3	81.3	81.2	81.2	82.1	81.4
1994	82.5	82.3	83.0	83.2	83.4	83.7	83.6	83.8	83.8	84.2	84.4	85.0	82.6	83.5	83.7	84.6	83.6
1995	85.0	84.6	84.5	84.1	84.0	84.0	83.4	84.1	84.1	83.6	83.5	83.4	84.7	84.0	83.9	83.5	84.0
1996	82.5	83.5	83.0	83.4	83.6	84.0	83.5	83.6	83.7	83.3	83.6	83.7	83.0	83.6	83.6	83.5	83.4
1997	83.4	83.9	84.2	83.8	83.9	83.8	83.9	84.5	84.7	84.7	84.9	84.7	83.8	83.8	84.3	84.8	84.2
1998	84.5	84.0	83.5	83.3	83.3	82.4	81.5	82.8	82.1	82.4	81.9	81.8	84.0	83.0	82.2	82.0	82.8
1999	81.8	81.8	81.6	81.5	81.8	81.4	81.6	81.7	81.1	81.9	82.0	82.3	81.8	81.6	81.5	82.0	81.7
2000	82.1	82.1	82.2	82.4	82.2	82.0	81.6	81.1	81.2	80.6	80.4	79.9	82.1	82.2	81.3	80.3	81.5
2001	79.1	78.4	77.9	77.5	76.8	76.1	75.6	75.2	74.8	74.2	73.7	73.6	78.5	76.8	75.2	73.8	76.1
2002	73.9	73.8	74.2	74.5	74.8	75.5	75.2	75.3	75.4	75.1	75.5	75.2	74.0	74.9	75.3	75.3	74.9
2003	75.8	76.1	76.0	75.4	75.5	75.5	75.8	75.7	76.2	76.2	76.8	76.8	76.0	75.5	75.9	76.6	76.0
2004	77.0	77.4	77.0	77.3	77.9	77.2	77.8	78.0	78.0	78.7	78.9	79.4	77.1	77.5	77.9	79.0	77.9
2005	79.7	80.2	80.1	80.0	80.1	80.3	80.1	80.1	78.4	79.3	79.9	80.3	80.0	80.1	79.5	79.9	79.9
2006	80.3	80.3	80.4	80.6	80.4	80.5	80.5	80.5	80.2	79.9	79.7	80.3	80.3	80.5	80.4	80.0	80.3
2007	79.8	80.5	80.3	80.8	80.6	80.4	80.4	80.3	80.6	80.1	80.5	80.6	80.2	80.6	80.4	80.4	80.4
2008	80.4	80.3	80.1	79.5	79.1	78.9	78.6	77.2	74.0	74.6	73.6	71.6	80.3	79.2	76.6	73.2	77.3
2009	69.9	69.5	68.3	67.7	67.1	66.8	67.5	68.3	68.9	69.1	69.5	70.0	69.3	67.2	68.2	69.5	68.6
2010	70.8	71.3	71.9	72.4	73.7	73.9	74.5	74.8	75.2	74.9	75.2	76.0	71.4	73.3	74.8	75.4	73.7
2011	76.1	75.9	76.5	76.1	76.3	76.3	77.0	77.1	77.2	77.5	77.5	78.1	76.2	76.3	77.1	77.7	76.8
2012	78.4	78.4															

NOTE: Estimates from October 2011 through February 2012 are subject to further revision in the upcoming monthly releases.

Table 2
RATES OF CHANGE IN INDUSTRIAL PRODUCTION, MARKET AND INDUSTRY GROUP SUMMARY: 2007–11¹

Item	Revised change (percent)					Difference between revised and earlier changes (percentage points)					
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011	
Total IP	2.5	-9.0	-5.7	6.3	3.9	.0	.0	-.3	.1	.0	
MARKET GROUPS											
Final products and nonindustrial supplies	.9	-8.7	-6.6	4.2	3.8	-.1	.3	-1.2	-1.1	.2	
Consumer goods	-1.0	-6.5	-3.3	.8	2.7	-.4	1.0	-1.2	-2.5	1.3	
Durable	1.8	-18.5	-3.1	3.1	10.1	-.2	.0	-1.4	-2.4	1.3	
Automotive products	5.9	-21.9	7.6	1.6	16.5	-.2	.3	-1.6	-4.5	3.7	
Home electronics	16.5	-4.4	-16.8	-21.4	2.0	-2.0	2.1	-19.3	-14.6	2.7	
Appliances, furniture, carpeting	-4.5	-22.4	-15.9	2.3	2.2	-.6	-.3	-.9	-.9	-1.2	
Miscellaneous goods	-3.4	-13.2	-10.9	9.2	3.1	.2	-.4	1.1	1.6	-2.3	
Nondurable	-1.8	-2.6	-3.3	.1	.6	-.4	1.4	-1.2	-2.6	1.1	
Non-energy	-3.1	-4.0	-4.2	-.6	.9	-.5	1.7	-1.3	-2.8	1.2	
Foods and tobacco	-2.5	-2.6	-1.2	1.3	1.3	-.5	1.4	.0	-3.5	1.7	
Clothing	-21.9	-16.0	-27.9	10.3	-6.7	1.1	-3.7	-4.1	2.7	-2.1	
Chemical products	-1.7	-5.9	-7.4	-3.5	1.9	-.1	1.4	-3.8	-2.9	1.6	
Paper products	-6.2	-5.0	-7.1	-4.3	-3.8	-1.9	4.8	-1.4	-1.2	-2.1	
Energy	1.9	2.2	-.5	2.1	-.4	-.2	.3	-.6	-1.7	.8	
Business equipment	4.3	-13.5	-9.9	12.7	7.9	.6	-.6	-2.0	.5	-2.6	
Transit	5.9	-35.7	11.5	13.2	17.7	.8	-.3	-.4	2.7	-6.5	
Information processing	4.6	-5.1	-8.0	6.0	6.2	1.2	-1.3	-9.3	-5.3	-.3	
Industrial and other	3.5	-8.7	-17.0	15.8	4.4	.2	-.3	.9	2.5	-2.6	
Defense and space equipment	21.6	-1.4	-3.2	5.0	4.0	1.1	-3.4	-4.4	-.4	1.9	
Construction supplies	-.7	-17.1	-17.0	9.8	4.6	.2	-.1	.3	-.3	.4	
Business supplies	.7	-8.2	-6.1	2.4	1.2	-.3	.5	-.3	1.0	-.9	
Materials	4.5	-9.4	-4.6	9.0	4.0	.1	-.3	.9	1.5	-.2	
Non-energy	5.7	-14.5	-6.5	10.9	3.7	.2	-.4	1.3	2.9	-.7	
Durable	6.9	-14.4	-11.2	16.4	6.6	.2	-.7	1.6	4.9	.1	
Consumer parts	.2	-28.4	-11.5	27.2	6.5	1.4	-2.4	3.2	18.2	2.9	
Equipment parts	16.2	-8.7	-9.5	17.5	7.7	-.1	-1.4	1.2	5.7	-1.1	
Other	2.6	-14.0	-12.5	12.5	5.7	.0	.3	1.5	.6	.2	
Nondurable	3.8	-14.8	.8	3.6	-.5	.1	.0	.8	.0	-2.1	
Textile	-8.3	-17.0	-5.1	5.2	1.0	-.1	-.1	-.5	-4.2	-5.7	
Paper	-.5	-11.0	-4.7	-.1	-3.0	.0	.0	-.3	-.6	-.6	
Chemical	8.3	-21.5	4.9	6.6	-.7	.5	-.5	2.0	1.7	-3.6	
Energy	2.5	-.9	-1.7	5.7	4.5	-.1	.0	.2	-.8	.5	
INDUSTRY GROUPS											
Manufacturing	2.8	-11.8	-6.5	6.5	4.1	.0	.1	-.4	.4	-.1	
Manufacturing (NAICS)	31–33	3.3	-12.0	-6.3	7.1	4.4	.1	-.1	-.4	.5	-.1
Durable manufacturing		6.1	-14.0	-9.3	11.7	7.1	.3	-.7	-.2	2.1	-.8
Wood products	321	-4.1	-22.7	-12.8	5.0	2.2	.1	-.2	-1.1	-1.2	-.8
Nonmetallic mineral products	327	-1.2	-20.3	-18.1	10.5	.0	.3	-.8	.2	3.4	-1.1
Primary metal	331	9.0	-17.7	-2.8	11.9	8.9	-.4	2.1	5.6	-.6	-1.7
Fabricated metal products	332	4.9	-11.9	-19.0	14.4	7.6	.0	-.1	.3	.5	-1.1
Machinery	333	3.9	-9.6	-18.6	20.2	7.0	.7	-.6	1.8	4.0	-2.8
Computer and electronic products	334	15.0	-7.2	-3.1	12.2	5.5	.1	-1.5	-4.6	1.4	-.1
Electrical equip., appliances, and components	335	4.4	-11.0	-18.1	12.5	.4	.2	-.6	-.5	2.9	1.0
Motor vehicles and parts	3361–3	-2.0	-29.8	2.3	15.8	14.4	.7	-1.1	.0	5.6	3.5
Aerospace and miscellaneous transportation equipment	3364–9	22.2	-15.7	-.1	2.5	10.5	1.0	-1.9	-.9	1.6	-2.5
Furniture and related products	337	-.9	-20.8	-22.3	5.8	2.9	-.9	-.1	-1.0	-.7	-1.0
Miscellaneous	339	-1.2	-1.0	-4.0	4.2	2.0	-.3	.1	1.3	.1	-3.8
Nondurable manufacturing		.0	-9.6	-2.9	2.3	1.5	-.1	.5	-.6	-1.2	.4
Food, beverage, and tobacco products	311,2	-1.6	-2.0	-.5	1.0	1.8	-.5	1.4	-.1	-3.4	1.8
Textile and product mills	313,4	-10.3	-16.6	-10.4	5.3	.6	-.1	.1	-.1	-1.4	-3.2
Apparel and leather	315,6	-21.9	-21.1	-20.0	9.5	-2.6	1.0	-2.6	-1.0	2.7	-2.2
Paper	322	-.2	-12.6	-1.2	.3	-1.8	-.1	.3	-.9	-1.9	.2
Printing and support	323	.9	-11.5	-12.4	1.0	-6.3	.4	-1.2	1.2	4.0	-3.3
Petroleum and coal products	324	-.6	-3.5	-2.6	2.6	7.2	-.3	.6	-1.7	-1.7	3.4
Chemical	325	3.8	-14.3	-1.5	1.9	.2	.3	.2	-1.0	.0	-1.7
Plastics and rubber products	326	-1.0	-15.2	-8.4	10.6	6.5	-.1	.3	-1.1	.8	3.6
Other manufacturing (non-NAICS)	1133,5111	-6.5	-7.6	-11.5	-6.0	-2.8	-1.8	4.6	-1.4	-1.3	-2.3
Mining	21	.5	-.4	-5.1	8.3	7.0	-.1	.0	.3	-1.7	1.0
Utilities	2211,2	3.1	-.4	-1.1	2.7	-2.2	.0	.0	.2	-.5	-.1
Electric	2211	3.5	-1.4	-1.4	2.6	-2.0	.0	.1	.2	.0	-.3
Natural gas	2212	1.1	4.7	.7	3.5	-3.3	-.2	-.5	-.2	-3.3	.6

