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PRODUCTIVITY AND COSTS
Third Quarter 1999

The Bureau of Labor Statistics of the U.S. Department of Labor today reported revised productivity data--as measured by output per hour of all persons--for the third quarter of 1999. The seasonally adjusted annual rates of productivity growth in the third quarter were:
4.7 percent in the business sector, and
4.9 percent in the nonfarm business sector.

The increase in labor productivity for the business sector was the largest since a similar increase in the second quarter of 1996. In the nonfarm business sector, the third-quarter increase in labor productivity was the largest since a 7.4-percent rise in the fourth quarter of 1992.

In manufacturing, revised productivity increases in the third quarter were:

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3.9 percent in manufacturing,
4.5 percent in durable goods manufacturing, and
3.8 percent in nondurable goods manufacturing.
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The third-quarter productivity increase in manufacturing occurred as output rose 4.2 percent and hours of all persons working in the sector grew 0.3 percent. Output and hours in manufacturing, which includes about 17 percent of U.S. business sector employment, tend to vary more from quarter to quarter than data for the more aggregate business and nonfarm business sectors. Third-quarter measures are summarized in table A and appear in detail in tables 1 through 5.


The data sources and methods used in the preparation of the manufacturing series differ from those used in preparing the business and nonfarm business series, and these measures are not directly comparable. 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. Quarterly output measures for manufacturing reflect indexes of industrial production independently prepared by the Board of Governors of the Federal Reserve System. See Technical Notes for further information on data sources.

Business
From the second quarter to the third quarter of 1999, business sector productivity rose at an annual rate of 4.7 percent as output increased 6.3 percent and hours of all persons engaged in the sector increased 1.6 percent (table 1). Employment in the business sector rose in the third quarter by 2.1 percent, but this increase was partially offset by a 0.5 -percent decline in average weekly hours at work.

Hourly compensation increased 4.6 percent during the third quarter of 1999. This measure includes wages and salaries, supplements, employer contributions to employee benefit plans, and taxes. Real hourly compensation, which takes into account changes in consumer prices, rose 1.9 percent in the third quarter of 1999.

Unit labor costs declined slightly in the third quarter, -0.1 percent. Unit labor costs had increased 4.2 percent in the second quarter of 1999. The implicit price deflator for the business sector, which reflects changes both in unit labor costs and in unit nonlabor payments, increased at a 0.7 percent annual rate in the third quarter of 1999, after rising 1.1 percent in the previous quarter.

Nonfarm business
Output per hour of all persons in the nonfarm business sector increased 4.9 percent during the third quarter of 1999. This was the largest productivity gain since the fourth quarter of 1992, when it grew at a 7.4 percent annual rate. Output increased 6.6 percent in the third quarter of 1999 and hours of all persons rose 1.6 percent (table 2). As in the larger business sector, an employment increase, 2.2 percent, was mitigated by a decline in average weekly hours at work of 0.6 percent.

Hourly compensation increased at a 4.7 percent annual rate in the third quarter of 1999, similar to a 4.8 percent increase one quarter earlier. When the rise in consumer prices is taken into account, real hourly compensation rose at a 2.1 percent annual rate in the third quarter.

Unit labor costs fell 0.2 percent in the third quarter of 1999. Labor costs account for approximately 63 percent of all nonfarm business payments. The implicit price deflator for nonfarm business rose 0.7 percent, reflecting the decline in unit labor costs and a 2.3 -percent increase in unit nonlabor payments. In the second quarter, the implicit price deflator rose 1.4 percent, reflecting a 4.2-percent increase in unit labor costs and a 3.1 percent decline in unit nonlabor payments.

## Manufacturing

Productivity increased 3.9 percent in manufacturing in the third quarter of 1999, as output rose 4.2 percent and hours of all persons grew 0.3 percent (seasonally adjusted annual rates). In durable goods industries, productivity grew 4.5 percent in the third quarter as output and hours rose 8.4 and 3.8 percent, respectively. In the nondurable goods industries, thirdquarter productivity grew 3.8 percent as output dropped 1.2 percent and hours fell further, -4.8 percent (tables 3, 4, and 5).

Hourly compensation of all manufacturing workers rose 6.3 percent during the third quarter of 1999 (seasonally adjusted annual rates). In durable goods manufacturing, hourly compensation rose 5.9 percent during the third quarter. The increase in nondurable goods manufacturing was higher, 6.3 percent. When the increase in consumer prices is taken into account, real hourly compensation for all manufacturing workers rose 3.6 percent in the third quarter.

Unit labor costs in manufacturing rose 2.3 percent in the third quarter of 1999. Unit labor costs rose 1.4 percent in durable goods manufacturing, following five consecutive quarters of declines in this measure. In nondurable goods manufacturing, unit labor costs in the third quarter rose 2.4 percent.

## Nonfinancial Corporations

Third-quarter 1999 measures of productivity and costs also were announced for nonfinancial corporations (tables B and 6). Output per all-employee hour grew at a 4.7 percent annual rate, compared with a 3.2 percent increase in the previous quarter. Output increased 7.1 percent in the third quarter of 1999, and hours of all employees increased 2.3 percent (seasonally adjusted annual rates). The sector includes all corporations doing business in the United States, except those classified as depository institutions, nondepository institutions, security and commodity brokers, insurance carriers, regulated investment offices, small business investment offices, and real estate investment trusts.

| Period | Productivity | Output | Hours | Hourly <br> compen- <br> sation | Real <br> hourly <br> compen- <br> sation | Unit labor costs | Unit profits | Implicit price deflator |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Percent change from preceding quarter |  |  |  |  |  |  |  |  |
| 1999 III | 4.7 | 7.1 | 2.3 | 4.6 | 2.0 | -0.1 | -8.0 | -0.3 |
| Percent change from same quarter a year ago |  |  |  |  |  |  |  |  |
| 1999111 | 3.8 | 5.7 | 1.8 | 4.8 | 2.4 | 0.9 | -4.7 | 0.4 |

Hourly compensation increased 4.6 percent in the third quarter; it rose 4.8 percent in the second quarter. When the rise in consumer prices is taken into account, real hourly compensation increased 2.0 percent in the third quarter and 1.3 percent in the second.

Unit labor costs for nonfinancial corporations declined 0.1 percent in the third quarter, the first decline since the third quarter of 1997 when they fell 1.5 percent. Unit nonlabor costs increased 3.0 percent in the third quarter and 1.8 percent in the second quarter. Unit profits declined at an 8.0 percent annual rate. The implicit price deflator for the output of nonfinancial corporations declined 0.3 percent in the third quarter of 1999. In the previous quarter, the implicit price deflator rose 1.1 percent.

## Revised Measures

Current and previous measures for the third quarter of 1999 for the business, nonfarm business, and manufacturing sectors are compared in table C. In the business and nonfarm business sectors, increases in productivity and output are larger than those reported on Nov. 12, based on the information available at that time. Unit labor cost measures for these sectors are correspondingly lower.

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

| Sector | Productivity | Output | Hours | Hourly compensation | Real <br> hourly <br> compen- <br> sation | Unit <br> labor <br> costs |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Third quarter 1999 |  |  |  |  |  |
| Business: |  |  |  |  |  |  |
| Previous | 4.0 | 5.4 | 1.4 | 4.7 | 2.0 | 0.7 |
| Current | 4.7 | 6.3 | 1.6 | 4.6 | 1.9 | -0.1 |
| Nonfarm business: |  |  |  |  |  |  |
| Previous | 4.2 | 5.7 | 1.5 | 4.8 | 2.2 | 0.6 |
| Current | 4.9 | 6.6 | 1.6 | 4.7 | 2.1 | -0.2 |
| Manufacturing: |  |  |  |  |  |  |
| Previous | 3.4 | 3.4 | 0.0 | 6.2 | 3.5 | 2.7 |
| Current | 3.9 | 4.2 | 0.3 | 6.3 | 3.6 | 2.3 |

In manufacturing, rates of growth in productivity were revised upward in the third quarter due to revisions in the output measures. Unit labor costs were revised downward by similar amounts (tables 3-5 and appendix tables 13). The quarterly measures of productivity, output, and unit labor costs for manufacturing were revised back to 1992 due to the incorporation of revised indexes of industrial production. Annual measures for 1997 and 1998 also were affected. These indexes, published by the Board of Governors of the Federal Reserve System, were changed to incorporate additional and revised source data and updated information on seasonal trends. (See Federal Reserve Statistical Release G.17, "Industrial production and capacity utilization: a revision," Nov. 30, 1999.)

