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PRODUCTIVITY AND COSTS<br>Preliminary Fourth-Quarter Measures and Annual Averages, 1993

The Bureau of Labor Statistics of the U.S. Department of Labor today reported preliminary fourth-quarter seasonally-adjusted annual rates of productivity change as measured by output per hour of all persons-and annual changes for the full year 1993. In the fourth quarter, productivity increased in business, nonfarm business, and manufacturing with the strongest gains recorded in durable goods manufacturing (table A). Unit labor costs declined in all sectors except nondurable manufacturing in the fourth quarter, partly reflecting the strong gains in productivity. Fourth-quarter and annual 1993 measures are summarized in tables $A$ and $B$ and appear in detail in tables 1 through 5. The changes in business and nonfarm business productivity were:

|  | Fourth <br> quarter | Annual averages <br> $1992-1993$ |
| :--- | :---: | :---: |
| Business sector............ | 4.8 | 1.7 |
| Nonfarm business sector.... | 4.2 | 1.6 |

On an annual basis, productivity in business and nonfarm business rose moderately in 1993. The pace of output growth picked up, increasing more rapidly in 1993 than in 1992 in both sectors, and hours of labor input increased for the first time since 1990 (table B).

Growth in manufacturing productivity in 1993 reflected faster output growth than during 1992. A slight decline in hours of labor input extended the downward trend which began in 1990. The changes in manufacturing were:

Fourth Annual averages
quarter 1992-1993
 Nondurable goods manufacturing
$7.8 \quad 5.3$
$12.6 \quad 8.2$
$0.9 \quad 1.3$

Output measures for business and nonfarm business are based on measures of gross domestic product prepared by the Bureau of Economic Analysis of the U.S. Department of Commerce. Output measures for manufacturing reflect independent indexes of industrial production prepared by the Board of Governors of the Federal Reserve System. See Technical Notes (page 7) for further information on data sources.

Table A. Productivity and costs: Preliminary fourth-quarter 1993 measures (Seasonally adjusted annual rates)

|  | Real <br> Hourly hourly Unit |
| :--- | :--- | :--- |
| Sector | Produc <br> compen-compen-labor |
| tivity Output Hours |  |
| sation sation costs |  |

Percent change from preceding quarter

| Business | 4.8 | 7.1 | 2.2 | 2.9 | 0.0 | -1.8 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Nonfarm business | 4.2 | 6.6 | 2.3 | 2.9 | 0.0 | -1.2 |
| Manufacturing | 7.8 | 9.2 | 1.2 | 3.0 | 0.1 | -4.5 |
| $\quad$ Durable | 12.6 | 14.5 | 1.7 | 3.3 | 0.4 | -8.2 |
| Nondurable | 0.9 | 1.5 | 0.6 | 2.4 | -0.4 | 1.5 |

Percent change from same quarter a year ago

| Business | 1.6 | 3.6 | 2.0 | 3.1 | 0.4 | 1.5 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Nonfarm business | 1.5 | 3.8 | 2.3 | 2.8 | 0.1 | 1.3 |
| Manufacturing | 5.5 | 5.4 | -0.1 | 2.2 | -0.5 | -3.1 |
| $\quad$ Durable | 8.4 | 8.3 | -0.1 | 1.7 | -1.0 | -6.2 |
| Nondurable | 1.2 | 1.2 | 0.0 | 2.9 | 0.2 | 1.7 |

THIRD-TO-FOURTH QUARTER CHANGES, 1993
Business
Productivity increased at a 4.8 percent annual rate during the fourth quarter of 1993 in the business sector, as output growth accelerated to a 7.1 percent annual rate and hours of all persons engaged in the sector showed a 2.2 percent increase (seasonally adjusted). During the third quarter, business productivity had increased 3.3 percent; output grew 3.2 percent and hours fell 0.1 percent (table 1). The increase in productivity in the fourth quarter was the greatest gain since the first quarter of 1986, when a 6.1 percent increase occurred. The fourth-quarter 7.1 percent increase in output was the largest since the second quarter of 1987 when a like increase occurred, and the rise in hours followed a small decline during the third quarter.

Hourly compensation increased at a 2.9 percent annual rate during the fourth quarter of 1993, compared with a 3.9 percent increase during the third quarter. This measure includes wages and salaries, supplements, employer contributions to employee-benefit plans, and taxes. Unit labor costs, which reflect changes in hourly compensation and productivity, decreased at a 1.8 percent annual rate during the fourth quarter, compared with a 0.5 percent increase one quarter earlier. The decline in unit labor costs partly reflects the faster gains in productivity in the fourth quarter. It was the first decrease in this series since the first quarter of 1988.