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: 2007–11¹

Item	Revised change (percent)					Difference between revised and earlier changes (percentage points)				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Total industry	2.5	-9.0	-5.7	6.3	3.9	.0	.0	-.3	.1	.0
Energy	2.2	.0	-2.5	5.1	3.3	-.1	.0	-.1	-.9	.7
Consumer products	1.9	2.2	-.5	2.1	-.4	-.2	.3	-.6	-1.7	.8
Commercial products	2.1	-.6	-1.4	1.9	-.4	-.1	.0	-1.1	.2	.5
Oil and gas well drilling	213111	-1.0	6.9	-42.3	44.9	21.1	.1	.2	.1	.3
Converted fuel	6.1	-5.8	-.4	3.0	-1.2	-.1	-.1	.8	-.4	-.6
Primary energy	1.3	.7	-2.2	6.7	6.3	-.1	.0	.0	-.9	.8
Non-energy	2.6	-12.1	-6.8	6.7	4.1	.0	.1	-.3	.4	-.2
Selected high-technology industries	21.4	-7.2	-.3	12.9	1.3	-.2	-1.7	-6.5	2.4	-1.8
Computers and peripheral equipment	3341	24.6	1.9	-16.6	-20.0	-1.9	-.7	3.4	-32.3	-32.1
Communications equipment	3342	-10.3	-7.4	-4.4	5.2	-1.3	1.7	-4.3	-4.5	6.6
Semiconductors and related electronic components	334412-9	37.7	-10.9	9.3	27.0	2.7	-1.5	-3.1	5.0	12.6
Excluding selected high-technology industries	1.5	-12.4	-7.2	6.4	4.2	.0	.2	.0	.3	-.2
Motor vehicles and parts	3361-3	-2.0	-29.8	2.3	15.8	14.4	.7	-1.1	.0	5.6
Motor vehicles	3361	-3.0	-31.7	8.9	11.7	21.2	.0	.3	-2.0	-3.8
Motor vehicle parts	3363	-.3	-26.3	-4.5	21.4	4.7	1.7	-3.2	2.8	18.7
Excluding motor vehicles and parts	1.8	-11.1	-7.8	5.6	3.4	.0	.3	.0	-.2	-.5
Consumer goods	-2.5	-6.4	-5.9	.4	1.6	-.4	1.3	-1.1	-2.4	.8
Business equipment	6.8	-13.6	-9.3	12.5	7.6	.5	-.6	.4	2.1	-3.0
Construction supplies	-.8	-17.1	-17.1	9.8	4.6	.2	.0	.4	-.3	.5
Business supplies	-.5	-11.0	-8.7	1.7	1.8	-.3	.7	-.2	.8	-1.6
Materials	3.7	-13.3	-7.4	8.5	3.6	.1	.0	1.1	.8	-1.0
Measures excluding selected high-technology industries										
Total industry	1.7	-9.1	-5.9	6.0	3.9	.0	.1	.0	.0	.1
Manufacturing ²	1.7	-12.1	-6.9	6.2	4.3	.0	.2	-.1	.3	-.1
Durable	4.3	-14.8	-10.4	11.6	7.6	.3	-.5	.5	2.1	-.7
Measures excluding motor vehicles and parts										
Total industry	2.8	-7.9	-6.1	5.8	3.3	.0	.1	-.3	-.3	-.2
Manufacturing ²	3.1	-10.5	-7.1	5.9	3.4	.0	.2	-.5	.0	-.5
Durable	7.3	-11.7	-10.8	11.0	5.9	.2	-.6	-.3	1.5	-1.5
Measures excluding selected high-technology industries and motor vehicles and parts										
Total industry	1.9	-8.0	-6.3	5.5	3.4	.0	.2	.0	-.4	-.1
Manufacturing ²	2.0	-10.8	-7.5	5.5	3.5	.0	.3	-.2	-.1	-.4
Stage-of-process components of non-energy materials, measures of the input to										
Finished processors	7.8	-14.1	-8.8	15.1	5.2	.3	-1.3	1.3	6.5	-.1
Primary and semifinished processors	4.2	-14.8	-4.9	8.1	2.7	.1	.2	1.3	.5	-1.1
STAGE-OF-PROCESS GROUPS										
Crude	2.4	-5.6	-.4	6.4	4.2	.1	-.3	.9	.1	-.7
Primary and semifinished	3.2	-10.6	-7.5	7.8	2.3	-.1	.0	.8	1.8	.0
Finished	1.6	-8.8	-5.9	4.3	5.7	.0	.2	-2.2	-2.3	.5

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: 2007–11¹

Item	Revised change (percent)					Difference between revised and earlier changes (percentage points)				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Total IP	2.5	-3.5	-11.4	5.4	4.0	-.2	.2	-.3	.1	-.1
MARKET GROUPS										
Consumer goods	.4	-4.9	-6.9	1.1	2.3	-.4	.3	-.4	-3.1	.3
Durable	1.6	-11.2	-16.6	8.2	7.1	-.3	.1	-.7	-2.9	-.4
Nondurable	.1	-2.8	-3.9	-.7	1.0	-.4	.4	.7	-3.2	.4
Business equipment	4.5	-2.4	-18.2	8.3	8.2	.2	.1	-1.9	.6	-2.6
Defense and space equipment	18.9	7.0	-4.2	4.1	2.6	.6	-.9	-5.5	-.9	.4
Construction supplies	-1.1	-9.3	-23.0	3.9	5.5	-.2	.3	-.4	.0	.6
Business supplies	.8	-4.1	-10.6	2.1	1.3	-.9	.7	-.6	1.0	-.4
Materials	3.6	-2.7	-11.5	8.4	4.6	-.1	.0	.1	2.1	.0
Non-energy	4.5	-4.8	-17.1	11.0	4.9	-.1	.0	.0	3.6	-.2
Energy	1.9	.6	-2.2	4.1	3.9	.0	.0	.2	-.5	.4
INDUSTRY GROUPS										
Manufacturing²	2.7	-4.8	-13.8	5.7	4.3	-.3	.2	-.4	.4	-.2
Manufacturing (NAICS)	3.1	-4.8	-13.8	6.3	4.8	.0	.0	-.4	.4	-.2
Durable manufacturing	4.8	-3.7	-19.0	10.3	7.7	-.1	-.1	-1.0	2.4	-.6
Nondurable manufacturing	1.2	-5.9	-7.7	2.2	1.7	.0	.0	.4	-1.5	.0
Other manufacturing (non-NAICS)	-5.8	-6.4	-13.8	-5.2	-6.4	-4.5	4.3	.0	-1.3	-2.0
Mining	.6	1.0	-5.1	5.1	6.0	.1	.2	.0	-.7	.2
Utilities	3.4	-.1	-2.5	3.5	-.3	.0	.0	.1	-.5	.1

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: 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	-.1	-.7	-1.9	.8	1.0	-.3	.4	-.1	-.4	.0
Manufacturing²	-1.0	-2.8	-2.4	.1	1.0	-.3	.1	-.4	-.7	.0
Manufacturing (NAICS)	-.7	-2.8	-2.5	.2	1.1	-.4	.1	-.4	-.7	.0
Durable manufacturing	-.7	-1.6	-1.4	1.2	2.1	-.6	.5	.4	-.3	.6
Nondurable manufacturing	-.5	-4.1	-3.6	-.7	.0	-.2	-.5	-1.5	-1.0	-.7
Other manufacturing (non-NAICS)	-7.1	-2.8	-1.1	-1.7	-1.6	1.2	-.9	-1.1	-1.1	.0
Mining	2.7	5.0	-.2	2.7	.9	.1	1.6	.7	.6	-.2
Utilities	2.2	1.2	4.5	3.2	2.4	-.2	.7	.9	1.2	.0
Selected high-technology industries	-7.3	3.0	.3	10.4	7.3	-7.1	-7.0	-3.8	-4.8	-2.2
Manufacturing ² ex. selected high-technology industries	-.6	-3.1	-2.6	-.4	.7	.1	.4	-.3	-.6	.1
STAGE-OF-PROCESS GROUPS										
Crude	2.1	3.1	-.4	2.0	.9	-.2	2.2	.5	.5	-.2
Primary and semifinished	-.2	-1.0	-1.2	.3	.2	-.3	1.3	.9	.1	-.2
Finished	-1.1	-3.5	-2.3	.9	2.3	-.3	-1.5	-1.6	-1.0	.4

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

2. See footnote 2 to table 3.

Table 6**REVISED AND EARLIER CAPACITY UTILIZATION RATES, BY INDUSTRY GROUPS**

Percent of capacity, seasonally adjusted

Item	Revised Rate					Difference between revised and earlier rates (percentage points)				
	1972-2011 Ave.	2008 Q4	2009 Q4	2010 Q4	2011 Q4	2008 Q4	2009 Q4	2010 Q4	2011 Q4	
Total industry		80.3	73.2	69.5	75.4	77.7	-3	-8	-7	-4
Manufacturing¹		78.8	69.7	67.0	73.1	76.0	-4	-8	-2	.2
Manufacturing (NAICS)	31-33	78.7	69.4	66.8	73.4	76.5	-4	-8	-2	.2
Durable manufacturing		77.1	67.8	62.5	70.9	75.0	-2	-7	.2	.0
Wood products	321	77.6	59.8	55.0	60.6	64.1	1.6	.4	-2	-2
Nonmetallic mineral products	327	75.2	52.5	44.9	52.2	54.7	-2.0	-1.6	.5	.7
Primary metal	331	79.2	63.4	61.0	70.1	75.5	-1.1	-6	1.4	-4
Fabricated metal products	332	77.3	74.2	62.8	74.4	80.0	.3	.9	1.5	-8
Machinery	333	78.1	76.0	62.7	75.4	81.0	-1.0	.4	1.2	-4
Computer and electronic products	334	78.2	72.7	70.3	79.7	77.8	.5	-9	1.1	1.8
Electrical equip., appliances, and components	335	82.6	79.5	67.4	78.2	79.9	-4	-2	2.1	3.2
Motor vehicles and parts	3361-3	75.0	49.2	52.5	60.6	69.3	.3	-1.5	-7	2.9
Aerospace and miscellaneous transportation equipment	3364-9	73.1	72.7	70.3	70.6	76.7	-4	-1.2	-6	-3.1
Furniture and related products	337	77.1	66.9	58.2	64.0	67.6	-1.3	-2.2	-2.6	-2.9
Miscellaneous	339	76.1	72.9	71.4	76.9	77.0	.1	.1	.3	-2.2
Nondurable manufacturing		80.9	71.2	72.1	76.5	78.2	-7	-8	-5	.6
Food, beverage, and tobacco products	311,2	81.1	76.4	76.1	77.4	79.1	-1	.2	-1.5	1.8
Textile and product mills	313,4	80.3	62.5	59.6	65.6	67.8	-1.2	1.5	1.6	-1
Apparel and leather	315,6	78.0	71.4	60.9	68.8	69.0	-2.5	-2.2	-3	-6
Paper	322	86.9	75.1	79.0	82.2	81.5	.1	-5	-1.0	-6
Printing and support	323	81.6	67.1	62.1	65.9	63.9	-2.2	-1.8	1.9	1.1
Petroleum and coal products	324	85.7	80.3	77.1	83.5	86.3	-1.5	-2.0	-2.0	-2.1
Chemical	325	77.7	67.0	71.3	76.6	77.6	-1.3	-1.8	.2	-1
Plastics and rubber products	326	82.2	64.9	62.6	71.8	77.5	.3	-2	.1	1.7
Other manufacturing (non-NAICS)	1133,5111	82.7	76.2	69.4	65.9	65.3	.0	-5	-6	-1.5
Mining	21	87.3	87.5	79.1	85.9	89.5	-2	-1.1	-3.2	-3.0
Utilities	2211,2	86.3	83.1	81.3	79.8	75.6	.2	-2	-1.3	-2.2
Selected high-technology industries		78.2	75.1	72.7	81.8	75.1	-1.7	-1.4	2.9	4.6
Computers and peripheral equipment	3341	78.4	72.9	88.2	88.7	81.4	-7.1	-5.1	5.3	4.0
Communications equipment	3342	76.6	85.7	78.7	80.0	76.6	.9	-2.2	4.3	4.2
Semiconductors and related electronic components	334412-9	80.2	72.6	66.4	81.1	73.6	-1	.6	2.5	5.5
Measures excluding selected high-technology industries										
Total industry		80.4	73.2	69.4	75.2	77.8	-3	-8	-8	-6
Manufacturing ¹		78.9	69.4	66.7	72.7	76.1	-4	-7	-3	.0
STAGE-OF-PROCESS GROUPS										
Crude		86.3	83.1	78.7	85.0	87.3	-5	-1.7	-2.1	-3.0
Primary and semifinished		81.1	71.7	67.0	73.2	74.6	-3	-6	.0	-1
Finished		77.2	70.7	69.6	73.9	77.1	-3	-6	-1.0	.1

