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PRODUCTIVITY AND COSTS Third Quarter 1993

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 1993. The revised seasonally-adjusted annual rates of productivity growth in the third quarter were:

3.6 percent in business, and
4.3 percent in nonfarm business.

Business output grew more slowly in the third quarter than in the second quarter, and hours at work declined. The slower growth in business output was largely attributable to flooding in the Midwest and drought in the Southeast. Nonfarm business output growth was faster in the third quarter than during the second quarter, and the growth in hours at work slowed.

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

3.1 percent in manufacturing,
4.1 percent in durable goods manufacturing, and
1.7 percent in nondurable goods manufacturing.

The slight upward revisions in productivity for the third quarter were generally due to higher estimates for output than originally reported on November 4.

In the third quarter, the productivity increase in manufacturing was lower than the gains reported in the more comprehensive business and nonfarm business sectors. Manufacturing includes about 20 percent of U.S. business employment. Third-quarter measures are summarized in table A and appear in detail in tables 1 through 5.

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 independent indexes of industrial production prepared by the Board of Governors of the Federal Reserve System. See Technical Notes for further information on data sources (page 7).

Business

From the second quarter to the third quarter of 1993, business productivity increased at a 3.6 percent annual rate. Output rose 3.5 percent, and hours of all persons engaged in the sector decreased 0.1 percent (seasonally adjusted annual rates). The decline in hours followed 5 quarters of increases. During the second quarter of 1993, productivity showed no change, as output and hours both rose by 3.8 percent (table 1).

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

Sector	Productivity	Output	Hours	Hourly compensation	Real hourly compensation	Unit labor costs
Percent change from preceding quarter						
Business	3.6	3.5	-0.1	3.9	2.7	0.3
Nonfarm business	4.3	4.4	0.1	3.7	2.5	-0.6
Manufacturing	3.1	2.5	-0.6	3.3	2.1	0.2
Durable	4.1	3.9	-0.2	3.0	1.8	-1.0
Nondurable	1.7	0.4	-1.3	3.7	2.5	2.0
Percent change from same quarter a year ago						
Business	1.4	3.3	1.9	3.6	0.8	2.1
Nonfarm business	1.5	3.8	2.2	3.3	0.5	1.7
Manufacturing	5.3	4.8	-0.4	2.9	0.1	-2.3
Durable	7.8	7.1	-0.7	2.8	0.1	-4.6
Nondurable	1.7	1.6	-0.1	3.0	0.2	1.2

Hourly compensation increased 3.9 percent during the third quarter of 1993, compared with a 2.5 percent rise 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 hourly compensation and productivity, increased at a 0.3 percent annual rate during the third quarter. During the previous quarter, these costs had increased 2.5 percent.

Real hourly compensation, which takes into account changes in the Consumer Price Index for All Urban Consumers (CPI-U), increased at a 2.7 percent annual rate in the third quarter; it had fallen 0.4 percent in the second quarter of 1993.

The implicit price deflator for business, which reflects changes in unit labor costs and unit nonlabor payments, increased 1.2 percent in the third quarter, compared with a 2.6 percent increase during the second quarter of 1993.

Nonfarm business

Nonfarm business productivity rose 4.3 percent during the third quarter of 1993 as output rose 4.4 percent and hours of all persons increased 0.1 percent. During the second quarter of 1993, productivity had fallen 0.4 percent in nonfarm business, reflecting gains of 4.0 percent in output and 4.4 percent in hours (table 2).

Hourly compensation increased at a 3.7 percent annual rate in the third quarter, compared with a 1.9 percent increase one quarter earlier. When the rise in the CPI-U is taken into account, real hourly compensation rose 2.5 percent in the third quarter. Real hourly compensation had declined during the first 2 quarters of 1993. Unit labor costs fell 0.6 percent, compared with a 2.3 percent rise during the second quarter of 1993. This marked the first quarterly decline in unit labor costs since 1987.

The implicit price deflator for nonfarm business output rose 1.2 percent in the third quarter, compared with a 2.4 percent rise one quarter earlier.

Manufacturing

Manufacturing productivity increased 3.1 percent in the third quarter of 1993, as output rose 2.5 percent and hours of all persons decreased 0.6 percent (seasonally adjusted annual rates). Productivity grew more in durable goods industries than among nondurable goods producers. Output grew 3.9 percent in durable goods manufacturing, and 0.4 percent in nondurable goods industries; hours worked declined in both (tables 3, 4, and 5).