Next release date
The next release of Productivity and Costs is scheduled for 8:30 AM EST, Tuesday, February 8, 2000. Preliminary fourth-quarter and annual 1999 measures will be released at that time.

Scheduled release dates for productivity and costs measures for major sectors of the U.S. economy in 2000 are:

| Reference period |  |
| :--- | :--- |
| $1999:$ |  |
| Fourth quarter, Annual |  |
| Fourth quarter, Annual (revised) | February 8 |
| $2000:$ | March 7 |
| First quarter |  |
| First quarter (revised) | May 4 |
| Second quarter | June 6 |
| Second quarter (revised) | August 8 |
| Third quarter | September 6 |
| Third quarter (revised) | November 2 |

These dates are based on presently available schedules for the release of underlying source data in 2000. Each issue of Productivity and Costs contains a "Next release date" paragraph that readers should use to confirm the dates above.

Report 939, to be released in December, will present annual indexes of unit labor costs beginning in 1987 for 173 industries at the 3-digit SIC level. Unit labor cost series have been calculated for all manufacturing and retail trade industries at the 3- and 4-digit SIC level and for selected 2-, 3-, and 4 -digit industries in mining, transportation, communications and utilities, wholesale trade, finance, and services industries. The published indexes and rates of change in unit labor costs, labor productivity, and related series will be available at http://stats.bls.gov/iprhome.htm on the BLS website. Requests for published or unpublished data may be sent to dipsweb@bls.gov by e-mail, or data may be requested by calling the Division of Industry Productivity Studies at (202) 691-5618.
TECHNICAL NOTES
Labor Hours: Hours data for the labor productivity and costs measures include hours for all persons working in the sector-wage and salary workers, the selfemployed, and unpaid family workers. The primary source of hours and employment data is the BLS Current Employment Statistics (CES) program, which provides monthly survey data on the number of jobs held by wage and salary workers in nonfarm establishments. The CES also provides average weekly paid hours of production and nonsupervisory workers in these establishments. Average weekly paid hours of nonproduction and supervisory workers are estimated by the Office of Productivity and Technology. Weekly paid hours are adjusted to hours at work 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 (BEA) of the Department of Commerce and the CPS are used to measure labor input for government enterprises, proprietors, and unpaid family workers.

Output: Business sector output is an annual-weighted index constructed after excluding from gross domestic product (GDP) the following outputs: General government, nonprofit institutions, paid employees of private households, and the rental value of owner-occupied dwellings. Corresponding exclusions also are made in labor inputs. Business output accounted for about 77 percent of the value of GDP in 1996. Nonfarm business, which also excludes farming, accounted for about 76 percent of GDP in 1996.

Annual indexes for manufacturing and its durable and nondurable goods components are constructed by deflating current-dollar industry value of production data from the U.S. Bureau of the Census with deflators from the BEA. These deflators are based on data from the BLS producer price program and other sources. The industry shipments are aggregated using annual weights, and intrasector transactions are removed. 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 to be consistent with annual indexes of manufacturing sector output prepared by BLS. 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, and leather and leather products.

Nonfinancial corporate output is an annual-weighted index constructed by excluding from GDP the following outputs: General government; nonprofit institutions; employees of private households; the rental value of owneroccupied dwellings; unincorporated business; and those corporations which are depository institutions, nondepository institutions, security and commodity brokers, insurance carriers, regulated investment offices, small business investment offices, and real estate investment trusts. Nonfinancial corporations accounted for about 54 percent of the value of GDP in 1996.

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

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 <br> of all <br> persons | Compensation per hour (1) | Real <br> compensa- <br> tion per <br> hour (2) | Unit labor costs | Unit nonlabor payments (3) | Implicit <br> price <br> deflator <br> (4) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Indexes 1992=100 |  |  |  |  |  |  |  |  |  |
| 1997 | I | 106.3 | 120.0 | 112.9 | 112.5 | 100.1 | 105.9 | 114.5 | 109.1 |
|  | II | 107.1 | 121.8 | 113.7 | 113.2 | 100.4 | 105.7 | 115.9 | 109.5 |
|  | III | 108.1 | 123.2 | 114.0 | 114.6 | 101.2 | 106.0 | 116.0 | 109.7 |
|  | IV | 108.4 | 124.4 | 114.7 | 116.4 | 102.4 | 107.4 | 114.1 | 109.9 |
| 1998 | ANNUAL | 107.5 | 122.3 | 113.8 | 114.2 | 101.1 | 106.2 | 115.1 | 109.5 |
|  | I | 109.7 | 126.9 | 115.7 | 117.8 | 103.4 | 107.5 | 114.2 | 110.0 |
|  | II | 109.8 | 127.5 | 116.1 | 119.4 | 104.4 | 108.8 | 112.6 | 110.2 |
|  | III | 110.7 | 128.9 | 116.4 | 121.2 | 105.6 | 109.5 | 112.1 | 110.4 |
|  | IV | 111.9 | 131.2 | 117.2 | 122.7 | 106.5 | 109.6 | 112.1 | 110.5 |
| 1999 | ANNUAL | 110.5 | 128.6 | 116.4 | 120.3 | 105.1 | 108.8 | 112.7 | 110.3 |
|  | I | 112.7 | 132.5 | 117.5 | 124.2 | 107.4 | 110.2 | 112.1 | 110.9 |
|  | II | 113.0 | 133.1 | 117.8 | 125.7 | 107.8 | 111.3 | 110.9 | 111.2 |
|  | III | r114.3 | r135.1 | r118.3 | r127.1 | r108.3 | r111.3 | r111.5 | r111.4 |

Percent change from previous quarter at annual rate(5)

| 1997 | I | 1.3 | 5.8 | 4.4 | 3.4 | 1.0 | 2.1 | 2.4 | 2.2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 3.4 | 6.2 | 2.7 | 2.6 | 1.5 | -0.7 | 4.9 | 1.4 |
|  | III | 3.6 | 4.8 | 1.1 | 4.8 | 3.0 | 1.1 | 0.2 | 0.8 |
|  | IV | 1.2 | 3.9 | 2.7 | 6.7 | 4.8 | 5.4 | -6.2 | 0.7 |
|  | ANNUAL | 2.2 | 5.4 | 3.1 | 3.7 | 1.5 | 1.5 | 1.4 | 1.5 |
| 1998 | I | 4.6 | 8.1 | 3.4 | 4.9 | 4.2 | 0.3 | 0.4 | 0.4 |
|  | II | 0.6 | 2.2 | 1.6 | 5.5 | 3.9 | 4.9 | -5.6 | 0.8 |
|  | III | 3.4 | 4.4 | 0.9 | 6.1 | 4.7 | 2.6 | -1.9 | 0.9 |
|  | IV | 4.3 | 7.2 | 2.8 | 4.9 | 3.3 | 0.6 | -0.1 | 0.4 |
|  | ANNUAL | 2.8 | 5.1 | 2.2 | 5.3 | 3.9 | 2.4 | -2.1 | 0.7 |
| 1999 | I | 3.0 | 3.9 | 0.9 | 4.9 | 3.6 | 1.9 | 0.2 | 1.3 |
|  | II | 0.8 | 1.9 | 1.0 | 5.1 | 1.5 | 4.2 | -4.1 | 1.1 |
|  | III | r4.7 | r6. 3 | r1.6 | r4.6 | r1.9 | r-0.1 | r2. 0 | r0.7 |