1. See footnote 2 to table 3.

Table 7
RATES OF CHANGE IN INDUSTRIAL PRODUCTION, 2007–11

Item	NAICS code	2007		2008		2009		2010		2011	
		H1	H2	H1	H2	H1	H2	H1	H2	H1	H2
Total IP		4.3	.8	-3.5	-14.2	-15.6	5.3	8.2	4.4	2.8	4.2
MARKET GROUPS											
Final products and nonindustrial supplies		3.0	-1.1	-4.1	-13.2	-15.5	3.2	5.3	3.1	3.0	3.8
Consumer goods		1.4	-3.3	-5.1	-7.9	-10.5	4.5	-2	1.8	2.4	2.6
Durable		8.4	-4.4	-13.9	-22.8	-25.2	25.5	4.6	1.7	7.0	11.3
Automotive products		22.4	-8.3	-20.8	-22.9	-27.7	60.0	-.1	3.5	9.5	20.2
Home electronics		4.8	29.5	11.3	-17.8	-8.8	-24.0	-23.5	-19.3	1.2	2.4
Appliances, furniture, carpeting		-5.2	-3.9	-13.4	-30.5	-25.2	-5.6	8.2	-3.3	3.3	.9
Miscellaneous goods		-3.3	-3.5	-7.2	-18.8	-23.8	4.1	15.8	3.0	4.8	1.2
Nondurable		-.8	-2.9	-2.1	-3.1	-6.1	-.5	-1.5	1.7	1.0	.2
Non-energy		-2.7	-3.5	-3.5	-4.6	-6.8	-1.4	-1.6	.4	1.4	.4
Foods and tobacco		-1.1	-4.0	-3.5	-1.7	-1.5	-.8	.0	2.5	1.0	1.3
Clothing		-28.1	-15.1	-4.1	-26.5	-41.0	-11.9	16.9	4.2	-4.8	-7.3
Chemical products		-2.4	-1.0	-4.7	-7.0	-10.3	-4.3	-4.8	-2.1	6.4	-2.0
Paper products		-5.3	-7.2	-1.6	-8.4	-16.2	3.0	-4.0	-4.7	-11.4	3.8
Energy		5.2	-1.3	2.3	2.1	-3.5	2.6	-1.6	6.0	.0	-6
Business equipment		5.3	3.3	.3	-25.3	-21.1	2.9	16.7	8.8	6.0	8.3
Transit		-2.3	14.7	3.2	-60.0	.3	24.0	17.4	9.2	13.4	18.7
Information processing		14.5	-4.4	7.5	-16.2	-11.9	-3.9	6.1	6.0	2.9	8.3
Industrial and other		3.5	3.5	-4.5	-12.6	-30.8	-.5	22.0	9.9	4.3	3.8
Defense and space equipment		21.9	21.4	1.5	-4.2	-7.8	1.5	9.6	.7	2.6	4.8
Construction supplies		2.7	-3.9	-10.7	-23.0	-28.6	-3.5	14.9	4.9	4.0	4.4
Business supplies		2.7	-1.2	-4.5	-11.8	-13.7	2.1	3.9	.9	.7	1.4
Materials		6.0	3.2	-2.9	-15.5	-15.8	8.1	12.1	5.9	2.5	4.7
Non-energy		8.3	3.1	-5.4	-22.8	-21.7	11.7	16.0	6.0	2.7	4.0
Durable		9.1	4.7	-2.9	-24.5	-30.8	13.9	24.5	8.8	7.4	4.9
Consumer parts		8.0	-6.9	-15.9	-39.1	-46.6	46.7	44.4	12.1	-1.4	12.7
Equipment parts		16.2	16.2	4.7	-20.3	-24.5	8.6	23.9	11.4	11.2	3.6
Other		4.4	.8	-4.2	-22.8	-30.8	10.5	19.6	5.9	7.3	3.6
Nondurable		7.1	.5	-9.1	-20.1	-6.7	8.9	5.2	1.9	-3.9	2.6
Textile		-2.7	-13.7	-14.2	-19.7	-22.4	16.0	7.4	3.1	1.8	.2
Paper		-1.6	.5	-3.8	-17.7	-14.7	6.4	2.7	-2.9	-2.3	-3.2
Chemical		14.6	2.4	-14.3	-28.2	-4.6	15.5	9.5	3.8	-6.2	4.4
Energy		1.7	3.3	1.1	-2.8	-5.6	2.5	5.5	5.9	2.1	6.0
INDUSTRY GROUPS											
Manufacturing²		5.0	.6	-5.2	-17.9	-17.7	6.1	9.2	3.9	3.1	4.4
Manufacturing (NAICS)	31–33	5.6	1.0	-5.2	-18.2	-17.5	6.4	9.9	4.3	3.7	4.4
Durable manufacturing		8.8	3.5	-3.7	-23.1	-25.6	10.5	16.7	6.9	6.2	6.8
Wood products	321	1.6	-9.4	-15.8	-28.9	-27.3	4.6	13.1	-2.4	2.1	2.0
Nonmetallic mineral products	327	2.8	-5.0	-13.0	-26.9	-29.3	-5.0	16.2	5.0	1.4	-1.1
Primary metal	331	10.8	7.2	5.1	-35.6	-37.8	52.1	25.1	.1	6.7	9.5
Fabricated metal products	332	6.1	3.7	-5.0	-18.3	-33.9	-.6	16.5	12.4	9.7	4.7
Machinery	333	5.1	2.6	-4.2	-14.6	-34.3	.8	27.7	13.1	9.0	4.4
Computer and electronic products	334	17.5	12.6	9.5	-21.4	-11.8	6.3	17.4	7.3	7.4	3.0
Selected high-technology industries		21.9	20.9	18.8	-27.5	-12.0	12.9	20.9	5.4	7.2	-3.6
Computers and peripheral equipment	3341	14.2	36.0	27.9	-18.9	-9.7	-23.0	-27.1	-12.2	3.6	-6.0
Communications equipment	3342	10.6	-27.3	10.9	-22.7	-17.9	11.4	12.9	-2.0	-10.2	7.2
Semiconductors and related electronic components	334412–9	31.7	43.9	18.4	-32.9	-10.6	33.7	43.9	12.2	13.2	-5.8
Electrical equip., appliances, and components	335	8.3	.7	-2.4	-18.9	-29.9	-4.2	15.5	9.6	-2.2	2.6
Motor vehicles and parts	3361–3	10.8	-13.2	-24.7	-34.6	-44.6	89.1	22.4	9.5	6.9	19.0
Aerospace and miscellaneous transportation equipment	3364–9	19.9	24.5	2.6	-30.7	3.3	-3.4	4.4	.6	5.6	13.4
Furniture and related products	337	-4.2	2.5	-11.4	-29.2	-32.2	-10.9	9.0	2.8	6.5	-.5
Miscellaneous	339	-3.4	1.0	3.5	-5.4	-13.1	6.0	6.2	2.1	2.0	1.8
Nondurable manufacturing		2.0	-1.9	-7.0	-12.1	-7.8	2.3	3.1	1.5	1.0	1.8
Food, beverage, and tobacco products	311,2	.2	-3.3	-2.9	-1.0	-.2	-.9	-.8	2.8	1.4	1.8
Textile and product mills	313,4	-8.0	-12.7	-11.0	-21.9	-26.7	9.4	9.0	1.8	1.2	.0
Apparel and leather	315,6	-20.9	-22.8	-16.6	-25.4	-31.9	-5.9	11.3	7.8	-.4	-4.0
Paper	322	-1.3	.8	-2.7	-21.5	-8.6	6.8	2.5	-2.0	-2.1	-1.3
Printing and support	323	1.5	.4	-7.7	-15.1	-21.8	-1.8	6.0	-3.7	-5.4	-6.2
Petroleum and coal products	324	2.5	-3.5	-3.3	-3.6	-.2	-5.3	2.8	2.4	3.1	9.8
Chemical	325	6.6	1.1	-10.3	-18.1	-8.1	5.6	3.4	.3	-.6	.9
Plastics and rubber products	326	1.3	-3.2	-12.4	-17.9	-22.7	8.6	14.5	6.7	9.6	3.0
Other manufacturing (non-NAICS)	1133,5111	-5.7	-7.2	-4.7	-10.3	-21.8	.2	-5.9	-6.2	-11.4	5.7
Mining	21	-.8	1.8	2.2	-3.0	-12.1	2.4	8.7	8.0	4.8	7.9
Utilities	2211,2	5.3	.8	1.4	-2.1	-5.5	3.5	1.9	3.4	-2.0	-2.1

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, 2007–11

Percent of capacity, seasonally adjusted

Item	NAICS code	2007		2008		2009		2010		2011	
		Q2	Q4	Q2	Q4	Q2	Q4	Q2	Q4	Q2	Q4
Total industry		80.6	80.4	79.2	73.2	67.2	69.5	73.3	75.4	76.3	77.7
Manufacturing¹		78.9	78.2	76.2	69.7	64.1	67.0	71.0	73.1	74.4	76.0
Manufacturing (NAICS)	31–33	79.0	78.3	76.1	69.4	63.8	66.8	71.1	73.4	74.9	76.5
Durable manufacturing		78.2	78.3	76.8	67.8	59.0	62.5	68.1	70.9	72.8	75.0
Wood products	321	74.9	72.9	68.9	59.8	52.4	55.0	60.1	60.6	62.3	64.1
Nonmetallic mineral products	327	68.8	65.7	61.1	52.5	44.9	44.9	49.7	52.2	53.8	54.7
Primary metal	331	80.1	82.6	82.0	63.4	49.2	61.0	69.4	70.1	72.1	75.5
Fabricated metal products	332	84.8	85.0	81.9	74.2	61.4	62.8	69.3	74.4	78.1	80.0
Machinery	333	82.6	83.7	81.9	76.0	62.0	62.7	70.9	75.4	79.0	81.0
Computer and electronic products	334	76.7	74.4	78.3	72.7	69.2	70.3	76.3	79.7	80.4	77.8
Selected high-technology industries		78.4	75.0	82.2	75.1	71.3	72.7	78.9	81.8	81.8	75.1
Computers and peripheral equipment	3341	75.2	76.3	78.8	72.9	81.2	88.2	88.6	88.7	88.4	81.4
Communications equipment	3342	83.6	72.2	85.9	85.7	78.6	78.7	81.2	80.0	74.9	76.6
Semiconductors and related electronic components	334412–9	76.6	75.0	82.5	72.6	64.8	66.4	76.3	81.1	82.5	73.6
Electrical equip., appliances, and components	335	87.3	88.7	88.1	79.5	67.4	67.4	73.8	78.2	78.1	79.9
Motor vehicles and parts	3361–3	73.8	69.9	60.8	49.2	37.4	52.5	58.3	60.6	62.6	69.3
Aerospace and miscellaneous transportation equipment	3364–9	81.3	89.6	89.1	72.7	72.6	70.3	71.0	70.6	72.0	76.7
Furniture and related products	337	75.4	76.2	74.4	66.9	58.8	58.2	62.4	64.0	66.9	67.6
Miscellaneous	339	73.3	73.2	74.6	72.9	68.4	71.4	75.0	76.9	77.4	77.0
Nondurable manufacturing		79.9	78.3	75.3	71.2	69.6	72.1	74.8	76.5	77.3	78.2
Food, beverage, and tobacco products	311,2	78.9	77.4	76.5	76.4	76.4	76.1	76.0	77.4	78.2	79.1
Textile and product mills	313,4	73.1	70.7	68.7	62.5	55.2	59.6	63.9	65.6	67.0	67.8
Apparel and leather	315,6	74.8	75.3	76.8	71.4	61.4	60.9	65.3	68.8	69.8	69.0
Paper	322	83.8	84.3	83.6	75.1	73.9	79.0	81.9	82.2	81.8	81.5
Printing and support	323	78.0	76.6	72.7	67.1	60.7	62.1	65.7	65.9	65.4	63.9
Petroleum and coal products	324	88.6	85.8	83.3	80.3	78.8	77.1	80.8	83.5	83.6	86.3
Chemical	325	78.4	76.9	72.6	67.0	66.7	71.3	75.0	76.6	77.0	77.6
Plastics and rubber products	326	79.6	77.7	71.7	64.9	58.3	62.6	68.5	71.8	75.9	77.5
Other manufacturing (non-NAICS)	1133,5111	77.6	76.6	77.6	76.2	68.8	69.4	67.7	65.9	62.6	65.3
Mining	21	89.1	90.2	91.3	87.5	79.1	79.1	83.0	85.9	86.6	89.5
Utilities	2211,2	85.5	85.3	84.9	83.1	80.5	81.3	80.5	79.8	77.5	75.6