Hourly compensation of all manufacturing workers increased 3.3 percent during the third quarter, compared with a 4.9 percent increase during the April-June period. Real hourly compensation rose 2.1 percent in the third quarter when the increase in the CPI-U is taken into account. During the second quarter, real hourly compensation had increased 1.9 percent (seasonally adjusted annual rates).

Unit labor costs rose at a 0.2 percent annual rate in the third quarter of 1993. These costs had decreased 1.0 percent during the second quarter of 1993.

Nonfinancial corporations

Third-quarter 1993 measures of productivity and costs also were announced today for nonfinancial corporations (tables B and 6). Output per all-employee hour rose at a 3.5 percent annual rate, compared with a 3.9 percent increase during the second quarter. Output increased 4.2 percent in the third quarter of 1993, while hours of all employees increased 0.8 percent, at annual rates. The sector includes all corporations doing business in the United States, except banks, stock and commodity brokers, and finance and insurance agencies.

Hourly compensation increased 3.3 percent, or 2.1 percent in real terms when the rise in the CPI-U is taken into account. Real hourly compensation had declined during the first half of 1993.

Table B. Nonfinancial corporations: Third quarter productivity and cost measures
(Seasonally adjusted annual rates)

Period	Productivity	Output	Hours	Hourly compensation	Real hourly compensation	Unit labor costs	Unit profits	Implicit price deflator
Percent change from preceding quarter								
1993 III	3.5	4.2	0.8	3.3	2.1	-0.1	-1.7	0.0
Percent change from preceding year								
1993 III	1.9	3.8	1.8	3.0	0.2	1.0	12.0	1.3

Unit labor costs for nonfinancial corporations decreased 0.1 percent in the third quarter, compared with a 1.5 percent fall in the second quarter of 1993. Unit nonlabor costs rose 1.0 percent, and unit profits fell 1.7 percent. Unit profits had increased strongly during the second quarter. The implicit price deflator for nonfinancial corporate output showed no change in the third quarter.

Revised Measures

Current and previous measures for the third quarter of 1993 for business, nonfarm business, and manufacturing are compared in table C. The quarterly movements differ from those reported on November 4 based on information then available.

Table C. Previous and revised productivity and related measures Quarterly percent change at seasonally adjusted annual rate						
Sector	Productivity	Output	Hours	Hourly compensation	Real hourly compensation	Unit labor costs
Third quarter 1993						
Business:						
Previous	3.3	3.2	-0.1	3.7	2.5	0.4
Current	3.6	3.5	-0.1	3.9	2.7	0.3
Nonfarm business:						
Previous	3.9	4.1	0.2	3.5	2.3	-0.4
Current	4.3	4.4	0.1	3.7	2.5	-0.6
Manufacturing:						
Previous	2.4	1.5	-0.8	3.6	2.4	1.2
Current	3.1	2.5	-0.6	3.3	2.1	0.2

Productivity and related measures for manufacturing industries are revised to incorporate new output estimates from the Bureau of Economic Analysis for the period 1988 to 1991. This new information places these manufacturing productivity measures on the same basis as the business and nonfarm business sectors which were revised in the September 9 issue of *Productivity and Costs*. The new data can be found in appendix tables 1-3.

Next release date

The next release of *Productivity and Costs* is scheduled for **10:00 AM EST, Tuesday, February 8, 1994**. Preliminary fourth-quarter and annual 1993 measures will be released at that time.

Tentative release dates for productivity and costs measures for major sectors of the U.S. economy in 1994 are:

Reference period	1994 release date
1993:	
Fourth Qtr., Annual	February 8
Fourth Qtr., Annual (revised)	March 8*
1994:	
First Qtr.	May 5
First Qtr. (revised)	June 15
Second Qtr.	August 9
Second Qtr. (revised)	September 7
Third Qtr.	November 9
Third Qtr. (revised)	December 7

* For nonfinancial corporations, 1993 annual measures only; fourth quarter results will be included in the May 5 release.

These tentative dates are based on presently available schedules for the release of underlying source data in 1994. Each issue of *Productivity and Costs* contains a "Next release date" paragraph which readers should use to confirm the tentative dates above.

Technical Notes

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 non-farm 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; non-electrical 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 made available to sensory-impaired individuals upon request. Voice phone: 202-523-1221; TDD phone: 202-523-3936; TDD message referral phone number: 1-800-326-2577.