Percent change from corresponding quarter of previous year

| 1997 | I | 2.1 | 5.5 | 3.4 | 3.6 | 0.8 | 1.5 | 1.7 | 1.6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 1.7 | 5.1 | 3.3 | 3.2 | 1.0 | 1.4 | 1.7 | 1.5 |
|  | III | 2.6 | 5.7 | 3.0 | 3.5 | 1.4 | 0.9 | 2.1 | 1.4 |
|  | IV | 2.4 | 5.2 | 2.7 | 4.4 | 2.6 | 1.9 | 0.2 | 1.3 |
|  | ANNUAL | 2.2 | 5.4 | 3.1 | 3.7 | 1.5 | 1.5 | 1.4 | 1.5 |
| 1998 | I | 3.2 | 5.8 | 2.5 | 4.7 | 3.4 | 1.5 | -0.3 | 0.8 |
|  | II | 2.5 | 4.7 | 2.2 | 5.5 | 4.0 | 2.9 | -2.8 | 0.7 |
|  | III | 2.4 | 4.6 | 2.1 | 5.8 | 4.4 | 3.3 | -3.4 | 0.7 |
|  | IV | 3.2 | 5.5 | 2.2 | 5.4 | 4.0 | 2.1 | -1.8 | 0.6 |
|  | ANNUAL | 2.8 | 5.1 | 2.2 | 5.3 | 3.9 | 2.4 | -2.1 | 0.7 |
| 1999 | I | 2.8 | 4.4 | 1.6 | 5.4 | 3.8 | 2.5 | -1.9 | 0.8 |
|  | II | 2.9 | 4.3 | 1.4 | 5.3 | 3.2 | 2.3 | -1.5 | 0.9 |
|  | III | r3.2 | r4. 8 | 1.6 | 4.9 | 2.6 | r1.7 | r-0.5 | 0.8 |

[^0]Table 2. Nonfarm 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 <br> of all <br> persons | Compensation per hour (1) | Real compensation per hour (2) | Unit labor costs | Unit nonlabor payments (3) | Implicit <br> price <br> deflator <br> (4) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Indexes 1992=100 |  |  |  |  |  |  |  |  |  |
| 1997 | I | 106.1 | 120.2 | 113.3 | 112.2 | 99.8 | 105.7 | 115.0 | 109.1 |
|  | II | 106.9 | 122.0 | 114.1 | 112.9 | 100.1 | 105.6 | 116.6 | 109.6 |
|  | III | 107.8 | 123.4 | 114.5 | 114.1 | 100.8 | 105.8 | 117.0 | 109.9 |
|  | IV | 108.1 | 124.6 | 115.3 | 115.9 | 101.9 | 107.2 | 115.3 | 110.1 |
| ANNUAL |  | 107.2 | 122.5 | 114.3 | 113.8 | 100.7 | 106.1 | 115.9 | 109.7 |
| 1998 | I | 109.3 | 127.1 | 116.3 | 117.2 | 102.9 | 107.3 | 115.8 | 110.4 |
|  | II | 109.5 | 127.9 | 116.8 | 118.8 | 103.9 | 108.5 | 114.1 | 110.5 |
|  | III | 110.4 | 129.3 | 117.1 | 120.6 | 105.1 | 109.3 | 113.1 | 110.7 |
|  | IV | 111.5 | 131.6 | 118.0 | 122.0 | 105.9 | 109.4 | 112.7 | 110.6 |
| ANNUAL |  | 110.2 | 129.0 | 117.1 | 119.7 | 104.5 | 108.6 | 113.9 | 110.5 |
| 1999 | I | 112.2 | 132.9 | 118.4 | 123.3 | 106.6 | 109.8 | 113.1 | 111.0 |
|  | II | 112.4 | 133.5 | 118.7 | 124.7 | 106.9 | 111.0 | 112.2 | 111.4 |
|  | III | r113.8 | r135.6 | 119.2 | 126.2 | 107.5 | r110.9 | r112.8 | 111.6 |

Percent change from previous quarter at annual rate(5)

| 1997 | I | 0.9 | 5.5 | 4.5 | 3.6 | 1.2 | 2.7 | 2.2 | 2.5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 3.3 | 6.2 | 2.8 | 2.6 | 1.5 | -0.6 | 5.7 | 1.7 |
|  | III | 3.3 | 4.6 | 1.3 | 4.4 | 2.6 | 1.0 | 1.3 | 1.1 |
|  | IV | 1.2 | 4.1 | 2.9 | 6.4 | 4.5 | 5.1 | -5.7 | 0.8 |
|  | ANNUAL | 2.0 | 5.3 | 3.3 | 3.6 | 1.4 | 1.6 | 1.9 | 1.7 |
| 1998 | I | 4.4 | 8.3 | 3.7 | 4.8 | 4.1 | 0.4 | 1.8 | 0.9 |
|  | II | 0.9 | 2.4 | 1.4 | 5.6 | 3.9 | 4.6 | -5.8 | 0.5 |
|  | III | 3.1 | 4.4 | 1.2 | 6.2 | 4.7 | 3.0 | -3.2 | 0.6 |
|  | IV | 4.1 | 7.3 | 3.1 | 4.6 | 2.9 | 0.5 | -1.6 | -0.3 |
|  | ANNUAL | 2.8 | 5.2 | 2.4 | 5.2 | 3.8 | 2.4 | -1.8 | 0.8 |
| 1999 | I | 2.7 | 4.0 | 1.3 | 4.2 | 2.8 | 1.4 | 1.5 | 1.5 |
|  | II | 0.6 | 1.8 | 1.3 | 4.8 | 1.2 | 4.2 | -3.1 | 1.4 |
|  | III | r4.9 | r6. 6 | r1. 6 | r4.7 | r2.1 | r-0.2 | r2.3 | 0.7 |
| Percent change from corresponding quarter of previous year |  |  |  |  |  |  |  |  |  |
| 1997 | I | 1.8 | 5.4 | 3.6 | 3.5 | 0.7 | 1.7 | 1.8 | 1.7 |
|  | II | 1.5 | 5.1 | 3.5 | 3.1 | 1.0 | 1.6 | 2.2 | 1.8 |
|  | III | 2.3 | 5.5 | 3.1 | 3.5 | 1.4 | 1.1 | 2.9 | 1.8 |
|  | IV | 2.2 | 5.1 | 2.9 | 4.2 | 2.4 | 2.0 | 0.8 | 1.5 |
|  | ANNUAL | 2.0 | 5.3 | 3.3 | 3.6 | 1.4 | 1.6 | 1.9 | 1.7 |
| 1998 | I | 3.0 | 5.8 | 2.7 | 4.5 | 3.2 | 1.5 | 0.7 | 1.2 |
|  | II | 2.4 | 4.8 | 2.3 | 5.3 | 3.8 | 2.8 | -2.2 | 0.9 |
|  | III | 2.4 | 4.8 | 2.3 | 5.7 | 4.3 | 3.3 | -3.3 | 0.7 |
|  | IV | 3.1 | 5.6 | 2.4 | 5.3 | 3.9 | 2.1 | -2.3 | 0.5 |
|  | ANNUAL | 2.8 | 5.2 | 2.4 | 5.2 | 3.8 | 2.4 | -1.8 | 0.8 |
| 1999 | I | 2.7 | 4.5 | 1.7 | 5.1 | 3.6 | 2.4 | -2.3 | 0.6 |
|  | II | 2.6 | 4.4 | 1.7 | 4.9 | 2.9 | 2.3 | -1.6 | 0.8 |
|  | III | r3.1 | r4.9 | 1.8 | 4.6 | 2.3 | r1. 5 | r-0.3 | 0.8 |