Real hourly compensation, which takes into account changes in the Consumer Price Index for All Urban Consumers (CPI-U), was unchanged for persons in the business sector, compared with a 2.6 percent gain in the third quarter.

The implicit price deflator for business output, which reflects changes in unit labor costs and unit nonlabor payments, increased 1.3 percent in the fourth
quarter. During the third quarter, prices of the goods and services which comprise business output had increased at a 1.1 percent annual rate.

## Nonfarm business

In the nonfarm business sector, productivity gained 4.2 percent in the fourth quarter. Output rose 6.6 percent (the largest gain since a 7.2 percent gain in the second quarter of 1987), and hours of all persons-employees, proprietors, and unpaid family workers-rose 2.3 percent. The change in hours resulted from a 1.5 percent increase in employment and a 0.8 percent increase in the average work week. During the third quarter, nonfarm productivity had increased 4.0 percent as output grew 4.1 percent and hours edged up 0.1 percent (table 2).

Hourly compensation rose 2.9 percent in the fourth quarter, but real compensation was unchanged when the increase in the CPI-U was taken into account. During the third quarter, hourly compensation had increased by 3.7 percent, and real hourly compensation by 2.4 percent. Unit labor costs fell 1.2 percent in the fourth quarter, compared with a 0.4 percent decrease during the third quarter.

The implicit price deflator for nonfarm business output rose 1.0 percent in the fourth quarter, about the same as the 1.1 percent increase one quarter earlier.

## Manufacturing

Manufacturing productivity rose at a 7.8 percent seasonally adjusted annual rate in the fourth quarter of 1993, compared with a 3.1 percent increase in the third quarter. Output rose a robust 9.2 percent in the fourth quarter, and hours of all persons increased 1.2 percent. The increases in productivity and output were the largest since the second quarter of 1987 , when productivity rose 10.7 percent and output increased 10.6 percent. The fourth-quarter 1993 increase in hours followed declines in the second and third quarters (table 3). Both durable and nondurable goods industries experienced productivity increases in the fourth quarter, but the increases in durable manufacturing productivity and output were substantially greater (tables 4 and 5).

Hourly compensation of all manufacturing workers increased 3.0 percent during the fourth quarter, but edged up a scant 0.1 percent when the increase in consumer prices was taken into account. Unit labor costs fell at a 4.5 percent annual rate in the fourth quarter of 1993, compared with a 0.3 percent increase during the third quarter.

ANNUAL AVERAGE CHANGES, 1992-1993
Business
Business productivity increased 1.7 percent when the annual average for 1993 is compared with the annual average for 1992 (table B). In 1992, productivity grew 3.3 percent. Output grew 3.5 percent in 1993, and hours of all persons engaged in the sector increased 1.8 percent (table B).

Hourly compensation increased 3.8 percent in 1993, compared with a 5.0 percent increase during 1992. Real hourly compensation increased 0.8 percent in 1993, compared with a 2.0 percent rise in 1992.

Unit labor costs increased 2.1 percent during 1993, compared with a 1.7 percent increase a year earlier. These costs grew more in 1993 than in 1992, despite the lower increases in hourly compensation, because productivity grew less.