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

Year and 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 non-labor 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	r140.5	119.4	r161.6	107.7	137.4	r154.2	142.9
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	r3.6	r3.5	-0.1	r3.9	r2.7	r0.3	r2.9	1.2
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	r1.4	3.3	1.9	r3.6	r0.8	2.1	r4.7	3.0

See footnotes following table 6.
r=revised

December 8, 1993
Source: Bureau of Labor Statistics

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

Year and 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 non-labor payments (3)	Implicit price deflator (4)
Indexes 1982=100								
1992 I	112.4	133.3	118.7	150.9	104.8	134.3	149.8	139.3
II	113.1	134.4	118.8	152.6	105.2	134.9	151.5	140.2
III	114.1	135.9	119.0	154.8	106.0	135.6	148.7	139.8
IV	115.3	137.9	119.6	156.6	106.4	135.8	154.4	141.8
ANNUAL	113.7	135.4	119.1	153.7	105.7	135.1	151.1	140.3
1993 I	114.8	138.1	120.3	157.7	106.2	137.4	153.8	142.7
II	114.7	139.5	121.6	158.4	105.9	138.2	154.8	143.5
III	r115.9	r141.0	121.7	r159.9	r106.6	138.0	r156.6	r144.0
Percent change from previous quarter at annual rate (5)								
1992 I	3.8	2.1	-1.6	5.6	2.2	1.7	6.0	3.2
II	2.8	3.3	0.5	4.7	1.5	1.8	4.5	2.7
III	3.6	4.4	0.8	5.9	3.1	2.2	-7.2	-1.1
IV	4.2	6.0	1.8	4.6	1.4	0.4	16.2	5.6
ANNUAL	3.1	2.7	-0.4	5.1	2.0	2.0	3.3	2.4
1993 I	-1.8	0.6	2.5	2.9	-0.9	4.8	-1.6	2.5
II	-0.4	4.0	4.4	1.9	-1.0	2.3	2.8	2.4
III	r4.3	r4.4	r0.1	r3.7	r2.5	r-0.6	r4.6	r1.2
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	r1.5	r3.8	2.2	r3.3	r0.5	r1.7	r5.3	2.9

See footnotes following table 6.
r=revised

December 8, 1993
Source: Bureau of Labor Statistics

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

Year and quarter		Output per hour of all persons	Output	Hours of all persons	Compensation per hour(1)	Real compensation per hour(2)	Unit labor costs
Indexes 1982=100							
1992	I	r127.5	r129.8	101.8	145.4	101.0	r114.1
	II	r129.1	r131.5	101.9	147.1	101.5	r114.0
	III	r130.2	r131.9	101.3	148.7	101.9	r114.2
	IV	r132.4	r134.1	101.2	150.8	102.5	r113.9
	ANNUAL	r129.9	r131.8	101.5	148.1	101.9	r114.0
1993	I	r134.1	r136.3	101.6	149.9	100.9	r111.8
	II	r136.0	r137.4	101.0	151.7	101.4	r111.5
	III	r137.1	r138.3	r100.9	r152.9	102.0	r111.6
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	r-0.2
	III	3.6	r1.2	-2.4	4.2	1.5	0.6
	IV	7.0	6.8	-0.2	5.8	2.5	r-1.2
	ANNUAL	4.3	r3.2	-1.1	4.4	1.3	0.1
1993	I	r5.1	r6.7	1.5	-2.3	-5.9	-7.0
	II	5.9	3.4	-2.4	4.9	1.9	-1.0
	III	r3.1	r2.5	r-0.6	r3.3	r2.1	r0.2
Percent change from corresponding quarter of previous year							
1992	I	r3.9	r2.7	-1.2	4.4	1.5	r0.5
	II	r4.2	r3.8	-0.4	4.3	1.2	r0.1
	III	r3.8	2.4	-1.3	4.2	1.1	0.5
	IV	4.9	3.8	-1.1	4.0	0.9	r-0.9
	ANNUAL	4.3	r3.2	-1.1	4.4	1.3	0.1
1993	I	r5.2	4.9	-0.2	3.1	-0.1	r-2.0
	II	5.4	4.5	-0.9	3.1	0.0	-2.2
	III	r5.3	r4.8	r-0.4	2.9	r0.1	r-2.3

