

---

# National Economic Trends

---

February 1988

---

Productivity growth is a fundamental determinant of the growth of real income and the nation's standard of living. Since mid-1985, productivity's growth has slowed, although it has continued faster than in the 1970s. An important factor in this recent slowdown has been a reduction in the pace of business capital formation.

Output per hour in the business sector, a measure of output relative to labor employment, rose at a 1.2 percent annual rate from the third quarter of 1985 to the end of 1987, down from its 1.6 percent rate of advance from the end of 1979 to the third quarter of 1985. Nonetheless, such growth is impressive when compared with the stagnant performance of productivity from late 1973 to the end of 1979, when output per hour rose at a 0.5 percent rate.

The quantity (and quality) of plant and equipment, or capital, used by each worker is an important determinant of output per hour of labor employment. A key factor in the productivity slowdown of 1973-79 was the relatively slow growth in the capital stock available per worker in the business sector. The capital stock (1982 prices) available per worker rose at a 1 percent rate from 1973 to 1979, then accelerated to a 1.5 percent rate from 1979 to 1985. Such data are not available for 1987, but investment in plant and equipment has declined quite sharply as a share of income since 1985. In 1985, real nonresidential fixed investment equaled 12.6 percent of real GNP, the highest share recorded since World War II; this share declined to 12 percent in 1986 and 11.7 percent in 1987. At the same time, employment growth in the business sector accelerated from a 1.4 percent rate from 1979 to 1985 to a 2.1 percent rate from 1985 to 1987.

The recent slowing in the growth of the capital stock per worker has been associated with tax reform. Congress ended the investment tax credit effective at the beginning of 1986 and, beginning in 1987, lengthened depreciation schedules so that allowable depreciation expenses were reduced. For both reasons, taxes on income from existing operations and new capital investment were raised; the expected after-tax income from investment was reduced. Some analysts have estimated that a reduction in the maximum corporate tax rate from 46 percent to 34 percent for some firms, effective for tax years after June 1987, will almost offset the effects of the termination of the investment tax credit. Thus, some part of the recent slowing in capital stock growth may be reversed as this provision becomes effective.

— John A. Tatom



TOTAL CIVILIAN EMPLOYMENT  
COMPOUNDED ANNUAL RATES OF CHANGE

| TERMINAL MONTH | INITIAL MONTH |      |      |      |       |       |       |      |      |      |      |      |      |      |      |      |       |       |       | THOUSANDS OF PERSONS |
|----------------|---------------|------|------|------|-------|-------|-------|------|------|------|------|------|------|------|------|------|-------|-------|-------|----------------------|
|                | 6-86          | 7-86 | 8-86 | 9-86 | 10-86 | 11-86 | 12-86 | 1-87 | 2-87 | 3-87 | 4-87 | 5-87 | 6-87 | 7-87 | 8-87 | 9-87 | 10-87 | 11-87 | 12-87 |                      |
| 7-86           | 1.8           |      |      |      |       |       |       |      |      |      |      |      |      |      |      |      |       |       |       | 109,827              |
| 8-86           | 2.0           | 2.2  |      |      |       |       |       |      |      |      |      |      |      |      |      |      |       |       |       | 110,035              |
| 9-86           | 1.4           | 1.2  | 0.1  |      |       |       |       |      |      |      |      |      |      |      |      |      |       |       |       | 110,047              |
| 10-86          | 1.4           | 1.3  | 0.9  | 1.6  |       |       |       |      |      |      |      |      |      |      |      |      |       |       |       | 110,194              |
| 11-86          | 1.7           | 1.7  | 1.5  | 2.3  | 2.9   |       |       |      |      |      |      |      |      |      |      |      |       |       |       | 110,457              |
| 12-86          | 1.8           | 1.8  | 1.7  | 2.2  | 2.5   | 2.2   |       |      |      |      |      |      |      |      |      |      |       |       |       | 110,657              |
| 1-87           | 2.1           | 2.2  | 2.1  | 2.7  | 3.0   | 3.1   | 3.9   |      |      |      |      |      |      |      |      |      |       |       |       | 111,014              |
| 2-87           | 2.3           | 2.4  | 2.4  | 2.9  | 3.2   | 3.3   | 3.8   | 3.6  |      |      |      |      |      |      |      |      |       |       |       | 111,344              |
| 3-87           | 2.2           | 2.2  | 2.2  | 2.6  | 2.8   | 2.7   | 2.9   | 2.4  | 1.2  |      |      |      |      |      |      |      |       |       |       | 111,455              |
| 4-87           | 2.3           | 2.4  | 2.4  | 2.8  | 2.9   | 3.0   | 3.1   | 2.9  | 2.5  | 3.8  |      |      |      |      |      |      |       |       |       | 111,806              |
| 5-87           | 2.7           | 2.7  | 2.8  | 3.1  | 3.4   | 3.4   | 3.7   | 3.6  | 3.6  | 4.8  | 5.8  |      |      |      |      |      |       |       |       | 112,334              |
| 6-87           | 2.4           | 2.4  | 2.5  | 2.7  | 2.9   | 2.9   | 3.0   | 2.8  | 2.6  | 3.1  | 2.7  | -0.4 |      |      |      |      |       |       |       | 112,300              |
| 7-87           | 2.5           | 2.6  | 2.6  | 2.8  | 3.0   | 3.0   | 3.1   | 2.9  | 2.8  | 3.2  | 3.0  | 1.6  | 3.7  |      |      |      |       |       |       | 112,639              |
| 8-87           | 2.6           | 2.7  | 2.7  | 3.0  | 3.1   | 3.1   | 3.3   | 3.2  | 3.1  | 3.5  | 3.4  | 2.6  | 4.1  | 4.5  |      |      |       |       |       | 113,050              |
| 9-87           | 2.3           | 2.4  | 2.4  | 2.6  | 2.7   | 2.6   | 2.7   | 2.5  | 2.4  | 2.6  | 2.3  | 1.4  | 2.1  | 1.2  | -1.9 |      |       |       |       | 112,872              |
| 10-87          | 2.4           | 2.4  | 2.5  | 2.7  | 2.7   | 2.7   | 2.8   | 2.6  | 2.5  | 2.7  | 2.5  | 1.9  | 2.5  | 2.0  | 0.9  | 3.7  |       |       |       | 113,210              |
| 11-87          | 2.5           | 2.5  | 2.5  | 2.7  | 2.8   | 2.8   | 2.8   | 2.7  | 2.6  | 2.8  | 2.6  | 2.1  | 2.6  | 2.3  | 1.6  | 3.4  | 3.2   |       |       | 113,504              |
| 12-87          | 2.5           | 2.5  | 2.5  | 2.7  | 2.8   | 2.7   | 2.8   | 2.7  | 2.6  | 2.7  | 2.6  | 2.2  | 2.6  | 2.4  | 1.9  | 3.1  | 2.9   | 2.6   |       | 113,744              |
| 1-88           | 2.5           | 2.6  | 2.6  | 2.8  | 2.8   | 2.8   | 2.9   | 2.8  | 2.7  | 2.9  | 2.8  | 2.4  | 2.8  | 2.7  | 2.3  | 3.4  | 3.3   | 3.3   | 4.1   | 114,129              |
|                | 6-86          | 7-86 | 8-86 | 9-86 | 10-86 | 11-86 | 12-86 | 1-87 | 2-87 | 3-87 | 4-87 | 5-87 | 6-87 | 7-87 | 8-87 | 9-87 | 10-87 | 11-87 | 12-87 |                      |
|                | INITIAL MONTH |      |      |      |       |       |       |      |      |      |      |      |      |      |      |      |       |       |       |                      |

