

# News

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## MULTIFACTOR PRODUCTIVITY MEASURES, 1988 and 1989

### Private Business, Private Nonfarm Business, and Manufacturing

The Bureau of Labor Statistics of the U.S. Department of Labor today reported multifactor productivity measures--output per unit of combined labor and capital--for 1988 and 1989. Multifactor productivity changed from 1987 to 1988 and from 1988 to 1989 at the following percent rates:

	1987-88	1988-89
Private business	2.4	-0.4
Private nonfarm business	2.6	-0.6
Manufacturing	6.6	3.0

Multifactor productivity in private business and private nonfarm business declined in 1989 following six consecutive annual increases. Gains for these measures in 1988 had been the largest in four years. The last decrease in multifactor productivity for the business sectors was in 1982. In manufacturing, multifactor productivity increased in 1989 for the seventh consecutive year, but the increase was the smallest since 1982. The 1988 and 1989 annual changes are summarized in table A; further detail and historical measures are shown in tables 1 through 12.

The change in multifactor productivity reflects the difference between the change in output (production of goods and services) and the change in labor and capital inputs engaged in the production of the output. Multifactor productivity does not measure the specific contributions of labor, capital, or any other factor of production. Instead, it reflects the joint effects of many factors, including new technology, economies of scale, change in the composition of labor input (as measured by education and experience), managerial skill, and change in the organization of production.

The multifactor productivity measures for private business, private nonfarm business, and manufacturing reported in this release incorporate four improvements in methods. See page 7 for a description of these improvements.

Table A. Productivity indexes and related measures Percent change from 1988 to 1989			
Item	Private business 1/	Private nonfarm business 1/	Manu- facturing
<b>Productivity:</b>			
Output per hour of all persons.....	-0.5	-0.6	3.3
Output per unit of capital services..	-0.3	-0.6	2.2
Multifactor productivity 2/.....	-0.4	-0.6	3.0
Output.....	2.1	2.0	3.6
<b>Inputs:</b>			
Hours of all persons.....	2.6	2.7	0.3
Capital services.....	2.4	2.7	1.4
Combined units of labor and capital input 3/.....	2.5	2.7	0.6
Capital services per hour of all persons (capital-labor ratio)....	-0.1	0.0	1.0

Percent change from 1987 to 1988			
Item	Private business 1/	Private nonfarm business 1/	Manu- facturing
<b>Productivity:</b>			
Output per hour of all persons.....	2.3	2.5	6.0
Output per unit of capital services..	2.7	2.8	8.1
Multifactor productivity 2/.....	2.4	2.6	6.6
Output.....	5.3	5.7	9.2
<b>Inputs:</b>			
Hours of all persons.....	3.0	3.1	3.0
Capital services.....	2.6	2.8	1.0
Combined units of labor and capital input 3/.....	2.8	3.1	2.4
Capital services per hour of all persons (capital-labor ratio)....	-0.4	-0.3	-1.9

1/ Excludes government enterprises.

2/ Output per unit of combined labor and capital input.

3/ Hours of all persons combined with capital service input index, weighted by labor's and capital's shares of nominal output.

Preliminary and revised measures of both quarterly and annual labor productivity, or output per hour, are published by the Bureau of Labor Statistics each quarter. The percent change in labor productivity indicates the portion of the change in output that cannot be accounted for by the change in labor inputs. In contrast, the percent change in multifactor productivity indicates the portion of the change in output that cannot be accounted for by the change in combined inputs of labor and capital.

#### Private business sector

1989. The multifactor productivity decrease, 0.4 percent, was the first decline in private business since 1982 (table 4). Underlying the overall decline was the smallest output growth since 1982, 2.1 percent, and a slightly slower rate of increase in combined inputs of capital and labor, 2.5 percent. The growth rates of both hours and capital services slowed in 1989 resulting in the third consecutive decline in the ratio of capital services to hours at work (the capital-labor ratio). The only other period of three consecutive declines occurred between 1975 and 1978. In most years, capital services increase more rapidly than hours. The real capital input of equipment continued to increase more rapidly than structures, rental residential capital, inventories and land (table 10). While the increase in equipment (4.3 percent) was the same as the year before, structures grew more slowly (1.1 percent).

Labor productivity in 1989 declined for the first time since 1982 as output growth of 2.1 percent did not keep pace with a 2.6 percent increase in hours. Capital productivity (the ratio of output to capital services) also declined 0.3 percent after increases in both 1987 and 1988.

1988. The multifactor productivity increase, 2.4 percent, was the sixth consecutive annual increase since 1982. It resulted from a 5.3 percent increase in output and a 2.8 percent increase in combined labor and capital inputs. Separately, hours at work (labor input) increased 3.0 percent and capital services grew 2.6 percent. The slowest growth in capital services since 1985 caused the capital-labor ratio to decline 0.4 percent.

Output increased more rapidly than hours at work in 1988, resulting in an increase in labor productivity (output per hour of all persons) of 2.3 percent from 1987 to 1988.

#### Private nonfarm business

1989. Multifactor productivity declined 0.6 percent (table 5). The 2.0 percent increase in output was the smallest since 1982; combined inputs of hours and capital services increased 2.7 percent. Hours at work and capital services increased at the same rate, 2.7 percent. Hence, the capital-labor ratio remained unchanged after two successive declines. The capital services of equipment rose 4.7 percent (table 11), and structures increased 1.2 percent.

Labor productivity declined 0.6 percent in this sector in 1989 as growth in output (2.0 percent) failed to keep pace with the increase in hours at work (2.7 percent) for the first time since 1982. Capital productivity also declined 0.6 percent in 1989, the first decline in four years.

1988. Multifactor productivity grew 2.6 percent. This was the sixth consecutive annual increase and the fastest rate of growth since 1984. Output increased 5.7 percent, while combined inputs of capital and labor grew 3.1 percent. Separately, hours at work rose 3.1 percent and capital services increased 2.9 percent. The largest gain in hours since 1984, combined with the smallest increase in capital services since 1983, caused a decline of 0.3 percent in the capital-labor ratio.

Labor productivity rose 2.5 percent, and capital productivity gained 2.8 percent. Both increases were larger than in 1987.

### Manufacturing

1989. Multifactor productivity rose 3.0 percent (table 6). This was the seventh consecutive increase, but the smallest rise since 1982. In recent years, manufacturing has consistently recorded stronger multifactor productivity gains than either of the private business sectors. Since 1982, multifactor productivity in manufacturing has grown 3 percent or more every year (table 6); in private business and private nonfarm business, annual gains have averaged less than 2.0 percent.

In 1989, output rose at a much slower rate, 3.6 percent. Combined inputs of hours and capital services also increased at a slower rate, 0.6 percent. Hours at work in manufacturing increased 0.3 percent and capital services increased 1.4 percent. Unlike private business and private nonfarm business, capital services increased at a faster rate in 1989 than in 1988. Capital equipment increased 2.1 percent and structures gained 0.7 percent (table 12). These were the largest gains since 1986. The resulting capital-labor ratio rose 1.0 percent, the largest increase since 1986.

Labor productivity increased for the ninth consecutive year, but the 3.3 percent gain was the smallest since 1982. Capital productivity rose 2.2 percent in 1989, the smallest increase since 1986.

