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PRODUCTIVITY AND COSTS Third Quarter 1997

The Bureau of Labor Statistics of the U.S. Department of Labor today reported preliminary productivity data--as measured by output per hour of all persons--for the third quarter of 1997. The preliminary seasonally-adjusted annual rates of productivity growth in the third quarter were:
4.4 percent in the business sector, and 4.5 percent in the nonfarm business sector.

In both the business and the nonfarm business sectors, productivity increases in the third quarter were the largest recorded since the fourth quarter of 1992.

In manufacturing, productivity increases in the third quarter were:

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9.8 percent in manufacturing,
13.3 percent in durable goods manufacturing, and
    5.7 percent in nondurable goods manufacturing.
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The 9.8 percent rise in manufacturing productivity was the largest recorded since the second quarter of 1982. Output and hours in manufacturing, which includes about 18 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.

Table A. Productivity and costs: Preliminary third-quarter 1997 measures (Seasonally adjusted annual rates)

| Sector | Productivity | Output | Hours | Hourly compensation | Real <br> hourly <br> compen- <br> sation | Unit labor costs |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent change from preceding quarter |  |  |  |  |  |
| Business | 4.4 | 4.2 | -0.2 | 4.6 | 2.5 | 0.2 |
| Nonfarm business | 4.5 | 4.3 | -0.1 | 4.2 | 2.1 | -0.3 |
| Manufacturing | 9.8 | 7.9 | -1.7 | 3.6 | 1.5 | -5.7 |
| Durable | 13.3 | 12.5 | -0.7 | 2.6 | 0.6 | -9.4 |
| Nondurable | 5.7 | 2.5 | -3.1 | 5.0 | 2.9 | -0.7 |
|  | Percent change from same quarter a year ago |  |  |  |  |  |
| Business | 2.6 | 4.8 | 2.2 | 3.9 | 1.6 | 1.2 |
| Nonfarm business | 2.5 | 4.8 | 2.3 | 3.8 | 1.6 | 1.3 |
| Manufacturing | 4.7 | 5.4 | 0.7 | 3.1 | 0.9 | -1.5 |
| Durable | 5.9 | 7.7 | 1.7 | 2.5 | 0.3 | -3.2 |
| Nondurable | 3.4 | 2.6 | -0.8 | 4.0 | 1.8 | 0.6 |

From the second quarter to the third quarter of 1997, business sector productivity increased at a 4.4 percent annual rate. Output rose 4.2 percent, while hours of all persons engaged in the sector fell 0.2 percent (seasonally adjusted annual rates). After revisions, second-quarter productivity in the business sector rose 2.4 percent, as output increased 3.9 percent, and hours of all persons rose 1.5 percent (tables $B$ and 1).

Hourly compensation increased 4.6 percent during the third quarter of 1997 after rising 3.3 percent in the second quarter. This measure includes wages and salaries, supplements, employer contributions to employee benefit plans, and taxes. Unit labor costs, which reflect changes in both hourly compensation and productivity, increased at a 0.2 percent annual rate during the third quarter. During the previous quarter, these costs had risen 0.9 percent.

Real hourly compensation, which takes into account changes in the Consumer Price Index for All Urban Consumers (CPI-U), increased 2.5 percent in the third quarter, slightly more than the 2.2 -percent increase posted in the previous quarter. Real hourly compensation in the business sector has now risen in three consecutive quarters. The third-quarter increase in real hourly compensation was the largest since a 5.0 percent increase was recorded in the first quarter of 1992.

The implicit price deflator for the business sector, which reflects changes in both unit labor costs and unit nonlabor payments, increased at a 1.0 percent annual rate in the third quarter, down from a 1.5 percent increase during the second quarter of 1997.

Nonfarm business
Productivity rose 4.5 percent in the nonfarm business sector during the third quarter of 1997. The third-quarter increase in labor productivity was the largest in the nonfarm business sector since a 5.9 -percent rise was recorded in the fourth quarter of 1992. The increase in labor productivity in the third quarter occurred as output rose 4.3 percent and hours of all persons fell slightly, by 0.1 percent. Employment in the nonfarm business sector rose 1.0 percent during the third quarter but average weekly hours worked dropped 1.1 percent. In the previous quarter, productivity had risen 2.4 percent as output grew 3.8 percent and hours increased 1.4 percent (table 2).

Hourly compensation increased at a 4.2 percent annual rate in the third quarter and 3.3 percent one quarter earlier. When the rise in the CPI-U is taken into account, real hourly compensation rose at a 2.1 percent annual rate during the July-September period. Real hourly compensation had risen 2.2 percent during the second quarter and 2.1 percent in the first quarter of 1997.

Unit labor costs fell 0.3 percent during the third quarter of 1997. This decrease was the first decline in these costs since the second quarter of 1994. In the second quarter of 1997, unit labor costs in the nonfarm business sector rose 0.9 percent. The implicit price deflator for nonfarm business output rose 1.1 percent in the third quarter, a somewhat smaller increase than the 1.4 -percent rise posted in the previous quarter.