INITIAL MONTH

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS  
FEBRUARY 5, 1988

PAYROLL EMPLOYMENT  
COMPOUNDED ANNUAL RATES OF CHANGE

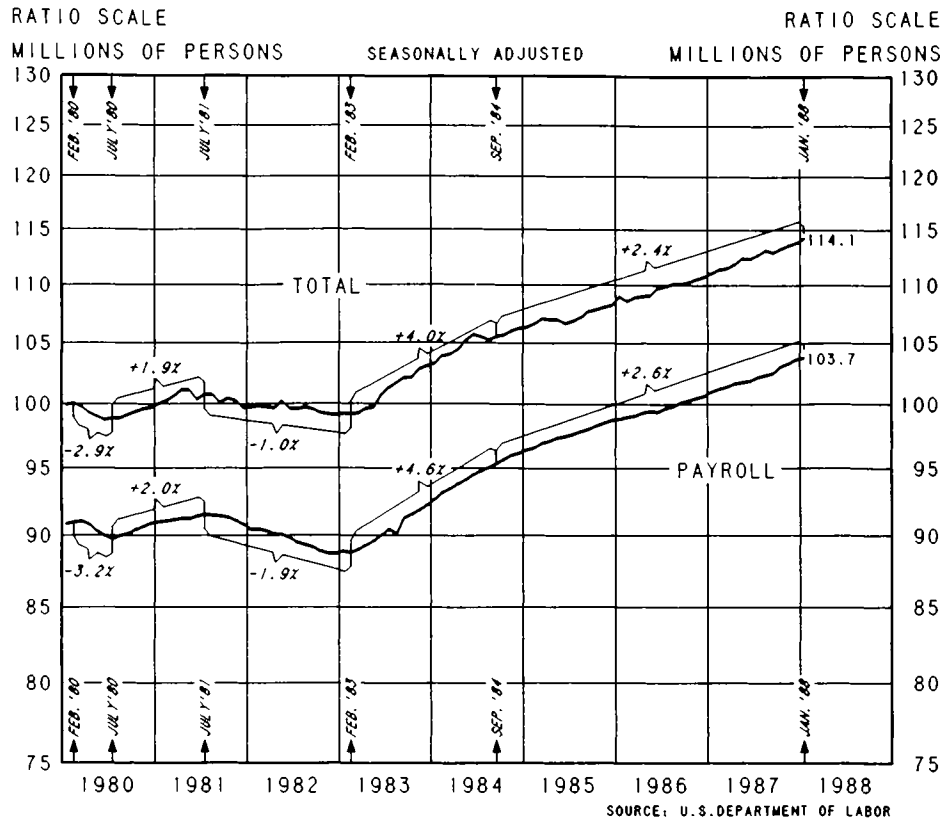
| TERMINAL MONTH | INITIAL MONTH |      |      |      |       |       |       |      |      |      |      |      | THOUSANDS OF PERSONS |      |      |      |       |       |       |          |
|----------------|---------------|------|------|------|-------|-------|-------|------|------|------|------|------|----------------------|------|------|------|-------|-------|-------|----------|
|                | 6-86          | 7-86 | 8-86 | 9-86 | 10-86 | 11-86 | 12-86 | 1-87 | 2-87 | 3-87 | 4-87 | 5-87 | 6-87                 | 7-87 | 8-87 | 9-87 | 10-87 | 11-87 | 12-87 |          |
| 7-86           | 3.4           |      |      |      |       |       |       |      |      |      |      |      |                      |      |      |      |       |       |       | 99,601   |
| 8-86           | 2.7           | 2.1  |      |      |       |       |       |      |      |      |      |      |                      |      |      |      |       |       |       | 99,772   |
| 9-86           | 2.9           | 2.7  | 3.3  |      |       |       |       |      |      |      |      |      |                      |      |      |      |       |       |       | 100,039  |
| 10-86          | 2.7           | 2.5  | 2.7  | 2.1  |       |       |       |      |      |      |      |      |                      |      |      |      |       |       |       | 100,209  |
| 11-86          | 2.7           | 2.5  | 2.6  | 2.3  | 2.5   |       |       |      |      |      |      |      |                      |      |      |      |       |       |       | 100,415  |
| 12-86          | 2.5           | 2.3  | 2.4  | 2.1  | 2.2   | 1.8   |       |      |      |      |      |      |                      |      |      |      |       |       |       | 100,567  |
| 1-87           | 2.8           | 2.7  | 2.8  | 2.7  | 2.9   | 3.0   | 4.3   |      |      |      |      |      |                      |      |      |      |       |       |       | 100,919  |
| 2-87           | 2.8           | 2.7  | 2.8  | 2.7  | 2.8   | 3.0   | 3.5   | 2.8  |      |      |      |      |                      |      |      |      |       |       |       | 101,150  |
| 3-87           | 2.7           | 2.6  | 2.7  | 2.6  | 2.7   | 2.8   | 3.1   | 2.5  | 2.1  |      |      |      |                      |      |      |      |       |       |       | 101,329  |
| 4-87           | 2.8           | 2.7  | 2.8  | 2.7  | 2.8   | 2.9   | 3.1   | 2.7  | 2.7  | 3.2  |      |      |                      |      |      |      |       |       |       | 101,598  |
| 5-87           | 2.6           | 2.5  | 2.6  | 2.5  | 2.6   | 2.6   | 2.7   | 2.4  | 2.2  | 2.3  | 1.3  |      |                      |      |      |      |       |       |       | 101,708  |
| 6-87           | 2.5           | 2.4  | 2.5  | 2.4  | 2.4   | 2.4   | 2.5   | 2.2  | 2.0  | 1.9  | 1.3  | 1.3  |                      |      |      |      |       |       |       | 101,818  |
| 7-87           | 2.6           | 2.5  | 2.6  | 2.5  | 2.6   | 2.6   | 2.7   | 2.4  | 2.3  | 2.4  | 2.1  | 2.5  | 3.7                  |      |      |      |       |       |       | 102,126  |
| 8-87           | 2.5           | 2.5  | 2.5  | 2.4  | 2.5   | 2.5   | 2.6   | 2.3  | 2.2  | 2.3  | 2.0  | 2.2  | 2.7                  | 1.8  |      |      |       |       |       | 102,275  |
| 9-87           | 2.5           | 2.4  | 2.5  | 2.4  | 2.4   | 2.4   | 2.5   | 2.3  | 2.2  | 2.2  | 2.0  | 2.2  | 2.4                  | 1.8  | 1.9  |      |       |       |       | 102,434  |
| 10-87          | 2.8           | 2.7  | 2.8  | 2.7  | 2.8   | 2.8   | 2.9   | 2.7  | 2.7  | 2.8  | 2.7  | 3.0  | 3.5                  | 3.4  | 4.2  | 6.6  |       |       |       | 102,983  |
| 11-87          | 2.8           | 2.7  | 2.8  | 2.7  | 2.8   | 2.8   | 2.9   | 2.8  | 2.8  | 2.9  | 2.8  | 3.0  | 3.4                  | 3.3  | 3.9  | 4.9  | 3.1   |       |       | 103,246  |
| 12-87          | 2.8           | 2.8  | 2.8  | 2.8  | 2.9   | 2.9   | 3.0   | 2.9  | 2.9  | 3.0  | 2.9  | 3.2  | 3.5                  | 3.4  | 3.9  | 4.5  | 3.5   | 3.9   |       | 103,572P |
| 1-88           | 2.8           | 2.7  | 2.8  | 2.7  | 2.8   | 2.8   | 2.9   | 2.8  | 2.8  | 2.8  | 2.8  | 3.0  | 3.2                  | 3.1  | 3.4  | 3.8  | 2.8   | 2.7   | 1.5   | 103,703P |
|                | 6-86          | 7-86 | 8-86 | 9-86 | 10-86 | 11-86 | 12-86 | 1-87 | 2-87 | 3-87 | 4-87 | 5-87 | 6-87                 | 7-87 | 8-87 | 9-87 | 10-87 | 11-87 | 12-87 |          |
|                | INITIAL MONTH |      |      |      |       |       |       |      |      |      |      |      |                      |      |      |      |       |       |       |          |