1988. Multifactor productivity increased 6.6 percent, one of the largest increases in several decades. The increase in output, 9.2 percent, was much faster than in the year before. Combined inputs of hours and capital services grew 2.4 percent. Hours at work rose 3.0 percent, the second largest increase in a decade. The increase in capital services (1.0 percent) was the third consecutive increase of less than 2.0 percent. The capital-labor ratio fell 1.9 percent, the first decrease since 1984.

In 1988, labor productivity rose 6.0 percent in manufacturing, the eighth consecutive annual increase. Capital productivity increased 8.1 percent, the largest increase since 1984. In manufacturing, gains in both labor and capital productivity have been stronger in recent years than in the other two major sectors.

### Long-term trends

From 1948 to 1989, multifactor productivity grew at an average annual rate of 1.4 percent in private business; 1.1 percent in private nonfarm business; and 2.1 percent in manufacturing (table B). These long-term rates reflect the difference between the average annual rate of change in labor productivity (output per hour at work) and the average annual contribution of capital intensity. Hence, the 1.4 percent rate of growth between 1948 and 1989 in private business equals the 2.3 percent growth in labor productivity minus the 0.9 percent growth in the contribution of capital intensity. The latter equals the change in the capital-labor ratio multiplied by capital's share of total output; historically, capital's share has been less than one-third of total costs.

The widely discussed post-1973 productivity slowdown is apparent from the data in table B. From 1948 to 1973, multifactor productivity grew at an annual rate of 2.0 percent in private business and 1.6 percent in private nonfarm business. These rates, combined with the growth rates in the contribution of capital intensity, resulted in labor productivity growth rates of 3.0 percent and 2.5 percent, respectively, in private business and private nonfarm business.

During the period 1973 to 1979, gains in multifactor productivity slowed to only 0.2 percent per year in private business. At the same time, the average annual contribution of capital intensity decreased to 0.6 percent. Labor productivity, therefore, increased only 0.8 percent per year from 1973 to 1979. A similar slowdown occurred in private nonfarm business during the 1973-79 period.

Multifactor productivity in manufacturing grew at an annual rate of 2.1 percent from 1948 to 1973. This growth rate fell to 0.5 percent during the years 1973 to 1979. However, the contribution of capital intensity did not fall as it did in the two business sectors and instead increased slightly, to 1.0 percent per year. This small increase in the contribution of capital intensity dampened the decline in labor productivity growth in manufacturing compared to the two larger sectors.

In the latest period, 1979 to 1989, multifactor productivity in manufacturing increased 2.9 percent per year, and labor productivity rose 3.6 percent per year. These results exceeded the growth rates of the 1948-73 period. On the other hand, multifactor productivity grew only 0.8 percent per year in private business and 0.6 percent per year in private nonfarm business during this period. These growth rates represent an increase from the 1973-79 rates but are still well below the pre-1973 rates.

Table B. Compound annual rates of growth in output per hour of all persons, the contribution of capital intensity, and multifactor productivity, by major sector, 1948 to 1989

Measure	1948- 1989	1948- 1973	1973- 1979	1979- 1989
<u>Private business</u> <u>1/</u>				
Output per hour of all persons	2.3	3.0	0.8	1.3
Contribution of capital intensity <u>2/</u>	0.9	1.0	0.6	0.6
Multifactor productivity <u>3/</u>	1.4	2.0	0.2	0.8
<u>Private nonfarm business</u> <u>1/</u>				
Output per hour of all persons	1.9	2.5	0.6	1.1
Contribution of capital intensity <u>2/</u>	0.8	0.9	0.6	0.5
Multifactor productivity <u>3/</u>	1.1	1.6	0.0	0.6
<u>Manufacturing</u>				
Output per hour of all persons	2.8	2.9	1.4	3.6
Contribution of capital intensity <u>2/</u>	0.8	0.8	1.0	0.6
Multifactor productivity <u>3/</u>	2.1	2.1	0.5	2.9

1/ Excludes government enterprises.

2/ Change in capital services per hour times capital's share of current dollar output.

3/ Output per unit of combined labor and capital input.

The sum of multifactor productivity and the contribution of capital intensity may not equal labor productivity due to rounding.

Source: Tables 4-6.

**Improvements in methods:** There are four improvements in the methods of calculating multifactor productivity. First, labor input is redefined in all sectors to the hours at work of all persons. Incorporating the results of the Hours at Work Survey and previous survey data, the labor input measures now reflect hours at the work site rather than hours paid. The second revision excludes most indirect business taxes from the measures of capital costs. Indirect business taxes assessed directly on capital assets continue to be included. Previously, all indirect business taxes were included. As a result of this change, both the rental price of specific assets and capital's share of total costs are revised. Third, subsidies are now allocated proportionately between capital and labor costs. Subsidies, which lower costs, were previously allocated entirely to capital costs. The fourth revision changes the method of aggregating capital services. Industry capital services are obtained by weighting capital stocks for each asset type within each industry using the respective industry-specific rental prices. Rental prices of capital for the same asset type may now differ across industries. Previously, the rental price for each asset was averaged over an entire sector (manufacturing, farm, and nonfarm non-manufacturing) and the rental price for each asset was identical for all industries within a sector. Changes in the aggregation method of capital revise the measures of capital services for all three sectors. These four revisions to the measures of labor, capital and productivity beginning in 1948 are incorporated into the figures found in tables A, B, and 1 through 12.

**Note:** The Bureau of Economic Analysis (BEA) of the Department of Commerce has recently published revisions to their measures of current and constant dollar gross product originating by industry for the period 1977-88. At this time, 1989 gross product originating data for manufacturing output have not been issued. Preliminary measures of real manufacturing output are based on the Federal Reserve Board's monthly indexes of industrial production for durable and nondurable manufacturing for 1989. Current dollar manufacturing output is estimated assuming that employee compensation is a constant share of output. Trends in real manufacturing output prior to 1977 continue to be based on unrevised gross product originating data. However, BEA plans further work to improve its pre-1977 gross product originating data, and BLS will revise its pre-1977 multifactor productivity measures when that work is complete.

Measures for 1989 proprietors' income also have not been issued by the U.S. Department of Commerce. Preliminary measures are based on the hours of proprietors and hourly earnings of employees in 1989. The multifactor productivity measures for all sectors will be revised when the proprietors' income data become available.

At the detailed industry level used to measure capital services, the measures of hours and compensation continue to reflect the data prior to the rebenchmarking of the Current Employment Statistics survey of establishments to the March 1988 unemployment insurance data. The sectoral measures of hours and compensation are defined as the sum across industries within a sector. To reflect the most recent trends in hours and compensation, preliminary measures of hours of all persons and labor compensation in each sector for 1988 are made by applying the 1988 post-benchmark growth rates in these series to the 1987 pre-benchmark measures. Similarly, the 1989 measures of hours and compensation are made by multiplying the 1989 post-benchmark growth rates to the 1988 preliminary measures.

### Summary of Methods

The following note describes the major data sources and the procedures used in deriving BLS multifactor productivity indexes. More detailed information on the methods, limitations, and data sources is provided in BLS Bulletin 2178, "Trends in Multifactor Productivity, 1948-81."

The multifactor productivity indexes are derived by dividing an output index by an input index which is a weighted average of the hours at work of all persons and capital services. The output indexes are computed from measures of constant dollar gross domestic product, derived from the national income and product accounts (NIPA) developed by the Bureau of Economic Analysis (BEA) of the U.S. Department of Commerce.