## Manufacturing

Productivity increased 9.8 percent in manufacturing in the third quarter of 1997, as output rose 7.9 percent but hours of all persons fell 1.7 percent (seasonally adjusted annual rates). In the durable goods sector, thirdquarter productivity soared to a 13.3-percent annual rate of growth as output increased 12.5 percent and hours fell 0.7 percent. Labor productivity also increased in the nondurable goods sector during the third quarter, 5.7 percent, as output rose 2.5 percent and hours of all persons dropped 3.1 percent. In the second quarter of 1997, manufacturing productivity had risen 2.8 percent (as revised) as output increased 3.9 percent and hours rose 1.1 percent (tables 3, 4, and 5).

Hourly compensation of manufacturing workers increased an average of 3.6 percent during the third quarter after rising 2.6 percent in the previous quarter (seasonally adjusted annual rates). In the third quarter, hourly compensation grew 2.6 percent in durable goods and 5.0 percent in nondurable goods. When the increase in the CPI-U is taken into account, real hourly compensation in total manufacturing rose 1.5 percent in both the second and third quarters.

Unit labor costs fell 5.7 percent in the third quarter of 1997 and 0.2 percent in the second quarter. The drop in unit labor costs during the third quarter in durable goods, 9.4 percent, was considerably larger than the drop in these costs in nondurable goods, 0.7 percent.

Table B. 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 labor costs |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Second quarter 1997 |  |  |  |  |  |
| Business: |  |  |  |  |  |  |
| Previous | 2.7 | 4.3 | 1.5 | 3.2 | 2.1 | 0.4 |
| Current | 2.4 | 3.9 | 1.5 | 3.3 | 2.2 | 0.9 |
| Nonfarm business: |  |  |  |  |  |  |
| Previous | 2.7 | 4.2 | 1.5 | 3.2 | 2.1 | 0.5 |
| Current | 2.4 | 3.8 | 1.4 | 3.3 | 2.2 | 0.9 |
| Manufacturing: |  |  |  |  |  |  |
| Previous | 2.4 | 3.6 | 1.1 | 2.6 | 1.5 | 0.1 |
| Current | 2.8 | 3.9 | 1.1 | 2.6 | 1.5 | -0.2 |

Revised Measures

Current and previous measures for the second quarter of 1997 for the business, nonfarm business, and manufacturing sectors are compared in table B. In the business and nonfarm business sectors, the quarterly movements in output per hour and output are slightly lower, and unit labor costs correspondingly higher, than those reported on September 9 based on information then available. Productivity and output movements in the manufacturing sector were revised upward and unit labor costs revised downward, based on newer information from the Federal Reserve Board's Indexes of Industrial Production.

|  | Produc- <br> tivity | Output | Hours | Hourly <br> compen- <br> sation | Real <br> hourly <br> compen- <br> sation | Unit labor costs | Unit profits | Implicit price deflator |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Second quarter 1997 |  |  |  |  |  |  |  |  |
| Previous | 3.2 | 5.5 | 2.2 | 3.2 | 2.1 | 0.0 | 4.0 | 0.5 |
| Current | 2.5 | 4.7 | 2.2 | 3.3 | 2.2 | 0.8 | 3.2 | 1.1 |

## Revised measures: Nonfinancial Corporations

Second quarter 1997 productivity and cost measures for nonfinancial corporations also were revised to incorporate more recent information than was available on September 9. Productivity, output, and unit profits were revised downward, while unit labor costs and the implicit price deflator were revised upward (tables C and 6).

## Next release date

The next release of Productivity and Costs is scheduled for 10:00 AM EST, Thursday, December 4, 1997. Third-quarter measures for nonfinancial corporations and revised third-quarter measures for business, nonfarm business, and manufacturing will be released at that time.

Labor Hours: 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 paid hours of production and nonsupervisory workers in nonagricultural establishments. Jobs rather than persons are counted. 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 76 percent of the value of GDP in 1992. Nonfarm business, which also excludes farming, accounted for about 75 percent of GDP in 1992.