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)																	
1982	-2.4	2.7	-8	-7	-1	-2	-1	-8	-3	-1.1	-6	-4	-9.3	-1.9	-3.5	-8.1	-5.4
1983	2.4	-1	1.0	1.1	1.3	.7	1.5	.8	1.8	1.1	.4	.3	9.2	11.8	14.9	12.4	4.8
1984	1.8	1.1	.4	.5	.3	.5	.5	.2	-2	.4	.3	.4	12.8	6.2	3.8	2.6	9.8
1985	-4	-3	.8	-3	.1	.2	-6	.6	.1	-3	.6	.4	.1	.8	-1	2.2	1.6
1986	1.1	-6	-3	.4	.2	-4	.6	.2	.2	.4	.5	.9	4.5	.0	2.4	5.0	2.2
1987	-3	1.5	.1	.6	.7	.4	.7	.5	.6	1.6	.6	.6	5.9	7.2	7.2	11.7	5.7
1988	-2	.2	.3	.8	-1	.1	.1	.1	.3	.6	.3	.4	2.7	4.4	1.0	4.4	5.3
1989	.8	-9	-1	.2	-8	.2	-1.1	.8	-2	-2	.2	.1	2.0	-2.7	-3.1	.3	.8
1990	-1	1.4	.5	-3	.2	.3	-1	.3	.0	-8	-1.1	-8	4.3	2.9	1.1	-6.8	.8
1991	-8	-6	-7	.3	.8	1.1	.2	.2	1.1	-2	-2	-1	-8.8	1.9	7.2	1.5	-2.0
1992	-6	.9	1.0	.6	.6	.3	.9	-4	.0	.6	.4	-2	.5	8.3	4.0	2.9	3.6
1993	1.0	.2	-2	.5	-1	-1	.3	-1	.6	.8	.4	.5	4.4	1.5	1.2	6.9	3.5
1994	.2	.1	1.3	.8	.7	.3	.4	.8	.3	1.0	.8	1.1	5.0	9.5	6.0	9.9	5.9
1995	.3	-1	.3	-2	.1	.5	-6	1.2	.9	-1	.0	.3	5.3	.6	3.2	4.0	5.2
1996	-8	1.6	-2	1.1	.7	1.1	.3	.6	.6	-1	.8	.9	1.8	9.9	8.0	5.5	4.8
1997	.0	1.4	1.2	-2	.9	.7	.5	1.6	.9	.6	1.1	.5	9.1	7.6	10.9	10.9	8.4
1998	.8	.1	-1	.5	.6	-7	-5	2.5	-4	1.0	.2	.5	6.0	2.4	3.3	7.5	6.6
1999	.3	.7	.0	.4	.9	-3	.5	.7	-3	1.5	.6	.7	4.7	4.5	3.7	9.0	5.0
2000	.2	.3	.7	.6	-2	.2	.0	-6	.5	-4	-3	-6	5.3	4.3	-8	-2.9	4.2
2001	-6	-6	-3	-2	-8	-7	-4	-6	-2	-7	-3	.3	-6.5	-5.5	-6.0	-4.3	-4.1
2002	.5	.0	.7	.1	.7	1.1	-5	.4	.1	-4	.5	-5	3.2	5.9	3.1	-.5	.3
2003	.6	.2	.2	-1.0	.1	.4	.0	-3	.7	-1	1.0	-2	2.5	-2.3	1.4	3.7	1.2
2004	.0	.7	-3	.4	.7	-8	.8	.7	-1	1.1	-1	.7	2.6	2.9	3.8	5.6	2.7
2005	.8	.8	-5	.2	.4	.1	-1	.3	-1.1	1.5	.7	.1	6.5	2.0	-3	5.6	4.0
2006	.9	-1	-1	.6	-5	.3	-1	.4	.1	-4	.0	1.6	4.1	1.1	.7	1.1	2.5
2007	-5	.6	.6	.8	-2	.3	.2	-5	.5	-5	.4	.3	4.7	5.3	.8	.4	2.7
2008	-4	-4	-4	-1.1	-6	-6	-1.1	-1.4	-3.4	-7	-2.3	-3.3	-2.2	-8.2	-14.0	-21.6	-4.8
2009	-2.9	.0	-2.1	-8	-1.2	-3	1.2	1.0	.7	-1	.9	.1	-23.3	-11.6	6.4	5.8	-13.8
2010	.9	.1	1.1	1.0	1.4	.0	.8	.0	.2	.1	.2	1.0	7.1	11.2	5.2	2.6	5.7
2011	.4	.2	.6	-6	.2	.0	.8	.3	.4	.6	-2	1.4	6.0	.2	5.1	5.3	4.3
2012	1.1	.4															
IP (2007=100)																	
1982	43.4	44.6	44.2	43.9	43.9	43.8	43.8	43.4	43.3	42.8	42.5	42.4	44.1	43.9	43.5	42.6	43.5
1983	43.4	43.4	43.8	44.3	44.8	45.2	45.8	46.2	47.0	47.6	47.7	47.9	43.5	44.8	46.3	47.7	45.6
1984	48.7	49.3	49.5	49.8	49.9	50.1	50.4	50.4	50.3	50.5	50.7	50.9	49.2	49.9	50.4	50.7	50.0
1985	50.7	50.5	50.9	50.8	50.8	50.9	50.6	50.9	51.0	50.8	51.1	51.4	50.7	50.8	50.8	51.1	50.9
1986	51.9	51.6	51.5	51.7	51.8	51.6	51.9	52.0	52.1	52.3	52.6	53.0	51.7	51.7	52.0	52.6	52.0
1987	52.8	53.6	53.7	54.0	54.4	54.6	55.0	55.2	55.6	56.5	56.8	57.1	53.4	54.3	55.3	56.8	54.9
1988	57.0	57.2	57.3	57.8	57.8	57.8	57.9	57.9	58.1	58.4	58.5	58.8	57.2	57.8	57.9	58.6	57.9
1989	59.2	58.7	58.6	58.7	58.2	58.4	57.7	58.2	58.0	58.0	58.0	58.1	58.8	58.4	58.0	58.0	58.3
1990	58.0	58.8	59.1	58.9	59.1	59.2	59.1	59.3	59.3	58.8	58.1	57.7	58.6	59.1	59.2	58.2	58.8
1991	57.2	56.9	56.5	56.7	57.1	57.7	57.8	58.0	58.6	58.5	58.3	58.3	56.9	57.1	58.1	58.4	57.6
1992	57.9	58.4	59.0	59.3	59.7	59.9	60.4	60.1	60.1	60.5	60.8	60.6	58.4	59.6	60.2	60.6	59.7
1993	61.3	61.4	61.2	61.6	61.5	61.5	61.6	61.5	61.9	62.4	62.7	63.0	61.3	61.5	61.7	62.7	61.8
1994	63.2	63.2	64.1	64.6	65.0	65.2	65.5	66.0	66.2	66.9	67.4	68.2	63.5	65.0	65.9	67.5	65.5
1995	68.4	68.3	68.5	68.3	68.4	68.7	68.3	69.1	69.7	69.6	69.6	69.9	68.4	68.5	69.0	69.7	68.9
1996	69.3	70.4	70.3	71.1	71.6	72.4	72.6	73.1	73.5	73.5	74.0	74.7	70.0	71.7	73.1	74.1	72.2
1997	74.7	75.7	76.6	76.5	77.2	77.7	78.0	79.3	80.0	80.5	81.4	81.7	75.7	77.1	79.1	81.2	78.3
1998	82.4	82.4	82.3	82.7	83.2	82.6	82.2	84.3	84.0	84.8	85.0	85.4	82.4	82.9	83.5	85.1	83.5
1999	85.6	86.3	86.2	86.6	87.4	87.1	87.5	88.1	87.8	89.1	89.7	90.3	86.1	87.0	87.8	89.7	87.6
2000	90.5	90.7	91.3	91.9	91.7	91.9	91.9	91.3	91.7	91.4	91.0	90.5	90.8	91.8	91.6	91.0	91.3
2001	89.9	89.4	89.1	88.9	88.1	87.5	87.2	86.7	86.5	86.0	85.7	86.0	89.4	88.2	86.8	85.9	87.6
2002	86.4	86.3	87.0	87.1	87.7	88.7	88.3	88.6	88.7	88.3	88.7	88.2	86.6	87.8	88.5	88.4	87.8
2003	88.7	89.0	89.1	88.3	88.3	88.7	88.7	88.4	89.1	89.0	89.9	89.7	88.9	88.4	88.8	89.6	88.9
2004	89.8	90.4	90.2	90.6	91.2	90.5	91.3	91.9	91.8	92.7	92.7	93.3	90.1	90.8	91.6	92.9	91.4
2005	94.0	94.8	94.3	94.5	94.9	95.1	94.9	95.2	94.2	95.6	96.3	96.4	94.4	94.8	94.8	96.1	95.0
2006	97.2	97.1	96.9	97.5	97.1	97.4	97.2	97.6	97.6	97.2	97.3	98.8	97.0	97.3	97.5	97.8	97.4
2007	98.3	98.9	99.5	100.2	100.0	100.3	100.5	100.1	100.6	100.1	100.5	100.8	98.9	100.2	100.4	100.5	100.0
2008	100.4	99.9	99.5	98.4	97.9	97.3	96.2	94.9	91.6	91.0	88.9	86.0	100.0	97.8	94.2	88.7	95.2
2009	83.6	83.5	81.8	81.2	80.2	80.0	80.9	81.8	82.4	82.3	83.1	83.2	83.0	80.5	81.7	82.9	82.0
2010	83.9	84.0	84.9	85.8	87.0	87.0	87.6	87.6	87.8	87.9	88.0	88.9	84.3	86.6	87.7	88.2	86.7
2011	89.2	89.4	90.0	89.5	89.7	89.7	90.4	90.7	91.1	91.6	91.4	92.7	89.6	89.6	90.7	91.9	90.4
2012	93.8	94.1															

NOTE: Estimates from October 2011 through February 2012 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)																	
1982	60.8	61.0	61.1	61.2	61.3	61.4	61.5	61.6	61.7	61.7	61.8	61.9	60.9	61.3	61.6	61.8	61.4
1983	61.9	61.9	62.0	62.0	62.0	62.0	62.1	62.1	62.1	62.2	62.2	62.3	61.9	62.0	62.1	62.2	62.1
1984	62.4	62.5	62.6	62.7	62.8	63.0	63.1	63.3	63.4	63.6	63.8	64.0	62.5	62.8	63.3	63.8	63.1
1985	64.2	64.4	64.6	64.8	65.0	65.1	65.3	65.4	65.6	65.7	65.8	65.8	64.4	65.0	65.4	65.8	65.1
1986	65.9	66.0	66.0	66.1	66.1	66.2	66.3	66.3	66.4	66.5	66.6	66.8	66.0	66.1	66.3	66.6	66.3
1987	66.9	67.1	67.3	67.4	67.6	67.8	68.0	68.1	68.3	68.4	68.5	68.6	67.1	67.6	68.1	68.5	67.8
1988	68.7	68.8	68.8	68.8	68.8	68.9	68.9	68.9	69.0	69.0	69.1	69.1	68.7	68.8	68.9	69.1	68.9
1989	69.2	69.3	69.5	69.6	69.7	69.9	70.1	70.2	70.4	70.6	70.7	70.9	69.3	69.7	70.2	70.7	70.0
1990	71.1	71.3	71.4	71.6	71.8	71.9	72.1	72.2	72.4	72.5	72.6	72.8	71.3	71.8	72.2	72.6	72.0
1991	72.9	73.0	73.1	73.2	73.3	73.4	73.5	73.6	73.7	73.8	73.9	73.9	73.0	73.3	73.6	73.9	73.4
1992	74.1	74.2	74.4	74.5	74.7	74.9	75.1	75.3	75.5	75.7	75.8	76.0	74.2	74.7	75.3	75.8	75.0
1993	76.2	76.4	76.5	76.6	76.7	76.9	77.0	77.1	77.2	77.3	77.5	77.6	76.3	76.7	77.1	77.5	76.9
1994	77.8	78.0	78.1	78.4	78.6	78.8	79.1	79.4	79.6	79.9	80.2	80.5	78.0	78.6	79.4	80.2	79.0
1995	80.9	81.2	81.5	81.8	82.2	82.5	82.9	83.2	83.6	84.0	84.4	84.8	81.2	82.2	83.3	84.4	82.8
1996	85.3	85.7	86.2	86.6	87.1	87.5	88.0	88.5	89.0	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	94.9	95.6	96.3	97.0	97.7	91.5	93.1	95.0	97.0	94.1
1998	98.5	99.2	100.0	100.7	101.4	102.1	102.8	103.4	104.0	104.6	105.2	105.7	99.2	101.4	103.4	105.2	102.3
1999	106.3	106.8	107.3	107.8	108.3	108.7	109.2	109.7	110.1	110.6	111.1	111.6	106.8	108.2	109.7	111.1	108.9
2000	112.0	112.5	113.0	113.4	113.9	114.3	114.8	115.2	115.6	116.1	116.5	116.9	112.5	113.9	115.2	116.5	114.5
2001	117.2	117.6	117.9	118.3	118.6	118.9	119.1	119.3	119.5	119.7	119.9	120.0	117.6	118.6	119.3	119.9	118.8
2002	120.2	120.3	120.3	120.4	120.4	120.5	120.5	120.5	120.5	120.5	120.5	120.5	120.2	120.4	120.5	120.5	120.4
2003	120.4	120.4	120.4	120.4	120.3	120.3	120.3	120.2	120.2	120.1	120.1	120.0	120.4	120.3	120.2	120.1	120.3
2004	120.0	120.0	119.9	119.9	119.9	119.9	119.9	119.9	119.9	120.0	120.1	120.3	120.0	119.9	119.9	120.1	120.0
2005	120.4	120.6	120.8	121.0	121.2	121.4	121.7	121.9	122.1	122.3	122.5	122.7	120.6	121.2	121.9	122.5	121.6
2006	122.9	123.1	123.3	123.5	123.6	123.8	124.0	124.2	124.5	124.7	125.0	125.3	123.1	123.6	124.2	125.0	124.0
2007	125.6	126.0	126.3	126.6	127.0	127.3	127.6	127.9	128.2	128.4	128.5	128.7	126.0	127.0	127.9	128.5	127.3
2008	128.7	128.7	128.7	128.6	128.5	128.3	128.1	128.0	127.7	127.5	127.3	127.0	128.7	128.5	127.9	127.3	128.1
2009	126.8	126.5	126.2	125.9	125.6	125.3	125.0	124.7	124.4	124.1	123.8	123.4	126.5	125.6	124.7	123.8	125.1
2010	123.1	122.8	122.5	122.3	122.0	121.7	121.5	121.3	121.1	120.9	120.8	120.6	122.8	122.0	121.3	120.8	121.7
2011	120.6	120.5	120.5	120.5	120.5	120.5	120.6	120.6	120.7	120.8	120.9	121.0	120.5	120.5	120.6	120.9	120.6
2012	121.1	121.2															
Utilization (percent)																	
1982	71.4	73.1	72.4	71.8	71.6	71.3	71.1	70.5	70.2	69.3	68.8	68.5	72.3	71.6	70.6	68.9	70.8
1983	70.1	70.0	70.7	71.4	72.3	72.8	73.8	74.4	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	78.4	78.2	78.2	77.5	77.8	77.7	77.4	77.7	78.0	78.8	78.3	77.7	77.7	78.1
1986	78.8	78.2	77.9	78.2	78.3	77.9	78.3	78.4	78.4	78.6	78.9	79.4	78.3	78.1	78.4	78.9	78.4
1987	79.0	79.9	79.8	80.0	80.4	80.5	80.8	81.1	81.4	82.5	82.9	83.3	79.5	80.3	81.1	82.9	81.0
1988	83.0	83.1	83.3	84.0	83.9	84.0	84.0	84.0	84.2	84.6	84.7	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	82.0	81.9	84.9	83.8	82.6	82.0	83.3
1990	81.6	82.5	82.7	82.3	82.3	82.3	82.1	82.1	81.9	81.1	80.0	79.3	82.3	82.3	82.0	80.1	81.7
1991	78.5	77.9	77.3	77.4	77.8	78.6	78.7	78.8	79.5	79.3	79.0	78.8	77.9	77.9	79.0	79.0	78.5
1992	78.2	78.7	79.3	79.6	79.9	79.9	80.4	79.9	79.7	80.0	80.1	79.8	78.8	79.8	80.0	79.9	79.6
1993	80.4	80.4	80.1	80.4	80.2	80.0	80.1	79.9	80.2	80.8	81.0	81.2	80.3	80.2	80.1	81.0	80.4
1994	81.2	81.1	82.0	82.4	82.8	82.8	82.8	83.2	83.2	83.7	84.0	84.6	81.5	82.7	83.1	84.1	82.8
1995	84.6	84.1	84.0	83.5	83.2	83.3	82.4	83.0	83.3	82.8	82.5	82.3	84.2	83.3	82.9	82.5	83.2
1996	81.3	82.2	81.6	82.0	82.2	82.7	82.5	82.6	82.7	82.1	82.3	82.6	81.7	82.3	82.6	82.3	82.2
1997	82.1	82.8	83.3	82.6	82.9	82.9	82.8	83.5	83.7	83.6	83.9	83.6	82.8	82.8	83.3	83.7	83.1
1998	83.7	83.1	82.4	82.2	82.1	80.9	80.0	81.6	80.8	81.1	80.8	80.8	83.0	81.7	80.8	80.9	81.6
1999	80.6	80.8	80.4	80.3	80.7	80.1	80.1	80.3	79.7	80.6	80.7	80.9	80.6	80.4	80.1	80.7	80.4
2000	80.8	80.6	80.8	81.0	80.5	80.3	80.0	79.2	79.3	78.7	78.2	77.4	80.7	80.6	79.5	78.1	79.8
2001	76.7	76.0	75.5	75.1	74.3	73.7	73.2	72.7	72.4	71.8	71.5	71.6	76.1	74.4	72.8	71.6	73.7
2002	71.9	71.8	72.3	72.3	72.8	73.6	73.3	73.5	73.6	73.3	73.6	73.2	72.0	72.9	73.5	73.4	72.9
2003	73.7	73.9	74.0	73.3	73.4	73.7	73.8	73.6	74.1	74.1	74.9	74.8	73.9	73.5	73.8	74.6	73.9
2004	74.8	75.4	75.2	75.6	76.1	75.5	76.1	76.6	76.5	77.3	77.1	77.6	75.1	75.7	76.4	77.3	76.2
2005	78.1	78.6	78.1	78.2	78.3	78.3	78.0	78.1	77.1	78.1	78.6	78.5	78.3	78.2	77.7	78.4	78.2
2006	79.1	78.8	78.6	79.0	78.5	78.6	78.4	78.5	78.4	78.0	77.8	78.8	78.8	78.7	78.5	78.2	78.5
2007	78.3	78.5	78.8	79.2	78.8	78.8	78.8	78.2	78.5	78.0	78.2	78.4	78.5	78.9	78.5	78.2	78.5
2008	78.0	77.6	77.4	76.5	76.2	75.8	75.1	74.1	71.7	71.4	69.9	67.7	77.7	76.2	73.6	69.7	74.3
2009	65.9	66.0	64.8	64.5	63.9	63.8	64.8	65.6	66.2	66.4	67.2	67.4	65.6	64.1	65.5	67.0	65.5
2010	68.2	68.4	69.3	70.2	71.3	71.4	72.1	72.3	72.5	72.7	72.9	73.7	68.6	71.0	72.3	73.1	71.2
2011	74.0	74.2	74.7	74.3	74.4	74.4	75.0	75.2	75.5	75.8	75.6	76.6	74.3	74.4	75.2	76.0	75.0
2012	77.4	77.6															