The capital input series measures the services derived from the stock of physical assets. The assets included are fixed business equipment, structures, inventories, and land. Structures include nonresidential structures and residential capital which is rented out by profit-making firms or persons. Financial assets are excluded as are owner-occupied residential structures. The aggregate capital measures are obtained by weighting the capital stocks for each asset type within each industry using the respective rental prices. Rental prices are the sum of the real rate of return to all assets within the industry and the rate of depreciation of the specific asset, adjusted for the effect of taxes. Data on physical assets and the gross product originating by industry used in measuring the rental prices are obtained from the BEA.

The labor and capital components of the input indexes are combined with weights which represent each component's share of total costs. The index uses changing weights where the share in each year is averaged with the preceding year's share.

Data are presented for the private business, private nonfarm business, and manufacturing sectors. The private business sector, which accounts for about 80 percent of the gross national product, includes all activities in the economy with the exception of general government, government enterprises, the rest-of-the-world sector, owner-occupied housing, nonprofit institutions, private household employees, and the statistical discrepancy in computing the NIPA. The private nonfarm business sector also excludes farms but includes agricultural services.

These multifactor productivity measures describe the relationship between output in real terms and the labor time and capital services involved in its production. They do not measure the specific contributions of labor, capital, or any other factor of production. Rather, they reflect the joint effects of many factors, including new technology, economies of scale, change in the composition of labor input (as measured by education and experience), managerial skill, and change in the organization of production.



Table 1. Private business sector: Productivity and related measures, 1948-89 [1]

Indexes 1982=100

Year	Productivity			Output [3]	Inputs			Capital per hour of all persons
	Output per hour of all persons	Output per unit of capital	Multifactor productivity [2]		Hours of all persons [4]	Capital Services [5]	Combined units of labor and capital inputs[6]	
1948	44.9	132.8	63.2	35.8	79.7	27.0	56.7	33.8
1949	45.3	126.3	62.5	34.9	77.0	27.6	55.9	35.9
1950	49.3	132.5	67.1	38.3	77.8	28.9	57.2	37.2
1951	51.4	134.0	69.2	41.1	79.9	30.7	59.4	38.4
1952	53.1	133.4	70.6	42.4	79.9	31.8	60.1	39.8
1953	55.2	135.5	72.8	44.4	80.6	32.8	61.1	40.7
1954	56.0	130.0	72.6	43.6	77.8	33.5	60.0	43.1
1955	57.8	134.0	75.0	46.7	80.7	34.8	62.3	43.1
1956	58.7	132.3	75.4	48.0	81.9	36.3	63.7	44.4
1957	60.3	129.2	76.2	48.6	80.5	37.6	63.7	46.7
1958	62.1	124.1	76.8	47.6	76.6	38.4	62.0	50.0
1959	64.3	130.1	79.9	51.2	79.6	39.3	64.1	49.4
1960	65.4	128.5	80.5	52.1	79.6	40.5	64.7	50.9
1961	67.9	128.1	82.4	53.1	78.3	41.5	64.4	53.0
1962	70.1	130.6	84.8	55.9	79.8	42.8	66.0	53.7
1963	73.0	132.0	87.5	58.5	80.2	44.3	66.9	55.3
1964	76.3	134.9	90.7	62.1	81.4	46.0	68.4	56.6
1965	78.7	136.6	93.0	66.0	83.9	48.3	71.0	57.6
1966	80.8	135.6	94.5	69.5	85.9	51.2	73.5	59.6
1967	83.3	131.8	95.6	71.3	85.6	54.1	74.6	63.2
1968	85.9	131.6	97.5	74.5	86.8	56.6	76.4	65.3
1969	86.2	128.9	97.1	76.6	88.9	59.4	78.8	66.9
1970	87.0	122.2	96.3	75.8	87.2	62.1	78.8	71.2
1971	89.8	121.0	98.2	78.0	86.8	64.4	79.4	74.2
1972	92.7	123.9	101.0	83.0	89.5	66.9	82.1	74.8
1973	94.9	125.1	103.0	88.0	92.8	70.4	85.4	75.8
1974	93.1	116.9	99.7	86.4	92.7	73.9	86.7	79.7
1975	95.1	110.6	99.4	84.5	88.9	76.4	85.0	86.0
1976	97.9	114.1	102.5	89.5	91.4	78.5	87.3	85.9
1977	99.7	116.9	104.6	94.8	95.0	81.0	90.6	85.3
1978	100.6	119.0	105.8	100.3	99.7	84.3	94.8	84.6
1979	99.5	116.3	104.2	102.3	102.8	87.9	98.1	85.6
1980	99.2	109.3	102.1	101.0	101.9	92.4	99.0	90.7
1981	100.7	106.9	102.5	103.2	102.5	96.6	100.7	94.2
1982	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1983	102.5	101.8	102.3	104.3	101.8	102.4	102.0	100.6
1984	105.2	106.7	105.6	113.2	107.6	106.1	107.1	98.6
1985	107.4	106.8	107.2	118.0	109.9	110.5	110.1	100.5
1986	109.8	106.3	108.7	121.6	110.7	114.4	111.9	103.3
1987	111.2	107.7	110.1	126.7	114.0	117.6	115.1	103.2
1988	113.7	110.6	112.8	133.5	117.4	120.7	118.4	102.8
1989	113.2	110.3	112.3	136.3	120.4	123.6	121.4	102.7

See footnotes following table 6.

Source: Bureau of Labor Statistics

Table 2. Private nonfarm business sector: Productivity and related measures, 1948-89 [1]