INITIAL MONTH

P- PRELIMINARY

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS  
FEBRUARY 5, 1988

# EMPLOYMENT



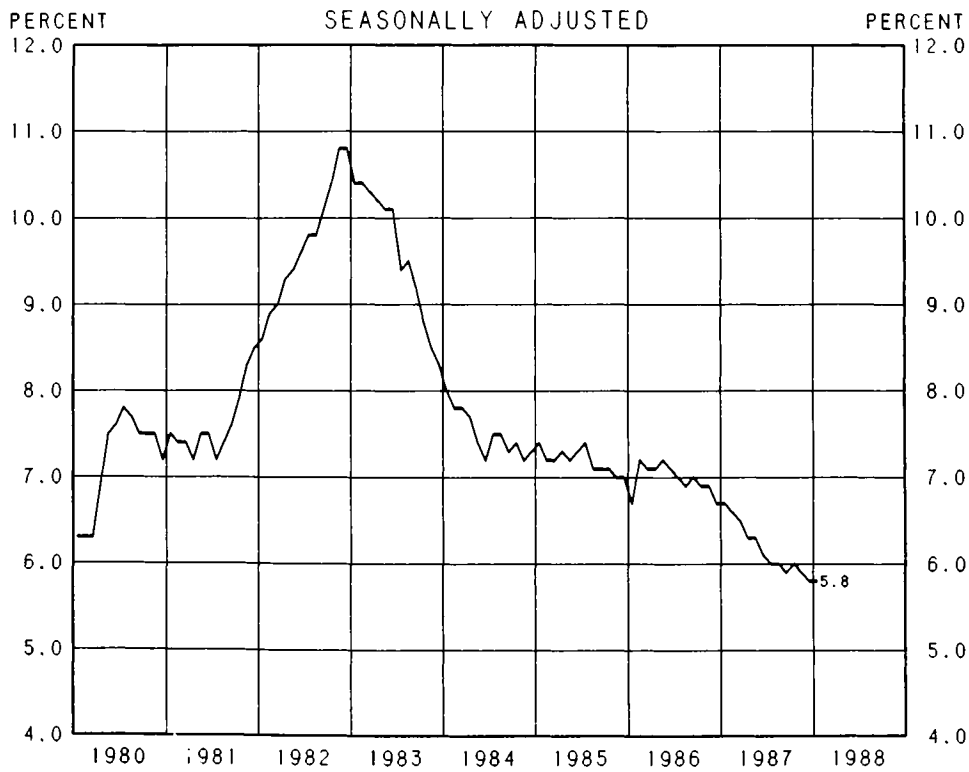
BEGINNING JANUARY 1986, TOTAL EMPLOYMENT DATA INCORPORATE NEW PROCEDURES FOR ESTIMATING MEASURES OF IMMIGRATION AND EMIGRATION INCREASING TOTAL EMPLOYMENT BY ABOUT 0.3%.

PERCENTAGES ARE ANNUAL RATES OF CHANGE FOR PERIODS INDICATED.

LATEST DATA PLOTTED: JANUARY PRELIMINARY

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS

# UNEMPLOYMENT RATE



PERCENT OF CIVILIAN LABOR FORCE

LATEST DATA PLOTTED: JANUARY

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS

**CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS, SEASONALLY ADJUSTED\***  
**COMPOUNDED ANNUAL RATES OF CHANGE**

| TERMINAL<br>MONTH | INITIAL MONTH |      |      |      |       |       |       |      |      |      |      |      |      |      |      |      | 1982-84=100 |
|-------------------|---------------|------|------|------|-------|-------|-------|------|------|------|------|------|------|------|------|------|-------------|
|                   | 6-86          | 7-86 | 8-86 | 9-86 | 10-86 | 11-86 | 12-86 | 1-87 | 2-87 | 3-87 | 4-87 | 5-87 | 6-87 | 7-87 | 8-87 | 9-87 |             |
| 7-86              | 0.0           |      |      |      |       |       |       |      |      |      |      |      |      |      |      |      | 109.4       |
| 8-86              | 1.1           | 2.2  |      |      |       |       |       |      |      |      |      |      |      |      |      |      | 109.6       |
| 9-86              | 1.8           | 2.8  | 3.3  |      |       |       |       |      |      |      |      |      |      |      |      |      | 109.9       |
| 10-86             | 1.9           | 2.6  | 2.8  | 2.2  |       |       |       |      |      |      |      |      |      |      |      |      | 110.1       |
| 11-86             | 2.2           | 2.8  | 3.0  | 2.8  | 3.3   |       |       |      |      |      |      |      |      |      |      |      | 110.4       |
| 12-86             | 2.2           | 2.7  | 2.8  | 2.6  | 2.8   | 2.2   |       |      |      |      |      |      |      |      |      |      | 110.6       |
| 1-87              | 3.2           | 3.7  | 4.0  | 4.2  | 4.8   | 5.6   | 9.0   |      |      |      |      |      |      |      |      |      | 111.4       |
| 2-87              | 3.3           | 3.8  | 4.1  | 4.2  | 4.7   | 5.2   | 6.7   | 4.4  |      |      |      |      |      |      |      |      | 111.8       |
| 3-87              | 3.5           | 4.0  | 4.3  | 4.4  | 4.9   | 5.3   | 6.3   | 4.9  | 5.5  |      |      |      |      |      |      |      | 112.3       |
| 4-87              | 3.7           | 4.2  | 4.4  | 4.6  | 5.0   | 5.3   | 6.1   | 5.1  | 5.5  | 5.5  |      |      |      |      |      |      | 112.8       |
| 5-87              | 3.8           | 4.2  | 4.4  | 4.5  | 4.9   | 5.1   | 5.7   | 4.9  | 5.1  | 4.9  | 4.3  |      |      |      |      |      | 113.2       |
| 6-87              | 3.7           | 4.1  | 4.3  | 4.4  | 4.7   | 4.9   | 5.3   | 4.6  | 4.6  | 4.3  | 3.8  | 3.2  |      |      |      |      | 113.5       |
| 7-87              | 3.7           | 4.0  | 4.2  | 4.3  | 4.5   | 4.7   | 5.0   | 4.4  | 4.3  | 4.1  | 3.6  | 3.2  | 3.2  |      |      |      | 113.8       |
| 8-87              | 3.8           | 4.1  | 4.3  | 4.4  | 4.6   | 4.7   | 5.1   | 4.5  | 4.5  | 4.3  | 4.0  | 3.9  | 4.3  | 5.4  |      |      | 114.3       |
| 9-87              | 3.8           | 4.1  | 4.2  | 4.3  | 4.5   | 4.6   | 4.9   | 4.3  | 4.3  | 4.1  | 3.9  | 3.8  | 3.9  | 4.3  | 3.2  |      | 114.6       |
| 10-87             | 3.8           | 4.1  | 4.2  | 4.3  | 4.5   | 4.6   | 4.8   | 4.3  | 4.3  | 4.2  | 3.9  | 3.9  | 4.0  | 4.3  | 3.7  | 4.3  | 115.0       |
| 11-87             | 3.8           | 4.0  | 4.1  | 4.2  | 4.4   | 4.4   | 4.6   | 4.2  | 4.2  | 4.0  | 3.8  | 3.7  | 3.8  | 4.0  | 3.5  | 3.7  | 115.3       |
| 12-87             | 3.7           | 3.9  | 4.0  | 4.1  | 4.2   | 4.3   | 4.4   | 4.0  | 4.0  | 3.8  | 3.6  | 3.5  | 3.6  | 3.6  | 3.2  | 3.2  | 115.5       |
| 1-88              | 3.7           | 3.9  | 4.0  | 4.1  | 4.2   | 4.3   | 4.4   | 4.0  | 4.0  | 3.9  | 3.7  | 3.6  | 3.7  | 3.7  | 3.4  | 3.4  | 115.9       |