Annual manufacturing indexes 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 owner-occupied 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 52 percent of the value 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 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 |  |  |  |  |  |  |  |  |  |
| 1995 | I | 100.2 | 108.7 | 108.5 | 105.8 | 98.3 | 105.6 | 108.3 | 106.5 |
|  | II | 100.4 | 108.7 | 108.3 | 106.6 | 98.3 | 106.1 | 108.4 | 107.0 |
|  | III | 100.6 | 109.8 | 109.2 | 107.3 | 98.4 | 106.7 | 108.8 | 107.4 |
|  | IV | 101.1 | 110.7 | 109.5 | 108.1 | 98.6 | 107.0 | 109.2 | 107.8 |
|  | ANNUAL | 100.5 | 109.5 | 108.9 | 106.9 | 98.4 | 106.3 | 108.7 | 107.2 |
| 1996 | I | 101.6 | 111.4 | 109.6 | 108.9 | 98.4 | 107.1 | 110.6 | 108.4 |
|  | II | 102.3 | 113.2 | 110.7 | 110.1 | 98.8 | 107.7 | 111.1 | 108.9 |
|  | III | 102.0 | 113.5 | 111.3 | 111.0 | 98.9 | 108.8 | 110.8 | 109.6 |
|  | IV | 102.5 | 115.0 | 112.2 | 111.9 | 98.9 | 109.2 | 111.4 | 110.0 |
|  | ANNUAL | 102.0 | 113.3 | 111.0 | 110.4 | 98.7 | 108.2 | 111.0 | 109.2 |
| 1997 | I | 102.9 | 116.6 | 113.3 | 113.1 | 99.4 | 109.9 | 111.8 | 110.6 |
|  | II | r103.5 | r117.8 | 113.7 | 114.0 | 99.9 | r110.1 | 112.5 | r111.0 |
|  | III | 104.6 | 119.0 | 113.7 | 115.3 | 100.5 | 110.2 | 113.2 | 111.3 |

Percent change from previous quarter at annual rate(5)

| 1995 | I | -2.1 | 0.8 | 2.9 | 2.6 | -0.2 | 4.8 | -0.2 | 2.9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 0.9 | 0.2 | -0.7 | 3.2 | 0.1 | 2.3 | 0.4 | 1.6 |
|  | III | 0.7 | 4.2 | 3.5 | 2.6 | 0.5 | 1.9 | 1.4 | 1.7 |
|  | IV | 2.0 | 3.0 | 1.0 | 3.2 | 0.7 | 1.2 | 1.5 | 1.3 |
|  | ANNUAL | 0.0 | 2.3 | 2.4 | 2.5 | -0.3 | 2.6 | 1.7 | 2.3 |
| 1996 | I | 2.2 | 2.8 | 0.6 | 2.7 | -0.6 | 0.5 | 5.3 | 2.3 |
|  | II | 2.5 | 6.6 | 4.0 | 4.7 | 1.3 | 2.2 | 1.9 | 2.1 |
|  | III | -1.1 | 0.9 | 2.0 | 3.3 | 0.6 | 4.4 | -1.0 | 2.4 |
|  | IV | 1.9 | 5.4 | 3.4 | 3.3 | -0.1 | 1.4 | 2.2 | 1.7 |
|  | ANNUAL | 1.5 | 3.5 | 2.0 | 3.3 | 0.3 | 1.8 | 2.2 | 1.9 |
| 1997 | I | 1.8 | 5.9 | 4.0 | 4.4 | 1.9 | 2.5 | 1.1 | 2.0 |
|  | II | r2.4 | r3.9 | 1.5 | r3.3 | r2.2 | ro.9 | r2.7 | r1. 5 |
|  | III | 4.4 | 4.2 | -0.2 | 4.6 | 2.5 | 0.2 | 2.4 | 1.0 |

Percent change from corresponding quarter of previous year

| 1995 | I | -0.5 | 3.3 | 3.8 | 1.7 | -1.2 | 2.2 | 3.2 | 2.6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | -0.3 | 1.7 | 2.1 | 2.5 | -0.5 | 2.8 | 1.7 | 2.4 |
|  | III | 0.0 | 2.4 | 2.3 | 2.7 | 0.1 | 2.7 | 1.3 | 2.2 |
|  | IV | 0.4 | 2.0 | 1.7 | 2.9 | 0.3 | 2.5 | 0.8 | 1.9 |
|  | ANNUAL | 0.0 | 2.3 | 2.4 | 2.5 | -0.3 | 2.6 | 1.7 | 2.3 |
| 1996 | I | 1.4 | 2.5 | 1.1 | 2.9 | 0.2 | 1.5 | 2.1 | 1.7 |
|  | II | 1.8 | 4.2 | 2.3 | 3.3 | 0.5 | 1.5 | 2.5 | 1.8 |
|  | III | 1.4 | 3.3 | 1.9 | 3.5 | 0.5 | 2.1 | 1.9 | 2.0 |
|  | IV | 1.4 | 3.9 | 2.5 | 3.5 | 0.3 | 2.1 | 2.1 | 2.1 |
|  | ANNUAL | 1.5 | 3.5 | 2.0 | 3.3 | 0.3 | 1.8 | 2.2 | 1.9 |
| 1997 | I | 1.3 | 4.7 | 3.4 | 3.9 | 0.9 | 2.6 | 1.1 | 2.0 |
|  | II | 1.3 | r4.0 | 2.7 | 3.5 | r1.2 | r2.3 | 1.2 | r1.9 |
|  | III | 2.6 | 4.8 | 2.2 | 3.9 | 1.6 | 1.2 | 2.1 | 1.5 |

