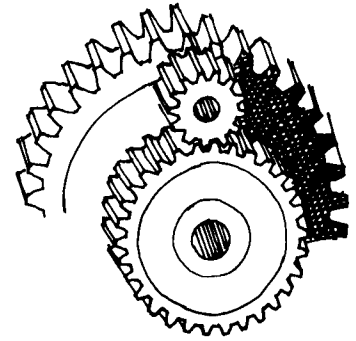


Productivity Reports



The decline in productivity during the first half of 1985

LAWRENCE J. FULCO

Labor productivity in the nonfarm business sector declined over the first two quarters of 1985 as payroll hours grew faster than output in the sector. The increase in hours resulted entirely from employment gains because average weekly hours were unchanged. Increases in hourly compensation remained moderate, as they have during much of the period since the trough of the last recession, but unit labor costs advanced somewhat faster, reflecting the decline in productivity.

Output per hour of all persons engaged in the nonfarm business sector—labor productivity—declined at a 1.0-percent annual rate between the fourth quarter of 1984 and the second quarter of 1985. The decline reflected a 1.5-percent annual rate of growth of output and a 2.5-percent gain in hours.

Hourly compensation rose at a 4.2-percent annual rate over the period, and unit labor costs—compensation per unit of output—increased 5.2 percent. When the rise in the Consumer Price Index for All Urban Consumers (CPI-U) is taken into account, real hourly compensation edged upward at a 0.5-percent annual rate.

The following tabulation shows the changes during the first half of this year in productivity and related measures relative to the fourth quarter of 1984. Additional information appears in tables 29 to 32 of the Current Labor Statistics section of this issue.

Sector	Productivity	Output	Hours
Business	-1.2	1.3	2.6
Nonfarm business	-1.0	1.5	2.5
Manufacturing	3.6	1.4	-2.1
Durable	3.9	0.9	-2.8
Nondurable	3.1	2.2	-1.0
Nonfinancial corporations	-1.4	1.3	2.7

Lawrence J. Fulco is a supervisory economist in the Office of Productivity and Technology, Bureau of Labor Statistics.

Table 1. Changes in productivity and related measures 10 quarters after the trough of postwar recessions

[Percent change at compound annual rate]

Trough quarter	Productivity	Output	Hours	Employment	Hourly compensation	Unit labor costs
Business						
1949 IV	5.1	7.3	2.1	2.2	8.3	3.1
1954 II	3.0	5.1	2.1	2.3	4.7	1.7
1958 II ¹	2.7	5.7	2.9	2.6	4.6	1.8
1961 I	4.5	5.4	0.9	0.9	4.4	-0.1
1970 IV	3.6	6.7	3.0	3.1	6.9	3.3
1975 I	3.7	7.0	3.2	3.2	7.9	4.1
1980 III ¹	2.7	4.5	1.7	1.9	9.3	6.4
Average cycle	4.0	6.3	2.3	2.3	6.5	2.4
1982 IV	2.2	6.5	4.2	3.7	3.9	1.7
Nonfarm business						
1949 IV	4.0	7.8	3.6	3.4	7.6	3.4
1954 II	2.3	5.3	2.9	2.7	5.0	2.7
1958 II ¹	2.3	6.0	3.6	3.2	4.3	1.9
1961 I	4.0	5.7	1.6	1.5	3.6	-0.3
1970 IV	3.7	7.0	3.2	3.2	6.9	3.1
1975 I	3.4	7.1	3.5	3.5	7.7	4.1
1980 III ¹	2.0	3.8	1.8	2.0	9.5	7.4
Average cycle	3.5	6.6	3.0	2.9	6.2	2.6
1982 IV	2.3	6.6	4.3	3.8	4.1	1.8
Manufacturing						
1949 IV	3.8	11.1	6.9	6.0	8.4	4.4
1954 II	2.2	5.5	3.2	2.4	5.5	3.2
1958 II ¹	3.4	8.5	4.9	3.9	4.2	0.8
1961 I	6.3	9.6	3.1	2.1	3.2	-2.9
1970 IV	5.9	10.2	4.1	3.1	6.2	0.3
1975 I	4.1	8.3	4.0	2.9	8.2	3.9
1980 III ¹	4.2	6.6	2.3	2.0	8.4	4.0
Average cycle	4.5	9.0	4.3	3.3	6.3	1.8
1982 IV	3.8	8.1	4.1	3.1	3.7	-0.1

¹Percent change, trough to peak, as designated by the National Bureau of Economic Research.