NOTE: Estimates from October 2011 through February 2012 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)																	
1982	-2.0	1.8	-.8	-.9	-.7	-.4	-.5	-.8	-.5	-.9	-.5	-.9	-8.7	-5.7	-6.2	-8.0	-6.0
1983	1.9	-.7	.7	1.1	.6	.5	1.4	1.2	1.2	.7	.2	.5	3.8	8.1	13.3	9.6	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	-.4	2.5	1.0
1986	.5	-.8	-.7	.1	.1	-.2	.4	-.3	.1	.4	.4	.8	2.4	-2.5	.6	4.0	.9
1987	-.5	1.2	.2	.5	.6	.4	.5	.6	.2	1.4	.5	.4	4.4	6.5	6.0	9.2	4.3
1988	.0	.4	.2	.4	-.2	.2	.1	.5	-.4	.5	.2	.4	3.2	2.6	1.2	2.6	4.4
1989	.3	-.4	.3	.0	-.7	.0	-1.1	.8	-.3	-.2	.2	.6	2.0	-1.6	-3.5	.8	.6
1990	-.7	.9	.5	-.2	.1	.3	-.1	.2	.2	-.8	-1.3	-.8	2.2	2.5	1.3	-6.8	.3
1991	-.4	-.8	-.6	.2	1.0	1.0	.0	.1	.9	-.2	-.2	-.5	-8.0	2.0	5.3	.3	-2.0
1992	-.8	.7	.8	.6	.3	-.1	.8	-.6	.1	.6	.3	.0	-1.9	6.2	1.8	2.9	1.9
1993	.5	.3	-.1	.3	-.4	.2	.3	-.1	.4	.6	.3	.5	3.1	.3	1.4	5.1	2.5
1994	.4	.0	.9	.3	.4	.6	.0	.4	.0	.6	.4	.9	4.5	5.4	3.2	5.7	4.0
1995	.1	-.2	-.1	-.3	.1	.2	-.5	1.1	.1	-.5	.1	.1	2.9	-1.2	1.5	.2	2.5
1996	-1.0	1.3	-.3	.8	.5	.7	-.5	.4	.3	-.3	.8	.5	-.3	6.5	2.1	3.0	1.7
1997	-.1	.9	.5	-.3	.3	.2	.3	1.0	.7	.6	.6	.1	5.1	2.4	6.3	7.7	4.2
1998	.2	.0	.0	.1	.6	-.9	-.8	2.0	-.7	.6	-.3	.1	1.9	.7	-.3	2.3	3.1
1999	.2	.1	-.1	-.1	.6	-.5	.3	.4	-.4	1.2	.2	.5	.7	.3	1.1	5.5	1.1
2000	-.3	.0	.1	.4	-.2	-.1	-.5	-.4	.4	-.5	-.2	-.5	.6	1.5	-3.0	-2.7	1.0
2001	-.7	-.5	-.3	-.2	-.7	-.5	-.3	-.2	-.4	-.5	-.5	-.1	-5.9	-4.5	-4.3	-4.6	-4.0
2002	.7	-.1	.8	.4	.5	.9	-.4	.1	.0	-.4	.4	-.6	2.8	6.3	1.7	-1.0	.3
2003	.7	.2	-.3	-.9	-.1	-.1	.2	-.1	.6	-.2	.7	-.1	1.8	-4.6	.8	2.5	-.2
2004	.2	.6	-.6	.5	.8	-.9	.7	.2	-.1	1.0	.2	.7	2.2	1.9	1.7	5.3	1.7
2005	.4	.6	-.1	.0	.1	.3	-.3	.0	-2.3	1.2	1.0	.6	5.2	1.0	-3.0	2.0	2.5
2006	.1	.0	.2	.4	-.3	.3	.1	.1	-.2	-.1	-.2	1.0	3.6	1.8	.9	.0	1.4
2007	-.5	1.1	-.2	.6	.0	.1	.1	.0	.4	-.8	.3	.0	3.3	3.7	1.0	-1.1	1.8
2008	-.4	-.3	-.5	-.8	-.6	-.3	-.4	-1.7	-4.2	1.1	-1.0	-2.6	-2.2	-6.6	-12.5	-14.7	-4.2
2009	-2.2	-.6	-1.8	-1.0	-1.1	-.5	.9	1.1	.6	.2	.3	.4	-19.1	-12.2	4.7	5.3	-11.3
2010	1.0	.3	.6	.4	1.6	.2	.7	.2	.4	-.4	.2	1.0	7.3	8.2	6.8	2.0	5.0
2011	.0	-.2	.9	-.5	.3	.1	1.0	.2	.3	.6	.0	.9	4.1	1.2	5.7	4.9	4.0
2012	.5	.0															
IP (2007=100)																	
1982	65.2	66.4	65.9	65.3	64.8	64.6	64.3	63.8	63.5	62.9	62.6	62.1	65.8	64.9	63.9	62.5	64.3
1983	63.3	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	70.5	70.8	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	71.3	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	72.7	72.1	71.6	71.6	71.7	71.6	71.9	71.7	71.8	72.1	72.4	72.9	72.1	71.7	71.8	72.5	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	78.8	78.4	78.8	79.0	79.3	77.8	78.3	78.5	79.0	78.4
1989	79.6	79.2	79.5	79.4	78.9	78.9	78.0	78.7	78.4	78.3	78.5	78.9	79.4	79.1	78.4	78.6	78.9
1990	78.4	79.1	79.5	79.3	79.4	79.7	79.6	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	77.9	77.9	77.9	78.6	78.4	78.3	77.9	76.7	77.1	78.1	78.2	77.5
1992	77.2	77.8	78.4	78.9	79.1	79.0	79.6	79.2	79.3	79.8	80.0	80.0	77.8	79.0	79.3	79.9	79.0
1993	80.4	80.7	80.6	80.8	80.4	80.6	80.8	80.7	81.1	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	86.5	86.3	86.2	85.9	86.0	86.2	85.7	86.7	86.7	86.3	86.4	86.5	86.3	86.1	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	93.6	91.4
1998	94.0	94.0	94.0	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	94.8	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	95.8	95.6	95.1	96.5	96.9	96.2	95.5	96.3
2001	94.5	94.0	93.7	93.6	92.9	92.4	92.2	92.0	91.7	91.2	90.8	90.7	94.0	93.0	92.0	90.9	92.5
2002	91.3	91.2	92.0	92.3	92.8	93.6	93.3	93.3	93.4	93.0	93.4	92.8	91.5	92.9	93.3	93.1	92.7
2003	93.5	93.6	93.4	92.5	92.4	92.3	92.5	92.4	92.9	92.7	93.4	93.3	93.5	92.4	92.6	93.2	92.9
2004	93.5	94.1	93.5	93.9	94.6	93.8	94.4	94.6	94.5	95.4	95.6	96.2	93.7	94.1	94.5	95.7	94.5
2005	96.6	97.2	97.1	97.0	97.1	97.5	97.2	97.2	95.0	96.2	97.1	97.7	97.0	97.2	96.5	97.0	96.9
2006	97.8	97.8	97.9	98.3	98.1	98.4	98.5	98.6	98.4	98.3	98.1	99.1	97.8	98.3	98.5	98.5	98.3
2007	98.6	99.7	99.5	100.1	100.1	100.2	100.3	100.3	100.7	99.9	100.2	100.3	99.3	100.2	100.4	100.1	100.0
2008	99.9	99.6	99.2	98.3	97.8	97.5	97.1	95.5	91.4	92.4	91.5	89.1	99.6	97.9	94.7	91.0	95.8
2009	87.1	86.6	85.1	84.3	83.3	83.0	83.7	84.6	85.1	85.3	85.5	85.9	86.3	83.5	84.5	85.6	85.0
2010	86.8	87.0	87.5	87.8	89.2	89.4	90.1	90.2	90.6	90.3	90.5	91.5	87.1	88.8	90.3	90.8	89.3
2011	91.5	91.3	92.2	91.7	92.0	92.1	93.0	93.2	93.5	94.0	94.1	94.9	91.7	91.9	93.2	94.3	92.8
2012	95.4	95.4															