Table B. Annual changes in productivity and related measures, 1984-1993

| Measure 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 199 | 1993 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Business: |  |  |  |  |  |  |  |  |  |
| Productivity... 2.4 | 1.4 | 2.1 | 1.0 | 1.0 | -0.7 | 0.7 | 1.0 | 3.3 | 1.7 |
| Output......... 8.2 | 3.6 | 2.8 | 4.1 | 4.3 | 1.7 | 0.7 | -1.3 | 2.9 | 3.5 |
| Hours......... 5.6 | 2.1 | 0.6 | 3.0 | 3.3 | 2.5 | 0.1 | -2.3 | -0.4 | 1.8 |
| Hourly comp.... 4.3 | 4.5 | 5.0 | 3.6 | 4.4 | 3.5 | 5.7 | 4.9 | 5.0 | 3.8 |
| Real hourly comp.0.0 | 0.9 | 3.1 | -0.1 | 0.2 | -1.3 | 0.3 | 0.6 | 2.0 | 0.8 |
| Unit labor costs 1.9 | 3.0 | 2.8 | 2.5 | 3.4 | 4.3 | 5.0 | 3.8 | 1.7 | 2.1 |
| Nonfarm Business: |  |  |  |  |  |  |  |  |  |
| Productivity... 2.2 | 0.8 | 2.0 | 0.8 | 0.9 | -0.9 | 0.4 | 1.1 | 3.1 | 1.6 |
| Output......... 8.2 | 3.4 | 2.8 | 4.1 | 4.4 | 1.7 | 0.6 | -1.3 | 2.7 | 3.7 |
| Hours......... 5.9 | 2.5 | 0.8 | 3.2 | 3.5 | 2.6 | 0.2 | -2.4 | -0.4 | 2.1 |
| Hourly comp.... 4.1 | 4.1 | 5.0 | 3.5 | 4.2 | 3.3 | 5.5 | 5.0 | 5.1 | 3.6 |
| Real hourly cmp.-0.2 | 0.6 | 3.1 | -0.2 | 0.1 | -1.4 | 0.1 | 0.8 | 2.0 | 0.6 |
| Unit labor costs 1.9 | 3.3 | 2.9 | 2.6 | 3.2 | 4.3 | 5.1 | 3.9 | 2.0 | 1.9 |
| Manufacturing: |  |  |  |  |  |  |  |  |  |
| Productivity... 1.3 | 3.2 | 2.6 | 6.5 | 2.2 | 0.6 | 1.8 | 1.9 | 4.3 | 5.3 |
| Output......... 7.8 | 2.4 | 1.1 | 7.2 | 5.2 | 0.9 | -0.4 | -2.2 | 3.2 | 4.9 |
| Hours......... 6.5 | -0.7 | -1.5 | 0.7 | 2.9 | 0.3 | -2.2 | -4.1 | -1.1 | -0.3 |
| Hourly comp.... 3.2 | 5.0 | 4.1 | 2.3 | 3.9 | 3.9 | 5.3 | 5.4 | 4.4 | 2.8 |
| Real hourly cmp.-1.1 | 1.4 | 2.2 | -1.3 | -0.2 | -0.9 | -0.1 | 1.1 | 1.3 | -0.2 |
| Unit labor costs 1.9 | 1.8 | 1.4 | -4.0 | 1.6 | 3.3 | 3.5 | 3.4 | 0.1 | -2.4 |

## Nonfarm business

Productivity increased 1.6 percent in the nonfarm business sector during 1993, as output rose 3.7 percent and hours of all persons increased 2.1 percent. The increase in labor input in 1993 was the first annual gain in the series since 1990. In 1992, productivity had risen 3.1 percent, as output rose 2.7 percent and hours fell 0.4 percent. Hourly compensation rose 3.6 percent in 1993, compared with a 5.1 percent increase in 1992. Real hourly compensation increased 0.6 percent, down from the 2.0 percent rise in 1992.

Unit labor costs in the nonfarm business sector grew about as rapidly in 1993 as in 1992. The similar growth rates, 2.0 percent in 1992 and 1.9 percent in 1993, reflected a slowing of both productivity growth and hourly compensation gains from 1992 to 1993.

## Manufacturing

Manufacturing productivity grew 5.3 percent in 1993, as output rose 4.9 percent and hours of all persons declined 0.3 percent. During 1992, productivity rose
4.3 percent; output rose 3.2 percent, and hours decreased 1.1 percent. The increase in manufacturing productivity in 1993 was the largest since 1987, the output gain the largest since 1988, and the drop in hours the smallest of four consecutive declines.

Hourly compensation of manufacturing workers increased 2.8 percent during 1993, but was down 0.2 percent when the increase in consumer prices was taken into account. Unit labor costs fell 2.4 percent in 1993, the first such decline since 1987, reflecting both faster productivity growth and a smaller gain in compensation per hour than in 1992.

Both durable and nondurable goods industries experienced productivity increases in 1993, but the very large gain among durable goods producers reflected strong output growth and a decrease in hours. In nondurable goods industries, output and hours growth was comparatively modest in 1993 (tables 4 and 5).

Revised measures: Nonfinancial Corporations
Productivity and cost measures for the third quarter for nonfinancial corporations, which were revised to incorporate the most recent information, were somewhat different from the preliminary results announced on December 8, 1993. Productivity grew at an annual rate of 3.7 percent compared with the previouslyannounced growth rate of 3.5 percent (table C).

Table C. Nonfinancial corporations: Previous and revised productivity and related measures Quarterly percent change at seasonally adjusted annual rate


## Next release date

The next issue of Productivity and Costs is scheduled for release at 10:00 AM EST, Tuesday, March 8, 1994, and will contain revised fourth-quarter and annual measures for business, nonfarm business, and manufacturing.

## LABOR NEWS

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Labor Input: The primary source of hours and employment data is the BLS Current Employment Statistics (CES) program, which provides monthly survey data on total employment and average weekly hours of production and nonsupervisory workers in nonagricultural establishments. Jobs rather than persons are counted. Weekly hours are adjusted to the hours at work definition using the BLS Hours at Work survey, conducted for this purpose.