Indexes 1982=100

Year	Productivity			Output [3]	Inputs			Capital per hour of all persons
	Output per hour of all persons	Output per unit of capital	Multifactor productivity [2]		Hours of all persons [4]	Capital Services [5]	Combined units of labor and capital inputs[6]	
1948	52.1	139.9	70.5	35.2	67.6	25.2	50.0	37.3
1949	53.1	133.8	70.2	34.4	64.9	25.7	49.0	39.7
1950	56.6	140.4	74.4	37.8	66.8	26.9	50.8	40.3
1951	58.3	142.6	76.3	40.8	69.9	28.6	53.4	40.9
1952	59.7	141.8	77.4	42.1	70.5	29.7	54.4	42.1
1953	61.1	143.8	78.9	44.1	72.2	30.7	55.9	42.5
1954	62.0	137.7	78.7	43.2	69.7	31.4	54.9	45.0
1955	63.9	141.9	81.1	46.3	72.5	32.7	57.1	45.0
1956	64.3	139.9	81.1	47.8	74.3	34.2	58.9	46.0
1957	65.6	136.7	81.6	48.4	73.8	35.4	59.3	48.0
1958	67.2	131.0	81.9	47.4	70.5	36.2	57.9	51.3
1959	69.4	137.4	85.0	51.1	73.6	37.2	60.1	50.5
1960	70.2	135.1	85.2	51.9	74.0	38.4	60.9	51.9
1961	72.4	134.4	86.9	52.9	73.1	39.4	60.9	53.9
1962	74.5	137.0	89.2	55.9	74.9	40.8	62.6	54.4
1963	77.3	138.4	91.7	58.5	75.7	42.3	63.8	55.8
1964	80.3	141.5	94.8	62.2	77.5	44.0	65.6	56.8
1965	82.4	143.0	96.8	66.2	80.3	46.3	68.4	57.6
1966	84.1	142.0	97.9	69.9	83.1	49.2	71.4	59.2
1967	86.3	137.5	98.6	71.7	83.1	52.1	72.6	62.7
1968	88.9	137.3	100.6	75.1	84.5	54.7	74.6	64.7
1969	88.6	134.0	99.7	77.1	86.9	57.5	77.3	66.2
1970	89.1	126.6	98.5	76.2	85.5	60.2	77.4	70.4
1971	91.8	125.1	100.2	78.3	85.3	62.6	78.1	73.4
1972	94.6	127.9	103.1	83.4	88.1	65.2	80.9	74.0
1973	96.7	128.9	104.9	88.6	91.6	68.7	84.4	75.0
1974	94.9	120.1	101.5	86.9	91.6	72.4	85.7	79.0
1975	96.7	113.1	101.1	84.8	87.7	75.0	83.9	85.5
1976	99.4	116.6	104.0	90.0	90.6	77.2	86.6	85.2
1977	101.0	119.4	105.9	95.4	94.4	79.9	90.1	84.6
1978	101.9	121.3	107.1	101.1	99.2	83.3	94.4	84.0
1979	100.3	117.6	104.9	102.9	102.6	87.5	98.1	85.3
1980	99.9	110.5	102.8	101.7	101.8	92.0	98.9	90.3
1981	100.9	107.4	102.7	103.4	102.5	96.3	100.7	94.0
1982	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1983	103.1	102.4	102.9	105.0	101.9	102.6	102.1	100.6
1984	105.3	106.9	105.8	113.8	108.1	106.4	107.6	98.4
1985	106.7	106.5	106.6	118.3	110.9	111.0	110.9	100.2
1986	108.9	105.7	107.9	121.8	111.9	115.2	112.8	103.0
1987	110.1	107.0	109.2	127.0	115.4	118.7	116.4	102.8
1988	112.8	110.0	112.0	134.3	119.0	122.0	119.9	102.5
1989	112.1	109.3	111.3	137.0	122.3	125.3	123.2	102.5

See footnotes following table 6.

Source: Bureau of Labor Statistics

Table 3. Manufacturing sector: Productivity and related measures, 1948-89

Indexes 1982=100

Year	Productivity			Output [3]	Inputs			Capital per hour of all persons
	Output per hour of all persons	Output per unit of capital	Multifactor productivity [2]		Hours of all persons [4]	Capital Services [5]	Combined units of labor and capital inputs[6]	
1948	43.7	145.5	59.8	38.7	88.6	26.6	64.8	30.1
1949	45.5	136.9	60.4	36.7	80.8	26.8	60.8	33.2
1950	48.0	151.5	64.6	41.9	87.2	27.6	64.8	31.7
1951	50.0	153.2	66.7	46.9	93.8	30.6	70.3	32.6
1952	50.9	150.0	67.2	48.5	95.2	32.3	72.1	34.0
1953	52.1	154.6	68.9	52.0	99.9	33.7	75.6	33.7
1954	52.7	142.5	68.0	48.2	91.4	33.8	70.8	37.0
1955	55.2	151.8	71.6	53.3	96.5	35.1	74.4	36.4
1956	54.9	144.9	70.4	53.7	97.9	37.1	76.3	37.9
1957	56.1	140.5	71.0	54.0	96.3	38.5	76.2	40.0
1958	55.7	127.6	68.8	49.3	88.4	38.6	71.6	43.7
1959	58.2	140.1	72.9	54.9	94.3	39.2	75.3	41.6
1960	58.6	136.7	72.7	55.0	93.9	40.2	75.7	42.8
1961	60.2	134.9	73.9	55.1	91.5	40.8	74.5	44.6
1962	62.7	141.8	77.2	59.8	95.3	42.2	77.4	44.3
1963	67.1	148.4	82.1	64.5	96.3	43.5	78.6	45.2
1964	70.3	153.8	85.8	69.1	98.3	44.9	80.6	45.7
1965	72.2	158.0	88.1	75.2	104.0	47.6	85.3	45.7
1966	73.1	156.9	88.7	80.9	110.8	51.6	91.3	46.6
1967	73.3	144.3	86.7	80.7	110.2	55.9	93.1	50.8
1968	75.9	143.9	88.9	84.8	111.8	59.0	95.4	52.7
1969	77.1	141.0	89.5	87.2	113.1	61.9	97.5	54.7
1970	77.4	128.1	87.5	82.3	106.4	64.3	94.0	60.4
1971	81.6	127.1	90.9	83.7	102.6	65.8	92.0	64.2
1972	85.0	135.1	95.2	91.1	107.2	67.4	95.7	62.9
1973	89.6	143.5	100.6	100.9	112.6	70.3	100.3	62.4
1974	87.3	130.1	96.4	96.1	110.0	73.9	99.8	67.1
1975	89.6	115.5	95.3	88.9	99.3	76.9	93.3	77.5
1976	93.8	122.9	100.2	97.5	104.0	79.3	97.3	76.3
1977	96.7	127.5	103.5	104.7	108.3	82.1	101.2	75.8
1978	96.9	128.1	103.8	109.5	113.0	85.4	105.4	75.6
1979	97.4	125.6	103.7	112.2	115.2	89.3	108.2	77.6
1980	96.6	113.4	100.5	106.2	109.9	93.6	105.7	85.2
1981	97.9	109.6	100.7	106.9	109.2	97.6	106.2	89.3
1982	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1983	105.0	105.7	105.2	106.2	101.1	100.5	101.0	99.4
1984	110.1	115.7	111.5	118.6	107.7	102.5	106.3	95.2
1985	114.8	117.1	115.4	122.8	107.0	104.8	106.4	98.0
1986	120.1	118.9	119.7	126.6	105.4	106.5	105.7	101.0
1987	126.3	124.6	125.8	133.9	106.0	107.5	106.4	101.4
1988	133.8	134.6	134.1	146.2	109.2	108.6	109.0	99.4
1989	138.2	137.6	138.1	151.5	109.6	110.1	109.7	100.4

See footnotes following table 6.

Source: Bureau of Labor Statistics

Table 4. Private business sector: Productivity and related measures, 1949-89 [1]