See footnotes following Table 6. November 13, 1997
November 13, 1997
Source: Bureau of Labor Statistics

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 <br> compensa- <br> tion per <br> hour (2) | Unit labor costs | Unit nonlabor payments (3) | Implicit price deflator |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Indexes 1992=100 |  |  |  |  |  |  |  |  |
| 1995 I | 100.3 | 108.9 | 108.5 | 105.6 | 98.2 | 105.3 | 109.5 | 106.8 |
| II | 100.5 | 108.9 | 108.4 | 106.4 | 98.1 | 105.8 | 109.6 | 107.2 |
| III | 100.8 | 110.2 | 109.3 | 107.1 | 98.3 | 106.3 | 109.7 | 107.5 |
| IV | 101.2 | 111.0 | 109.7 | 107.9 | 98.4 | 106.6 | 109.8 | 107.8 |
| ANNUAL | 100.7 | 109.8 | 109.0 | 106.7 | 98.3 | 106.0 | 109.7 | 107.3 |
| 1996 I | 101.7 | 111.7 | 109.8 | 108.7 | 98.3 | 106.9 | 111.1 | 108.4 |
| II | 102.2 | 113.5 | 111.0 | 109.8 | 98.5 | 107.4 | 111.4 | 108.8 |
| III | 102.0 | 113.8 | 111.6 | 110.6 | 98.6 | 108.5 | 111.0 | 109.4 |
| IV | 102.4 | 115.3 | 112.6 | 111.5 | 98.5 | 108.9 | 111.6 | 109.8 |
| ANNUAL | 102.0 | 113.6 | 111.3 | 110.1 | 98.4 | 107.9 | 111.3 | 109.1 |
| 1997 I | 102.8 | 116.9 | 113.8 | 112.8 | 99.1 | 109.7 | 111.9 | 110.5 |
| II | r103.4 | r118.0 | 114.2 | 113.7 | 99.6 | r110.0 | r112.5 | r110.9 |
| III | 104.5 | 119.3 | 114.1 | 114.9 | 100.1 | 109.9 | 113.5 | 111.2 |

Percent change from previous quarter at annual rate(5)

| 1995 | I | -1.6 | 1.2 | 2.9 | 2.6 | -0.2 | 4.2 | 1.3 | 3.1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 0.8 | 0.2 | -0.6 | 3.1 | -0.1 | 2.3 | 0.2 | 1.5 |
|  | III | 1.1 | 4.6 | 3.5 | 2.7 | 0.6 | 1.6 | 0.5 | 1.2 |
|  | IV | 1.6 | 3.0 | 1.4 | 2.9 | 0.5 | 1.3 | 0.3 | 1.0 |
|  | ANNUAL | 0.2 | 2.6 | 2.4 | 2.5 | -0.3 | 2.4 | 2.1 | 2.3 |
| 1996 | I | 1.9 | 2.6 | 0.6 | 2.8 | -0.5 | 0.9 | 4.8 | 2.3 |
|  | II | 2.2 | 6.8 | 4.4 | 4.4 | 1.0 | 2.1 | 1.1 | 1.7 |
|  | III | -1.0 | 1.0 | 2.1 | 2.9 | 0.2 | 3.9 | -1.3 | 2.0 |
|  | IV | 1.8 | 5.4 | 3.6 | 3.3 | -0.1 | 1.5 | 2.0 | 1.7 |
|  | ANNUAL | 1.3 | 3.5 | 2.2 | 3.1 | 0.2 | 1.8 | 1.5 | 1.7 |
| 1997 | I | 1.4 | 5.6 | 4.2 | 4.5 | 2.1 | 3.1 | 1.0 | 2.4 |
|  | II | r2.4 | r3.8 | r1.4 | r3.3 | r2.2 | r0.9 | r2.3 | r1.4 |
|  | III | 4.5 | 4.3 | -0.1 | 4.2 | 2.1 | -0.3 | 3.5 | 1.1 |

Percent change from corresponding quarter of previous year

| 1995 | I | -0.2 | 3.5 | 3.7 | 1.8 | -1.1 | 2.0 | 4.3 | 2.8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | -0.2 | 1.9 | 2.1 | 2.4 | -0.6 | 2.6 | 2.4 | 2.6 |
|  | III | 0.4 | 2.7 | 2.3 | 2.8 | 0.1 | 2.4 | 1.5 | 2.1 |
|  | IV | 0.4 | 2.2 | 1.8 | 2.8 | 0.2 | 2.4 | 0.6 | 1.7 |
|  | ANNUAL | 0.2 | 2.6 | 2.4 | 2.5 | -0.3 | 2.4 | 2.1 | 2.3 |
| 1996 | I | 1.3 | 2.6 | 1.2 | 2.9 | 0.1 | 1.5 | 1.4 | 1.5 |
|  | II | 1.7 | 4.2 | 2.5 | 3.2 | 0.4 | 1.5 | 1.7 | 1.6 |
|  | III | 1.2 | 3.3 | 2.1 | 3.3 | 0.3 | 2.1 | 1.2 | 1.7 |
|  | IV | 1.2 | 3.9 | 2.7 | 3.3 | 0.2 | 2.1 | 1.6 | 1.9 |
|  | ANNUAL | 1.3 | 3.5 | 2.2 | 3.1 | 0.2 | 1.8 | 1.5 | 1.7 |
| 1997 | I | 1.1 | 4.7 | 3.6 | 3.8 | 0.8 | 2.7 | 0.7 | 1.9 |
|  | II | r1.1 | r4.0 | 2.8 | 3.5 | 1.1 | r2.4 | r1.0 | r1.9 |
|  | III | 2.5 | 4.8 | 2.3 | 3.8 | 1.6 | 1.3 | 2.2 | 1.6 |