Data from the BLS Current Population Survey (CPS) are used for farm labor; in the nonfarm sector, the National Income and Product Accounts (NIPA) prepared by the Bureau of Economic Analysis of the Department of Commerce and the CPS are used to measure labor input for government enterprises, proprietors and unpaid family workers.

Output: Business output is equal to gross domestic product (GDP) in constant 1987 dollars, less general government, output of nonprofit institutions, output of paid employees of private households, rental value of owner-occupied dwellings, and the statistical discrepancy in computing the NIPA. Corresponding exclusions are also made in labor inputs. Business output was about 78 percent of GDP in 1992. Nonfarm business, which also excludes farming, was about 77 percent of GDP in 1992.

Total manufacturing measures are computed by summing series prepared for the durable and nondurable goods sectors. Durables include the following 2-digit SIC industries: Primary metal industries; fabricated metal products; nonelectrical machinery; industrial and commercial machinery and computer equipment; electronic and other electrical equipment; transportation equipment; instruments; lumber and lumber products; furniture and fixtures; stone, clay, and glass and concrete products; and miscellaneous manufactures. Nondurables include: Food and kindred products, tobacco products, textile mill products apparel products,
paper and allied products, printing and publishing, chemicals and chemical products, petroleum refining and related industries, rubber and plastic products, leather and leather products. Manufacturing accounted for about 19 percent of GDP in 1992. Quarterly manufacturing output measures are based on the index of industrial production prepared monthly by the Board of Governors of the Federal Reserve System adjusted by BLS to annual manufacturing output levels (gross product originating) from the National Income and Product Accounts prepared by the Bureau of Economic Analysis of the U.S. Department of Commerce.

Nonfinancial corporate output is equal to GDP in constant 1987 dollars, less the output of nonprofit institutions, output of paid employees of private households, rental value of owner-occupied dwellings, unincorporated business, the output of corporations engaged in banking, finance, stock and commodity trading, and credit and insurance agencies, and the statistical discrepancy in computing the NIPA. Nonfinancial corporations accounted for about 56 percent of GDP in 1992.

Productivity: These productivity measures describe the relationship between real output and the labor time involved in its production. They show the changes from period to period in the amount of goods and services produced per hour. Although these measures relate output to hours at work of all persons engaged in a sector, they do not measure the specific contribution of labor, capital, or any other factor of production. Rather, they reflect the joint effects of many influences, including changes in technology; capital investment; level of output; utilization of capacity, energy, and materials; the organization of production; managerial skill; and the characteristics and effort of the work force.

Information in this release will be 202-606-STAT; TDD phone: 202-606-5897; made available to sensory-impaired TDD message referral phone number: 1individuals upon request. Voice phone: 800-326-2577.

Table 1. Business sector: Productivity, hourly compensation, unit labor costs, and prices, seasonally adjusted

| Year <br> and <br> quarter |  | Output per hour of all persons | Output | Hours of all persons | Compensation per hour (1) | Real compensation per hour (2) | Unit labor costs | Unit nonlabor payments (3) | Implicit price deflator (4) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Indexes 1982=100 |  |  |  |  |  |  |  |  |  |
| 1992 | I | 114.1 | 133.3 | 116.8 | 152.2 | 105.8 | 133.4 | 148.5 | 138.3 |
|  | II | 114.8 | 134.5 | 117.1 | 153.7 | 106.0 | 133.9 | 149.9 | 139.1 |
|  | III | 116.0 | 136.0 | 117.2 | 156.1 | 106.9 | 134.5 | 147.3 | 138.7 |
|  | IV | 117.1 | 137.9 | 117.7 | 157.8 | 107.3 | 134.8 | 152.6 | 140.6 |
| ANNUAL |  | 115.5 | 135.4 | 117.3 | 154.9 | 106.5 | 134.1 | 149.6 | 139.2 |
| 1993 | I | 116.6 | 138.0 | 118.3 | 159.1 | 107.1 | 136.4 | 152.1 | 141.6 |
|  | II | 116.6 | 139.3 | 119.5 | 160.1 | 107.0 | 137.3 | 153.1 | 142.5 |
|  | III | 117.6 | r140.4 | 119.4 | 161.6 | 107.7 | 137.4 | r153.9 | r142.8 |
|  | IV | 119.0 | 142.8 | 120.1 | 162.8 | 107.7 | 136.8 | 156.5 | 143.3 |
|  | ANNUAL | 117.4 | 140.1 | 119.4 | 160.8 | 107.4 | 137.0 | 153.9 | 142.5 |