See footnotes following table 6.
r=revised

December 8, 1993
Source: Bureau of Labor Statistics

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

Year and quarter		Output per hour of all persons	Output	Hours of all persons	Compensation per hour (1)	Real compensation per hour (2)	Unit labor costs
Indexes 1982=100							
1992	I	r137.9	r137.2	99.5	143.0	99.4	r103.7
	II	r140.9	r139.6	99.1	144.9	99.9	r102.8
	III	r142.7	r140.3	98.3	146.4	100.3	r102.6
	IV	r146.3	r143.7	98.2	149.2	101.4	r102.0
	ANNUAL	r142.1	r140.2	98.7	146.0	100.4	r102.8
1993	I	r149.3	r147.2	98.6	147.8	99.5	r99.0
	II	r152.3	r148.8	97.7	149.5	99.9	r98.1
	III	r153.8	r150.3	r97.7	r150.6	100.4	r97.9
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	r6.6	r4.4	-2.0	4.4	1.4	r-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	r4.1	r3.9	r-0.2	r3.0	r1.8	r-1.0
Percent change from corresponding quarter of previous year							
1992	I	r5.7	r3.6	-2.0	4.3	1.4	r-1.3
	II	r6.9	r5.1	-1.7	4.5	1.3	r-2.3
	III	r6.1	r3.6	-2.3	4.3	1.1	r-1.7
	IV	7.1	5.4	-1.6	4.1	1.0	-2.8
	ANNUAL	r6.6	r4.4	-2.0	4.4	1.4	r-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	r7.8	r7.1	-0.7	r2.8	0.1	r-4.6

See footnotes following table 6.
r=revised

December 8, 1993
Source: Bureau of Labor Statistics

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

Year and quarter		Output per hour of all persons	Output	Hours of all persons	Compensation per hour (1)	Real compensation per hour (2)	Unit labor costs
Indexes 1982=100							
1992	I	r114.8	r120.9	105.2	150.2	104.4	r130.8
	II	r114.8	r121.5	105.9	151.9	104.7	r132.3
	III	r115.2	r121.5	105.5	153.5	105.1	r133.2
	IV	r115.9	r122.4	105.5	154.5	105.0	r133.3
	ANNUAL	r115.3	r121.6	105.4	152.7	105.0	r132.4
1993	I	r115.9	r122.8	106.0	154.5	104.1	r133.3
	II	r116.7	r123.4	105.7	156.6	104.7	r134.2
	III	r117.2	r123.5	105.4	r158.1	r105.4	r134.8
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	r1.3	r1.5	0.2	4.5	1.5	r3.2
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	r1.7	r0.4	-1.3	r3.7	r2.5	r2.0
Percent change from corresponding quarter of previous year							
1992	I	r1.5	r1.5	-0.1	4.7	1.8	r3.1
	II	r0.6	r2.0	1.4	4.4	1.3	r3.8
	III	r0.7	r0.8	0.1	4.4	1.3	r3.7
	IV	1.9	1.7	-0.3	4.0	0.9	2.1
	ANNUAL	r1.3	r1.5	0.2	4.5	1.5	r3.2
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	r1.7	1.6	-0.1	r3.0	r0.2	r1.2