See footnotes following Table 6. November 13, 1997

Table 3. 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 |  |  |  |  |  |  |  |
| 1995 | I | 106.7 | 112.3 | 105.2 | 107.2 | 99.6 | 100.5 |
|  | II | 107.6 | 111.9 | 104.0 | 108.2 | 99.8 | 100.5 |
|  | III | 108.8 | 112.7 | 103.6 | 109.2 | 100.2 | 100.4 |
|  | IV | 109.2 | 113.0 | 103.4 | 110.1 | 100.4 | 100.8 |
| 1996 | ANNUAL | 108.1 | 112.5 | 104.1 | 108.7 | 100.1 | 100.6 |
|  | I | 110.3 | 113.3 | 102.7 | 110.8 | 100.2 | 100.4 |
|  | II | 111.0 | 115.0 | 103.7 | 112.1 | 100.5 | 101.0 |
|  | III | 112.4 | 116.4 | 103.6 | 112.9 | 100.6 | 100.4 |
|  | IV | 113.5 | 117.7 | 103.7 | 113.5 | 100.3 | 100.0 |
| 1997 | ANNUAL | 111.7 | 115.6 | 103.5 | 112.2 | 100.3 | 100.5 |
|  | I | 114.2 | 119.2 | 104.4 | 114.7 | 100.8 | 100.4 |
|  | II | r115.0 | r120.4 | 104.7 | 115.4 | 101.1 | r100.4 |
|  | III | 117.7 | 122.7 | 104.2 | 116.5 | 101.5 | 98.9 |

Percent change from previous quarter at annual rate(5)

| 1995 | I | 3.8 | 4.4 | 0.6 | 2.1 | -0.6 | -1.6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 3.5 | -1.2 | -4.5 | 3.8 | 0.7 | 0.3 |
|  | III | 4.3 | 2.7 | -1.5 | 3.9 | 1.7 | -0.4 |
|  | IV | 1.7 | 1.0 | -0.7 | 3.2 | 0.7 | 1.4 |
|  | ANNUAL | 3.2 | 3.5 | 0.3 | 2.9 | 0.1 | -0.3 |
| 1996 | I | 4.0 | 1.1 | -2.7 | 2.5 | -0.8 | -1.4 |
|  | II | 2.4 | 6.3 | 3.8 | 4.7 | 1.3 | 2.2 |
|  | III | 5.5 | 5.0 | -0. 5 | 3.2 | 0.5 | -2.2 |
|  | IV | 3.7 | 4.3 | 0.6 | 1.9 | -1.4 | -1.7 |
|  | ANNUAL | 3.3 | 2.8 | -0. 5 | 3.2 | 0.2 | -0.1 |
| 1997 | I | 2.5 | 5.4 | 2.8 | 4.4 | 2.0 | 1.8 |
|  | II | r2.8 | r3.9 | 1.1 | 2.6 | 1.5 | r-0.2 |
|  | III | 9.8 | 7.9 | -1.7 | 3.6 | 1.5 | -5.7 |


| Percent change from corresponding quarter of previous year |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1995 | I | 2.9 | 5.7 | 2.8 | 2.0 | -0.9 | -0.9 |
|  | II | 2.7 | 3.5 | 0.9 | 2.8 | -0.2 | 0.1 |
|  | III | 3.4 | 3.1 | -0.3 | 3.1 | 0.5 | -0.3 |
|  | IV | 3.3 | 1.7 | -1.6 | 3.3 | 0.6 | -0.1 |
|  | ANNUAL | 3.2 | 3.5 | 0.3 | 2.9 | 0.1 | -0.3 |
| 1996 | I | 3.4 | 0.9 | -2.4 | 3.3 | 0.6 | 0.0 |
|  | II | 3.1 | 2.8 | -0.3 | 3.6 | 0.7 | 0.5 |
|  | III | 3.4 | 3.3 | -0.1 | 3.4 | 0.4 | 0.0 |
|  | IV | 3.9 | 4.1 | 0.3 | 3.1 | -0.1 | -0.8 |
|  | ANNUAL | 3.3 | 2.8 | -0. 5 | 3.2 | 0.2 | -0.1 |
| 1997 | I | 3.5 | 5.2 | 1.7 | 3.5 | 0.6 | 0.0 |
|  | II | r3. 6 | r4.7 | 1.0 | 3.0 | 0.6 | r-0.6 |
|  | III | 4.7 | 5.4 | 0.7 | 3.1 | 0.9 | -1.5 |