\*DATA REBASED TO 1982-84=100 AND REVISED FROM 1983

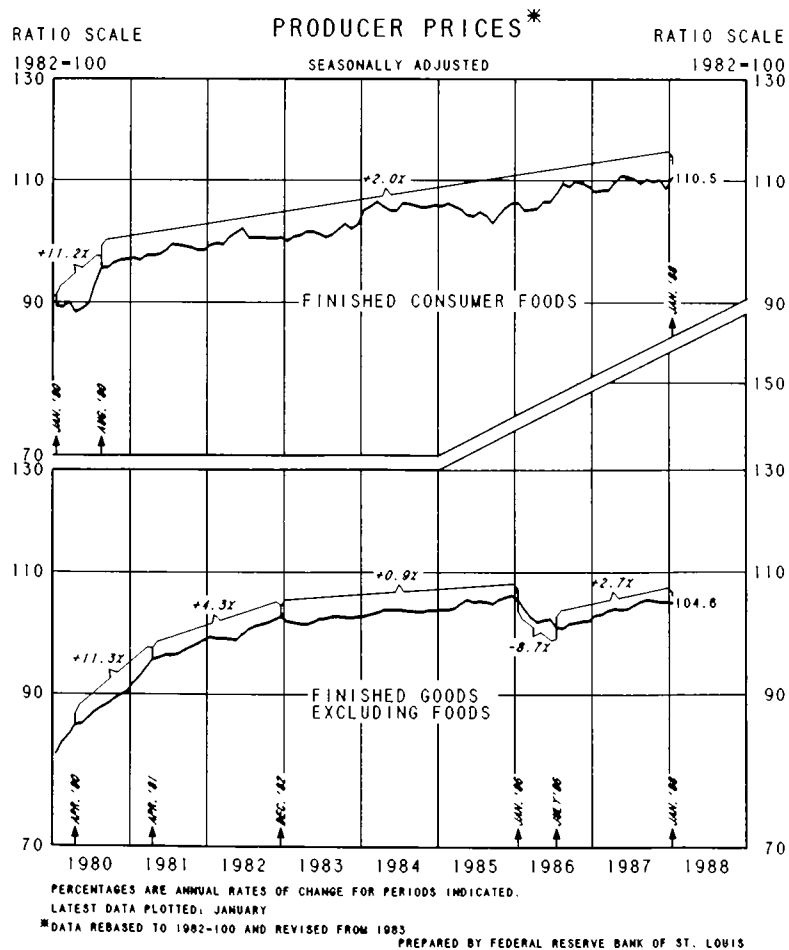
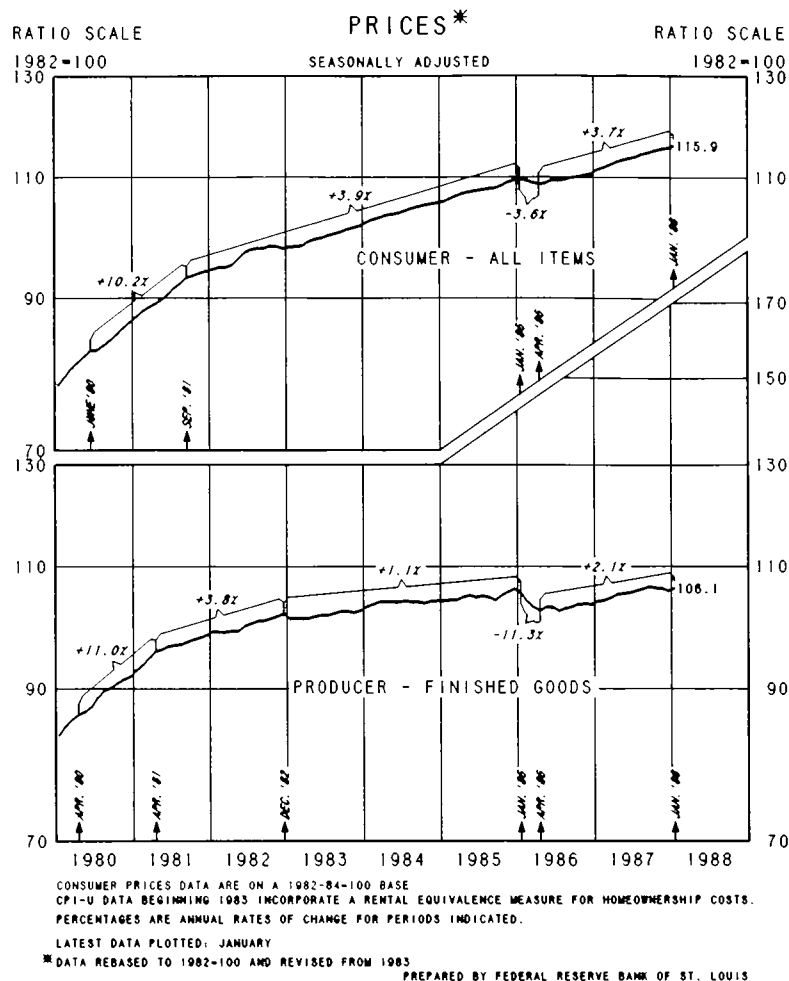
PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS  
FEBRUARY 26, 1988