Business sector

Business productivity declined at a 1.2-percent annual rate over the first two quarters of 1985, reflecting slower output growth and faster increases in hours than in nonfarm business. (Although farming is a relatively small activity—it presently makes up less than 4 percent of output and hours—wide swings in farm productivity and related measures can have an impact on the more comprehensive business

series.) During the first quarter, productivity declined at a 3.9-percent annual rate. Output was unchanged from the fourth quarter of 1984, so the increase in hours of all persons engaged in the sector was translated into lower productivity. In the second quarter, changes in output and hours were more nearly balanced, and productivity increased 1.5 percent.

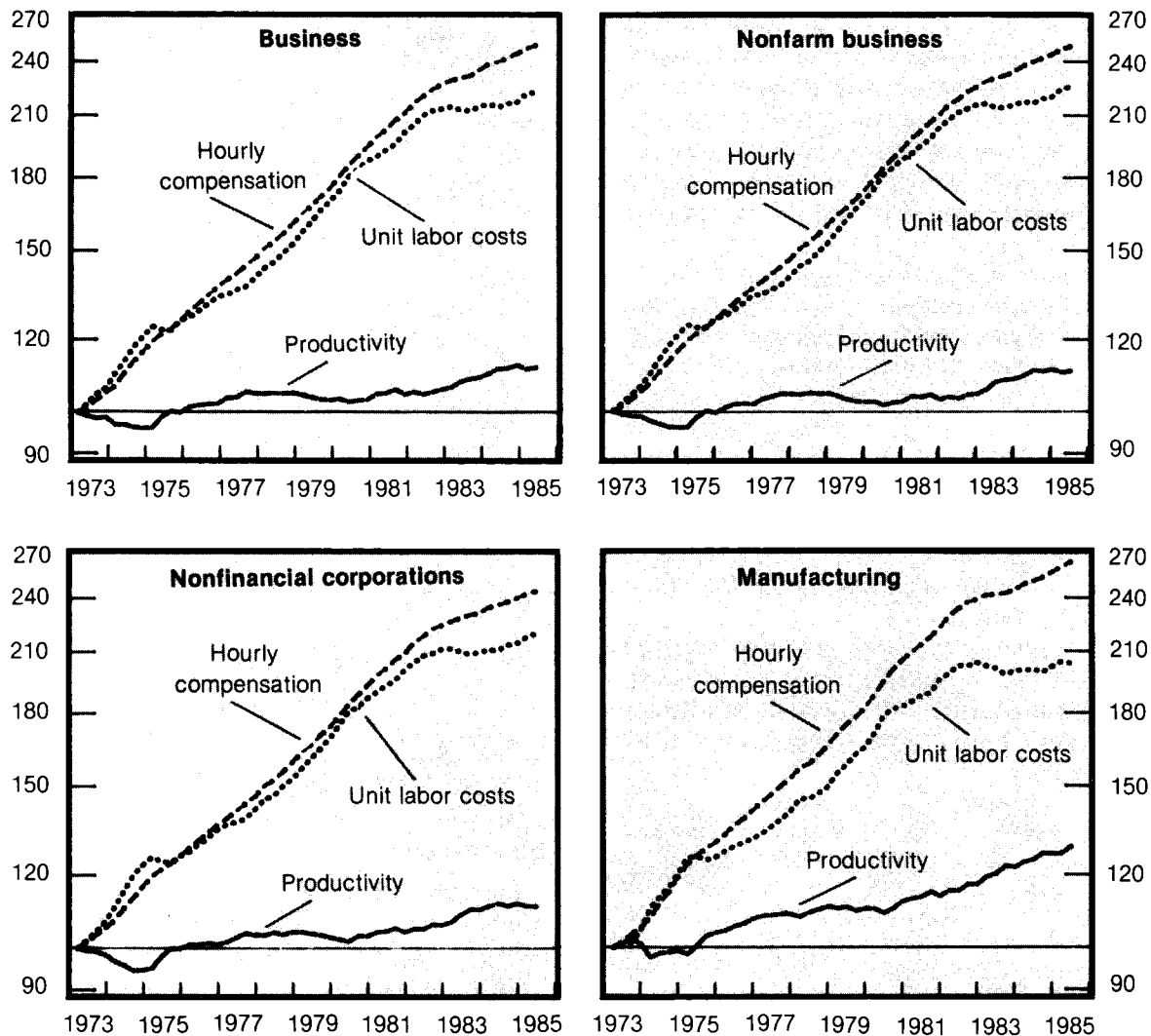
Hourly compensation increased at a 4.8-percent annual rate during the first quarter of 1985, then slowed to 3.3 percent in the second quarter. When increases in consumer prices are considered, real hourly compensation rose 1.4 percent in the first quarter, but declined at a 0.9-percent annual rate during the second. This measure of the real