See footnotes following table 6.
r=revised

December 8, 1993
Source: Bureau of Labor Statistics

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

Year and quarter	Output per all-employee hour	Output	Employee hours	Hourly compensation (1)	Real hourly compensation (2)	Unit labor costs	Unit non-labor 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
	II	118.6	140.0	118.0	149.5	103.1	126.0	120.0	124.3	175.5
	III	120.3	141.9	117.9	151.6	103.8	126.0	121.3	124.7	172.4
	IV	121.7	144.3	118.6	153.0	104.0	125.8	118.3	123.7	195.3
	ANNUAL	119.4	141.0	118.1	150.4	103.4	126.0	120.2	124.3	177.0
1993	I	120.4	143.3	119.0	153.9	103.6	127.8	119.6	125.4	182.8
	II	121.6	145.7	119.9	154.8	103.5	127.3	119.2	125.0	193.9
	III	122.6	147.3	120.1	156.1	104.0	127.3	119.5	125.0	193.0
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
	II	4.8	6.4	1.6	4.5	1.4	-0.2	-3.6	-1.2	30.6
	III	5.8	5.4	-0.4	5.6	2.8	-0.2	4.6	1.1	-6.8
	IV	4.5	6.9	2.2	4.0	0.8	-0.5	-9.7	-3.1	64.6
	ANNUAL	4.1	4.1	0.1	4.6	1.5	0.5	-1.4	0.0	14.2
1993	I	-4.0	-2.7	1.3	2.2	-1.6	6.4	4.3	5.9	-23.1
	II	3.9	7.0	3.0	2.4	-0.5	-1.5	-1.3	-1.4	26.4
	III	3.5	4.2	0.8	3.3	2.1	-0.1	1.0	0.2	-1.7
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
	II	4.0	4.1	0.1	4.5	1.4	0.6	-1.4	0.0	11.8
	III	4.8	4.8	0.1	4.8	1.7	0.1	-1.0	-0.2	14.6
	IV	4.4	5.2	0.8	4.5	1.4	0.1	-2.8	-0.7	24.2
	ANNUAL	4.1	4.1	0.1	4.6	1.5	0.5	-1.4	0.0	14.2
1993	I	2.7	3.9	1.2	4.1	0.8	1.3	-1.3	0.6	11.4
	II	2.5	4.1	1.5	3.5	0.4	1.0	-0.7	0.6	10.5
	III	1.9	3.8	1.8	3.0	0.2	1.0	-1.5	0.3	12.0

See footnotes following table 6.
r=revised

December 8, 1993
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 third published 30 days after the close of the reference period; revisions appear about 35 days later, and third revisions after an additional 60 days. In business, 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 -2.0 and +2.0 index points. This interval is based on the performance of this measure between the third quarter of 1976 and the fourth 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 self-employed.
- (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.

Appendix table 1.
Manufacturing sector: Productivity, hourly compensation, and unit labor costs,
seasonally adjusted

Year and quarter		Output per hour of all persons	Output	Hours of all persons	Compensation per hour(1)	Real compensation per hour(2)	Unit labor costs
Indexes 1982=100							
1988	I	118.7	128.4	108.2	121.0	100.4	101.9
	II	119.0	129.5	108.8	122.1	100.2	102.6
	III	119.6	130.4	109.0	123.7	100.3	103.4
	IV	119.9	131.5	109.7	125.5	100.6	104.6
	ANNUAL	119.3	130.0	109.0	123.0	100.4	103.2
1989	I	120.4	132.6	110.2	126.6	100.2	105.2
	II	120.6	132.2	109.6	126.7	98.8	105.0
	III	119.2	130.2	109.3	128.1	99.2	107.5
	IV	119.9	129.7	108.2	130.3	99.8	108.6
	ANNUAL	120.0	131.2	109.3	127.9	99.5	106.6
Percent change from previous quarter at annual rate(5)							
1988	I	1.2	4.2	3.0	5.4	2.3	4.2
	II	1.1	3.4	2.2	3.7	-0.9	2.6
	III	2.1	2.8	0.6	5.4	0.4	3.2
	IV	1.0	3.6	2.6	5.8	1.2	4.8
	ANNUAL	2.2	5.2	2.9	3.9	-0.2	1.6
1989	I	1.5	3.2	1.7	3.6	-1.3	2.1
	II	0.7	-1.2	-1.9	0.3	-5.7	-0.5
	III	-4.5	-5.8	-1.3	4.6	1.6	9.6
	IV	2.4	-1.7	-4.0	6.8	2.7	4.4
	ANNUAL	0.6	0.9	0.3	3.9	-0.9	3.3
Percent change from corresponding quarter of previous year							
1988	I	4.2	7.4	3.0	2.5	-1.4	-1.7
	II	1.9	5.6	3.6	3.7	-0.2	1.8
	III	1.8	4.5	2.7	4.5	0.4	2.7
	IV	1.4	3.5	2.1	5.1	0.8	3.7
	ANNUAL	2.2	5.2	2.9	3.9	-0.2	1.6
1989	I	1.4	3.3	1.8	4.6	-0.1	3.2
	II	1.3	2.1	0.7	3.8	-1.4	2.4
	III	-0.4	-0.1	0.2	3.6	-1.1	3.9
	IV	0.0	-1.4	-1.4	3.8	-0.7	3.8
	ANNUAL	0.6	0.9	0.3	3.9	-0.9	3.3

See footnotes following table 6.