Percent change from previous quarter at annual rate(5)

| 1992 | I | 4.7 | 2.9 | -1.8 | 5.7 | 2.3 | 0.9 | 7.8 | 3.3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 2.5 | 3.4 | 1.0 | 4.1 | 0.9 | 1.6 | 3.9 | 2.4 |
|  | III | 4.2 | 4.6 | 0.4 | 6.2 | 3.4 | 1.9 | -6.7 | -1.2 |
|  | IV | 3.8 | 5.6 | 1.8 | 4.6 | 1.4 | 0.7 | 15.2 | 5.6 |
|  | ANNUAL | 3.3 | 2.9 | -0.4 | 5.0 | 2.0 | 1.7 | 3.4 | 2.3 |
| 1993 | I | -1.6 | 0.5 | 2.1 | 3.3 | -0.5 | 5.0 | -1.4 | 2.7 |
|  | II | 0.0 | 3.8 | 3.8 | 2.5 | -0.4 | 2.5 | 2.6 | 2.6 |
|  | III | r3.3 | r3.2 | -0.1 | 3.9 | r2.6 | r0.5 | r2.1 | r1.1 |
|  | IV | 4.8 | 7.1 | 2.2 | 2.9 | 0.0 | -1.8 | 7.1 | 1.3 |
|  | ANNUAL | 1.7 | 3.5 | 1.8 | 3.8 | 0.8 | 2.1 | 2.9 | 2.4 |

Percent change from corresponding quarter of previous year

| 1992 | I | 2.9 | 1.8 | -1.1 | 5.0 | 2.1 | 2.1 | 3.6 | 2.6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 2.9 | 2.3 | -0.6 | 4.8 | 1.7 | 1.9 | 3.4 | 2.4 |
|  | III | 3.8 | 3.4 | -0.4 | 5.3 | 2.1 | 1.4 | 1.7 | 1.5 |
|  | IV | 3.8 | 4.1 | 0.3 | 5.1 | 2.0 | 1.3 | 4.7 | 2.5 |
|  | ANNUAL | 3.3 | 2.9 | -0.4 | 5.0 | 2.0 | 1.7 | 3.4 | 2.3 |
| 1993 | I | 2.2 | 3.5 | 1.3 | 4.5 | 1.3 | 2.3 | 2.4 | 2.3 |
|  | II | 1.6 | 3.6 | 2.0 | 4.1 | 1.0 | 2.5 | 2.1 | 2.4 |
|  | III | r1.3 | r3.2 | 1.9 | 3.6 | 0.8 | r2.2 | r4.5 | 3.0 |
|  | IV | 1.6 | 3.6 | 2.0 | 3.1 | 0.4 | 1.5 | 2.6 | 1.9 |
|  | ANNUAL | 1.7 | 3.5 | 1.8 | 3.8 | 0.8 | 2.1 | 2.9 | 2.4 |
| See footnotes following table 6. $r=r e v i s e d$ |  |  |  |  |  |  | Febru <br> Sourc | $1994$ au of | ati |

Table 2. Nonfarm business sector: Productivity, hourly compensation, unit labor costs, and prices, seasonally adjusted


Percent change from corresponding quarter of previous year

| 1992 | I | 2.7 | 1.6 | -1.0 | 5.0 | 2.1 | 2.3 | 3.4 | 2.7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 2.7 | 2.1 | -0.6 | 4.9 | 1.8 | 2.2 | 3.7 | 2.7 |
|  | III | 3.4 | 3.1 | -0.3 | 5.3 | 2.1 | 1.8 | 1.6 | 1.7 |
|  | IV | 3.6 | 3.9 | 0.3 | 5.2 | 2.1 | 1.5 | 4.5 | 2.6 |
|  | ANNUAL | 3.1 | 2.7 | -0.4 | 5.1 | 2.0 | 2.0 | 3.3 | 2.4 |
| 1993 | I | 2.1 | 3.6 | 1.4 | 4.5 | 1.3 | 2.3 | 2.6 | 2.4 |
|  | II | 1.3 | 3.8 | 2.4 | 3.8 | 0.6 | 2.4 | 2.2 | 2.3 |
|  | III | 1.5 | r3.7 | 2.2 | 3.3 | 0.5 | r1.8 | r5.1 | 2.9 |
|  | IV | 1.5 | 3.8 | 2.3 | 2.8 | 0.1 | 1.3 | 2.5 | 1.7 |
|  | ANNUAL | 1.6 | 3.7 | 2.1 | 3.6 | 0.6 | 1.9 | 3.1 | 2.3 |

See footnotes following table 6.
r=revised

February 8, 1994
Source: Bureau of Labor Statistics

Table 3. Manufacturing sector: Productivity, hourly compensation, and unit labor costs, seasonally adjusted