See footnotes following Table 6.
December 7, 1999
r=revised

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


Percent change from previous quarter at annual rate(5)

| 1997 | I | r4.0 | r7. 1 | 3.0 | 5.5 | 3.0 | r1.4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | r5. 5 | r7.4 | 1.8 | 2.9 | 1.8 | r-2.4 |
|  | III | 8.4 | r7. 8 | -0.6 | 3.6 | 1.8 | r-4.5 |
|  | IV | r3.9 | r7. 4 | 3.3 | 6.8 | 4.9 | r2.7 |
|  | ANNUAL | r5.0 | r6. 9 | 1.8 | 3.7 | 1.5 | r-1.3 |
| 1998 | I | r2. 4 | r3. 3 | 0.9 | 5.4 | 4.7 | r3.0 |
|  | II | r3.9 | r2. 6 | -1.2 | 5.4 | 3.8 | r1. 5 |
|  | III | r7. 8 | r3.4 | -4.1 | 6.9 | 5.4 | r-0.9 |
|  | IV | r6.1 | r5.6 | -0.5 | 2.9 | 1.2 | r-3.1 |
|  | ANNUAL | r4.8 | r4.9 | 0.1 | 5.3 | 3.9 | r0. 5 |
| 1999 | I | r7. 3 | r2. 5 | -4.5 | 4.5 | 3.1 | r-2.7 |
|  | II | r5. 5 | r4.9 | -0.5 | 5.8 | 2.2 | r0.3 |
|  | III | r3.9 | r4.2 | r0. 3 | r6. 3 | r3.6 | r2.3 |

Percent change from corresponding quarter of previous year

| 1997 | I | r4.4 | r6. 9 | 2.4 | 3.1 | 0.3 | r-1.2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | r4.8 | r6. 5 | 1.6 | 3.3 | 1.2 | r-1.4 |
|  | III | r5.4 | r6.7 | 1.2 | 3.7 | 1.6 | r-1.6 |
|  | IV | r5.5 | r7.4 | 1.9 | 4.7 | 2.9 | r-0.7 |
|  | ANNUAL | r5.0 | r6.9 | 1.8 | 3.7 | 1.5 | r-1.3 |
| 1998 | I | r5. 0 | r6. 5 | 1.4 | 4.7 | 3.3 | r-0.4 |
|  | II | r4.6 | r5.3 | 0.6 | 5.3 | 3.8 | r0. 6 |
|  | III | r4.5 | r4.2 | -0.3 | 6.1 | 4.7 | r1.6 |
|  | IV | r5.0 | r3.7 | -1.2 | 5.1 | 3.8 | r0.1 |
|  | ANNUAL | r4. 8 | r4.9 | 0.1 | 5.3 | 3.9 | r0. 5 |
| 1999 | I | r6. 3 | r3. 5 | -2.6 | 4.9 | 3.4 | r-1.3 |
|  | II | r6.7 | r4.1 | -2.4 | 5.0 | 3.0 | r-1.6 |
|  | III | r5.7 | r4.3 | r-1.3 | r4.9 | 2.5 | r-0.8 |

See footnotes following Table 6.
December 7, 1999
r=revised
Source: Bureau of Labor Statistics

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


Percent change from previous quarter at annual rate(5)

| 1997 | I | r4.8 | r10.9 | 5.8 | 5.6 | 3.1 | r0.7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | r9.9 | r12.8 | 2.6 | 2.8 | 1.6 | r-6.5 |
|  | III | r10.7 | r11.4 | 0.6 | 2.8 | 1.1 | r-7.2 |
|  | IV | 7.4 | r10.6 | 3.0 | 8.3 | 6.3 | 0.8 |
|  | ANNUAL | r7.1 | r10.2 | 2.9 | 3.3 | 1.1 | r-3.5 |
| 1998 | I | r4.3 | r6. 5 | 2.2 | 5.5 | 4.8 | r1.2 |
|  | II | r7.1 | r5.7 | -1.4 | 5.5 | 3.8 | r-1.5 |
|  | III | r13.2 | r9.0 | -3.7 | 7.2 | 5.7 | $r-5.3$ |
|  | IV | r9.6 | r9.6 | 0.0 | 2.2 | 0.6 | r-6.8 |
|  | ANNUAL | r7. 9 | r8.6 | 0.6 | 5.5 | 4.1 | r-2.3 |
| 1999 | I | r9.7 | r3.1 | -6.0 | 4.6 | 3.2 | r-4.7 |
|  | II | r10.5 | r9.3 | -1.1 | 6.5 | 2.8 | r-3.7 |
|  | III | r4.5 | r8.4 | r3.8 | r5.9 | r3.3 | r1.4 |


| 1997 | I | r5.9 | r9.9 | 3.8 | 2.3 | -0.4 | r-3.3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | r6. 6 | r9.4 | 2.6 | 2.9 | 0.7 | $r-3.5$ |
|  | III | r7. 5 | r10.0 | 2.3 | 3.2 | 1.1 | r-4.0 |
|  | IV | r8. 2 | r11.4 | 3.0 | 4.8 | 3.0 | r-3.1 |
|  | ANNUAL | r7.1 | r10.2 | 2.9 | 3.3 | 1.1 | $r-3.5$ |
| 1998 | I | r8.1 | r10.3 | 2.1 | 4.8 | 3.4 | r-3.0 |
|  | II | r7.4 | r8.5 | 1.1 | 5.5 | 4.0 | r-1.7 |
|  | III | r7.9 | r7.9 | 0.0 | 6.6 | 5.2 | r-1.2 |
|  | IV | r8. 5 | r7. 7 | -0.7 | 5.1 | 3.7 | r-3.2 |
|  | ANNUAL | r7.9 | r8.6 | 0.6 | 5.5 | 4.1 | r-2.3 |
| 1999 | I | r9.9 | r6. 8 | -2.8 | 4.8 | 3.3 | r-4.6 |
|  | II | r10.7 | r7. 7 | -2.7 | 5.1 | 3.1 | r-5.1 |
|  | III | r8.6 | r7.6 | r-0.9 | r4.8 | r2. 5 | $r-3.5$ |

See footnotes following Table 6. December 7, 1999
r=revised
Source: Bureau of Labor Statistics

Table 5. Nondurable manufacturing sector: seasonally adjusted


Percent change from previous quarter at annual rate(5)

| 1997 | I | r3.9 | r3. 0 | -0.9 | 4.8 | 2.3 | r0. 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | r0.7 | r1.3 | 0.7 | 3.1 | 1.9 | r2.4 |
|  | III | r6.1 | r3. 5 | -2.4 | 4.6 | 2.9 | r-1.4 |
|  | IV | r-0.2 | 3.6 | 3.7 | 4.4 | 2.5 | r4.6 |
|  | ANNUAL | r3.1 | r3. 2 | 0.1 | 4.1 | 1.9 | r1.0 |
| 1998 | I | r0.3 | r-0.6 | -0.9 | 5.0 | 4.3 | r4.7 |
|  | II | r-0.3 | r-1.1 | -0.9 | 5.4 | 3.8 | r5.7 |
|  | III | r1. 5 | r-3.3 | -4.7 | 6.2 | 4.8 | r4.6 |
|  | IV | r1.8 | r0. 5 | -1.3 | 3.9 | 2.2 | r2.0 |
|  | ANNUAL | r1.1 | r0. 4 | -0.6 | 4.9 | 3.5 | r3. 8 |
| 1999 | I | r4.0 | r1. 8 | -2.1 | 4.6 | 3.2 | r0.6 |
|  | II | r-1.0 | r-0.8 | 0.3 | 4.9 | 1.3 | r5.9 |
|  | III | r3. 8 | -1.2 | r-4.8 | 6.3 | 3.6 | r2.4 |

Percent change from corresponding quarter of previous year

| 1997 | I | r3.2 | r3. 6 | 0.4 | 4.0 | 1.2 | r0. 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | r3.1 | r3.3 | 0.2 | 3.9 | 1.7 | 0.7 |
|  | III | r3.4 | r2.9 | -0. 5 | 4.2 | 2.1 | r0.8 |
|  | IV | r2. 6 | r2.9 | 0.2 | 4.2 | 2.4 | r1. 6 |
|  | ANNUAL | r3.1 | r3. 2 | 0.1 | 4.1 | 1.9 | r1.0 |
| 1998 | I | r1. 7 | r1.9 | 0.2 | 4.3 | 2.9 | r2. 6 |
|  | II | r1. 5 | r1.3 | -0.1 | 4.9 | 3.4 | r3.4 |
|  | III | r0.3 | r-0.4 | -0.7 | 5.3 | 3.9 | r4.9 |
|  | IV | r0. 8 | r-1.1 | -2.0 | 5.1 | 3.8 | r4.3 |
|  | ANNUAL | r1.1 | r0. 4 | -0.6 | 4.9 | 3.5 | r3.8 |
| 1999 | I | r1. 8 | r-0.5 | -2.3 | 5.0 | 3.5 | r3.2 |
|  | II | r1.6 | r-0.4 | -2.0 | 4.9 | 2.9 | r3.3 |
|  | III | r2.1 | r0.1 | r-2.0 | 4.9 | 2.6 | r2.7 |