Percent Change								
Year	Productivity			Output [3]	Inputs			Capital per hour of all persons
	Output per hour of all persons	Output per unit of capital	Multifactor productivity [2]		Hours of all persons [4]	Capital Services [5]	Combined units of labor and capital inputs[6]	
1949	0.9	-4.8	-1.2	-2.6	-3.4	2.4	-1.4	6.1
1950	8.8	4.9	7.4	9.9	1.0	4.8	2.3	3.7
1951	4.3	1.2	3.2	7.2	2.8	6.0	3.9	3.1
1952	3.3	-0.5	2.0	3.2	-0.1	3.7	1.2	3.8
1953	3.9	1.6	3.1	4.7	0.8	3.1	1.6	2.2
1954	1.6	-4.0	-0.2	-1.9	-3.4	2.3	-1.7	5.9
1955	3.2	3.1	3.2	7.0	3.7	3.8	3.7	0.1
1956	1.5	-1.3	0.6	2.9	1.4	4.3	2.4	2.8
1957	2.8	-2.3	1.1	1.1	-1.7	3.5	-0.1	5.2
1958	2.9	-4.0	0.7	-2.0	-4.8	2.0	-2.7	7.2
1959	3.6	4.8	4.0	7.6	3.8	2.6	3.4	-1.2
1960	1.8	-1.2	0.8	1.8	0.0	3.1	1.0	3.0
1961	3.7	-0.3	2.4	2.0	-1.7	2.3	-0.4	4.1
1962	3.4	2.0	2.9	5.3	1.9	3.3	2.3	1.3
1963	4.1	1.1	3.2	4.6	0.5	3.5	1.4	3.0
1964	4.5	2.1	3.7	6.1	1.6	3.8	2.3	2.3
1965	3.1	1.3	2.5	6.3	3.1	5.0	3.7	1.8
1966	2.8	-0.7	1.6	5.2	2.4	6.0	3.6	3.5
1967	3.0	-2.8	1.1	2.7	-0.3	5.6	1.5	6.0
1968	3.1	-0.2	2.0	4.5	1.4	4.7	2.4	3.3
1969	0.3	-2.1	-0.4	2.7	2.4	4.9	3.2	2.5
1970	0.9	-5.2	-0.9	-1.0	-1.9	4.4	-0.1	6.5
1971	3.3	-1.0	2.0	2.8	-0.5	3.8	0.8	4.3
1972	3.1	2.4	2.9	6.4	3.2	3.9	3.4	0.7
1973	2.4	1.0	2.0	6.1	3.6	5.1	4.1	1.4
1974	-1.8	-6.6	-3.3	-1.9	0.0	5.0	1.5	5.1
1975	2.1	-5.4	-0.2	-2.2	-4.2	3.4	-1.9	7.9
1976	3.0	3.2	3.1	5.9	2.8	2.7	2.8	-0.1
1977	1.8	2.5	2.1	5.9	4.0	3.3	3.7	-0.7
1978	0.9	1.7	1.2	5.8	4.9	4.0	4.6	-0.8
1979	-1.2	-2.3	-1.5	2.0	3.2	4.3	3.5	1.1
1980	-0.3	-6.0	-2.0	-1.2	-0.9	5.1	0.8	6.0
1981	1.5	-2.2	0.4	2.2	0.6	4.5	1.8	3.8
1982	-0.7	-6.5	-2.4	-3.1	-2.5	3.6	-0.7	6.2
1983	2.5	1.8	2.3	4.3	1.8	2.4	2.0	0.6
1984	2.6	4.8	3.3	8.5	5.8	3.6	5.1	-2.1
1985	2.1	0.1	1.5	4.3	2.1	4.1	2.7	1.9
1986	2.3	-0.5	1.4	3.1	0.7	3.6	1.6	2.8
1987	1.2	1.4	1.3	4.2	3.0	2.8	2.9	-0.2
1988	2.3	2.7	2.4	5.3	3.0	2.6	2.8	-0.4
1989	-0.5	-0.3	-0.4	2.1	2.6	2.4	2.5	-0.1

See footnotes following table 6.

Source: Bureau of Labor Statistics

Table 5. Private nonfarm business sector: Productivity and related measures, 1949-89 [1]

Year	Productivity			Output [3]	Inputs			Capital per hour of all persons
	Output per hour of all persons	Output per unit of capital	Multifactor productivity [2]		Hours of all persons [4]	Capital Services [5]	Combined units of labor and capital inputs[6]	
1949	1.8	-4.4	-0.4	-2.3	-4.1	2.1	-2.0	6.5
1950	6.6	5.0	6.1	9.9	3.1	4.7	3.6	1.6
1951	3.1	1.5	2.6	7.8	4.6	6.2	5.1	1.6
1952	2.3	-0.6	1.4	3.2	0.9	3.8	1.8	2.9
1953	2.3	1.4	2.0	4.7	2.4	3.3	2.7	0.8
1954	1.5	-4.3	-0.3	-2.0	-3.5	2.4	-1.7	6.0
1955	3.1	3.1	3.1	7.2	4.1	4.0	4.0	0.0
1956	0.7	-1.4	0.0	3.1	2.5	4.6	3.2	2.1
1957	2.0	-2.3	0.6	1.3	-0.7	3.7	0.7	4.4
1958	2.5	-4.1	0.3	-2.1	-4.4	2.1	-2.4	6.9
1959	3.3	4.9	3.8	7.8	4.4	2.7	3.8	-1.6
1960	1.1	-1.7	0.2	1.6	0.5	3.3	1.4	2.8
1961	3.2	-0.5	2.1	2.0	-1.2	2.5	-0.1	3.8
1962	2.9	2.0	2.6	5.5	2.5	3.5	2.8	0.9
1963	3.7	1.0	2.8	4.7	1.0	3.7	1.9	2.7
1964	3.9	2.2	3.4	6.3	2.3	4.0	2.9	1.7
1965	2.6	1.1	2.1	6.4	3.7	5.2	4.2	1.5
1966	2.0	-0.6	1.1	5.6	3.5	6.3	4.4	2.7
1967	2.6	-3.2	0.7	2.5	-0.1	5.9	1.8	6.0
1968	3.0	-0.2	2.0	4.7	1.7	4.9	2.7	3.2
1969	-0.3	-2.4	-0.9	2.7	2.9	5.2	3.6	2.2
1970	0.6	-5.5	-1.2	-1.1	-1.6	4.7	0.1	6.4
1971	3.0	-1.2	1.8	2.7	-0.3	3.9	0.9	4.2
1972	3.1	2.3	2.8	6.5	3.3	4.1	3.6	0.8
1973	2.2	0.7	1.8	6.2	4.0	5.4	4.4	1.4
1974	-1.9	-6.9	-3.3	-1.9	0.0	5.3	1.5	5.4
1975	1.9	-5.8	-0.4	-2.4	-4.2	3.6	-2.0	8.2
1976	2.8	3.1	2.9	6.1	3.3	2.9	3.2	-0.4
1977	1.6	2.3	1.8	5.9	4.2	3.5	4.0	-0.7
1978	0.9	1.6	1.1	6.0	5.1	4.3	4.8	-0.8
1979	-1.5	-3.0	-2.0	1.8	3.4	5.0	3.9	1.5
1980	-0.4	-6.0	-2.0	-1.2	-0.8	5.1	0.8	5.9
1981	1.0	-2.9	-0.1	1.7	0.7	4.7	1.8	4.0
1982	-0.9	-6.9	-2.6	-3.3	-2.5	3.8	-0.7	6.4
1983	3.1	2.4	2.9	5.0	1.9	2.6	2.1	0.6
1984	2.1	4.4	2.8	8.4	6.1	3.8	5.4	-2.2
1985	1.4	-0.4	0.8	3.9	2.5	4.3	3.1	1.7
1986	2.1	-0.8	1.2	3.0	0.9	3.8	1.7	2.9
1987	1.1	1.3	1.1	4.3	3.2	3.0	3.1	-0.2
1988	2.5	2.8	2.6	5.7	3.1	2.8	3.1	-0.3
1989	-0.6	-0.6	-0.6	2.0	2.7	2.7	2.7	0.0

See footnotes following table 6.