Percent change from previous quarter at annual rate(5)

| 1992 | I | 4.0 | 2.1 | -1.8 | 1.2 | -2.0 | -2.7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 5.0 | 5.2 | 0.2 | 4.9 | 1.7 | -0.2 |
|  | III | 3.6 | 1.2 | -2.4 | 4.2 | 1.5 | 0.6 |
|  | IV | 7.0 | 6.8 | -0.2 | 5.8 | 2.5 | -1.2 |
|  | ANNUAL | 4.3 | 3.2 | -1.1 | 4.4 | 1.3 | 0.1 |
| 1993 | I | 5.1 | 6.7 | 1.5 | -2.3 | -5.9 | -7.0 |
|  | II | 5.9 | 3.4 | -2.4 | 4.9 | 1.9 | -1.0 |
|  | III | 3.1 | r2.4 | -0.6 | r3.4 | 2.1 | r0.3 |
|  | IV | 7.8 | 9.2 | 1.2 | 3.0 | 0.1 | -4.5 |
|  | ANNUAL | 5.3 | 4.9 | -0.3 | 2.8 | -0.2 | -2.4 |

Percent change from corresponding quarter of previous year

| 1992 | I | 3.9 | 2.7 | -1.2 | 4.4 | 1.5 | 0.5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 4.2 | 3.8 | -0.4 | 4.3 | 1.2 | 0.1 |
|  | III | 3.8 | 2.4 | -1.3 | 4.2 | 1.1 | 0.5 |
|  | IV | 4.9 | 3.8 | -1.1 | 4.0 | 0.9 | -0.9 |
|  | ANNUAL | 4.3 | 3.2 | -1.1 | 4.4 | 1.3 | 0.1 |
| 1993 | I | 5.2 | 4.9 | -0.2 | 3.1 | -0.1 | -2.0 |
|  | II | 5.4 | 4.5 | -0.9 | 3.1 | 0.0 | -2.2 |
|  | III | 5.3 | 4.8 | -0.4 | 2.9 | 0.1 | -2.3 |
|  | IV | 5.5 | 5.4 | -0.1 | 2.2 | -0.5 | -3.1 |
|  | ANNUAL | 5.3 | 4.9 | -0.3 | 2.8 | -0.2 | -2.4 |
| $\begin{aligned} & \text { See f } \\ & r=r e v \end{aligned}$ | otnotes sed | able |  |  | February 8, 1994 Source: Bureau of |  |  |

Table 4. Durable manufacturing sector: Productivity, hourly compensation, and unit labor costs, seasonally adjusted


Percent change from previous quarter at annual rate(5)

| 1992 | I | 4.1 | 2.4 | -1.6 | -1.0 | -4.2 | -4.8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 9.1 | 7.4 | -1.5 | 5.4 | 2.3 | -3.3 |
|  | III | 5.1 | 2.0 | -3.0 | 4.2 | 1.5 | -0.8 |
|  | IV | 10.3 | 9.8 | -0.5 | 7.9 | 4.6 | -2.2 |
|  | ANNUAL | 6.6 | 4.4 | -2.0 | 4.4 | 1.4 | -2.0 |
| 1993 | I | 8.7 | 10.4 | 1.5 | -3.8 | -7.3 | -11.5 |
|  | II | 8.2 | 4.4 | -3.5 | 4.6 | 1.6 | -3.4 |
|  | III | r4.3 | r4.2 | r-0.1 | 3.0 | 1.8 | r-1.3 |
|  | IV | 12.6 | 14.5 | 1.7 | 3.3 | 0.4 | -8.2 |
|  | ANNUAL | 8.2 | 7.4 | -0.7 | 2.7 | -0.2 | -5.0 |

Percent change from corresponding quarter of previous year

| 1992 | I | 5.7 | 3.6 | -2.0 | 4.3 | 1.4 | -1.3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 6.9 | 5.1 | -1.7 | 4.5 | 1.3 | -2.3 |
|  | III | 6.1 | 3.6 | -2.3 | 4.3 | 1.1 | -1.7 |
|  | IV | 7.1 | 5.4 | -1.6 | 4.1 | 1.0 | -2.8 |
|  | ANNUAL | 6.6 | 4.4 | -2.0 | 4.4 | 1.4 | -2.0 |
| 1993 | I | 8.3 | 7.3 | -0.9 | 3.3 | 0.1 | -4.6 |
|  | II | 8.1 | 6.6 | -1.4 | 3.1 | 0.0 | -4.6 |
|  | III | r7.9 | r7.2 | r-0.6 | 2.8 | 0.1 | r-4.7 |
|  | IV | 8.4 | 8.3 | -0.1 | 1.7 | -1.0 | -6.2 |
|  | ANNUAL | 8.2 | 7.4 | -0.7 | 2.7 | -0.2 | -5.0 |
| See footnotes following table 6. $r=r e v i s e d$ |  |  |  |  | Febr Sour | f Lab | istics |