See footnotes following Table 6. December 7, 1999
r=revised
Source: Bureau of Labor Statistics

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

|  | Year <br> and <br> quarter | Output per allemployee hour | Output | Employee hours | Hourly compensation (1) | Real <br> hourly <br> compen- <br> sation(2) | Unit labor costs | Unit <br> non- <br> labor <br> costs (6) | Total unit costs (7) | Unit <br> pro- <br> fits <br> (8) | Implicit price deflator (4) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Indexes 1992=100 |  |  |  |  |  |  |  |  |  |  |  |
| 1997 | I | 110.1 | 125.5 | 114.0 | 111.2 | 98.9 | 101.0 | 99.8 | 100.7 | 155.6 | 105.3 |
|  | II | 110.7 | 127.5 | 115.1 | 112.0 | 99.3 | 101.1 | 99.9 | 100.8 | 156.2 | 105.4 |
|  | III | 112.4 | 130.2 | 115.8 | 113.3 | 100.0 | 100.7 | 99.2 | 100.3 | 161.1 | 105.4 |
|  | IV | 113.2 | 132.3 | 116.9 | 115.1 | 101.2 | 101.6 | 98.6 | 100.8 | 155.3 | 105.3 |
|  | ANNUAL | 111.7 | 128.9 | 115.4 | 113.0 | 100.0 | 101.1 | 99.4 | 100.6 | 157.1 | 105.3 |
| 1998 | I | 114.2 | 134.6 | 117.8 | 116.4 | 102.2 | 101.9 | 98.0 | 100.8 | 153.7 | 105.2 |
|  | II | 115.3 | 136.3 | 118.1 | 118.0 | 103.2 | 102.3 | 98.2 | 101.2 | 150.1 | 105.2 |
|  | III | 117.0 | 138.7 | 118.6 | 119.8 | 104.4 | 102.4 | 98.0 | 101.2 | 152.6 | 105.5 |
|  | IV | 117.9 | 140.6 | 119.3 | 121.3 | 105.3 | 102.9 | 99.2 | 101.8 | 145.3 | 105.5 |
|  | ANNUAL | 116.2 | 137.5 | 118.4 | 119.0 | 103.9 | 102.4 | 98.4 | 101.3 | 150.4 | 105.3 |
| 1999 | I | 119.1 | 142.6 | 119.7 | 122.7 | 106.1 | 103.0 | 98.4 | 101.7 | 149.5 | 105.7 |
|  | II | 120.0 | 144.1 | 120.0 | 124.2 | 106.5 | 103.4 | 98.8 | 102.1 | 148.5 | 106.0 |
|  | III | 121.4 | 146.6 | 120.7 | 125.6 | 107.0 | 103.4 | 99.5 | 102.3 | 145.4 | 105.9 |

Percent change from previous quarter at annual rate(5)

| 1997 | I | 1.8 | 6.1 | 4.3 | 3.6 | 1.2 | 1.8 | -0.3 | 1.2 | 4.6 | 1.6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 2.3 | 6.4 | 4.0 | 2.7 | 1.5 | 0.3 | 0.5 | 0.4 | 1.6 | 0.5 |
|  | III | 6.3 | 8.9 | 2.5 | 4.7 | 2.9 | -1.5 | -2.6 | -1.8 | 13.0 | -0.1 |
|  | IV | 2.8 | 6.4 | 3.5 | 6.5 | 4.6 | 3.6 | -2.5 | 1.9 | -13.6 | -0.2 |
|  | ANNUAL | 3.0 | 6.6 | 3.5 | 3.6 | 1.4 | 0.6 | -0.7 | 0.2 | 3.7 | 0.6 |
| 1998 | I | 3.7 | 7.1 | 3.3 | 4.8 | 4.1 | 1.1 | -2.6 | 0.0 | -4.1 | -0. 5 |
|  | II | 3.9 | 5.1 | 1.2 | 5.7 | 4.1 | 1.7 | 0.9 | 1.5 | -9.1 | 0.2 |
|  | III | 5.9 | 7.5 | 1.5 | 6.3 | 4.8 | 0.4 | -0.7 | 0.1 | 6.8 | 0.9 |
|  | IV | 3.2 | 5.6 | 2.3 | 4.9 | 3.3 | 1.7 | 4.9 | 2.6 | -17.8 | -0.1 |
|  | ANNUAL | 4.0 | 6.7 | 2.6 | 5.3 | 3.9 | 1.3 | -1.0 | 0.6 | -4.3 | 0.0 |
| 1999 | I | 4.1 | 5.7 | 1.6 | 4.7 | 3.3 | 0.6 | -3.4 | -0. 5 | 12.0 | 0.8 |
|  | II | 3.2 | 4.2 | 1.0 | 4.8 | 1.3 | 1.6 | 1.8 | 1.6 | -2.6 | 1.1 |
|  | III | 4.7 | 7.1 | 2.3 | 4.6 | 2.0 | -0.1 | 3.0 | 0.7 | -8.0 | -0.3 |

Percent change from corresponding quarter of previous year

| 1997 | I | 2.6 | 6.2 | 3.5 | 3.5 | 0.7 | 0.8 | -0.6 | 0.4 | 4.0 | 0.8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 2.5 | 6.2 | 3.5 | 3.1 | 0.9 | 0.6 | -0.2 | 0.4 | 3.4 | 0.7 |
|  | III | 3.6 | 7.2 | 3.5 | 3.5 | 1.4 | -0.1 | -0.6 | -0.3 | 6.4 | 0.6 |
|  | IV | 3.3 | 7.0 | 3.6 | 4.3 | 2.5 | 1.0 | -1.2 | 0.4 | 0.9 | 0.5 |
|  | ANNUAL | 3.0 | 6.6 | 3.5 | 3.6 | 1.4 | 0.6 | -0.7 | 0.2 | 3.7 | 0.6 |
| 1998 | I | 3.8 | 7.2 | 3.3 | 4.6 | 3.3 | 0.8 | -1.8 | 0.1 | -1.2 | -0.1 |
|  | II | 4.1 | 6.9 | 2.6 | 5.4 | 3.9 | 1.2 | -1.7 | 0.4 | -3.9 | -0.1 |
|  | III | 4.0 | 6.5 | 2.4 | 5.8 | 4.4 | 1.7 | -1.2 | 0.9 | -5.3 | 0.1 |
|  | IV | 4.1 | 6.3 | 2.1 | 5.4 | 4.1 | 1.2 | 0.6 | 1.1 | -6.5 | 0.1 |
|  | ANNUAL | 4.0 | 6.7 | 2.6 | 5.3 | 3.9 | 1.3 | -1.0 | 0.6 | -4.3 | 0.0 |
| 1999 | I | 4.3 | 6.0 | 1.7 | 5.4 | 3.9 | 1.1 | 0.4 | 0.9 | -2.8 | 0.5 |
|  | II | 4.1 | 5.7 | 1.6 | 5.2 | 3.2 | 1.1 | 0.6 | 0.9 | -1.1 | 0.7 |
|  | III | 3.8 | 5.7 | 1.8 | 4.8 | 2.4 | 0.9 | 1.5 | 1.1 | -4.7 | 0.4 |