**PRODUCER PRICE INDEX, FINISHED GOODS - SEASONALLY ADJUSTED\***  
**COMPOUNDED ANNUAL RATES OF CHANGE**

| TERMINAL<br>MONTH | INITIAL MONTH |      |      |      |       |       |       |      |      |      |      |      |      |      |      |      | 1982 = 100 |
|-------------------|---------------|------|------|------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------------|
|                   | 6-86          | 7-86 | 8-86 | 9-86 | 10-86 | 11-86 | 12-86 | 1-87 | 2-87 | 3-87 | 4-87 | 5-87 | 6-87 | 7-87 | 8-87 | 9-87 |            |
| 7-86              | -6.8          |      |      |      |       |       |       |      |      |      |      |      |      |      |      |      | 102.3      |
| 8-86              | -1.2          | 4.8  |      |      |       |       |       |      |      |      |      |      |      |      |      |      | 102.7      |
| 9-86              | 0.4           | 4.2  | 3.6  |      |       |       |       |      |      |      |      |      |      |      |      |      | 103.0      |
| 10-86             | 1.5           | 4.4  | 4.2  | 4.8  |       |       |       |      |      |      |      |      |      |      |      |      | 103.4      |
| 11-86             | 1.4           | 3.6  | 3.2  | 2.9  | 1.2   |       |       |      |      |      |      |      |      |      |      |      | 103.5      |
| 12-86             | 1.0           | 2.9  | 2.1  | 1.6  | 0.0   | -1.2  |       |      |      |      |      |      |      |      |      |      | 103.4      |
| 1-87              | 1.7           | 3.2  | 2.8  | 2.6  | 1.9   | 2.3   | 6.0   |      |      |      |      |      |      |      |      |      | 103.9      |
| 2-87              | 1.8           | 3.0  | 2.7  | 2.6  | 2.0   | 2.3   | 4.1   | 2.3  |      |      |      |      |      |      |      |      | 104.1      |
| 3-87              | 2.1           | 3.2  | 3.0  | 2.9  | 2.6   | 2.9   | 4.3   | 3.5  | 4.7  |      |      |      |      |      |      |      | 104.5      |
| 4-87              | 2.6           | 3.7  | 3.5  | 3.5  | 3.3   | 3.8   | 5.0   | 4.7  | 5.9  | 7.1  |      |      |      |      |      |      | 105.1      |
| 5-87              | 2.5           | 3.5  | 3.4  | 3.4  | 3.2   | 3.5   | 4.5   | 4.1  | 4.7  | 4.7  | 2.3  |      |      |      |      |      | 105.3      |
| 6-87              | 2.4           | 3.3  | 3.2  | 3.1  | 2.9   | 3.2   | 3.9   | 3.5  | 3.8  | 3.5  | 1.7  | 1.1  |      |      |      |      | 105.4      |
| 7-87              | 2.5           | 3.3  | 3.2  | 3.2  | 3.0   | 3.2   | 3.8   | 3.5  | 3.7  | 3.5  | 2.3  | 2.3  | 3.5  |      |      |      | 105.7      |
| 8-87              | 2.6           | 3.3  | 3.2  | 3.2  | 3.0   | 3.2   | 3.8   | 3.5  | 3.7  | 3.5  | 2.6  | 2.7  | 3.5  | 3.5  |      |      | 106.0      |
| 9-87              | 2.7           | 3.4  | 3.3  | 3.3  | 3.2   | 3.4   | 3.9   | 3.6  | 3.8  | 3.7  | 3.0  | 3.2  | 3.8  | 4.0  | 4.6  |      | 106.4      |
| 10-87             | 2.4           | 3.0  | 2.9  | 2.9  | 2.7   | 2.8   | 3.3   | 3.0  | 3.0  | 2.8  | 2.1  | 2.1  | 2.3  | 1.9  | 1.1  | -2.2 | 106.2      |
| 11-87             | 2.2           | 2.8  | 2.6  | 2.6  | 2.4   | 2.5   | 2.9   | 2.5  | 2.6  | 2.3  | 1.6  | 1.5  | 1.6  | 1.1  | 0.4  | -1.7 | 106.1      |
| 12-87             | 1.8           | 2.3  | 2.2  | 2.1  | 1.9   | 2.0   | 2.2   | 1.9  | 1.8  | 1.5  | 0.9  | 0.7  | 0.6  | 0.0  | -0.8 | -2.6 | 105.7      |
| 1-88              | 2.0           | 2.5  | 2.3  | 2.2  | 2.1   | 2.1   | 2.4   | 2.1  | 2.1  | 1.8  | 1.3  | 1.1  | 1.1  | 0.8  | 0.2  | -0.8 | 106.1      |

\*DATA REBASED TO 1982=100 AND REVISED FROM 1983

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS  
FEBRUARY 12, 1988



**PRODUCER PRICE INDEX, FINISHED CONSUMER FOODS - SEASONALLY ADJUSTED\***  
**COMPOUNDED ANNUAL RATES OF CHANGE**

| TERMINAL MONTH | INITIAL MONTH |      |      |      |       |       |       |      |      |      |      |      |      |      |      |      |       |       |       | 1982 = 100 |
|----------------|---------------|------|------|------|-------|-------|-------|------|------|------|------|------|------|------|------|------|-------|-------|-------|------------|
|                | 6-86          | 7-86 | 8-86 | 9-86 | 10-86 | 11-86 | 12-86 | 1-87 | 2-87 | 3-87 | 4-87 | 5-87 | 6-87 | 7-87 | 8-87 | 9-87 | 10-87 | 11-87 | 12-87 |            |
| 7-86           | 17.0          |      |      |      |       |       |       |      |      |      |      |      |      |      |      |      |       |       |       | 107.6      |
| 8-86           | 19.5          | 22.0 |      |      |       |       |       |      |      |      |      |      |      |      |      |      |       |       |       | 109.4      |
| 9-86           | 10.6          | 7.5  | -5.3 |      |       |       |       |      |      |      |      |      |      |      |      |      |       |       |       | 108.9      |
| 10-86          | 10.5          | 8.4  | 2.2  | 10.4 |       |       |       |      |      |      |      |      |      |      |      |      |       |       |       | 109.8      |
| 11-86          | 7.6           | 5.4  | 0.4  | 3.4  | -3.2  |       |       |      |      |      |      |      |      |      |      |      |       |       |       | 109.5      |
| 12-86          | 5.1           | 2.9  | -1.4 | 0.0  | -4.8  | -6.4  |       |      |      |      |      |      |      |      |      |      |       |       |       | 108.9      |
| 1-87           | 2.9           | 0.7  | -3.0 | -2.5 | -6.4  | -7.9  | -9.5  |      |      |      |      |      |      |      |      |      |       |       |       | 108.0      |
| 2-87           | 2.8           | 1.0  | -2.2 | -1.5 | -4.3  | -4.7  | -3.8  | 2.2  |      |      |      |      |      |      |      |      |       |       |       | 108.2      |
| 3-87           | 2.5           | 0.8  | -1.9 | -1.3 | -3.5  | -3.5  | -2.5  | 1.1  | 0.0  |      |      |      |      |      |      |      |       |       |       | 108.2      |
| 4-87           | 3.9           | 2.5  | 0.3  | 1.1  | -0.4  | 0.2   | 1.9   | 6.1  | 8.0  | 16.7 |      |      |      |      |      |      |       |       |       | 109.6      |
| 5-87           | 4.7           | 3.6  | 1.7  | 2.6  | 1.6   | 2.4   | 4.2   | 8.0  | 10.0 | 15.3 | 14.0 |      |      |      |      |      |       |       |       | 110.8      |
| 6-87           | 4.2           | 3.1  | 1.4  | 2.2  | 1.2   | 1.9   | 3.3   | 6.1  | 7.1  | 9.6  | 6.2  | -1.1 |      |      |      |      |       |       |       | 110.7      |
| 7-87           | 3.6           | 2.5  | 0.9  | 1.5  | 0.6   | 1.1   | 2.2   | 4.3  | 4.7  | 5.9  | 2.6  | -2.7 | -4.3 |      |      |      |       |       |       | 110.3      |
| 8-87           | 2.7           | 1.6  | 0.1  | 0.6  | -0.3  | 0.0   | 0.8   | 2.4  | 2.4  | 2.9  | -0.3 | -4.6 | -6.3 | -8.4 |      |      |       |       |       | 109.5      |
| 9-87           | 3.0           | 2.1  | 0.7  | 1.2  | 0.4   | 0.8   | 1.6   | 3.1  | 3.2  | 3.7  | 1.3  | -1.6 | -1.8 | -0.5 | 7.9  |      |       |       |       | 110.2      |
| 10-87          | 2.5           | 1.6  | 0.3  | 0.8  | 0.0   | 0.3   | 1.0   | 2.2  | 2.2  | 2.5  | 0.4  | -2.2 | -2.4 | -1.8 | 1.7  | -4.3 |       |       |       | 109.8      |
| 11-87          | 2.6           | 1.7  | 0.5  | 0.9  | 0.3   | 0.5   | 1.2   | 2.3  | 2.3  | 2.6  | 0.8  | -1.3 | -1.3 | -0.5 | 2.2  | -0.5 | 3.3   |       |       | 110.1      |
| 12-87          | 1.5           | 0.7  | -0.5 | -0.2 | -0.9  | -0.8  | -0.3  | 0.6  | 0.4  | 0.5  | -1.4 | -3.4 | -3.8 | -3.7 | -2.4 | -5.7 | -6.4  | -15.2 |       | 108.6      |
| 1-88           | 2.5           | 1.8  | 0.7  | 1.1  | 0.5   | 0.8   | 1.4   | 2.3  | 2.3  | 2.6  | 1.1  | -0.4 | -0.3 | 0.4  | 2.2  | 0.8  | 2.6   | 2.2   | 23.1  | 110.5      |
|                | 6-86          | 7-86 | 8-86 | 9-86 | 10-86 | 11-86 | 12-86 | 1-87 | 2-87 | 3-87 | 4-87 | 5-87 | 6-87 | 7-87 | 8-87 | 9-87 | 10-87 | 11-87 | 12-87 |            |