Table 5. Nondurable manufacturing sector: Productivity, hourly compensation, and unit labor costs, seasonally adjusted


Percent change from previous quarter at annual rate(5)

| 1992 | I | 3.9 | 1.7 | -2.2 | 4.7 | 1.3 | 0.7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | -0.2 | 2.3 | 2.5 | 4.4 | 1.2 | 4.6 |
|  | III | 1.5 | 0.0 | -1.5 | 4.4 | 1.6 | 2.8 |
|  | IV | 2.5 | 2.7 | 0.2 | 2.7 | -0.4 | 0.2 |
|  | ANNUAL | 1.3 | 1.5 | 0.2 | 4.5 | 1.5 | 3.2 |
| 1993 | I | -0.1 | 1.5 | 1.6 | 0.0 | -3.7 | 0.1 |
|  | II | 2.9 | 2.0 | -0.8 | 5.6 | 2.6 | 2.6 |
|  | III | r1.2 | r-0.2 | r-1.4 | r3.8 | r2.6 | r2.6 |
|  | IV | 0.9 | 1.5 | 0.6 | 2.4 | -0.4 | 1.5 |
|  | ANNUAL | 1.3 | 1.5 | 0.2 | 2.9 | -0.1 | 1.6 |

Percent change from corresponding quarter of previous year

| 1992 | I | 1.5 | 1.5 | -0.1 | 4.7 | 1.8 | 3.1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 0.6 | 2.0 | 1.4 | 4.4 | 1.3 | 3.8 |
|  | III | 0.7 | 0.8 | 0.1 | 4.4 | 1.3 | 3.7 |
|  | IV | 1.9 | 1.7 | -0.3 | 4.0 | 0.9 | 2.1 |
|  | ANNUAL | 1.3 | 1.5 | 0.2 | 4.5 | 1.5 | 3.2 |
| 1993 | I | 0.9 | 1.6 | 0.7 | 2.9 | -0.3 | 1.9 |
|  | II | 1.7 | 1.6 | -0.2 | 3.1 | 0.0 | 1.4 |
|  | III | r1.6 | r1.5 | -0.1 | 3.0 | 0.2 | r1.4 |
|  | IV | 1.2 | 1.2 | 0.0 | 2.9 | 0.2 | 1.7 |
|  | ANNUAL | 1.3 | 1.5 | 0.2 | 2.9 | -0.1 | 1.6 |


| See footnotes following table 6. | February 8, 1994 |
| :---: | :---: |
| r=revised | Source: Burea |

Table 6. Nonfinancial corporations: Productivity, hourly compensation, unit labor costs, unit profits, and prices, seasonally adjusted

|  | Year <br> and quarter | Output per allemployee hour | Output | Employee hours | Hourly compensation (1) | Real <br> hourly <br> compen- <br> sation(2) | Unit labor costs | Unit nonlabor cost(6) | Total unit cost (7) | Unit profits (8) | Implicit price deflator (4) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Indexes 1982=100 |  |  |  |  |  |  |  |  |  |  |  |
| 1992 | I | 117.3 | 137.9 | 117.6 | 147.9 | 102.8 | 126.1 | 121.1 | 124.7 | 164.1 | 127.1 |
|  | II | 118.6 | 140.0 | 118.0 | 149.5 | 103.1 | 126.0 | 120.0 | 124.3 | 175.5 | 127.5 |
|  | III | 120.3 | 141.9 | 117.9 | 151.6 | 103.8 | 126.0 | 121.3 | 124.7 | 172.4 | 127.6 |
|  | IV | 121.7 | 144.3 | 118.6 | 153.0 | 104.0 | 125.8 | 118.3 | 123.7 | 195.3 | 128.1 |
|  | ANNUAL | 119.4 | 141.0 | 118.1 | 150.4 | 103.4 | 126.0 | 120.2 | 124.3 | 177.0 | 127.6 |
| 1993 | I | 120.4 | 143.3 | 119.0 | 153.9 | 103.6 | 127.8 | 119.6 | 125.4 | 182.8 | 129.0 |
|  | II | 121.6 | 145.7 | 119.9 | 154.8 | 103.5 | 127.3 | 119.2 | 125.0 | 193.9 | 129.3 |
|  | III | r122.7 | 147.3 | 120.1 | r156.0 | 104.0 | r127.2 | r119.4 | 125.0 | r193.7 | r129.2 |
| Percent change from previous quarter at annual rate(5) |  |  |  |  |  |  |  |  |  |  |  |
| 1992 | I | 2.5 | 2.1 | -0.3 | 3.9 | 0.6 | 1.5 | -2.2 | 0.4 | 18.9 | 1.8 |
|  | II | 4.8 | 6.4 | 1.6 | 4.5 | 1.4 | -0.2 | -3.6 | -1.2 | 30.6 | 1.1 |
|  | III | 5.8 | 5.4 | -0.4 | 5.6 | 2.8 | -0.2 | 4.6 | 1.1 | -6.8 | 0.4 |
|  | IV | 4.5 | 6.9 | 2.2 | 4.0 | 0.8 | -0.5 | -9.7 | -3.1 | 64.6 | 1.5 |
| 1993 | ANNUAL | 4.1 | 4.1 | 0.1 | 4.6 | 1.5 | 0.5 | -1.4 | 0.0 | 14.2 | 1.0 |
|  | I | -4.0 | -2.7 | 1.3 | 2.2 | -1.6 | 6.4 | 4.3 | 5.9 | -23.1 | 2.8 |
|  | II | 3.9 | 7.0 | 3.0 | 2.4 | -0.5 | -1.5 | -1.3 | -1.4 | 26.4 | 0.8 |
|  | III | r3.7 | r4.5 | r0.7 | 3.3 | r2.0 | r-0.4 | r0.7 | r-0.1 | r-0.3 | r-0.1 |