See footnotes following Table 6.
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Appendix table 1. Manufacturing sector: Productivity, hourly compensation, and unit labor costs, seasonally adjusted

|  | Year <br> and <br> quarter | Output per hour of all persons | Output | Hours <br> of all <br> persons | Compensation per hour (1) | Real compensation per hour (2) | Unit labor costs |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Indexes 1992=100 |  |  |  |  |  |  |  |
| 1992 | I | 98.3 | 97.8 | 99.5 | 98.4 | 99.4 | 100.1 |
|  | II | 99.6 | 99.7 | 100.1 | 99.6 | 99.9 | 100.0 |
|  | III | 100.8 | 100.7 | 99.9 | 100.7 | 100.4 | 99.9 |
|  | IV | 101.3 | 101.7 | 100.4 | 101.2 | 100.1 | 99.9 |
| 1993 | ANNUAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
|  | I | 101.9 | 102.7 | 100.8 | 101.5 | 99.9 | 99.6 |
|  | II | 102.1 | 103.3 | 101.2 | 102.3 | 99.9 | 100.3 |
|  | III | 101.8 | 103.4 | 101.5 | 103.1 | 100.2 | 101.2 |
|  | IV | 102.9 | 105.0 | 102.0 | 104.0 | 100.4 | 101.1 |
| 1994 | ANNUAL | 102.2 | 103.6 | 101.4 | 102.7 | 100.2 | 100.5 |
|  | I | 103.8 | 106.1 | 102.2 | 105.1 | 101.1 | 101.2 |
|  | II | 105.2 | 108.4 | 103.0 | 105.2 | 100.7 | 100.0 |
|  | III | 105.8 | 110.0 | 104.0 | 105.8 | 100.5 | 100.0 |
|  | IV | 106.5 | 111.8 | 105.1 | 106.5 | 100.6 | 100.0 |
| 1995 | ANNUAL | 105.3 | 109.1 | 103.6 | 105.6 | 100.8 | 100.3 |
|  | I | 107.8 | 113.3 | 105.0 | 106.8 | 100.2 | 99.1 |
|  | II | 109.0 | 113.4 | 104.0 | 107.8 | 100.3 | 98.9 |
|  | III | 110.0 | 114.0 | 103.7 | 108.4 | 100.3 | 98.6 |
|  | IV | 110.9 | 114.7 | 103.4 | 108.6 | 100.0 | 97.9 |
| 1996 | ANNUAL | 109.4 | 113.8 | 104.0 | 107.9 | 100.2 | 98.6 |
|  | I | 112.0 | 114.8 | 102.6 | 108.5 | 99.2 | 96.9 |
|  | II | 113.0 | 117.3 | 103.8 | 109.0 | 98.7 | 96.4 |
|  | III | 114.7 | 119.3 | 104.1 | 109.6 | 98.8 | 95.6 |
|  | IV | 115.7 | 120.6 | 104.2 | 110.3 | 98.7 | 95.4 |
|  | ANNUAL | 113.8 | 118.0 | 103.7 | 109.3 | 98.9 | 96.0 |

Percent change from previous quarter at annual rate(5)

| 1992 | I | 5.9 | 3.3 | -2.5 | 4.9 | 2.5 | -1.0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 5.5 | 8.1 | 2.4 | 5.0 | 2.1 | -0.5 |
|  | III | 4.8 | 4.0 | -0.8 | 4.3 | 1.8 | -0.5 |
|  | IV | 2.2 | 4.0 | 1.8 | 2.2 | -1.1 | 0.1 |
|  | ANNUAL | 5.1 | 4.7 | -0.4 | 4.6 | 2.0 | -0.4 |
| 1993 | I | 2.5 | 4.1 | 1.5 | 1.1 | -0.8 | -1.4 |
|  | II | 0.5 | 2.1 | 1.6 | 3.2 | 0.2 | 2.8 |
|  | III | -0.9 | 0.4 | 1.3 | 3.0 | 1.1 | 3.9 |
|  | IV | 4.2 | 6.4 | 2.1 | 3.7 | 0.9 | -0.6 |
|  | ANNUAL | 2.2 | 3.6 | 1.4 | 2.7 | 0.2 | 0.5 |
| 1994 | I | 3.5 | 4.3 | 0.8 | 4.1 | 2.8 | 0.6 |
|  | II | 5.7 | 9.1 | 3.2 | 0.5 | -1.7 | -4.9 |
|  | III | 2.1 | 5.8 | 3.7 | 2.3 | -0.9 | 0.2 |
|  | IV | 2.7 | 7.0 | 4.2 | 2.7 | 0.4 | 0.0 |
|  | ANNUAL | 3.1 | 5.3 | 2.2 | 2.8 | 0.6 | -0.2 |
| 1995 | I | 5.2 | 5.2 | 0.0 | 1.2 | -1.6 | -3.7 |
|  | II | 4.5 | 0.4 | -4.0 | 3.5 | 0.4 | -1.0 |
|  | III | 3.6 | 2.3 | -1.3 | 2.3 | 0.2 | -1.2 |
|  | IV | 3.4 | 2.5 | -0.8 | 0.7 | -1.3 | -2.6 |
|  | ANNUAL | 3.9 | 4.3 | 0.4 | 2.1 | -0. 5 | -1.7 |
| 1996 | I | 3.9 | 0.4 | -3.4 | -0.4 | -3.2 | -4.1 |
|  | II | 3.9 | 9.0 | 4.9 | 1.9 | -1.7 | -1.9 |
|  | III | 5.9 | 7.1 | 1.1 | 2.2 | 0.2 | -3.5 |
|  | IV | 3.8 | 4.3 | 0.5 | 2.8 | -0.2 | -0.9 |
|  | ANNUAL | 4.1 | 3.7 | -0.4 | 1.3 | -1.3 | -2.6 |

$\qquad$

Percent change from corresponding quarter of previous year

| 1992 | I | 5.2 | 3.9 | -1.2 | 5.0 | 2.5 | -0.1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 5.7 | 5.5 | -0.2 | 4.9 | 2.2 | -0.8 |
|  | III | 5.0 | 4.4 | -0. 5 | 4.6 | 1.9 | -0.4 |
|  | IV | 4.6 | 4.8 | 0.2 | 4.1 | 1.3 | -0. 5 |
|  | ANNUAL | 5.1 | 4.7 | -0.4 | 4.6 | 2.0 | -0.4 |
| 1993 | I | 3.7 | 5.0 | 1.3 | 3.1 | 0.5 | -0.6 |
|  | II | 2.5 | 3.5 | 1.0 | 2.7 | 0.0 | 0.2 |
|  | III | 1.0 | 2.6 | 1.6 | 2.4 | -0.2 | 1.3 |
|  | IV | 1.6 | 3.2 | 1.6 | 2.7 | 0.3 | 1.2 |
|  | ANNUAL | 2.2 | 3.6 | 1.4 | 2.7 | 0.2 | 0.5 |
| 1994 | I | 1.8 | 3.3 | 1.4 | 3.5 | 1.2 | 1.7 |
|  | II | 3.1 | 5.0 | 1.8 | 2.8 | 0.8 | -0.3 |
|  | III | 3.9 | 6.4 | 2.4 | 2.6 | 0.3 | -1.2 |
|  | IV | 3.5 | 6.5 | 3.0 | 2.4 | 0.2 | -1.0 |
|  | ANNUAL | 3.1 | 5.3 | 2.2 | 2.8 | 0.6 | -0.2 |
| 1995 | I | 3.9 | 6.7 | 2.7 | 1.7 | -0.9 | -2.1 |
|  | II | 3.6 | 4.5 | 0.9 | 2.4 | -0.4 | -1.1 |
|  | III | 4.0 | 3.7 | -0.3 | 2.4 | -0.2 | -1.5 |
|  | IV | 4.2 | 2.6 | -1. 5 | 1.9 | -0.6 | -2.1 |
|  | ANNUAL | 3.9 | 4.3 | 0.4 | 2.1 | -0. 5 | -1.7 |
| 1996 | I | 3.8 | 1.4 | -2.4 | 1.5 | -1.0 | -2.2 |
|  | II | 3.7 | 3.5 | -0.2 | 1.1 | -1.5 | -2.5 |
|  | III | 4.3 | 4.7 | 0.4 | 1.1 | -1.5 | -3.0 |
|  | IV | 4.4 | 5.2 | 0.8 | 1.6 | -1.3 | -2.6 |
|  | ANNUAL | 4.1 | 3.7 | -0.4 | 1.3 | $-1.3$ | -2.6 |