return to labor for producing the goods and services which make up business output peaked in mid-1978 but subsequently declined as the CPI-U outstripped gains in hourly compensation. During the top quarter of the previous business cycle (the third quarter of 1981) real hourly compensation declines ended; since then slow but fairly steady increases have occurred. Although the increases amounted to a 3.5-percent gain by the second quarter of 1985 over the low of 4 years earlier, real hourly compensation remained 2.7 percent below the 1978 peak.

Unit labor costs (compensation per unit of output) rose at a 9.1-percent annual rate during the first quarter, the largest quarterly increase in almost 3 years. During the

Chart 1. Productivity and related measures in four major sectors of the economy, 1st quarter 1973-2nd-quarter 1985

Ratio scale (1st quarter 1973 = 100)



second quarter, the rise was a more modest 1.7 percent, reflecting both moderation in the rate of increase in hourly compensation and a resumption of productivity gains.

Business employment increased 1.1 million during the first half of 1985 (increasing at a 2.7-percent annual rate), bringing the increase in employment, since the recovery began in late 1982, to 7.5 million.

Nonfarm business

Nonfarm business productivity declined in the first half of 1985, compared with a 4.2-percent annual rate of increase between January and June 1984. As in the more comprehensive business sector, the productivity decline in the first half of 1985 reflected more rapid gains in hours than in output.

During the first quarter, productivity declined, reflecting little output growth, while hours increased more rapidly. In the second quarter the situation reversed: output increased faster and gains in hours slowed, so productivity moved upwards. Hourly compensation increases in the first and second quarters were smaller than during the same quarters last year, but unit labor costs grew much more during 1985 because of the relatively poorer record of productivity growth. Nonfarm business employment rose 1.1 million in the first 6 months of 1985, bringing the gain since the trough of the recession to 7.4 million nonfarm business jobs.

Manufacturing

Manufacturing productivity moved up strongly during the first half of 1985 as hours and employment were reduced, while output increased. The productivity gain in the first half of 1985 was roughly the same as during the same period a year earlier, but stemmed from different underlying movements in output and hours. During 1984, output and hours posted strong gains between January and June, but in 1985, manufacturing output grew slowly, while hours were cut back.

Productivity moved upward in the first and second quarters, in contrast to the productivity declines which occurred in the first quarter in the business sectors. Output growth accelerated from a 0.9-percent annual rate in the first quarter to a 2.0-percent gain during the second, while hours of all persons engaged in the sector increased slightly in the first but declined in the second quarter.

Hourly compensation increased in both quarters, but unit labor costs declined in the second quarter, partly reflecting the strong growth in productivity.