Percent change from corresponding quarter of previous year

| 1992 | I | 3.2 | 2.4 | -0.8 | 4.5 | 1.6 | 1.3 | -0.4 | 0.8 | 5.8 | 1.2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 4.0 | 4.1 | 0.1 | 4.5 | 1.4 | 0.6 | -1.4 | 0.0 | 11.8 | 0.9 |
|  | III | 4.8 | 4.8 | 0.1 | 4.8 | 1.7 | 0.1 | -1.0 | -0.2 | 14.6 | 0.9 |
|  | IV | 4.4 | 5.2 | 0.8 | 4.5 | 1.4 | 0.1 | -2.8 | -0.7 | 24.2 | 1.2 |
|  | ANNUAL | 4.1 | 4.1 | 0.1 | 4.6 | 1.5 | 0.5 | -1.4 | 0.0 | 14.2 | 1.0 |
| 1993 | I | 2.7 | 3.9 | 1.2 | 4.1 | 0.8 | 1.3 | -1.3 | 0.6 | 11.4 | 1.5 |
|  | II | 2.5 | 4.1 | 1.5 | 3.5 | 0.4 | 1.0 | -0.7 | 0.6 | 10.5 | 1.4 |
|  | III | r2.0 | 3.8 | 1.8 | 3.0 | 0.2 | 1.0 | r-1.6 | r0.2 | r12.4 | 1.3 |

See footnotes following table 6.
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$r=r e v i s e d$
Source: Bureau of Labor Statistics

SOURCE: Output data from the Bureau of Economic Analysis, U.S. Department of Commerce, and the Federal Reserve Board. Compensation and hours data from the Bureau of Labor Statistics, U.S. Department of Labor, and the Bureau of Economic Analysis.

RELIABILITY: Productivity and cost measures are regularly revised as more complete information becomes available. The measures are first published 30 days after the close of the reference period; revisions appear 30 days later, and third revisions after an additional 60 days. In the business sector, the probability is 0.95 that the third publication (third revision) of a quarterly index of output per hour of all persons will differ from the initial value by between -1.8 and +2.1 index points. This interval is based on the performance of this measure between the second quarter of 1976 and the third quarter of 1992.

Footnotes, Tables 1-6
(1) Wages and salaries of employees plus employers' contributions for social insurance and private benefit plans. Except for nonfinancial corporations, where there are no self-employed, data also include an estimate of wages, salaries, and supplemental payments for the selfemployed.
(2) Compensation per hour adjusted for changes in the Consumer Price Index for All Urban Consumers.
(3) Unit nonlabor payments include profits, capital consumption allowances, interest, rental income of persons, and indirect taxes.
(4) Current dollar gross product divided by constant dollar gross product.
(5) Quarterly changes: Percent change compounded at annual rate from the original data rather than index numbers. Annual changes: Percent change between annual average levels.
(6) Quarterly manufacturing output measures are based on the index of industrial production prepared monthly by the Board of Governors of the Federal Reserve adjusted by BLS to annual manufacturing output levels (gross product originating) from the National Income and Product Accounts prepared by the Bureau of Economic Analysis of the U.S. Department of Commerce.
(7) Unit nonlabor cost includes capital consumption allowances, interest, rental income of persons, and indirect taxes. For nonfinancial corporations, rental income of persons is zero by definition.
(8) Total unit cost is the sum of labor and nonlabor costs.
(9) Unit profits include corporate profits with inventory valuation and capital consumption adjustments.