Source: Bureau of Labor Statistics

Table 6. Manufacturing sector: Productivity and related measures, 1949-89

Percent Change								
Year	Productivity			Output [3]	Inputs			Capital per hour of all persons
	Output per hour of all persons	Output per unit of capital	Multifactor productivity [2]		Hours of all persons [4]	Capital Services [5]	Combined units of labor and capital inputs[6]	
1949	4.0	-5.9	1.1	-5.2	-8.8	0.8	-6.2	10.5
1950	5.5	10.7	7.0	14.0	8.0	3.0	6.5	-4.7
1951	4.1	1.1	3.2	12.0	7.6	10.8	8.5	3.0
1952	2.0	-2.1	0.8	3.4	1.4	5.7	2.6	4.2
1953	2.2	3.1	2.4	7.3	5.0	4.1	4.8	-0.8
1954	1.2	-7.8	-1.2	-7.4	-8.5	0.4	-6.2	9.8
1955	4.8	6.5	5.2	10.5	5.5	3.8	5.0	-1.6
1956	-0.6	-4.5	-1.7	0.9	1.5	5.6	2.6	4.1
1957	2.2	-3.1	0.8	0.6	-1.6	3.7	-0.2	5.5
1958	-0.7	-9.2	-3.0	-8.8	-8.2	0.4	-6.0	9.3
1959	4.5	9.7	5.8	11.4	6.6	1.5	5.3	-4.8
1960	0.6	-2.4	-0.2	0.2	-0.4	2.7	0.4	3.1
1961	2.8	-1.3	1.7	0.2	-2.5	1.5	-1.5	4.1
1962	4.3	5.1	4.5	8.5	4.1	3.3	3.9	-0.8
1963	6.9	4.7	6.3	7.9	1.0	3.1	1.6	2.1
1964	4.9	3.6	4.5	7.1	2.1	3.3	2.5	1.2
1965	2.7	2.8	2.7	8.7	5.8	5.8	5.8	0.0
1966	1.1	-0.7	0.6	7.7	6.5	8.4	7.0	1.8
1967	0.2	-8.0	-2.2	-0.3	-0.5	8.4	2.0	9.0
1968	3.6	-0.3	2.5	5.1	1.4	5.4	2.5	3.9
1969	1.6	-2.1	0.6	2.8	1.2	5.0	2.2	3.8
1970	0.3	-9.1	-2.1	-5.6	-5.9	3.8	-3.6	10.4
1971	5.4	-0.7	3.9	1.7	-3.6	2.4	-2.1	6.2
1972	4.2	6.3	4.7	8.9	4.5	2.4	4.0	-2.0
1973	5.4	6.2	5.6	10.7	5.0	4.3	4.8	-0.7
1974	-2.5	-9.3	-4.2	-4.8	-2.3	5.0	-0.6	7.5
1975	2.5	-11.2	-1.1	-7.5	-9.8	4.2	-6.5	15.5
1976	4.7	6.4	5.2	9.7	4.8	3.1	4.3	-1.6
1977	3.1	3.7	3.3	7.4	4.1	3.6	4.0	-0.5
1978	0.2	0.5	0.3	4.5	4.3	4.0	4.2	-0.3
1979	0.5	-2.0	-0.1	2.5	2.0	4.6	2.6	2.5
1980	-0.8	-9.7	-3.1	-5.4	-4.6	4.8	-2.4	9.8
1981	1.4	-3.4	0.2	0.7	-0.7	4.2	0.5	4.9
1982	2.1	-8.8	-0.7	-6.5	-8.4	2.5	-5.8	11.9
1983	5.0	5.7	5.2	6.2	1.1	0.5	1.0	-0.6
1984	4.8	9.5	6.0	11.6	6.5	1.9	5.3	-4.3
1985	4.2	1.3	3.4	3.6	-0.6	2.3	0.1	2.9
1986	4.6	1.5	3.8	3.1	-1.5	1.6	-0.7	3.1
1987	5.2	4.8	5.1	5.8	0.6	0.9	0.7	0.4
1988	6.0	8.1	6.6	9.2	3.0	1.0	2.4	-1.9
1989	3.3	2.2	3.0	3.6	0.3	1.4	0.6	1.0

See footnotes following table 6.

Source: Bureau of Labor Statistics

## Footnotes, Tables 1-6

Source: Output data are from the Bureau of Economic Analysis (BEA), U.S. Department of Commerce, and the Federal Reserve Board. Compensation and hours data are from the Bureau of Labor Statistics, U.S. Department of Labor, and BEA. Capital measures are based on data supplied by BEA and the U.S. Department of Agriculture.

- (1) The private business sector includes all of Gross National Product except the output of general government, government enterprises, non-profit institutions, and the rest-of-the-world sector, the rental value of owner-occupied real estate, the output of paid employees of private households and the statistical discrepancy in computing the national income and product accounts. The private nonfarm business sector also excludes farms but includes agricultural services.
- (2) Output per unit of combined labor and capital inputs.
- (3) Gross Domestic Product originating in the sector, in constant dollars.
- (4) Hours at work of all persons including employees, proprietors, and unpaid family workers engaged in the sector.
- (5) A measure of the flow of capital services used in the sector.
- (6) Hours at work of all persons combined with capital input, using labor's and capital's shares of output as weights.

Table 7. Private business sector: Real capital inputs, 1948-89

Indexes 1982 = 100

Year	All Assets	Equip- ment	Structures	Rental Residential Capital	Inventories	Land
1948	27.0	16.1	31.1	39.2	30.5	42.0
1949	27.6	17.7	31.6	39.5	29.6	42.8
1950	28.9	19.3	32.1	40.0	32.1	43.6
1951	30.7	21.0	32.8	40.4	36.7	44.4
1952	31.8	22.3	33.8	40.8	38.3	45.4
1953	32.8	23.5	34.8	41.1	39.3	46.5
1954	33.5	24.7	35.9	41.5	38.4	47.8
1955	34.8	26.0	37.1	41.9	40.6	49.0
1956	36.3	27.5	38.8	42.4	42.6	50.4
1957	37.6	28.8	40.8	42.8	42.8	52.0
1958	38.4	29.6	42.4	43.4	41.5	53.5
1959	39.3	30.2	44.0	44.3	42.6	54.7
1960	40.5	31.0	45.6	45.2	44.7	55.5
1961	41.5	31.8	47.3	46.2	44.4	56.5
1962	42.8	32.7	49.0	47.5	46.5	57.8
1963	44.3	33.9	50.8	49.2	48.4	59.3
1964	46.0	35.4	52.6	51.2	50.2	60.9
1965	48.3	37.5	55.0	53.2	53.4	62.7
1966	51.2	40.3	57.9	54.9	58.0	64.7
1967	54.1	43.2	60.8	56.5	62.6	66.7
1968	56.6	45.8	63.5	58.3	65.5	68.6
1969	59.4	48.7	66.4	60.7	68.6	70.5
1970	62.1	51.6	69.2	63.1	70.8	72.4
1971	64.4	54.0	71.7	65.7	72.5	74.1
1972	66.9	56.8	74.0	68.8	74.2	75.7
1973	70.4	60.8	76.4	72.1	78.4	77.8
1974	73.9	65.2	79.1	74.4	83.2	79.8
1975	76.4	68.8	81.4	75.7	83.7	81.8
1976	78.5	71.6	83.2	76.9	85.3	83.1
1977	81.0	75.5	85.0	78.4	88.8	84.4
1978	84.3	80.6	87.0	80.5	93.3	85.7
1979	87.9	86.3	89.5	84.8	97.3	85.2
1980	92.4	91.7	92.6	90.6	98.8	91.3
1981	96.6	96.3	96.3	95.6	100.0	96.3
1982	100.0	100.0	100.0	100.0	100.0	100.0
1983	102.4	103.3	102.7	102.5	97.4	103.0
1984	106.1	107.8	105.2	105.2	102.8	106.6
1985	110.5	113.8	108.0	109.6	106.5	110.4
1986	114.4	120.0	110.6	112.8	108.9	113.9
1987	117.6	125.3	112.4	115.4	110.2	116.5
1988	120.7	130.6	113.7	117.6	112.9	117.9
1989	123.6	136.3	115.0	119.6	114.9	118.5