Appendix table 2. Durable manufacturing sector: Productivity, hourly compensation, and unit labor costs, seasonally adjusted


Percent change from previous quarter at annual rate(5)

| 1992 | I | 5.2 | 2.3 | -2.8 | 5.1 | 2.7 | -0.1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 8.0 | 9.6 | 1.4 | 5.2 | 2.3 | -2.6 |
|  | III | 4.0 | 3.2 | -0.8 | 4.5 | 2.0 | 0.5 |
|  | IV | 5.0 | 6.9 | 1.8 | 2.2 | -1.1 | -2.7 |
|  | ANNUAL | 6.0 | 4.7 | -1.3 | 5.0 | 2.3 | -1.0 |
| 1993 | I | 5.3 | 7.1 | 1.7 | 1.5 | -0.5 | -3.7 |
|  | II | 3.7 | 4.7 | 1.0 | 3.4 | 0.4 | -0.3 |
|  | III | -2.6 | 0.4 | 3.0 | 2.6 | 0.7 | 5.3 |
|  | IV | 9.6 | 12.9 | 3.0 | 4.3 | 1.5 | -4.9 |
|  | ANNUAL | 4.2 | 5.7 | 1.5 | 2.9 | 0.3 | -1.2 |
| 1994 | I | 4.3 | 6.4 | 2.0 | 3.7 | 2.3 | -0.6 |
|  | II | 7.4 | 11.5 | 3.8 | 0.1 | -2.1 | -6.8 |
|  | III | 4.6 | 9.8 | 4.9 | 2.0 | -1.1 | -2.5 |
|  | IV | 2.6 | 8.2 | 5.4 | 2.7 | 0.5 | 0.1 |
|  | ANNUAL | 4.9 | 8.2 | 3.2 | 2.7 | 0.5 | -2.1 |
| 1995 | I | 7.7 | 8.1 | 0.4 | 1.3 | -1.6 | -5.9 |
|  | II | 3.7 | 1.0 | -2.6 | 3.2 | 0.1 | -0.5 |
|  | III | 4.8 | 4.8 | 0.0 | 1.6 | -0.5 | -3.1 |
|  | IV | 5.4 | 6.2 | 0.8 | -1.4 | -3.4 | -6.4 |
|  | ANNUAL | 5.1 | 6.6 | 1.5 | 1.8 | -0.9 | -3.1 |
| 1996 | I | 6.1 | 3.4 | -2.6 | -2.8 | -5.6 | -8.4 |
|  | II | 6.9 | 14.8 | 7.4 | 0.5 | -3.0 | -6.0 |
|  | III | 7.0 | 8.8 | 1.7 | 1.5 | -0.5 | -5.1 |
|  | IV | 4.8 | 5.3 | 0.5 | 1.8 | -1.2 | -2.8 |
|  | ANNUAL | 5.9 | 6.8 | 0.9 | -0.2 | -2.8 | -5.7 |

$\qquad$

Percent change from corresponding quarter of previous year

| 1992 | I | 5.7 | 3.5 | -2.1 | 5.4 | 2.9 | -0.3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 7.1 | 5.5 | -1.4 | 5.4 | 2.7 | -1.6 |
|  | III | 5.7 | 4.2 | -1.4 | 4.9 | 2.2 | -0.8 |
|  | IV | 5.6 | 5.4 | -0.1 | 4.2 | 1.4 | -1.3 |
|  | ANNUAL | 6.0 | 4.7 | -1.3 | 5.0 | 2.3 | -1.0 |
| 1993 | I | 5.6 | 6.7 | 1.0 | 3.3 | 0.7 | -2.1 |
|  | II | 4.5 | 5.4 | 0.9 | 2.9 | 0.2 | -1.6 |
|  | III | 2.8 | 4.7 | 1.8 | 2.4 | -0.1 | -0.4 |
|  | IV | 3.9 | 6.2 | 2.1 | 2.9 | 0.5 | -1.0 |
|  | ANNUAL | 4.2 | 5.7 | 1.5 | 2.9 | 0.3 | -1.2 |
| 1994 | I | 3.7 | 6.0 | 2.2 | 3.5 | 1.2 | -0.2 |
|  | II | 4.6 | 7.7 | 2.9 | 2.6 | 0.6 | -1.8 |
|  | III | 6.5 | 10.1 | 3.4 | 2.5 | 0.1 | -3.7 |
|  | IV | 4.7 | 8.9 | 4.0 | 2.1 | -0.1 | -2.5 |
|  | ANNUAL | 4.9 | 8.2 | 3.2 | 2.7 | 0.5 | -2.1 |
| 1995 | I | 5.6 | 9.4 | 3.6 | 1.5 | -1.1 | -3.8 |
|  | II | 4.7 | 6.7 | 2.0 | 2.3 | -0.5 | -2.2 |
|  | III | 4.7 | 5.5 | 0.7 | 2.2 | -0.4 | -2.4 |
|  | IV | 5.4 | 5.0 | -0.4 | 1.2 | -1.3 | -4.0 |
|  | ANNUAL | 5.1 | 6.6 | 1.5 | 1.8 | -0.9 | -3.1 |
| 1996 | I | 5.0 | 3.8 | -1.1 | 0.1 | -2.4 | -4.6 |
|  | II | 5.8 | 7.2 | 1.3 | -0.5 | -3.1 | -6.0 |
|  | III | 6.4 | 8.2 | 1.8 | -0.5 | -3.1 | -6.5 |
|  | IV | 6.2 | 8.0 | 1.7 | 0.3 | -2.6 | -5.6 |
|  | ANNUAL | 5.9 | 6.8 | 0.9 | -0.2 | -2.8 | -5.7 |

Appendix table 3. Nondurable manufacturing sector: Productivity, hourly compensation, and unit labor costs, seasonally adjusted

|  | Year <br> and <br> quarter | Output per hour of all persons | Output | Hours <br> of all <br> persons | Compensation per hour (1) | Real <br> compensa- <br> tion per <br> hour (2) | Unit labor costs |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Indexes 1992=100 |  |  |  |  |  |  |  |
| 1992 | I | 98.7 | 98.0 | 99.3 | 98.5 | 99.5 | 99.8 |
|  | II | 99.5 | 99.7 | 100.2 | 99.7 | 100.0 | 100.2 |
|  | III | 101.0 | 101.0 | 100.0 | 100.6 | 100.3 | 99.7 |
|  | IV | 100.8 | 101.3 | 100.5 | 101.2 | 100.1 | 100.4 |
|  | ANNUAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1993 | I | 100.7 | 101.6 | 100.8 | 101.3 | 99.7 | 100.6 |
|  | II | 100.0 | 101.5 | 101.5 | 102.1 | 99.7 | 102.1 |
|  | III | 100.4 | 101.7 | 101.2 | 102.9 | 100.0 | 102.5 |
|  | IV | 100.2 | 101.7 | 101.5 | 103.6 | 100.0 | 103.3 |
|  | ANNUAL | 100.4 | 101.6 | 101.2 | 102.5 | 99.9 | 102.1 |
| 1994 | I | 101.1 | 102.4 | 101.3 | 104.7 | 100.8 | 103.6 |
|  | II | 102.2 | 104.1 | 101.8 | 105.0 | 100.5 | 102.8 |
|  | III | 102.1 | 104.5 | 102.3 | 105.6 | 100.3 | 103.5 |
|  | IV | 102.8 | 105.9 | 103.0 | 106.3 | 100.4 | 103.3 |
|  | ANNUAL | 102.0 | 104.2 | 102.1 | 105.4 | 100.6 | 103.3 |
| 1995 | I | 103.4 | 106.3 | 102.8 | 106.5 | 99.9 | 103.1 |
|  | II | 104.8 | 106.2 | 101.3 | 107.5 | 100.0 | 102.6 |
|  | III | 105.5 | 106.1 | 100.6 | 108.4 | 100.3 | 102.7 |
|  | IV | 105.9 | 105.7 | 99.8 | 109.4 | 100.7 | 103.3 |
|  | ANNUAL | 104.9 | 106.1 | 101.1 | 107.9 | 100.3 | 102.9 |
| 1996 | I | 106.4 | 105.0 | 98.7 | 110.3 | 100.9 | 103.7 |
|  | II | 106.7 | 105.6 | 99.0 | 111.3 | 100.9 | 104.3 |
|  | III | 108.0 | 107.0 | 99.1 | 112.2 | 101.2 | 103.9 |
|  | IV | 108.8 | 108.0 | 99.2 | 113.4 | 101.5 | 104.3 |
|  | ANNUAL | 107.5 | 106.4 | 99.0 | 111.8 | 101.2 | 104.1 |