NOTE: Estimates from October 2011 through February 2012 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)																	
1982	87.2	87.3	87.4	87.5	87.6	87.7	87.7	87.8	87.8	87.8	87.9	87.8	87.3	87.6	87.8	87.8	87.6
1983	87.8	87.8	87.8	87.8	87.7	87.7	87.7	87.6	87.6	87.6	87.6	87.6	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	90.6	90.7	89.2	89.7	90.2	90.6	89.9
1986	90.8	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	91.2
1987	91.7	91.8	91.9	92.0	92.1	92.2	92.3	92.4	92.5	92.5	92.6	92.6	91.8	92.1	92.4	92.6	92.2
1988	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.8	92.8	92.9	92.7	92.7	92.7	92.8	92.7
1989	93.0	93.1	93.2	93.3	93.5	93.6	93.8	93.9	94.1	94.3	94.4	94.6	93.1	93.5	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	97.7	97.8	97.9	98.0	98.1	98.2	98.2	98.3	98.4	98.5	98.6	97.7	98.0	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	99.9	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	101.6	100.1	100.5	100.9	101.5	100.7
1995	101.8	102.0	102.2	102.4	102.6	102.7	102.9	103.1	103.3	103.5	103.7	103.8	102.0	102.6	103.1	103.7	102.8
1996	104.0	104.2	104.3	104.5	104.7	104.9	105.1	105.3	105.5	105.8	106.0	106.3	104.2	104.7	105.3	106.0	105.1
1997	106.6	106.9	107.2	107.5	107.9	108.3	108.6	109.0	109.5	109.9	110.3	110.7	106.9	107.9	109.1	110.3	108.5
1998	111.2	111.6	112.0	112.4	112.8	113.3	113.6	114.0	114.4	114.7	115.1	115.4	111.6	112.8	114.0	115.1	113.4
1999	115.7	116.0	116.3	116.5	116.8	117.0	117.2	117.4	117.6	117.8	118.0	118.2	116.0	116.8	117.4	118.0	117.1
2000	118.3	118.5	118.6	118.8	118.9	119.1	119.2	119.3	119.5	119.6	119.7	119.8	118.5	118.9	119.3	119.7	119.1
2001	120.0	120.1	120.2	120.4	120.5	120.7	120.8	121.0	121.1	121.2	121.4	121.5	120.1	120.5	120.9	121.4	120.7
2002	121.6	121.7	121.8	121.9	121.9	121.9	121.9	121.9	121.9	121.8	121.7	121.7	121.7	121.9	121.9	121.7	121.8
2003	121.6	121.5	121.4	121.3	121.2	121.1	121.1	121.0	121.0	120.9	120.9	120.8	121.5	121.2	121.0	120.9	121.1
2004	120.8	120.8	120.8	120.7	120.7	120.6	120.6	120.6	120.5	120.5	120.5	120.5	120.8	120.7	120.6	120.5	120.6
2005	120.5	120.5	120.5	120.5	120.6	120.6	120.7	120.8	120.9	121.0	121.2	121.3	120.5	120.6	120.8	121.2	120.8
2006	121.5	121.7	121.8	122.0	122.2	122.4	122.6	122.8	123.0	123.2	123.3	123.5	121.7	122.2	122.8	123.3	122.5
2007	123.7	123.8	123.9	124.1	124.1	124.2	124.2	124.2	124.2	124.1	124.1	124.0	123.8	124.1	124.2	124.1	124.1
2008	123.9	123.9	123.8	123.8	123.8	123.8	123.9	124.0	124.1	124.2	124.4	124.5	123.9	123.8	124.0	124.4	124.0
2009	124.6	124.6	124.7	124.7	124.6	124.5	124.3	124.1	123.9	123.6	123.3	123.0	124.6	124.6	124.1	123.3	124.2
2010	122.7	122.4	122.1	121.8	121.5	121.3	121.1	121.0	120.9	120.8	120.8	120.7	122.4	121.6	121.0	120.8	121.4
2011	120.7	120.7	120.8	120.8	120.9	120.9	121.0	121.0	121.1	121.2	121.2	121.3	120.7	120.9	121.0	121.2	121.0
2012	121.4	121.5															
Utilization (percent)																	
1982	74.8	76.1	75.4	74.6	74.0	73.6	73.3	72.7	72.3	71.6	71.3	70.7	75.4	74.1	72.7	71.2	73.4
1983	72.0	71.5	72.1	72.9	73.4	73.8	74.8	75.8	76.7	77.3	77.5	77.8	71.9	73.4	75.8	77.5	74.6
1984	79.3	79.6	79.8	80.1	80.4	80.5	80.6	80.5	80.2	79.9	80.0	79.9	79.6	80.3	80.4	79.9	80.1
1985	79.6	79.8	79.8	79.6	79.5	79.4	78.8	79.0	79.3	78.8	79.0	79.7	79.7	79.5	79.0	79.2	79.3
1986	80.1	79.4	78.8	78.7	78.8	78.6	78.8	78.5	78.6	78.9	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	84.1	84.5	84.4	84.5	84.6	85.0	84.6	85.0	85.1	85.4	83.9	84.5	84.7	85.1	84.6
1989	85.6	85.1	85.3	85.1	84.4	84.3	83.2	83.8	83.4	83.0	83.1	83.4	85.3	84.6	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	83.3	81.5	82.8
1991	80.2	79.5	78.9	79.0	79.7	80.4	80.3	80.2	80.9	80.6	80.4	79.9	79.6	79.7	80.5	80.3	80.0
1992	79.1	79.6	80.2	80.6	80.7	80.5	81.1	80.6	80.6	81.0	81.2	81.1	79.7	80.6	80.8	81.1	80.5
1993	81.4	81.6	81.4	81.6	81.1	81.2	81.4	81.2	81.4	81.9	82.1	82.4	81.5	81.3	81.3	82.1	81.6
1994	82.6	82.5	83.1	83.2	83.4	83.8	83.6	83.8	83.7	84.1	84.3	84.9	82.7	83.5	83.7	84.5	83.6
1995	84.9	84.6	84.4	84.0	83.9	83.9	83.3	84.0	84.0	83.4	83.4	83.3	84.6	83.9	83.8	83.4	83.9
1996	82.4	83.4	82.9	83.4	83.7	84.1	83.6	83.7	83.8	83.4	83.8	84.0	82.9	83.8	83.7	83.7	83.5
1997	83.7	84.2	84.4	83.9	83.9	83.8	83.8	84.3	84.6	84.7	85.0	84.7	84.1	83.8	84.2	84.8	84.2
1998	84.6	84.2	83.9	83.7	83.9	82.8	81.9	83.3	82.4	82.7	82.1	82.0	84.2	83.5	82.5	82.2	83.1
1999	81.9	81.8	81.5	81.2	81.5	81.0	81.1	81.2	80.7	81.6	81.6	81.9	81.7	81.3	81.0	81.7	81.4
2000	81.6	81.5	81.4	81.7	81.4	81.3	80.8	80.4	80.6	80.1	79.8	79.4	81.5	81.5	80.6	79.8	80.8
2001	78.7	78.2	77.9	77.7	77.1	76.6	76.3	76.1	75.7	75.2	74.8	74.6	78.3	77.1	76.0	74.9	76.6
2002	75.1	75.0	75.5	75.8	76.1	76.8	76.5	76.6	76.6	76.4	76.7	76.3	75.2	76.2	76.6	76.5	76.1
2003	76.9	77.1	76.9	76.3	76.2	76.2	76.4	76.3	76.8	76.7	77.3	77.2	77.0	76.2	76.5	77.1	76.7
2004	77.4	77.9	77.4	77.8	78.4	77.7	78.3	78.5	78.4	79.2	79.3	79.9	77.6	78.0	78.4	79.5	78.3
2005	80.2	80.7	80.6	80.5	80.6	80.8	80.5	80.5	78.6	79.4	80.1	80.5	80.5	80.6	79.9	80.0	80.3
2006	80.5	80.4	80.4	80.6	80.3	80.4	80.3	80.3	80.0	79.8	79.5	80.2	80.4	80.4	80.2	79.8	80.2
2007	79.7	80.5	80.3	80.7	80.7	80.7	80.8	80.7	81.1	80.5	80.8	80.9	80.2	80.7	80.9	80.7	80.6
2008	80.6	80.4	80.1	79.4	79.0	78.8	78.4	77.0	73.7	74.4	73.6	71.6	80.4	79.1	76.3	73.2	77.2
2009	69.9	69.5	68.3	67.6	66.9	66.6	67.3	68.2	68.7	69.0	69.4	69.9	69.2	67.0	68.1	69.4	68.4
2010	70.7	71.1	71.7	72.1	73.4	73.7	74.4	74.6	75.0	74.7	75.0	75.8	71.2	73.1	74.6	75.2	73.5
2011	75.8	75.7	76.3	75.9	76.1	76.2	76.9	77.0	77.2	77.6	77.6	78.2	75.9	76.1	77.0	77.8	76.7
2012	78.6	78.5															

NOTE: Estimates from October 2011 through February 2012 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)																	
1982	-2.5	2.5	-8	-8	-2	-2	-3	-7	-4	-1.2	-7	-5	-10.5	-2.9	-4.3	-9.2	-6.5
1983	2.5	-2	.8	1.0	1.2	.6	1.3	.9	1.5	1.1	.3	.2	8.2	10.6	13.6	11.0	3.7
1984	1.8	1.0	.3	.4	.2	.3	.4	.0	-3	.3	.3	.4	11.7	4.7	2.4	1.9	8.5
1985	-5	-2	.8	-2	.1	.1	-5	.6	.2	-3	.6	.4	-1	1.6	.5	2.3	1.4
1986	1.2	-6	-3	.4	.1	-2	.2	.1	.2	.4	.4	.8	4.8	-1	1.2	4.2	2.2
1987	-5	1.4	.1	.4	.6	.3	.6	.3	.5	1.6	.6	.5	4.6	6.1	5.6	10.6	4.6
1988	-2	.2	.2	.8	-2	.1	.0	.0	.2	.5	.3	.4	2.0	3.4	.3	4.2	4.4
1989	.9	-1.0	.0	.1	-8	.2	-1.3	.8	-3	-3	.1	.0	2.3	-3.1	-4.3	-7	.4
1990	-3	1.5	.4	-3	.1	.2	-2	.2	-1	-9	-1.2	-8	3.6	2.3	.6	-7.6	.0
1991	-8	-8	-8	.3	.7	1.1	.3	.2	1.1	-2	-3	-3	-9.6	1.3	7.0	1.0	-2.6
1992	-9	.9	.9	.4	.5	.1	.8	-5	-1	.5	.3	-2	-1.2	7.1	2.7	1.4	2.6
1993	1.1	.1	-3	.5	-1	-2	.2	-2	.5	.7	.3	.5	4.0	.7	.3	5.7	2.5
1994	.1	.1	1.2	.5	.5	.2	.2	.6	.1	.8	.5	.9	4.2	7.1	3.7	7.0	4.4
1995	.1	-3	-1	-4	-1	.3	-8	.9	.5	-4	-1	.0	2.8	-2.3	.4	.5	2.5
1996	-1.1	1.3	-5	1.0	.5	.8	-1	.3	.4	-4	.7	.7	-1.8	7.3	4.0	2.7	1.5
1997	-2	1.0	.9	-7	.5	.4	.2	1.3	.6	.5	.8	.2	6.2	2.9	6.9	8.2	4.9
1998	.5	-1	-3	.2	.5	-1.1	-9	2.4	-8	.7	-1	.2	3.2	-2	-5	4.0	3.4
1999	-1	.4	-4	-1	.7	-7	.0	.6	-4	1.3	.3	.4	.8	.3	.2	6.7	1.4
2000	-3	-2	.3	.4	-6	.0	-4	-8	.4	-5	-6	-8	.4	.6	-3.8	-4.8	.7
2001	-6	-5	-3	-1	-7	-5	-1	-6	-2	-7	-2	.2	-7.0	-4.5	-4.6	-4.3	-4.8
2002	.6	-2	.8	.1	.7	1.1	-5	.3	.0	-5	.4	-7	3.4	5.6	2.4	-1.3	.4
2003	.5	.0	.1	-1.1	-1	.3	-1	-4	.7	-2	.9	-3	.8	-3.9	.1	2.7	.0
2004	-1	.8	-3	.5	.8	-9	.8	.6	-3	1.1	-1	.6	1.9	3.1	3.2	5.0	2.0
2005	.7	.7	-5	.1	.3	.1	-3	.1	-1.4	1.4	.7	.0	5.7	1.1	-2.1	4.2	3.1
2006	.9	-2	-2	.6	-6	.2	-2	.3	.0	-5	-1	1.6	3.6	.0	-1	.4	1.5
2007	-5	.5	.4	.6	-2	.4	.2	-6	.4	-7	.2	.2	3.8	4.2	.9	-1.8	1.8
2008	-5	-6	-6	-1.2	-6	-6	-1.1	-1.4	-3.5	-4	-2.0	-3.1	-3.7	-9.4	-14.1	-20.4	-5.8
2009	-2.9	.0	-2.2	-9	-1.3	-4	1.2	1.1	.7	-1	.9	.1	-22.9	-12.8	6.0	5.4	-13.8
2010	.9	.0	1.0	1.0	1.4	.0	.8	.0	.2	.1	.1	.8	6.3	10.8	5.4	2.3	5.3
2011	.4	.3	.7	-7	.2	.0	.9	.2	.5	.7	-2	1.5	5.7	.1	5.2	6.1	4.2
2012	1.2	.4															
IP (2007=100)																	
1982	61.3	62.8	62.3	61.8	61.7	61.5	61.4	60.9	60.7	59.9	59.5	59.2	62.1	61.7	61.0	59.5	61.1
1983	60.6	60.5	61.0	61.6	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	72.9	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	77.7	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	78.0
1990	77.2	78.3	78.6	78.4	78.5	78.6	78.5	78.7	78.6	77.9	77.0	76.3	78.1	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	78.7	76.7	78.0	78.5	78.8	78.0
1993	79.6	79.7	79.4	79.8	79.7	79.6	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	85.5	85.6	85.9	85.4	85.5	85.6	85.6
1996	84.6	85.7	85.3	86.2	86.6	87.3	87.3	87.5	87.9	87.5	88.2	88.8	85.2	86.7	87.6	88.2	86.9
1997	88.6	89.5	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	95.1	94.2	94.1	94.0	95.0	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	97.1	97.4	96.8	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	92.1	91.6	91.5	91.0	90.8	90.2	90.0	90.2	93.3	92.2	91.1	90.1	91.7
2002	90.7	90.6	91.3	91.4	92.0	93.0	92.5	92.8	92.8	92.4	92.7	92.1	90.9	92.1	92.7	92.4	92.0
2003	92.5	92.5	92.6	91.6	91.5	91.8	91.7	91.3	92.0	91.8	92.6	92.4	92.6	91.6	91.6	92.3	92.0
2004	92.3	93.0	92.8	93.2	93.9	93.1	93.9	94.4	94.2	95.2	95.1	95.7	92.7	93.4	94.2	95.3	93.9
2005	96.4	97.0	96.5	96.6	97.0	97.1	96.8	96.9	95.6	96.9	97.6	97.6	96.6	96.9	96.4	97.4	96.8
2006	98.5	98.2	98.0	98.6	98.0	98.2	98.0	98.3	98.3	97.8	97.8	99.3	98.2	98.3	98.2	98.3	98.3
2007	98.8	99.2	99.7	100.2	100.1	100.5	100.7	100.2	100.6	99.8	100.0	100.2	99.2	100.3	100.5	100.0	100.0
2008	99.7	99.1	98.5	97.3	96.7	96.1	95.1	93.7	90.5	90.1	88.2	85.5	99.1	96.7	93.1	87.9	94.2
2009	83.0	83.0	81.2	80.4	79.4	79.1	80.1	80.9	81.5	81.4	82.1	82.2	82.4	79.6	80.8	81.9	81.2
2010	82.9	82.9	83.7	84.5	85.7	85.7	86.4	86.4	86.6	86.6	86.7	87.5	83.2	85.3	86.4	86.9	85.5
2011	87.8	88.0	88.7	88.1	88.2	88.3	89.0	89.2	89.7	90.3	90.1	91.5	88.2	88.2	89.3	90.6	89.1
2012	92.5	92.9															