See footnotes following Table 6. November 13, 1997

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


Percent change from previous quarter at annual rate(5)

| 1995 | I | 5.7 | 6.7 | 0.9 | 2.3 | -0.4 | -3.2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 2.1 | -1.4 | -3.4 | 3.0 | -0.1 | 1.0 |
|  | III | 5.4 | 5.3 | -0.1 | 3.4 | 1.2 | -1.9 |
|  | IV | 2.4 | 3.4 | 0.9 | 2.1 | -0.3 | -0.3 |
|  | ANNUAL | 4.0 | 5.3 | 1.3 | 2.6 | -0.2 | -1.3 |
| 1996 | I | 6.0 | 3.7 | -2.2 | 1.6 | -1.7 | -4.2 |
|  | II | 4.0 | 10.3 | 6.1 | 4.8 | 1.4 | 0.8 |
|  | III | 6.2 | 6.0 | -0.2 | 2.7 | 0.0 | -3.4 |
|  | IV | 2.1 | 2.8 | 0.7 | 0.5 | -2.7 | -1.6 |
|  | ANNUAL | 4.3 | 5.0 | 0.7 | 2.5 | -0.4 | -1.7 |
| 1997 | I | 3.0 | 8.3 | 5.2 | 4.7 | 2.3 | 1.7 |
|  | II | r5.5 | r7.4 | 1.8 | 2.0 | 0.9 | r-3.3 |
|  | III | 13.3 | 12.5 | -0.7 | 2.6 | 0.6 | -9.4 |


| Percent change from corresponding quarter of previous year |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1995 | I | 4.1 | 8.0 | 3.7 | 1.7 | -1.1 | -2.3 |
|  | II | 3.4 | 5.4 | 1.9 | 2.5 | -0.6 | -0.9 |
|  | III | 3.9 | 4.7 | 0.7 | 2.8 | 0.2 | -1.1 |
|  | IV | 3.9 | 3.4 | -0.4 | 2.7 | 0.1 | -1.1 |
|  | ANNUAL | 4.0 | 5.3 | 1.3 | 2.6 | -0.2 | -1.3 |
| 1996 | I | 4.0 | 2.7 | -1.2 | 2.5 | -0.2 | -1.4 |
|  | II | 4.4 | 5.6 | 1.2 | 3.0 | 0.1 | -1.4 |
|  | III | 4.6 | 5.8 | 1.1 | 2.8 | -0.2 | -1.8 |
|  | IV | 4.6 | 5.7 | 1.1 | 2.4 | -0.8 | -2.1 |
|  | ANNUAL | 4.3 | 5.0 | 0.7 | 2.5 | -0.4 | -1.7 |
| 1997 | I | 3.8 | 6.8 | 2.9 | 3.2 | 0.2 | -0.6 |
|  | II | r4.2 | r6.1 | 1.9 | 2.5 | 0.1 | r-1.7 |
|  | III | 5.9 | 7.7 | 1.7 | 2.5 | 0.3 | -3.2 |

See footnotes following Table 6.
November 13, 1997
r=revised
Source: Bureau of Labor Statistics

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


| Indexes 1992=100 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1995 | I | 102.9 | 105.9 | 103.0 | 107.0 | 99.5 | 104.1 |
|  | II | 104.1 | 105.6 | 101.4 | 108.3 | 99.9 | 104.0 |
|  | III | 105.0 | 105.5 | 100.5 | 109.5 | 100.4 | 104.3 |
|  | IV | 105.3 | 105.0 | 99.7 | 110.7 | 100.9 | 105.1 |
|  | ANNUAL | 104.4 | 105.5 | 101.1 | 108.9 | 100.3 | 104.4 |
| 1996 | I | 105.8 | 104.5 | 98.8 | 111.7 | 101.1 | 105.7 |
|  | II | 106.0 | 104.9 | 99.0 | 112.8 | 101.2 | 106.4 |
|  | III | 107.2 | 105.9 | 98.7 | 113.9 | 101.5 | 106.3 |
|  | IV | 108.7 | 107.4 | 98.8 | 115.1 | 101.8 | 106.0 |
|  | ANNUAL | 106.8 | 105.7 | 99.0 | 113.3 | 101.3 | 106.1 |
| 1997 | I | 109.4 | 108.0 | 98.7 | 116.1 | 102.0 | 106.1 |
|  | II | r109.4 | r108.0 | 98.7 | 117.1 | 102.6 | 107.1 |
|  | III | 110.9 | 108.6 | 97.9 | 118.5 | 103.3 | 106.9 |