Percent change from previous quarter at annual rate(5)

| 1992 | I | 7.5 | 5.2 | -2.1 | 4.6 | 2.2 | -2.7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 3.2 | 7.1 | 3.8 | 4.9 | 2.0 | 1.7 |
|  | III | 6.1 | 5.4 | -0.6 | 3.9 | 1.5 | -2.0 |
|  | IV | -0.6 | 1.3 | 1.9 | 2.4 | -0.9 | 2.9 |
|  | ANNUAL | 4.3 | 5.1 | 0.7 | 4.3 | 1.7 | 0.0 |
| 1993 | I | -0.3 | 1.0 | 1.3 | 0.5 | -1.5 | 0.8 |
|  | II | -2.9 | -0. 5 | 2.5 | 3.1 | 0.0 | 6.1 |
|  | III | 1.7 | 0.8 | -0.9 | 3.2 | 1.3 | 1.4 |
|  | IV | -0.8 | 0.1 | 0.9 | 2.6 | -0.1 | 3.4 |
|  | ANNUAL | 0.4 | 1.6 | 1.2 | 2.5 | -0.1 | 2.1 |
| 1994 | I | 3.5 | 2.7 | -0.8 | 4.5 | 3.2 | 1.0 |
|  | II | 4.3 | 6.8 | 2.4 | 1.1 | -1.1 | -3.1 |
|  | III | -0.4 | 1.6 | 2.0 | 2.4 | -0.8 | 2.8 |
|  | IV | 3.0 | 5.7 | 2.6 | 2.4 | 0.2 | -0.5 |
|  | ANNUAL | 1.7 | 2.6 | 0.9 | 2.8 | 0.6 | 1.1 |
| 1995 | I | 2.2 | 1.6 | -0.6 | 1.1 | -1.8 | -1.1 |
|  | II | 5.6 | -0.5 | -5.8 | 3.6 | 0.5 | -1.9 |
|  | III | 2.5 | -0.5 | -3.0 | 3.2 | 1.1 | 0.7 |
|  | IV | 1.6 | -1.5 | -3.1 | 3.8 | 1.7 | 2.2 |
|  | ANNUAL | 2.8 | 1.8 | -1.0 | 2.4 | -0.3 | -0.4 |
| 1996 | I | 1.9 | -2.6 | -4.5 | 3.5 | 0.5 | 1.6 |
|  | II | 1.0 | 2.5 | 1.5 | 3.6 | -0.1 | 2.5 |
|  | III | 5.1 | 5.4 | 0.4 | 3.3 | 1.2 | -1.7 |
|  | IV | 3.0 | 3.6 | 0.6 | 4.4 | 1.3 | 1.4 |
|  | ANNUAL | 2.5 | 0.3 | -2.1 | 3.6 | 0.9 | 1.1 |

Percent change from corresponding quarter of previous year

| 1992 | I | 4.4 | 4.3 | -0.1 | 4.6 | 2.2 | 0.2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 4.3 | 5.9 | 1.5 | 4.5 | 1.8 | 0.1 |
|  | III | 4.6 | 5.3 | 0.6 | 4.4 | 1.7 | -0.3 |
|  | IV | 4.0 | 4.7 | 0.7 | 3.9 | 1.2 | -0.1 |
|  | ANNUAL | 4.3 | 5.1 | 0.7 | 4.3 | 1.7 | 0.0 |
| 1993 | I | 2.1 | 3.7 | 1.6 | 2.9 | 0.2 | 0.8 |
|  | II | 0.5 | 1.8 | 1.3 | 2.5 | -0.2 | 1.9 |
|  | III | -0.5 | 0.7 | 1.2 | 2.3 | -0.3 | 2.8 |
|  | IV | -0.6 | 0.3 | 0.9 | 2.3 | -0.1 | 2.9 |
|  | ANNUAL | 0.4 | 1.6 | 1.2 | 2.5 | -0.1 | 2.1 |
| 1994 | I | 0.3 | 0.8 | 0.4 | 3.3 | 1.1 | 3.0 |
|  | II | 2.2 | 2.5 | 0.4 | 2.8 | 0.8 | 0.7 |
|  | III | 1.6 | 2.8 | 1.1 | 2.6 | 0.3 | 1.0 |
|  | IV | 2.6 | 4.2 | 1.5 | 2.6 | 0.4 | 0.0 |
|  | ANNUAL | 1.7 | 2.6 | 0.9 | 2.8 | 0.6 | 1.1 |
| 1995 | I | 2.3 | 3.9 | 1.6 | 1.7 | -0.9 | -0. 5 |
|  | II | 2.6 | 2.1 | -0.5 | 2.4 | -0.5 | -0.2 |
|  | III | 3.3 | 1.5 | -1.7 | 2.6 | 0.0 | -0.7 |
|  | IV | 3.0 | -0.3 | -3.1 | 2.9 | 0.4 | 0.0 |
|  | ANNUAL | 2.8 | 1.8 | $-1.0$ | 2.4 | -0.3 | -0.4 |
| 1996 | I | 2.9 | -1.3 | -4.1 | 3.6 | 1.0 | 0.6 |
|  | II | 1.8 | -0.6 | -2.3 | 3.5 | 0.8 | 1.7 |
|  | III | 2.4 | 0.9 | -1.5 | 3.6 | 0.9 | 1.1 |
|  | IV | 2.7 | 2.2 | -0. 5 | 3.7 | 0.8 | 0.9 |
|  | ANNUAL | 2.5 | 0.3 | -2.1 | 3.6 | 0.9 | 1.1 |
| See | otnotes | Tab |  |  | Dec Sour | $\begin{aligned} & 999 \\ & u \text { of } \end{aligned}$ | isti |

SOURCES: Output data are from the Bureau of Economic Analysis and the Census Bureau of the U.S. Department of Commerce; the Bureau of Labor Statistics, U.S. Department of Labor; and the Federal Reserve Board. Compensation and hours data are from the Bureau of Labor Statistics 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 within 40 days of the close of the reference period; revisions appear 30 days later, and second revisions after an additional 60 days. In the business sector, the third publication (second revision) of a quarterly index of output per hour of all persons has differed from the initial value by between -1.9 and +2.6 index points approximately 95 percent of the time. This interval is based on the performance of this measure between the fourth quarter of 1995 and the second quarter of 1999.

## 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 consumer prices. The
change for recent quarters is based on the Consumer Price Index for all urban consumers (CPI-U). The trend from 1978-1998 is based on the Consumer Price Index research series (CPI-U-RS).
(3) Unit nonlabor payments include profits, capital consumption allowances, interest, rental income of persons, and indirect taxes.
(4) Current dollar output divided by the output index.
(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) Unit nonlabor costs include capital consumption allowances, interest, rental income of persons, and indirect taxes. For nonfinancial corporations, rental income of persons is zero by definition.
(7) Total unit costs are the sum of unit labor and nonlabor costs.
(8) Unit profits include corporate profits with inventory valuation and capital consumption adjustments.


[^0]:    See footnotes following Table 6.
    December 7, 1999
    r=revised
    Source: Bureau of Labor Statistics