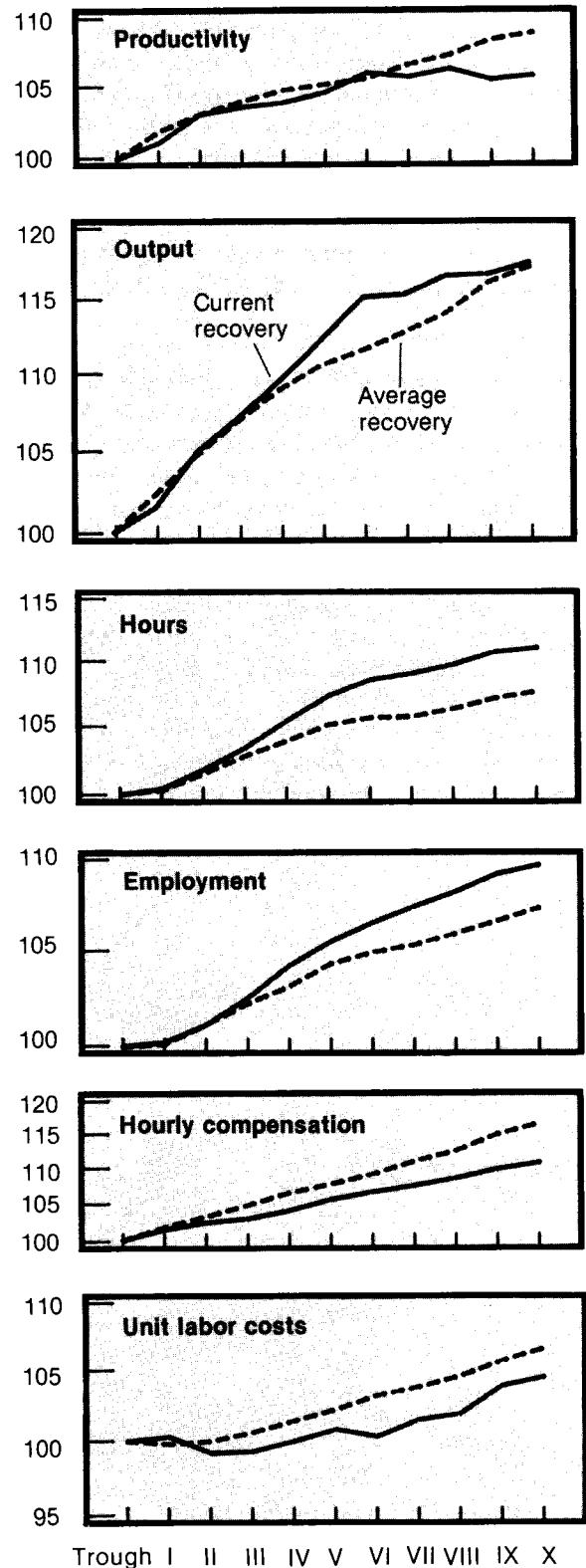
Employment declined in the first half of 1985, but stood 1.5 million higher than during the trough of the business cycle.

Nonfinancial corporations

Productivity declined during the first 6 months of 1985 in the nonfinancial corporate sector, as hours increased more rapidly than output in the sector. Unlike the business sectors,

Chart 2. Productivity and related measures 10 quarters after the trough of the business cycle in the nonfarm business sector

(Index, trough quarter = 100)



however, productivity declined in the first and second quarters, as output grew more slowly than employee hours during both periods.

Hourly compensation increased 3.9 percent in the first quarter and 3.0 percent in the second, but after allowing for the rise in consumer prices, real hourly compensation grew 0.6 percent in the first quarter but declined 1.2 percent in the second. Both unit labor and nonlabor costs (indirect business taxes and capital consumption allowance) increased during the first two quarters, but unit profits fell. Employment in the sector increased by nearly a million jobs during the first half of 1985, and by 6.1 million since the trough of the business cycle.

Chart 1 shows how productivity, hourly compensation, and unit labor costs have behaved since 1973.

Recovery period

The second quarter of 1985 marked the 10th quarter since the trough of the most recent business cycle. The trough occurred in November 1982, according to the National Bureau of Economic Research. Since 1947, eight business cycle troughs have been identified by the National Bureau of Economic Research; six of these troughs have been followed by at least 10 quarters of recovery and expansion. Although productivity growth generally accelerates during recoveries in the business cycle, the annual rate of growth during the 10-quarter period following the most recent trough (2.3 percent) was below the average (3.5 percent) of previous like recovery periods in nonfarm business and showed the least growth of any 10-quarter recovery. Other similar recovery periods had growth rates which ranged from 2.3

to 4.0 percent. (See table 1.)

However, comparing recovery periods ignores the slowdown in productivity growth after 1973. Prior to 1973, nonfarm productivity grew at about half again the trend rate during the 10 quarters of recovery. In the current instance, productivity growth during recovery is better than double the underlying trend rate. Thus, the "productivity dividend" associated with this recovery period appears much stronger when the slower underlying trend is considered. In manufacturing, there is a smaller difference between the current recovery productivity increment and the average pre-1973 acceleration, but the current recovery still represents a bigger improvement over trend than during the average manufacturing recovery prior to the slowdown.

This recovery has also been marked by an unusually slow rate of increase in hourly compensation, so that despite the sluggish productivity recovery, unit labor cost increases have been very modest over the 10 quarters. In manufacturing, these costs have actually declined somewhat. Chart 2 shows how nonfarm business productivity and related measures have performed since the trough of the business cycle.

Compensation outlays account for the largest portion of value added by nonfarm business. Typically, the compensation of labor makes up roughly two-thirds of output (in current dollars). The slow rate of increase in hourly compensation and unit labor costs during the present expansion is reflected in the measure of labor share (compensation divided by output). Labor share has been below average in nearly every quarter of the current recovery, and in the second quarter of 1985 remained 3.0 percent below its fourth-quarter 1982 level. □