December 8, 1993
Source: Bureau of Labor Statistics

Appendix table 1. (continued)

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

Year and quarter		Output per hour of all persons	Output	Hours of all persons	Compensation per hour (1)	Real compensation per hour (2)	Unit labor costs
Indexes 1982=100							
1990	I	121.2	130.8	107.9	131.8	99.2	108.7
	II	121.3	131.0	108.0	133.8	99.7	110.3
	III	122.7	131.3	107.0	135.2	99.2	110.2
	IV	123.1	129.5	105.2	137.6	99.3	111.8
	ANNUAL	122.2	130.6	106.9	134.7	99.4	110.3
1991	I	122.7	126.4	103.0	139.3	99.5	113.5
	II	123.9	126.7	102.3	141.1	100.3	113.9
	III	125.5	128.7	102.6	142.6	100.7	113.6
	IV	126.2	129.2	102.3	145.0	101.6	114.8
	ANNUAL	124.5	127.8	102.6	141.9	100.5	114.0
Percent change from previous quarter at annual rate (5)							
1990	I	4.4	3.6	-0.8	4.7	-2.6	0.3
	II	0.2	0.4	0.2	6.2	2.3	6.0
	III	4.8	1.0	-3.6	4.3	-2.3	-0.5
	IV	1.2	-5.5	-6.6	7.5	0.6	6.2
	ANNUAL	1.8	-0.4	-2.2	5.3	-0.1	3.5
1991	I	-1.2	-9.1	-8.0	4.8	1.0	6.1
	II	4.0	1.0	-2.8	5.2	3.0	1.2
	III	5.3	6.5	1.1	4.5	1.8	-0.8
	IV	2.4	1.3	-1.0	6.7	3.4	4.3
	ANNUAL	1.9	-2.2	-4.1	5.4	1.1	3.4
Percent change from corresponding quarter of previous year							
1990	I	0.7	-1.3	-2.0	4.1	-1.1	3.4
	II	0.6	-0.9	-1.5	5.6	1.0	5.0
	III	2.9	0.8	-2.1	5.5	0.0	2.5
	IV	2.6	-0.2	-2.7	5.7	-0.5	3.0
	ANNUAL	1.8	-0.4	-2.2	5.3	-0.1	3.5
1991	I	1.2	-3.4	-4.6	5.7	0.4	4.4
	II	2.2	-3.2	-5.3	5.4	0.5	3.2
	III	2.3	-2.0	-4.1	5.5	1.6	3.2
	IV	2.6	-0.2	-2.7	5.3	2.3	2.7
	ANNUAL	1.9	-2.2	-4.1	5.4	1.1	3.4

See footnotes following table 6.

December 8, 1993

Source: Bureau of Labor Statistics

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

Year and quarter		Output per hour of all persons	Output	Hours of all persons	Compensation per hour (1)	Real compensation per hour (2)	Unit labor costs

Indexes 1982=100							
1988	I	123.4	134.4	108.9	119.1	98.8	96.5
	II	123.9	136.6	110.2	119.5	98.1	96.4
	III	124.5	137.8	110.6	121.0	98.0	97.1
	IV	125.1	139.5	111.5	123.0	98.6	98.3
	ANNUAL	124.2	137.1	110.4	120.6	98.4	97.1
1989	I	125.7	140.8	112.0	124.2	98.4	98.8
	II	126.6	140.2	110.8	124.2	96.8	98.1
	III	125.6	138.0	109.9	125.9	97.4	100.2
	IV	125.5	136.1	108.4	128.5	98.5	102.3
	ANNUAL	125.8	138.8	110.3	125.6	97.8	99.8

Percent change from previous quarter at annual rate (5)							
1988	I	2.6	5.8	3.1	5.5	2.4	2.8
	II	1.8	6.7	4.8	1.4	-3.1	-0.4
	III	1.9	3.6	1.7	4.9	0.0	3.0
	IV	1.7	5.0	3.2	6.7	2.1	4.9
	ANNUAL	2.9	6.9	3.8	3.1	-1.0	0.1
1989	I	2.1	3.9	1.8	4.2	-0.7	2.1
	II	2.7	-1.8	-4.4	-0.2	-6.1	-2.8
	III	-2.9	-6.0	-3.2	5.5	2.5	8.6
	IV	-0.3	-5.3	-5.1	8.6	4.4	8.9
	ANNUAL	1.3	1.3	0.0	4.2	-0.6	2.8