\*DATA REBASED TO 1982=100 AND REVISED FROM 1983

INITIAL MONTH

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS  
FEBRUARY 12, 1988

**PRODUCER PRICE INDEX, FINISHED GOODS, EXCLUDING FOODS - SEASONALLY ADJUSTED\***  
**COMPOUNDED ANNUAL RATES OF CHANGE**

| TERMINAL MONTH | INITIAL MONTH |      |      |      |       |       |       |      |      |      |      |      | 1982 = 100 |      |      |      |       |       |       |       |
|----------------|---------------|------|------|------|-------|-------|-------|------|------|------|------|------|------------|------|------|------|-------|-------|-------|-------|
|                | 6-86          | 7-86 | 8-86 | 9-86 | 10-86 | 11-86 | 12-86 | 1-87 | 2-87 | 3-87 | 4-87 | 5-87 | 6-87       | 7-87 | 8-87 | 9-87 | 10-87 | 11-87 | 12-87 |       |
| 7-86           | -15.3         |      |      |      |       |       |       |      |      |      |      |      |            |      |      |      |       |       | 100.5 |       |
| 8-86           | -8.5          | -1.2 |      |      |       |       |       |      |      |      |      |      |            |      |      |      |       |       | 100.4 |       |
| 9-86           | -3.1          | 3.6  | 8.7  |      |       |       |       |      |      |      |      |      |            |      |      |      |       |       | 101.1 |       |
| 10-86          | -1.8          | 3.2  | 5.5  | 2.4  |       |       |       |      |      |      |      |      |            |      |      |      |       |       | 101.3 |       |
| 11-86          | -0.9          | 3.0  | 4.5  | 2.4  | 2.4   |       |       |      |      |      |      |      |            |      |      |      |       |       | 101.5 |       |
| 12-86          | -0.6          | 2.6  | 3.6  | 2.0  | 1.8   | 1.2   |       |      |      |      |      |      |            |      |      |      |       |       | 101.6 |       |
| 1-87           | 1.0           | 4.0  | 5.1  | 4.2  | 4.8   | 6.1   | 11.2  |      |      |      |      |      |            |      |      |      |       |       | 102.5 |       |
| 2-87           | 1.2           | 3.8  | 4.6  | 3.8  | 4.2   | 4.8   | 6.7   | 2.4  |      |      |      |      |            |      |      |      |       |       | 102.7 |       |
| 3-87           | 1.8           | 4.2  | 5.0  | 4.4  | 4.8   | 5.4   | 6.9   | 4.8  | 7.2  |      |      |      |            |      |      |      |       |       | 103.3 |       |
| 4-87           | 2.0           | 4.1  | 4.8  | 4.3  | 4.6   | 5.0   | 6.0   | 4.4  | 5.4  | 3.5  |      |      |            |      |      |      |       |       | 103.6 |       |
| 5-87           | 1.7           | 3.6  | 4.1  | 3.6  | 3.8   | 4.0   | 4.5   | 3.0  | 3.2  | 1.2  | -1.2 |      |            |      |      |      |       |       | 103.5 |       |
| 6-87           | 1.7           | 3.4  | 3.8  | 3.3  | 3.4   | 3.6   | 4.0   | 2.6  | 2.7  | 1.2  | 0.0  | 1.2  |            |      |      |      |       |       | 103.6 |       |
| 7-87           | 2.1           | 3.7  | 4.1  | 3.7  | 3.8   | 4.0   | 4.4   | 3.3  | 3.5  | 2.6  | 2.3  | 4.1  | 7.2        |      |      |      |       |       | 104.2 |       |
| 8-87           | 2.4           | 3.9  | 4.4  | 4.0  | 4.2   | 4.4   | 4.8   | 3.9  | 4.1  | 3.5  | 3.5  | 5.1  | 7.2        | 7.1  |      |      |       |       | 104.8 |       |
| 9-87           | 2.6           | 4.0  | 4.4  | 4.1  | 4.2   | 4.4   | 4.8   | 4.0  | 4.2  | 3.7  | 3.7  | 5.0  | 6.3        | 5.9  | 4.7  |      |       |       | 105.2 |       |
| 10-87          | 2.3           | 3.6  | 3.9  | 3.6  | 3.7   | 3.8   | 4.0   | 3.3  | 3.4  | 2.8  | 2.7  | 3.5  | 4.1        | 3.1  | 1.2  | -2.3 |       |       | 105.0 |       |
| 11-87          | 2.0           | 3.2  | 3.5  | 3.1  | 3.2   | 3.3   | 3.4   | 2.7  | 2.7  | 2.2  | 2.0  | 2.5  | 2.8        | 1.7  | 0.0  | -2.3 | -2.3  |       | 104.8 |       |
| 12-87          | 1.9           | 3.0  | 3.3  | 2.9  | 3.0   | 3.0   | 3.1   | 2.5  | 2.5  | 1.9  | 1.7  | 2.2  | 2.3        | 1.4  | 0.0  | -1.5 | -1.1  | 0.0   | 104.8 |       |
| 1-88           | 1.7           | 2.7  | 2.9  | 2.6  | 2.6   | 2.6   | 2.7   | 2.0  | 2.0  | 1.5  | 1.3  | 1.6  | 1.7        | 0.8  | -0.5 | -1.7 | -1.5  | -1.1  | -2.3  | 104.6 |
|                | 6-86          | 7-86 | 8-86 | 9-86 | 10-86 | 11-86 | 12-86 | 1-87 | 2-87 | 3-87 | 4-87 | 5-87 | 6-87       | 7-87 | 8-87 | 9-87 | 10-87 | 11-87 | 12-87 |       |

INITIAL MONTH

\*DATA REBASED TO 1982=100 AND REVISED FROM 1983

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS  
FEBRUARY 12, 1988

# INDUSTRIAL PRODUCTION

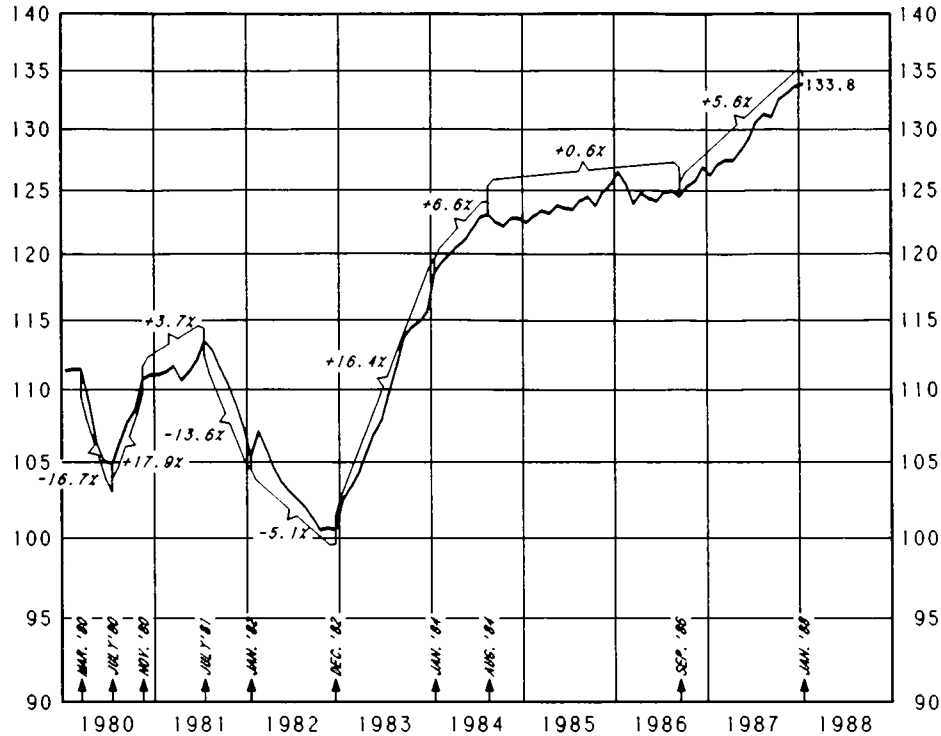
RATIO SCALE

1977=100

SEASONALLY ADJUSTED

RATIO SCALE

1977=100



PERCENTAGES ARE ANNUAL RATES OF CHANGE FOR PERIODS INDICATED.