NOTE: Estimates from October 2011 through February 2012 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)																	
1982	86.4	86.5	86.6	86.7	86.8	86.8	86.9	86.9	87.0	87.0	87.0	87.0	86.5	86.8	86.9	87.0	86.8
1983	86.9	86.9	86.9	86.8	86.8	86.7	86.7	86.7	86.6	86.6	86.6	86.7	86.9	86.8	86.7	86.6	86.7
1984	86.7	86.7	86.8	86.9	87.0	87.1	87.2	87.3	87.5	87.7	87.8	88.0	86.7	87.0	87.3	87.8	87.2
1985	88.2	88.4	88.6	88.7	88.9	89.1	89.3	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	90.2	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	91.5	91.6	91.7	91.8	92.0	92.0	92.1	92.1	91.0	91.5	91.8	92.1	91.6
1988	92.2	92.2	92.2	92.2	92.2	92.2	92.1	92.1	92.2	92.2	92.3	92.3	92.2	92.2	92.2	92.3	92.2
1989	92.4	92.5	92.7	92.8	92.9	93.1	93.3	93.5	93.6	93.8	94.0	94.2	92.5	93.0	93.5	94.0	93.2
1990	94.4	94.5	94.7	94.8	95.0	95.1	95.3	95.4	95.6	95.7	95.8	96.0	94.5	95.0	95.4	95.8	95.2
1991	96.1	96.2	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	98.3	98.4	98.5	98.6	98.7	97.6	97.9	98.3	98.6	98.1
1993	98.8	98.9	99.0	99.2	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	103.0	103.2	103.4	103.6	103.8	104.1	104.3	102.2	102.8	103.4	104.1	103.1
1996	104.5	104.7	104.9	105.1	105.3	105.5	105.8	106.0	106.3	106.6	106.9	107.2	104.7	105.3	106.0	106.9	105.7
1997	107.5	107.8	108.2	108.6	109.0	109.4	109.9	110.3	110.8	111.3	111.8	112.3	107.9	109.0	110.3	111.8	109.7
1998	112.7	113.2	113.7	114.2	114.7	115.1	115.6	116.0	116.4	116.8	117.2	117.6	113.2	114.7	116.0	117.2	115.3
1999	117.9	118.3	118.6	118.9	119.2	119.5	119.7	120.0	120.2	120.5	120.7	120.9	118.3	119.2	120.0	120.7	119.5
2000	121.2	121.4	121.6	121.7	121.9	122.1	122.3	122.4	122.6	122.8	122.9	123.0	121.4	121.9	122.4	122.9	122.2
2001	123.2	123.3	123.4	123.5	123.6	123.7	123.8	123.9	123.9	124.0	124.0	124.0	123.3	123.6	123.8	124.0	123.7
2002	124.0	124.1	124.1	124.1	124.0	124.0	124.0	123.9	123.9	123.9	123.8	123.7	124.1	124.0	123.9	123.8	124.0
2003	123.7	123.6	123.5	123.5	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	122.7	122.6	122.6	122.5	122.5	122.5	122.5	122.5	122.6	122.8	122.6	122.5	122.6	122.6
2005	122.6	122.7	122.8	122.9	123.0	123.2	123.3	123.5	123.7	123.9	124.0	124.2	122.7	123.0	123.5	124.0	123.3
2006	124.4	124.6	124.8	125.0	125.2	125.4	125.5	125.7	125.9	126.0	126.2	126.3	124.6	125.2	125.7	126.2	125.4
2007	126.5	126.6	126.8	126.9	127.0	127.1	127.2	127.3	127.4	127.5	127.5	127.6	126.6	127.0	127.3	127.5	127.1
2008	127.6	127.6	127.6	127.6	127.6	127.5	127.4	127.3	127.2	127.0	126.8	126.6	127.6	127.6	127.3	126.8	127.3
2009	126.3	126.0	125.7	125.4	125.0	124.7	124.3	123.9	123.6	123.2	122.8	122.5	126.0	125.0	123.9	122.8	124.4
2010	122.1	121.8	121.5	121.2	120.9	120.6	120.4	120.2	120.0	119.8	119.6	119.5	121.8	120.9	120.2	119.7	120.6
2011	119.4	119.3	119.2	119.2	119.1	119.1	119.1	119.1	119.1	119.1	119.2	119.2	119.3	119.1	119.1	119.2	119.2
2012	119.3	119.3															
Utilization (percent)																	
1982	70.9	72.6	71.9	71.3	71.1	70.9	70.6	70.1	69.8	68.9	68.4	68.1	71.8	71.1	70.2	68.5	70.4
1983	69.8	69.6	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	76.2	73.0
1984	77.6	78.4	78.6	78.8	78.9	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	78.0	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	78.6	78.7	78.7	78.9	79.2	79.7	78.8	78.6	78.7	79.3	78.8
1987	79.2	80.2	80.1	80.3	80.7	80.8	81.1	81.3	81.6	82.8	83.2	83.6	79.8	80.6	81.4	83.2	81.2
1988	83.4	83.5	83.7	84.4	84.2	84.2	84.2	84.3	84.5	84.9	85.1	85.4	83.5	84.3	84.3	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	82.9	83.1	82.6	82.6	82.6	82.4	82.5	82.3	81.4	80.3	79.5	82.6	82.6	82.4	80.4	82.0
1991	78.8	78.1	77.4	77.5	77.9	78.7	78.8	78.9	79.6	79.4	79.0	78.7	78.1	78.1	79.1	79.0	78.6
1992	77.9	78.5	79.2	79.4	79.7	79.8	80.3	79.8	79.6	79.9	80.0	79.8	78.5	79.6	79.9	79.9	79.5
1993	80.5	80.5	80.2	80.5	80.3	80.1	80.2	79.9	80.2	80.7	80.9	81.2	80.4	80.3	80.1	81.0	80.4
1994	81.2	81.2	82.1	82.4	82.7	82.7	82.8	83.1	83.1	83.6	83.9	84.5	81.5	82.6	83.0	84.0	82.8
1995	84.5	84.0	83.8	83.3	83.0	83.1	82.2	82.8	83.0	82.5	82.2	82.1	84.1	83.1	82.7	82.3	83.0
1996	81.0	81.9	81.3	82.0	82.2	82.7	82.5	82.6	82.7	82.1	82.5	82.8	81.4	82.3	82.6	82.5	82.2
1997	82.4	83.0	83.5	82.6	82.7	82.7	82.5	83.2	83.4	83.5	83.8	83.6	83.0	82.7	83.1	83.6	83.1
1998	83.7	83.2	82.6	82.5	81.3	80.3	80.3	81.9	81.0	81.3	80.9	80.8	83.2	82.1	81.0	81.0	81.8
1999	80.6	80.7	80.1	79.9	80.3	79.5	79.4	79.7	79.2	80.1	80.2	80.3	80.4	79.9	79.4	80.2	80.0
2000	80.0	79.7	79.8	80.0	79.4	79.3	78.9	78.2	78.4	77.9	77.3	76.6	79.9	79.6	78.5	77.3	78.8
2001	76.0	75.6	75.3	75.1	74.5	74.1	74.0	73.5	73.3	72.8	72.6	72.7	75.6	74.6	73.6	72.7	74.1
2002	73.1	73.0	73.6	73.7	74.2	75.0	74.6	74.8	74.9	74.6	74.9	74.4	73.3	74.3	74.8	74.6	74.2
2003	74.8	74.9	75.0	74.2	74.2	74.4	74.4	74.1	74.7	74.6	75.3	75.2	74.9	74.3	74.4	75.0	74.6
2004	75.2	75.8	75.6	76.0	76.6	76.0	76.6	77.1	76.9	77.7	77.6	78.1	75.5	76.2	76.8	77.8	76.6
2005	78.6	79.1	78.6	78.6	78.8	78.8	78.5	78.4	77.3	78.2	78.7	78.6	78.7	78.7	78.1	78.5	78.5
2006	79.1	78.8	78.5	78.9	78.3	78.3	78.1	78.2	78.1	77.6	77.5	78.6	78.8	78.5	78.1	77.9	78.4
2007	78.1	78.4	78.6	79.0	78.8	79.1	79.2	78.7	78.9	78.3	78.4	78.5	78.4	78.9	78.9	78.4	78.7
2008	78.1	77.6	77.2	76.2	75.8	75.4	74.6	73.6	71.2	70.9	69.6	67.6	77.6	75.8	73.1	69.4	74.0
2009	65.7	65.9	64.6	64.1	63.5	63.5	64.4	65.3	65.9	66.1	66.9	67.1	65.4	63.7	65.2	66.7	65.2
2010	67.9	68.0	68.9	69.8	70.9	71.1	71.8	71.9	72.1	72.3	72.5	73.2	68.3	70.6	71.9	72.7	70.9
2011	73.5	73.8	74.4	73.9	74.1	74.1	74.8	74.9	75.3	75.8	75.6	76.7	73.9	74.0	75.0	76.1	74.8
2012	77.6	77.8															

NOTE: Estimates from October 2011 through February 2012 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		2004	2005	2006	2007	2008	2009	2010	2011
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		56.4	55.9	55.9	54.7	55.1	56.5	54.2	53.9
Consumer goods		29.7	29.1	28.4	27.3	27.3	29.6	28.1	27.7
Durable		7.7	7.1	6.9	6.7	6.3	6.2	6.2	6.3
Automotive products		3.7	3.3	3.2	3.3	3.0	3.1	3.4	3.5
Home electronics		.4	.4	.4	.3	.3	.3	.2	.2
Appliances, furniture, carpeting		1.3	1.3	1.2	1.1	1.0	.9	.8	.8
Miscellaneous goods		2.2	2.2	2.2	2.0	2.0	1.9	1.9	1.9
Nondurable		22.0	22.0	21.5	20.6	20.9	23.4	21.9	21.4
Non-energy		17.1	16.5	16.1	15.6	16.2	17.9	16.4	16.0
Foods and tobacco		9.2	8.8	8.5	8.2	8.6	9.9	9.3	9.2
Clothing		.6	.5	.4	.3	.3	.2	.2	.2
Chemical products		5.0	4.9	5.0	5.0	5.1	5.5	4.8	4.7
Paper products		1.8	1.7	1.7	1.6	1.6	1.7	1.5	1.3
Energy		4.9	5.5	5.4	5.0	4.8	5.5	5.5	5.4
Business equipment		9.4	9.3	9.8	9.7	10.0	9.4	9.4	9.6
Transit		1.8	1.8	2.1	2.1	2.0	1.9	2.1	2.3
Information processing		2.8	2.7	2.8	2.7	2.7	2.6	2.3	2.2
Industrial and other		4.8	4.8	4.9	5.0	5.2	4.9	4.9	5.0
Defense and space equipment		1.5	1.5	1.5	1.8	2.0	2.3	2.2	2.2
Construction supplies		4.8	4.9	5.1	4.9	4.8	4.2	4.1	4.1
Business supplies		10.5	10.4	10.3	10.1	10.2	10.4	9.9	9.6
Materials		43.6	44.1	44.1	45.3	44.9	43.5	45.8	46.1
Non-energy		29.4	28.8	28.5	28.3	28.2	27.1	28.5	28.8
Durable		18.1	17.7	17.6	17.3	17.2	15.4	16.7	17.2
Consumer parts		3.5	3.3	3.1	2.9	2.6	2.0	2.4	2.4
Equipment parts		6.2	6.1	6.0	6.1	6.5	6.0	6.2	6.3
Other		8.3	8.3	8.5	8.4	8.2	7.4	8.1	8.4
Nondurable		11.3	11.2	10.9	11.0	11.0	11.7	11.9	11.6
Textile		.7	.7	.6	.5	.4	.4	.5	.5
Paper		2.4	2.3	2.3	2.2	2.3	2.3	2.2	2.0
Chemical		5.0	5.1	4.9	5.2	4.9	5.2	5.7	5.7
Energy		14.3	15.2	15.6	17.0	16.8	16.5	17.2	17.4
INDUSTRY GROUPS									
Manufacturing		79.6	78.2	77.6	76.1	75.9	75.8	75.2	75.4
Manufacturing (NAICS)	31–33	75.3	74.2	73.7	72.5	72.3	72.2	72.2	72.6
Durable manufacturing		40.1	39.1	39.3	39.3	39.3	36.6	37.4	38.0
Wood products	321	1.5	1.5	1.4	1.2	1.1	1.0	.9	.9
Nonmetallic mineral products	327	2.2	2.3	2.3	2.2	2.0	1.7	1.6	1.6
Primary metal	331	2.7	2.6	2.7	2.7	2.5	2.1	2.8	2.9
Fabricated metal products	332	5.3	5.3	5.5	5.8	6.0	5.3	5.1	5.4
Machinery	333	4.8	4.8	5.0	5.1	5.3	4.9	5.1	5.4
Computer and electronic products	334	7.6	7.2	7.0	6.9	7.0	6.7	6.5	6.2
Electrical equip., appliances, and components	335	1.9	1.9	1.9	1.9	2.0	1.8	1.8	1.8
Motor vehicles and parts	3361–3	6.3	5.8	5.5	5.2	4.5	4.0	5.0	5.3
Aerospace and miscellaneous transportation equipment	3364–9	3.1	3.2	3.4	4.0	4.3	4.6	4.3	4.3
Furniture and related products	337	1.6	1.6	1.5	1.4	1.4	1.1	1.0	1.0
Miscellaneous	339	3.0	3.0	3.1	2.9	3.2	3.4	3.2	3.1
Nondurable manufacturing		35.2	35.1	34.3	33.3	33.0	35.6	34.8	34.7
Food, beverage, and tobacco products	311,2	10.9	10.5	10.1	9.9	10.4	12.2	11.5	11.4
Textile and product mills	313,4	1.2	1.2	1.1	.9	.8	.7	.8	.7
Apparel and leather	315,6	.7	.6	.6	.4	.4	.3	.3	.3
Paper	322	2.7	2.6	2.6	2.5	2.6	2.7	2.6	2.4
Printing and support	323	2.1	2.0	1.9	1.9	1.9	1.8	1.6	1.4
Petroleum and coal products	324	3.2	4.0	3.9	3.3	2.7	3.1	3.4	3.7
Chemical	325	11.1	11.0	10.9	11.3	11.3	11.8	11.7	11.5
Plastics and rubber products	326	3.4	3.2	3.2	3.0	3.0	2.9	3.0	3.1
Other manufacturing (non-NAICS)	1133,5111	4.3	4.0	3.9	3.6	3.6	3.6	3.1	2.7
Mining	21	10.8	12.1	12.8	14.1	13.6	12.5	13.7	14.4
Utilities	2211,2	9.6	9.7	9.6	9.8	10.5	11.6	11.0	10.3
Electric	2211	7.9	7.9	8.0	8.1	8.8	9.9	9.5	9.0
Natural gas	2212	1.7	1.8	1.6	1.7	1.7	1.7	1.5	1.3