Percent change from corresponding quarter of previous year							
1988	I	4.7	7.9	3.1	1.7	-2.2	-2.9
	II	2.6	7.4	4.7	2.7	-1.2	0.1
	III	2.8	7.0	4.0	3.6	-0.5	0.7
	IV	2.0	5.3	3.2	4.6	0.3	2.6
	ANNUAL	2.9	6.9	3.8	3.1	-1.0	0.1
1989	I	1.9	4.8	2.9	4.3	-0.5	2.4
	II	2.1	2.6	0.5	3.9	-1.3	1.8
	III	0.9	0.2	-0.7	4.0	-0.6	3.1
	IV	0.4	-2.4	-2.8	4.5	-0.1	4.1
	ANNUAL	1.3	1.3	0.0	4.2	-0.6	2.8

See footnotes following table 6.

December 8, 1993

Source: Bureau of Labor Statistics

Appendix table 2. (continued)

Durable manufacturing: Productivity, hourly compensation, and unit labor costs, seasonally adjusted

Year and quarter		Output per hour of all persons	Output	Hours of all persons	Compensation per hour (1)	Real compensation per hour (2)	Unit labor costs
Indexes 1982=100							
1990	I	126.6	136.9	108.1	129.6	97.5	102.3
	II	127.6	137.8	108.0	131.5	98.0	103.1
	III	129.8	138.4	106.6	132.9	97.5	102.4
	IV	130.3	135.7	104.1	135.5	97.8	104.0
	ANNUAL	128.7	137.2	106.6	132.5	97.8	102.9
1991	I	130.5	132.4	101.4	137.1	98.0	105.0
	II	131.9	132.9	100.8	138.7	98.6	105.2
	III	134.6	135.4	100.6	140.4	99.2	104.4
	IV	136.5	136.4	99.9	143.4	100.4	105.0
	ANNUAL	133.3	134.3	100.7	139.8	99.1	104.9
Percent change from previous quarter at annual rate (5)							
1990	I	3.4	2.2	-1.2	3.4	-3.8	0.0
	II	3.1	2.7	-0.4	6.2	2.2	3.0
	III	7.4	1.9	-5.0	4.3	-2.3	-2.9
	IV	1.5	-7.7	-9.1	8.1	1.2	6.5
	ANNUAL	2.3	-1.1	-3.4	5.5	0.1	3.1
1991	I	0.5	-9.4	-9.9	4.7	0.9	4.1
	II	4.3	1.6	-2.6	5.0	2.7	0.7
	III	8.3	7.7	-0.6	4.9	2.2	-3.2
	IV	6.1	2.8	-3.1	8.7	5.2	2.4
	ANNUAL	3.6	-2.1	-5.5	5.5	1.3	1.9
Percent change from corresponding quarter of previous year							
1990	I	0.7	-2.8	-3.5	4.3	-0.9	3.5
	II	0.8	-1.7	-2.5	5.9	1.3	5.1
	III	3.4	0.3	-2.9	5.6	0.1	2.2
	IV	3.8	-0.3	-4.0	5.5	-0.7	1.6
	ANNUAL	2.3	-1.1	-3.4	5.5	0.1	3.1
1991	I	3.1	-3.3	-6.2	5.8	0.5	2.6
	II	3.4	-3.5	-6.7	5.5	0.6	2.0
	III	3.6	-2.2	-5.6	5.7	1.7	2.0
	IV	4.8	0.5	-4.1	5.8	2.7	1.0
	ANNUAL	3.6	-2.1	-5.5	5.5	1.3	1.9

See footnotes following table 6.