Percent change from previous quarter at annual rate(5)

| 1995 | I | 1.3 | 1.4 | 0.1 | 1.7 | -1.0 | 0.5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 5.1 | -1.3 | -6.0 | 4.7 | 1.6 | -0.3 |
|  | III | 3.3 | -0.4 | -3.5 | 4.4 | 2.3 | 1.1 |
|  | IV | 1.2 | -1.8 | -3.0 | 4.6 | 2.1 | 3.3 |
|  | ANNUAL | 2.3 | 1.2 | -1.1 | 3.2 | 0.4 | 0.9 |
| 1996 | I | 1.7 | -1.9 | -3.5 | 3.8 | 0.5 | 2.1 |
|  | II | 1.0 | 1.6 | 0.5 | 4.0 | 0.6 | 2.9 |
|  | III | 4.6 | 3.7 | -0.9 | 3.9 | 1.2 | -0.6 |
|  | IV | 5.5 | 5.9 | 0.4 | 4.3 | 0.9 | -1.1 |
|  | ANNUAL | 2.3 | 0.2 | -2.1 | 4.0 | 1.0 | 1.7 |
| 1997 | I | 2.7 | 2.1 | -0.6 | 3.4 | 1.0 | 0.7 |
|  | II | r0.0 | r0.0 | r0.0 | r3.4 | r2.3 | r3.5 |
|  | III | 5.7 | 2.5 | -3.1 | 5.0 | 2.9 | -0.7 |

Percent change from corresponding quarter of previous year

| 1995 | I | 1.6 | 3.2 | 1.6 | 2.1 | -0.7 | 0.5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 1.8 | 1.3 | -0.5 | 3.0 | 0.0 | 1.2 |
|  | III | 2.8 | 1.0 | -1.8 | 3.4 | 0.7 | 0.5 |
|  | IV | 2.7 | -0. 5 | -3.1 | 3.9 | 1.2 | 1.1 |
|  | ANNUAL | 2.3 | 1.2 | -1.1 | 3.2 | 0.4 | 0.9 |
| 1996 | I | 2.8 | -1.3 | -4.0 | 4.4 | 1.6 | 1.5 |
|  | II | 1.8 | -0.6 | -2.4 | 4.2 | 1.3 | 2.4 |
|  | III | 2.1 | 0.4 | -1.7 | 4.1 | 1.1 | 1.9 |
|  | IV | 3.2 | 2.3 | -0.9 | 4.0 | 0.8 | 0.8 |
|  | ANNUAL | 2.3 | 0.2 | -2.1 | 4.0 | 1.0 | 1.7 |
| 1997 | I | 3.4 | 3.3 | -0.1 | 3.9 | 0.9 | 0.5 |
|  | II | r3.2 | 2.9 | r-0.3 | r3.8 | r1.4 | 0.6 |
|  | III | 3.4 | 2.6 | -0.8 | 4.0 | 1.8 | 0.6 |

See footnotes following Table 6.
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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 hourly compen- sation(2)``` | Unit labor costs | Unit <br> non- <br> labor <br> costs (6) | Total unit costs (7) | Unit profits (8) | Implicit price deflator (4) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Indexes 1992=100 |  |  |  |  |  |  |  |  |  |  |  |
| 1995 | 5 I | 103.0 | 112.3 | 109.1 | 105.2 | 97.8 | 102.2 | 99.8 | 101.6 | 135.2 | 104.6 |
|  | II | 103.5 | 112.9 | 109.1 | 106.0 | 97.7 | 102.4 | 100.1 | 101.8 | 134.9 | 104.8 |
|  | III | 104.7 | 114.9 | 109.7 | 106.6 | 97.8 | 101.9 | 99.0 | 101.1 | 145.5 | 105.1 |
|  | IV | 105.2 | 115.9 | 110.2 | 107.3 | 97.8 | 102.0 | 99.1 | 101.2 | 147.3 | 105.4 |
| 1996 | ANNUAL | 104.1 | 114.0 | 109.5 | 106.3 | 97.9 | 102.1 | 99.5 | 101.4 | 140.8 | 105.0 |
|  | I | 105.6 | 116.5 | 110.4 | 107.8 | 97.5 | 102.1 | 99.2 | 101.4 | 152.5 | 106.0 |
|  | II | 106.4 | 118.7 | 111.5 | 109.0 | 97.8 | 102.4 | 98.4 | 101.4 | 154.7 | 106.2 |
|  | III | 107.0 | 120.0 | 112.1 | 109.9 | 97.9 | 102.7 | 98.1 | 101.5 | 156.0 | 106.4 |
|  | IV | 107.6 | 121.5 | 113.0 | 110.7 | 97.8 | 102.9 | 97.4 | 101.5 | 156.4 | 106.5 |
| 1997 | ANNUAL | 106.6 | 119.2 | 111.8 | 109.4 | 97.8 | 102.6 | 98.3 | 101.4 | 154.9 | 106.3 |
|  | 7 I | 108.1 | 123.3 | 114.1 | 111.9 | 98.3 | 103.5 | 97.0 | 101.8 | 157.9 | 106.9 |
|  | II | r108.7 | r124.7 | 114.7 | 112.8 | 98.8 | r103.7 | r97.1 | r102.0 | r159.1 | r107.2 |