LATEST DATA PLOTTED: JANUARY PRELIMINARY

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS

## INDUSTRIAL PRODUCTION COMPOUNDED ANNUAL RATES OF CHANGE

| TERMINAL MONTH | INITIAL MONTH |      |      |      |       |       |       |      |      |      |      |      | 1977 = 100 |      |      |      |       |       |        |        |
|----------------|---------------|------|------|------|-------|-------|-------|------|------|------|------|------|------------|------|------|------|-------|-------|--------|--------|
|                | 6-86          | 7-86 | 8-86 | 9-86 | 10-86 | 11-86 | 12-86 | 1-87 | 2-87 | 3-87 | 4-87 | 5-87 | 6-87       | 7-87 | 8-87 | 9-87 | 10-87 | 11-87 | 12-87  |        |
| 7-86           | 7.0           |      |      |      |       |       |       |      |      |      |      |      |            |      |      |      |       |       | 124.8  |        |
| 8-86           | 3.9           | 1.0  |      |      |       |       |       |      |      |      |      |      |            |      |      |      |       |       | 124.9  |        |
| 9-86           | 1.3           | -1.4 | -3.8 |      |       |       |       |      |      |      |      |      |            |      |      |      |       |       | 124.5  |        |
| 10-86          | 2.9           | 1.6  | 1.9  | 8.0  |       |       |       |      |      |      |      |      |            |      |      |      |       |       | 125.3  |        |
| 11-86          | 3.1           | 2.2  | 2.6  | 5.9  | 3.9   |       |       |      |      |      |      |      |            |      |      |      |       |       | 125.7  |        |
| 12-86          | 4.4           | 3.9  | 4.6  | 7.6  | 7.4   | 11.0  |       |      |      |      |      |      |            |      |      |      |       |       | 126.8  |        |
| 1-87           | 2.9           | 2.3  | 2.5  | 4.2  | 2.9   | 2.4   | -5.5  |      |      |      |      |      |            |      |      |      |       |       | 126.2  |        |
| 2-87           | 3.6           | 3.2  | 3.6  | 5.1  | 4.4   | 4.5   | 1.4   | 8.9  |      |      |      |      |            |      |      |      |       |       | 127.1  |        |
| 3-87           | 3.6           | 3.1  | 3.5  | 4.7  | 4.1   | 4.1   | 1.9   | 5.8  | 2.9  |      |      |      |            |      |      |      |       |       | 127.4  |        |
| 4-87           | 3.2           | 2.8  | 3.0  | 4.0  | 3.4   | 3.3   | 1.4   | 3.9  | 1.4  | 0.0  |      |      |            |      |      |      |       |       | 127.4  |        |
| 5-87           | 3.6           | 3.3  | 3.5  | 4.5  | 4.0   | 4.0   | 2.7   | 4.8  | 3.5  | 3.8  | 7.8  |      |            |      |      |      |       |       | 128.2  |        |
| 6-87           | 4.0           | 3.8  | 4.0  | 5.0  | 4.6   | 4.7   | 3.7   | 5.6  | 4.8  | 5.4  | 8.3  | 8.8  |            |      |      |      |       |       | 129.1  |        |
| 7-87           | 4.8           | 4.6  | 5.0  | 5.9  | 5.7   | 5.9   | 5.2   | 7.1  | 6.7  | 7.7  | 10.4 | 11.8 | 14.9       |      |      |      |       |       | 130.6  |        |
| 8-87           | 4.9           | 4.7  | 5.0  | 5.9  | 5.7   | 5.9   | 5.2   | 6.9  | 6.6  | 7.3  | 9.2  | 9.7  | 10.2       | 5.7  |      |      |       |       | 131.2  |        |
| 9-87           | 4.4           | 4.2  | 4.5  | 5.2  | 5.0   | 5.1   | 4.4   | 5.8  | 5.3  | 5.7  | 6.9  | 6.7  | 6.0        | 1.9  | -1.8 |      |       |       | 131.0  |        |
| 10-87          | 5.0           | 4.9  | 5.2  | 5.9  | 5.7   | 5.9   | 5.4   | 6.7  | 6.4  | 7.0  | 8.2  | 8.2  | 8.1        | 5.9  | 6.1  | 14.6 |       |       | 132.5  |        |
| 11-87          | 5.0           | 4.9  | 5.2  | 5.8  | 5.7   | 5.8   | 5.3   | 6.5  | 6.2  | 6.7  | 7.7  | 7.6  | 7.4        | 5.6  | 5.6  | 9.5  | 4.6   |       | 133.0  |        |
| 12-87          | 5.0           | 4.9  | 5.2  | 5.8  | 5.7   | 5.8   | 5.4   | 6.4  | 6.2  | 6.5  | 7.4  | 7.3  | 7.1        | 5.6  | 5.6  | 8.2  | 5.1   | 5.5   | 133.6P |        |
| 1-88           | 4.9           | 4.8  | 5.0  | 5.6  | 5.4   | 5.5   | 5.1   | 6.0  | 5.8  | 6.1  | 6.8  | 6.6  | 6.3        | 5.0  | 4.8  | 6.6  | 4.0   | 3.7   | 1.8    | 133.8P |
|                | 6-86          | 7-86 | 8-86 | 9-86 | 10-86 | 11-86 | 12-86 | 1-87 | 2-87 | 3-87 | 4-87 | 5-87 | 6-87       | 7-87 | 8-87 | 9-87 | 10-87 | 11-87 | 12-87  |        |