NOTE: The IP proportion data are estimates of the industries' relative contributions to the overall change in IP between the reference year and the following year. For example, a 1 percent increase in durable goods manufacturing between 2011 and 2012 would account for a 0.380 percent increase in total IP.

Table 13

INDUSTRIAL PRODUCTION AND CAPACITY UTILIZATION: SUMMARY

Seasonally adjusted

Industrial production	2007=100						Percent change						Feb. '11 to Feb. '12
	2011 Sept. ^r	Oct. ^r	Nov. ^r	Dec. ^r	2012 Jan. ^r	Feb. ^r	2011 Sept. ^r	Oct. ^r	Nov. ^r	Dec. ^r	2012 Jan. ^r	Feb. ^r	
Total index	94.4	94.9	94.9	95.7	96.2	96.2	.2	.5	.0	.9	.5	.0	4.2
<i>Previous estimates</i>	94.5	94.9	94.9	95.8	96.2	96.2	.1	.4	.0	.9	.4	.0	4.0
Major market groups													
Final Products	93.9	94.5	94.2	94.5	95.3	95.6	.3	.7	-.4	.3	.9	.3	4.3
Consumer goods	92.6	92.9	92.2	92.3	92.8	92.7	.1	.4	-.8	.2	.5	-.1	2.2
Business equipment	94.6	95.9	96.4	97.4	99.3	100.5	.6	1.3	.5	1.0	2.0	1.2	9.1
Nonindustrial supplies	85.5	85.4	84.9	86.0	86.2	86.6	.2	-.1	-.6	1.3	.2	.5	3.7
Construction	77.1	77.3	77.4	79.7	79.6	80.5	.0	.2	.2	3.0	-.1	1.0	8.4
Materials	98.0	98.5	99.1	100.3	100.4	100.1	.2	.5	.6	1.2	.2	-.3	4.4
Major industry groups													
Manufacturing (see note below)	91.1	91.6	91.4	92.7	93.8	94.1	.4	.6	-.2	1.4	1.1	.4	5.2
<i>Previous estimates</i>	91.1	91.6	91.4	92.8	93.8	94.0	.4	.5	-.2	1.5	1.1	.3	5.1
Mining	107.8	109.4	110.7	111.7	110.2	108.4	-.1	1.5	1.1	1.0	-1.4	-1.6	6.5
Utilities	101.2	100.0	100.2	96.6	95.0	94.9	-1.1	-1.2	.2	-3.6	-1.7	-.1	-5.6
													Capacity growth
Percent of capacity													
Capacity utilization	Average 1972-2011	1988-89 high	1990-91 low	1994-95 high	2008-09 low	2011 Feb.	2011 Sept. ^r	Oct. ^r	Nov. ^r	Dec. ^r	2012 Jan. ^r	Feb. ^r	Feb. '11 to Feb. '12
Total industry	80.3	85.2	78.8	85.0	66.8	75.9	77.2	77.5	77.5	78.1	78.4	78.4	1.0
<i>Previous estimates</i>	80.3	85.2	78.8	85.1	67.3	76.5	77.7	77.9	77.9	78.5	78.8	78.7	1.2
Manufacturing (see note below)	78.8	85.6	77.3	84.6	63.8	74.2	75.5	75.8	75.6	76.6	77.4	77.6	.6
<i>Previous estimates</i>	78.9	85.5	77.3	84.7	64.4	74.4	75.3	75.6	75.4	76.5	77.3	77.4	1.0
Mining	87.3	86.3	83.9	88.6	78.5	84.0	87.5	88.6	89.5	90.3	89.0	87.5	2.3
Utilities	86.3	92.9	84.3	93.3	79.1	78.5	77.6	76.6	76.6	73.7	72.4	72.2	2.6
Stage-of-process groups													
Crude	86.3	87.7	84.4	89.7	76.4	83.9	86.0	86.9	87.1	87.9	87.3	86.0	1.7
Primary and semifinished	81.1	86.5	78.0	87.9	64.2	73.6	74.6	74.3	74.5	75.1	75.2	75.5	.4
Finished	77.2	83.4	77.3	80.6	66.8	75.2	76.5	77.2	76.7	77.3	78.3	78.3	1.5

^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, 1999–2011

	Production Index (2007=100)	Price Index (2007=100)	Value of Production (millions of dollars)
Annual Estimates			
1999	50.5	396.0	22,111.2
2000	61.4	354.9	24,174.1
2001	79.0	272.0	23,839.6
2002	59.8	204.4	13,595.4
2003	69.1	156.6	11,941.9
2004	79.5	122.4	10,809.1
2005	92.6	110.9	11,398.8
2006	149.1	105.1	17,251.4
2007	100.0	100.0	11,326.7
2008	8.0	93.6	828.5
2009	14.8	83.5	1,367.9
2010	11.7	68.8	896.3
2011	17.0	61.9	1,162.1
Quarterly Estimates			
1999Q1	43.3	417.9	18,616.8
Q2	54.7	398.8	22,485.0
Q3	59.6	386.9	23,758.0
Q4	60.2	381.0	23,619.7
2000Q1	65.1	373.5	25,039.5
Q2	64.9	352.5	23,556.4
Q3	65.3	348.4	23,442.2
Q4	69.1	345.9	24,629.3
2001Q1	84.6	297.3	25,896.5
Q2	83.4	286.3	24,578.6
Q3	86.3	261.9	23,278.8
Q4	85.7	244.7	21,596.0
2002Q1	68.9	228.9	16,238.6
Q2	63.1	211.0	13,701.1
Q3	62.4	195.8	12,587.2
Q4	62.9	183.9	11,904.2
2003Q1	62.4	171.8	11,041.1
Q2	73.9	167.2	12,727.8
Q3	82.7	154.0	13,113.2
Q4	78.9	134.5	10,933.8
2004Q1	90.3	136.2	12,665.9
Q2	82.9	124.1	10,591.0
Q3	84.9	117.6	10,284.7
Q4	87.2	112.4	10,099.9
2005Q1	83.3	110.8	9,507.4
Q2	91.3	110.0	10,341.6
Q3	108.2	111.4	12,418.3
Q4	122.6	112.0	14,141.0
2006Q1	111.2	110.0	12,596.3
Q2	129.0	105.1	13,962.6
Q3	181.7	102.8	19,234.2
Q4	240.3	102.5	25,364.0
2007Q1	198.3	102.0	20,822.2
Q2	165.7	102.2	17,430.4
Q3	17.2	99.2	1,753.1
Q4	18.9	96.6	1,876.5
2008Q1	9.7	97.6	970.9
Q2	6.9	94.2	671.1
Q3	7.7	92.7	733.4
Q4	10.2	89.5	940.3
2009Q1	9.7	85.2	849.7
Q2	15.5	85.7	1,366.3
Q3	19.9	80.4	1,649.6
Q4	19.2	82.6	1,635.1
2010Q1	14.3	75.3	1,108.4
Q2	11.2	69.4	803.7
Q3	11.8	66.1	800.2
Q4	12.7	64.4	839.3
2011Q1	12.6	63.8	825.6
Q2	16.6	62.8	1,071.0
Q3	20.8	61.5	1,320.9
Q4	23.3	59.5	1,425.8

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.

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 at www.federalreserve.gov/releases/G17 at the Board's World Wide Web site. 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 Web site. 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 North American Industry Classification System (NAICS) codes. These individual series are classified in two ways: (1) market groups, and (2) industry groups. Market groups consist of products and materials. Total products are the aggregate of final products, such as consumer goods and equipment, and nonindustrial supplies (which are inputs to nonindustrial sectors). Materials are inputs in the manufacture of products. Major industry groups include three-digit NAICS industries and aggregates of these industries—for example, durable and nondurable manufacturing, mining, and utilities. A complete description of the market and industry structures, including details regarding series classification, relative importance weights, and data sources, is available on the Board's web site (www.federalreserve.gov/releases/G17/About.htm).

Source data. On a monthly basis, the individual indexes of industrial production are constructed from two main types of source data: (1) output measured in physical units and (2) data on inputs to the production process, from which output is inferred. Data on physical products, such as tons of steel or barrels of oil, are 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 United States Geological Survey of the Department of the Interior; and publications of the Department of Energy.

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

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

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

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

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

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

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

Seasonal adjustment. Individual series are seasonally adjusted using Census X-12 ARIMA. For series based on production-worker hours, the current seasonal factors were estimated with data through January 2012; for other series, the factors were estimated with data through at least December 2011. Series are pre-adjusted for the effects of holidays or 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 (*e.g.*, paper, industrial chemicals, petroleum refining, motor vehicles), as well as for electric utilities and mining; these industries represent about 25 percent of total industrial capacity. When physical product data are unavailable for manufacturing industries, capacity indexes are based on responses to the Bureau of the Census's *Quarterly Survey of Plant Capacity* (QSPC); these industries account for a bit less than 70 percent of total industry capacity. In the absence of utilization data for a few mining and petroleum series, capacity is based on trends through peaks in production (roughly 5 percent of total industry capacity). A detailed description of the methodology used to construct the capacity indexes is available on the Board's web site (www.federalreserve.gov/releases/G17/CapNotes.htm).

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

Consistency. A major aim is that the Federal Reserve utilization rates be consistent over time so that, for example, a rate of 85 percent means about the same degree of tightness that it meant in the past. A major task for the Federal Reserve in developing reasonable and consistent time series of capacity and utilization is dealing with inconsistencies between the movements of the industrial production index and the survey-based utilization rates. The McGraw-Hill/DRI Survey, now discontinued, was the primary source of manufacturing utilization rates for many years. This was a survey of large companies that reported, on average, higher utilization rates than those reported by establishments covered by the 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 1972–2011 period, the average total industry utilization rate was 80.3 percent; for manufacturing, the average factory operating rate was 78.9 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 shown in table 11 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* and is 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.151-176. A description of the aggregation methods for industrial production and capacity utilization is included in an article in the *Federal Reserve Bulletin*, vol. 83 (February 1997), pp. 67-92. The Federal Reserve methodology for constructing industry-level measures of capital is detailed in "Capital Stock Estimates for Manufacturing Industries: Methods and Data" by Mike Mohr and Charles Gilbert (1996), which can be obtained at: www.federalreserve.gov/releases/g17/CapitalStockDocLatest.pdf.

Industrial Production—1986 Edition contains a more detailed description of the other methods used to compile the industrial production index, plus a history of its development, a glossary of terms, and a bibliography. The major revisions to the IP indexes and capacity utilization since 1990 have been described in the *Federal Reserve Bulletin* (April 1990, June 1990, June 1993, March 1994, January 1995, January 1996, February 1997, February 1998, January 1999, March 2000, March 2001, March 2002, April 2003, Winter 2004, Winter 2005).

Release Schedule

At 9:15 a.m. on

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