Percent change from previous quarter at annual rate(5)

| 1995 | I | -3.1 | 0.0 | 3.2 | 2.4 | -0.4 | 5.6 | 2.8 | 4.9 | -18.1 | 1.8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 1.9 | 2.0 | 0.1 | 3.0 | -0.1 | 1.0 | 1.0 | 1.0 | -0.8 | 0.8 |
|  | III | 4.8 | 7.2 | 2.3 | 2.5 | 0.4 | -2.2 | -4.2 | -2.7 | 35.4 | 1.3 |
|  | IV | 2.1 | 3.8 | 1.7 | 2.5 | 0.1 | 0.4 | 0.4 | 0.4 | 4.9 | 1.0 |
|  | ANNUAL | 0.8 | 3.7 | 2.9 | 2.3 | -0. 5 | 1.5 | -0.2 | 1.1 | 4.7 | 1.5 |
| 1996 | I | 1.3 | 2.0 | 0.7 | 2.0 | -1.2 | 0.7 | 0.6 | 0.7 | 15.0 | 2.4 |
|  | II | 3.3 | 7.6 | 4.2 | 4.4 | 1.0 | 1.1 | -3.1 | 0.0 | 5.8 | 0.7 |
|  | III | 2.3 | 4.3 | 2.0 | 3.4 | 0.7 | 1.1 | -1.4 | 0.5 | 3.5 | 0.9 |
|  | IV | 2.0 | 5.2 | 3.2 | 2.9 | -0.4 | 0.9 | -2.8 | 0.0 | 1.0 | 0.1 |
|  | ANNUAL | 2.4 | 4.5 | 2.1 | 2.9 | -0.1 | 0.4 | -1.2 | 0.0 | 10.0 | 1.2 |
| 1997 | I | 1.9 | 6.1 | 4.1 | 4.3 | 1.9 | 2.3 | -1.8 | 1.3 | 3.8 | 1.6 |
|  | II | r2. 5 | r4.7 | 2.2 | r3.3 | r2. 2 | r0. 8 | r0. 5 | r0.7 | r3. 2 | r1.1 |

Percent change from corresponding quarter of previous year

| 1995 | I | -0.6 | 3.9 | 4.6 | 1.6 | -1.3 | 2.2 | -1.7 | 1.2 | 6.6 | 1.8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 0.4 | 3.5 | 3.0 | 2.2 | -0.8 | 1.8 | 1.3 | 1.7 | 1.9 | 1.7 |
|  | III | 1.5 | 4.3 | 2.7 | 2.5 | -0.1 | 1.0 | -0. 5 | 0.6 | 6.7 | 1.3 |
|  | IV | 1.4 | 3.2 | 1.8 | 2.6 | 0.0 | 1.2 | 0.0 | 0.9 | 3.6 | 1.2 |
|  | ANNUAL | 0.8 | 3.7 | 2.9 | 2.3 | -0. 5 | 1.5 | -0.2 | 1.1 | 4.7 | 1.5 |
| 1996 | I | 2.5 | 3.7 | 1.2 | 2.5 | -0.2 | 0.0 | -0.6 | -0.2 | 12.8 | 1.4 |
|  | II | 2.9 | 5.1 | 2.2 | 2.9 | 0.0 | 0.0 | -1.6 | -0.4 | 14.6 | 1.3 |
|  | III | 2.3 | 4.4 | 2.1 | 3.1 | 0.1 | 0.8 | -0.9 | 0.4 | 7.2 | 1.2 |
|  | IV | 2.2 | 4.8 | 2.5 | 3.2 | 0.0 | 1.0 | -1.7 | 0.3 | 6.2 | 1.0 |
|  | ANNUAL | 2.4 | 4.5 | 2.1 | 2.9 | -0.1 | 0.4 | -1.2 | 0.0 | 10.0 | 1.2 |
| 1997 | I | 2.4 | 5.8 | 3.3 | 3.8 | 0.8 | 1.3 | -2.3 | 0.4 | 3.5 | 0.8 |
|  | II | r2.2 | r5.1 | r2.8 | 3.5 | 1.1 | r1. 3 | r-1.4 | r0.6 | r2.9 | r0.9 |

See footnotes following Table 6.
November 13, 1997
r=revised
Source: Bureau of Labor Statistics

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 30 days after the close of the reference period; revisions appear 30 days later, and second revisions after an additional 60 days.

## 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 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.