December 8, 1993

Source: Bureau of Labor Statistics

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

Year and quarter		Output per hour of all persons	Output	Hours of all persons	Compensation per hour (1)	Real compensation per hour (2)	Unit labor costs
Indexes 1982=100							
1988	I	112.9	121.1	107.3	124.0	102.9	109.8
	II	113.0	120.8	106.9	126.2	103.5	111.6
	III	113.8	121.3	106.6	128.0	103.8	112.6
	IV	113.8	121.8	107.1	129.3	103.7	113.7
	ANNUAL	113.4	121.3	107.0	126.9	103.5	111.9
1989	I	114.0	122.5	107.5	130.2	103.1	114.2
	II	113.3	122.4	108.0	130.7	101.9	115.3
	III	111.4	120.7	108.4	131.9	102.1	118.4
	IV	113.0	121.8	107.8	133.2	102.1	117.9
	ANNUAL	112.9	121.9	108.0	131.4	102.3	116.4
Percent change from previous quarter at annual rate(5)							
1988	I	-0.7	2.1	2.8	5.1	2.0	5.9
	II	0.4	-1.0	-1.4	7.3	2.5	6.9
	III	2.6	1.6	-1.0	6.1	1.1	3.4
	IV	0.1	1.8	1.7	4.1	-0.4	4.0
	ANNUAL	1.3	3.0	1.6	5.1	0.9	3.7
1989	I	0.7	2.2	1.6	2.6	-2.3	1.9
	II	-2.2	-0.3	2.0	1.6	-4.5	3.8
	III	-6.8	-5.5	1.5	3.6	0.7	11.3
	IV	6.1	3.5	-2.4	4.2	0.2	-1.8
	ANNUAL	-0.4	0.5	0.9	3.6	-1.2	4.0
Percent change from corresponding quarter of previous year							
1988	I	3.6	6.6	2.9	3.9	-0.1	0.3
	II	1.1	3.1	2.0	5.2	1.2	4.0
	III	0.5	1.4	0.9	5.9	1.7	5.4
	IV	0.6	1.1	0.5	5.7	1.3	5.0
	ANNUAL	1.3	3.0	1.6	5.1	0.9	3.7
1989	I	0.9	1.2	0.2	5.0	0.2	4.0
	II	0.3	1.3	1.1	3.6	-1.6	3.3
	III	-2.1	-0.5	1.7	3.0	-1.7	5.2
	IV	-0.7	-0.1	0.6	3.0	-1.5	3.7
	ANNUAL	-0.4	0.5	0.9	3.6	-1.2	4.0

See footnotes following table 6.

December 8, 1993

Source: Bureau of Labor Statistics

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

Year and quarter		Output per hour of all persons	Output	Hours of all persons	Compensation per hour (1)	Real compensation per hour (2)	Unit labor costs
Indexes 1982=100							
1990	I	114.6	123.4	107.7	135.5	102.0	118.3
	II	113.6	122.6	108.0	137.7	102.6	121.2
	III	114.0	122.6	107.6	139.2	102.1	122.2
	IV	114.1	121.8	106.7	141.6	102.1	124.1
	ANNUAL	114.1	122.6	107.4	138.6	102.3	121.4
1991	I	113.1	119.1	105.3	143.5	102.6	126.9
	II	114.1	119.2	104.5	145.5	103.4	127.5
	III	114.4	120.6	105.3	147.0	103.8	128.4
	IV	113.7	120.4	105.8	148.5	104.1	130.6
	ANNUAL	113.8	119.8	105.3	146.1	103.5	128.4
Percent change from previous quarter at annual rate (5)							
1990	I	5.7	5.6	-0.2	7.1	-0.4	1.3
	II	-3.6	-2.6	1.0	6.5	2.5	10.4
	III	1.4	-0.2	-1.6	4.6	-2.1	3.1
	IV	0.6	-2.5	-3.1	7.0	0.1	6.4
	ANNUAL	1.1	0.6	-0.5	5.4	0.0	4.3
1991	I	-3.6	-8.6	-5.2	5.4	1.6	9.3
	II	3.5	0.2	-3.2	5.7	3.4	2.1
	III	1.3	4.8	3.4	4.3	1.6	2.9
	IV	-2.5	-0.7	1.8	4.2	0.9	6.9
	ANNUAL	-0.3	-2.3	-2.0	5.4	1.1	5.7
Percent change from corresponding quarter of previous year							
1990	I	0.5	0.8	0.2	4.1	-1.0	3.5
	II	0.2	0.2	0.0	5.3	0.7	5.1
	III	2.3	1.5	-0.8	5.6	0.0	3.2
	IV	1.0	0.0	-0.9	6.3	0.0	5.3
	ANNUAL	1.1	0.6	-0.5	5.4	0.0	4.3
1991	I	-1.3	-3.5	-2.2	5.9	0.5	7.3
	II	0.4	-2.8	-3.3	5.7	0.8	5.2
	III	0.4	-1.6	-2.1	5.6	1.7	5.1
	IV	-0.3	-1.2	-0.9	4.9	1.9	5.2
	ANNUAL	-0.3	-2.3	-2.0	5.4	1.1	5.7

See footnotes following table 6.

December 8, 1993

Source: Bureau of Labor Statistics