Source: Bureau of Labor Statistics



Table 8. Private nonfarm business sector: Real capital inputs, 1948-89

Indexes 1982 = 100

Year	All Assets	Equip- ment	Structures	Rental Residential Capital	Inventories	Land
1948	25.2	15.6	31.0	38.9	29.6	30.2
1949	25.7	16.9	31.4	39.2	28.7	30.9
1950	26.9	18.4	31.9	39.7	31.2	31.7
1951	28.6	19.9	32.6	40.2	35.9	32.5
1952	29.7	21.2	33.5	40.5	37.4	33.5
1953	30.7	22.4	34.5	40.8	38.5	34.6
1954	31.4	23.6	35.6	41.2	37.4	35.8
1955	32.7	24.8	36.9	41.6	39.7	36.9
1956	34.2	26.3	38.6	42.1	41.8	38.2
1957	35.4	27.7	40.6	42.6	42.0	39.7
1958	36.2	28.6	42.3	43.2	40.6	41.1
1959	37.2	29.1	43.8	44.0	41.7	42.3
1960	38.4	30.0	45.5	44.9	43.8	43.4
1961	39.4	30.8	47.2	45.9	43.4	44.5
1962	40.8	31.8	48.9	47.3	45.5	45.9
1963	42.3	33.0	50.6	49.0	47.3	47.5
1964	44.0	34.5	52.5	51.0	49.2	49.1
1965	46.3	36.6	54.9	52.9	52.4	51.0
1966	49.2	39.4	57.8	54.7	57.0	53.2
1967	52.1	42.2	60.8	56.3	61.7	55.5
1968	54.7	44.8	63.5	58.1	64.6	57.6
1969	57.5	47.7	66.4	60.5	67.8	59.9
1970	60.2	50.6	69.3	62.9	70.0	62.2
1971	62.6	53.0	71.8	65.5	71.6	64.3
1972	65.2	55.8	74.1	68.6	73.3	66.5
1973	68.7	59.8	76.6	71.9	77.6	69.6
1974	72.4	64.2	79.2	74.3	82.4	72.5
1975	75.0	67.8	81.5	75.6	82.9	75.2
1976	77.2	70.6	83.3	76.8	84.7	77.5
1977	79.9	74.5	84.9	78.3	88.6	79.5
1978	83.3	79.6	86.9	80.4	93.2	81.2
1979	87.5	85.5	89.4	84.7	97.3	83.9
1980	92.0	91.0	92.4	90.5	99.0	89.2
1981	96.3	95.9	96.2	95.6	100.1	95.5
1982	100.0	100.0	100.0	100.0	100.0	100.0
1983	102.6	103.7	102.8	102.5	97.6	103.1
1984	106.4	108.7	105.3	105.2	103.1	106.4
1985	111.0	115.3	108.3	109.7	106.9	109.8
1986	115.2	122.2	111.0	112.9	109.6	112.2
1987	118.7	128.3	112.9	115.5	111.3	113.6
1988	122.0	134.3	114.4	117.7	114.2	114.6
1989	125.3	140.6	115.8	119.7	116.4	115.6

Source: Bureau of Labor Statistics

Table 9. Manufacturing sector: Real capital inputs, 1948-89

Indexes 1982 = 100

Year	All Assets	Equip- ment	Structures	Inventories	Land
1948	26.6	21.5	33.3	29.1	30.3
1949	26.8	23.1	33.5	27.7	30.4
1950	27.6	24.0	33.5	29.2	30.3
1951	30.6	25.2	34.2	37.0	31.1
1952	32.3	26.6	35.6	39.5	32.7
1953	33.7	27.8	36.9	41.1	34.3
1954	33.8	28.9	38.1	39.1	35.7
1955	35.1	30.0	39.2	40.9	36.9
1956	37.1	31.4	41.0	44.0	39.1
1957	38.5	33.0	43.5	44.0	42.1
1958	38.6	34.0	45.1	41.5	43.9
1959	39.2	34.3	45.8	42.4	44.6
1960	40.2	34.7	46.9	44.5	45.6
1961	40.8	35.2	48.5	44.1	47.3
1962	42.2	35.9	50.0	46.6	48.2
1963	43.5	36.7	51.7	48.6	49.3
1964	44.9	37.9	53.5	50.2	50.6
1965	47.6	40.0	56.4	53.6	53.1
1966	51.6	42.9	60.9	59.0	57.5
1967	55.9	45.8	65.8	65.2	62.8
1968	59.0	48.3	70.0	68.1	67.0
1969	61.9	50.6	73.6	71.4	70.7
1970	64.3	52.8	76.9	73.0	73.9
1971	65.8	54.6	79.4	72.8	76.2
1972	67.4	56.7	81.2	73.0	77.9
1973	70.3	59.4	82.9	77.5	79.4
1974	73.9	62.9	84.9	83.4	80.9
1975	76.9	67.0	86.9	85.2	82.3
1976	79.3	70.6	88.4	86.6	83.4
1977	82.1	74.5	89.7	89.9	84.1
1978	85.4	79.3	91.3	93.2	84.9
1979	89.3	84.3	93.5	97.0	86.6
1980	93.6	89.7	95.7	100.0	92.6
1981	97.6	95.4	97.8	101.1	99.1
1982	100.0	100.0	100.0	100.0	100.0
1983	100.5	102.3	101.3	96.2	98.8
1984	102.5	104.3	102.0	100.2	97.6
1985	104.8	108.3	103.1	100.7	98.7
1986	106.5	111.9	103.9	99.5	99.6
1987	107.5	113.6	104.2	99.9	100.0
1988	108.6	115.1	104.5	101.6	100.3
1989	110.1	117.5	105.2	102.1	101.2

Source: Bureau of Labor Statistics

Table 10. Private business sector: Real capital inputs, 1949-89

## Percent Change

Year	All Assets	Equip- ment	Structures	Rental Residential Capital	Inventories	Land
1949	2.4	9.7	1.5	0.8	-3.0	1.8
1950	4.8	9.2	1.6	1.1	8.5	2.0
1951	6.0	8.5	2.4	1.2	14.3	1.8
1952	3.7	6.4	2.8	0.8	4.4	2.2
1953	3.1	5.5	2.9	0.8	2.7	2.5
1954	2.3	5.0	3.2	0.9	-2.4	2.8
1955	3.8	5.1	3.5	1.1	5.6	2.4
1956	4.3	5.6	4.5	1.1	5.1	2.9
1957	3.5	4.9	5.0	1.1	0.5	3.1
1958	2.0	2.7	4.1	1.4	-3.0	2.8
1959	2.6	1.9	3.6	2.0	2.5	2.3
1960	3.1	2.8	3.7	2.0	4.9	1.5
1961	2.3	2.5	3.8	2.2	-0.7	1.7
1962	3.3	2.9	3.5	2.9	4.6	2.4
1963	3.5	3.6	3.6	3.7	4.1	2.6
1964	3.8	4.4	3.7	4.0	3.8	2.7
1965	5.0	6.1	4.5	3.8	6.3	2.9
1966	6.0	7.5	5.2	3.3	8.6	3.1
1967	5.6	7.0	5.0	2.8	8.0	3.1
1968	4.7	6.1	4.6	3.2	4.6	2.8
1969	4.9	6.4	4.5	4.1	4.7	2.9
1970	4.4	5.8	4.2	4.0	3.2	2.7
1971	3.8	4.7	3.6	4.0	2.4	2.3
1972	3.9	5.2	3.2	4.8	2.4	2.2
1973	5.1	7.0	3.4	4.8	5.7	2.7
1974	5.0	7.4	3.4	3.2	6.1	2.6
1975	3.4	5.4	2.9	1.8	0.6	2.4
1976	2.7	4.2	2.3	1.5	1.8	1.7
1977	3.3	5.4	2.1	2.0	4.2	1.6
1978	4.0	6.8	2.4	2.6	5.0	1.4
1979	4.3	7.1	2.9	5.3	4.3	-0.5
1980	5.1	6.2	3.4	6.8	1.6	7.1
1981	4.5	5.0	4.0	5.6	1.2	5.4
1982	3.6	3.8	3.9	4.6	0.0	3.9
1983	2.4	3.3	2.7	2.5	-2.6	3.0
1984	3.6	4.4	2.4	2.7	5.6	3.4
1985	4.1	5.6	2.7	4.2	3.6	3.6
1986	3.6	5.4	2.3	2.9	2.2	3.2
1987	2.8	4.4	1.6	2.3	1.2	2.3
1988	2.6	4.3	1.2	1.9	2.4	1.2
1989	2.4	4.3	1.1	1.7	1.8	0.5

Source: Bureau of Labor Statistics

Table 11. Private nonfarm business sector: Real capital inputs, 1949-89

Percent Change

Year	All Assets	Equip- ment	Structures	Rental Residential Capital	Inventories	Land
1949	2.1	8.7	1.4	0.8	-3.1	2.4
1950	4.7	8.6	1.5	1.1	8.6	2.6
1951	6.2	8.4	2.4	1.2	15.0	2.6
1952	3.8	6.5	2.8	0.8	4.3	3.0
1953	3.3	5.7	2.9	0.8	2.9	3.2
1954	2.4	5.2	3.2	0.9	-2.6	3.6
1955	4.0	5.4	3.6	1.1	5.9	2.9
1956	4.6	6.0	4.6	1.2	5.5	3.6
1957	3.7	5.3	5.1	1.1	0.4	4.0
1958	2.1	3.0	4.2	1.4	-3.3	3.4
1959	2.7	2.0	3.7	2.0	2.6	2.9
1960	3.3	2.9	3.8	2.1	5.1	2.6
1961	2.5	2.8	3.8	2.2	-0.8	2.6
1962	3.5	3.1	3.6	2.9	4.7	3.3
1963	3.7	3.7	3.6	3.7	4.1	3.5
1964	4.0	4.5	3.7	4.0	4.0	3.4
1965	5.2	6.2	4.6	3.8	6.5	3.8
1966	6.3	7.6	5.3	3.4	8.8	4.3
1967	5.9	7.1	5.1	2.8	8.3	4.2
1968	4.9	6.2	4.6	3.2	4.7	3.8
1969	5.2	6.6	4.5	4.1	4.9	4.0
1970	4.7	5.9	4.3	4.0	3.2	3.9
1971	3.9	4.8	3.6	4.0	2.4	3.4
1972	4.1	5.3	3.2	4.9	2.4	3.4
1973	5.4	7.1	3.4	4.8	5.8	4.6
1974	5.3	7.5	3.4	3.2	6.3	4.2
1975	3.6	5.5	2.9	1.8	0.6	3.7
1976	2.9	4.2	2.2	1.5	2.1	3.0
1977	3.5	5.4	2.0	2.0	4.6	2.6
1978	4.3	7.0	2.3	2.7	5.3	2.2
1979	5.0	7.4	2.9	5.3	4.3	3.3
1980	5.1	6.4	3.4	6.9	1.8	6.4
1981	4.7	5.4	4.1	5.6	1.1	7.0
1982	3.8	4.3	4.0	4.6	-0.1	4.7
1983	2.6	3.7	2.8	2.5	-2.4	3.1
1984	3.8	4.8	2.5	2.7	5.7	3.2
1985	4.3	6.1	2.9	4.2	3.7	3.1
1986	3.8	5.9	2.5	2.9	2.5	2.3
1987	3.0	5.0	1.7	2.3	1.5	1.2
1988	2.8	4.7	1.3	1.9	2.7	0.9
1989	2.7	4.7	1.2	1.7	1.9	0.8

Source: Bureau of Labor Statistics

Table 12. Manufacturing sector: Real capital inputs, 1949-89

## Percent Change

Year	All Assets	Equip- ment	Structures	Inventories	Land
1949	0.8	7.2	0.5	-4.8	0.5
1950	3.0	4.1	-0.1	5.5	-0.4
1951	10.8	5.0	2.0	26.6	2.6
1952	5.7	5.5	4.1	6.8	5.2
1953	4.1	4.5	3.8	3.9	4.9
1954	0.4	4.0	3.1	-4.8	4.0
1955	3.8	3.8	2.9	4.6	3.4
1956	5.6	4.5	4.7	7.5	5.9
1957	3.7	5.2	5.9	0.0	7.5
1958	0.4	2.9	3.7	-5.7	4.3
1959	1.5	0.9	1.7	2.1	1.6
1960	2.7	1.3	2.4	5.0	2.4
1961	1.5	1.6	3.3	-1.0	3.6
1962	3.3	1.8	3.2	5.8	2.1
1963	3.1	2.3	3.3	4.2	2.2
1964	3.3	3.3	3.6	3.3	2.6
1965	5.8	5.4	5.4	6.8	4.9
1966	8.4	7.3	8.0	10.1	8.3
1967	8.4	6.8	8.1	10.4	9.2
1968	5.4	5.3	6.3	4.5	6.8
1969	5.0	4.9	5.2	4.8	5.5
1970	3.8	4.4	4.5	2.3	4.4
1971	2.4	3.4	3.2	-0.3	3.2
1972	2.4	3.8	2.3	0.3	2.2
1973	4.3	4.7	2.1	6.1	1.9
1974	5.0	6.0	2.4	7.6	1.9
1975	4.2	6.5	2.3	2.2	1.8
1976	3.1	5.3	1.7	1.6	1.3
1977	3.6	5.5	1.5	3.9	0.9
1978	4.0	6.4	1.7	3.6	1.0
1979	4.6	6.3	2.4	4.1	2.0
1980	4.8	6.5	2.3	3.0	6.9
1981	4.2	6.3	2.3	1.1	7.0
1982	2.5	4.9	2.2	-1.0	0.9
1983	0.5	2.3	1.3	-3.8	-1.2
1984	1.9	1.9	0.8	4.2	-1.2
1985	2.3	3.8	1.0	0.4	1.1
1986	1.6	3.3	0.8	-1.1	0.9
1987	0.9	1.6	0.3	0.4	0.4
1988	1.0	1.3	0.2	1.7	0.3
1989	1.4	2.1	0.7	0.5	1.0

Source: Bureau of Labor Statistics

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