P- PRELIMINARY

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS  
FEBRUARY 17, 1988

# PERSONAL INCOME

RATIO SCALE

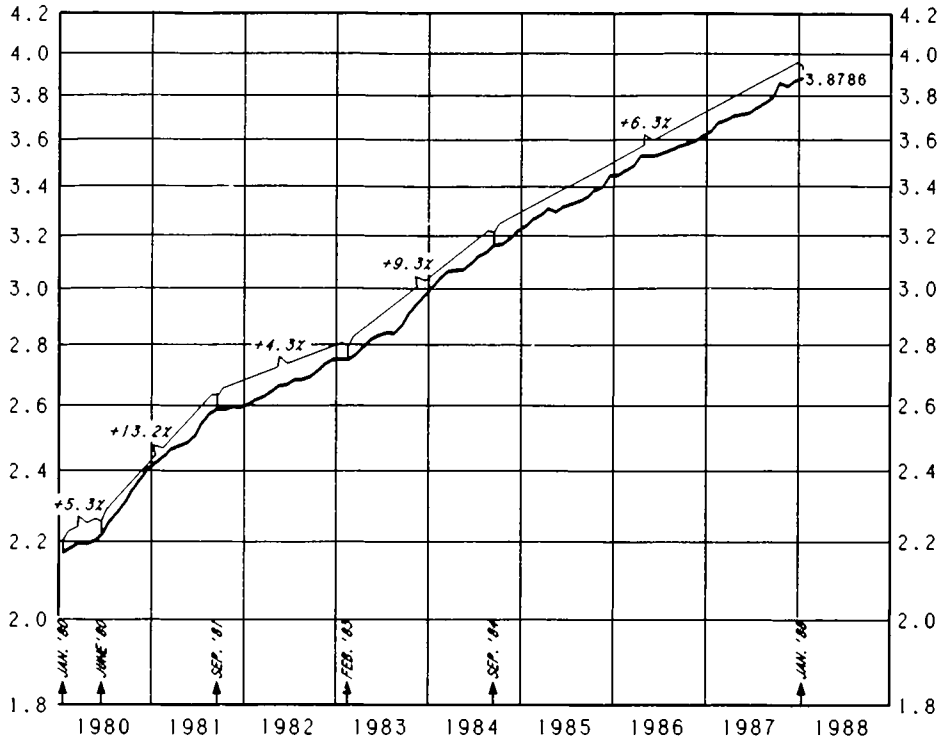
MONTHLY TOTALS AT ANNUAL RATES

RATIO SCALE

TRILLIONS OF DOLLARS

SEASONALLY ADJUSTED

TRILLIONS OF DOLLARS



SOURCE: U.S. DEPARTMENT OF COMMERCE

PERCENTAGES ARE ANNUAL RATES OF CHANGE FOR PERIODS INDICATED.

LATEST DATA PLOTTED: JANUARY PRELIMINARY

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS

| PERSONAL INCOME<br>COMPOUNDED ANNUAL RATES OF CHANGE |               |      |      |      |       |       |       |      |      |      |      |      |      |      |      |      |       |       |       | BILLIONS OF<br>DOLLARS<br>ANNUAL RATES |
|------------------------------------------------------|---------------|------|------|------|-------|-------|-------|------|------|------|------|------|------|------|------|------|-------|-------|-------|----------------------------------------|
| TERMINAL<br>MONTH                                    | INITIAL MONTH |      |      |      |       |       |       |      |      |      |      |      |      |      |      |      |       |       |       |                                        |
|                                                      | 6-86          | 7-86 | 8-86 | 9-86 | 10-86 | 11-86 | 12-86 | 1-87 | 2-87 | 3-87 | 4-87 | 5-87 | 6-87 | 7-87 | 8-87 | 9-87 | 10-87 | 11-87 | 12-87 |                                        |
| 7-86                                                 | 4.2           |      |      |      |       |       |       |      |      |      |      |      |      |      |      |      |       |       |       | 3,540.3                                |
| 8-86                                                 | 4.3           | 4.4  |      |      |       |       |       |      |      |      |      |      |      |      |      |      |       |       |       | 3,552.9                                |
| 9-86                                                 | 4.5           | 4.7  | 5.0  |      |       |       |       |      |      |      |      |      |      |      |      |      |       |       |       | 3,567.5                                |
| 10-86                                                | 4.3           | 4.3  | 4.2  | 3.4  |       |       |       |      |      |      |      |      |      |      |      |      |       |       |       | 3,577.5                                |
| 11-86                                                | 4.3           | 4.3  | 4.3  | 3.9  | 4.4   |       |       |      |      |      |      |      |      |      |      |      |       |       |       | 3,590.3                                |
| 12-86                                                | 4.9           | 5.0  | 5.2  | 5.2  | 6.1   | 7.9   |       |      |      |      |      |      |      |      |      |      |       |       |       | 3,613.0                                |
| 1-87                                                 | 5.1           | 5.2  | 5.4  | 5.5  | 6.2   | 7.1   | 6.3   |      |      |      |      |      |      |      |      |      |       |       |       | 3,631.9                                |
| 2-87                                                 | 6.1           | 6.4  | 6.8  | 7.1  | 8.1   | 9.3   | 10.1  | 13.9 |      |      |      |      |      |      |      |      |       |       |       | 3,671.2                                |
| 3-87                                                 | 5.9           | 6.1  | 6.4  | 6.6  | 7.3   | 8.0   | 8.0   | 8.9  | 4.1  |      |      |      |      |      |      |      |       |       |       | 3,683.4                                |
| 4-87                                                 | 5.9           | 6.1  | 6.4  | 6.5  | 7.1   | 7.6   | 7.6   | 8.0  | 5.1  | 6.2  |      |      |      |      |      |      |       |       |       | 3,701.9                                |
| 5-87                                                 | 5.6           | 5.7  | 5.9  | 6.0  | 6.4   | 6.7   | 6.5   | 6.5  | 4.1  | 4.2  | 2.2  |      |      |      |      |      |       |       |       | 3,708.5                                |
| 6-87                                                 | 5.3           | 5.4  | 5.5  | 5.6  | 5.8   | 6.0   | 5.7   | 5.6  | 3.6  | 3.5  | 2.2  | 2.2  |      |      |      |      |       |       |       | 3,715.3                                |
| 7-87                                                 | 5.5           | 5.6  | 5.7  | 5.8  | 6.1   | 6.3   | 6.1   | 6.0  | 4.5  | 4.6  | 4.1  | 5.1  | 8.0  |      |      |      |       |       |       | 3,739.2                                |
| 8-87                                                 | 5.6           | 5.7  | 5.8  | 5.9  | 6.2   | 6.4   | 6.2   | 6.2  | 4.9  | 5.1  | 4.8  | 5.7  | 7.5  | 7.1  |      |      |       |       |       | 3,760.6                                |
| 9-87                                                 | 5.7           | 5.9  | 6.0  | 6.0  | 6.3   | 6.5   | 6.3   | 6.3  | 5.3  | 5.5  | 5.4  | 6.2  | 7.5  | 7.3  | 7.5  |      |       |       |       | 3,783.2                                |
| 10-87                                                | 6.9           | 7.1  | 7.3  | 7.4  | 7.8   | 8.1   | 8.1   | 8.3  | 7.6  | 8.1  | 8.5  | 9.8  | 11.7 | 13.0 | 16.1 | 25.4 |       |       |       | 3,855.2                                |
| 11-87                                                | 6.1           | 6.3  | 6.4  | 6.5  | 6.7   | 6.9   | 6.9   | 6.9  | 6.2  | 6.4  | 6.4  | 7.2  | 8.2  | 8.2  | 8.6  | 9.2  | -4.8  |       |       | 3,839.3                                |
| 12-87                                                | 6.3           | 6.4  | 6.5  | 6.6  | 6.9   | 7.1   | 7.0   | 7.1  | 6.4  | 6.7  | 6.7  | 7.4  | 8.3  | 8.4  | 8.7  | 9.1  | 1.8   | 8.8   |       | 3,866.4                                |
| 1-88                                                 | 6.2           | 6.3  | 6.4  | 6.5  | 6.7   | 6.8   | 6.8   | 6.8  | 6.2  | 6.4  | 6.4  | 7.0  | 7.7  | 7.6  | 7.7  | 7.8  | 2.5   | 6.3   | 3.9   | 3,878.6P                               |
|                                                      | 6-86          | 7-86 | 8-86 | 9-86 | 10-86 | 11-86 | 12-86 | 1-87 | 2-87 | 3-87 | 4-87 | 5-87 | 6-87 | 7-87 | 8-87 | 9-87 | 10-87 | 11-87 | 12-87 |                                        |
|                                                      | INITIAL MONTH |      |      |      |       |       |       |      |      |      |      |      |      |      |      |      |       |       |       |                                        |

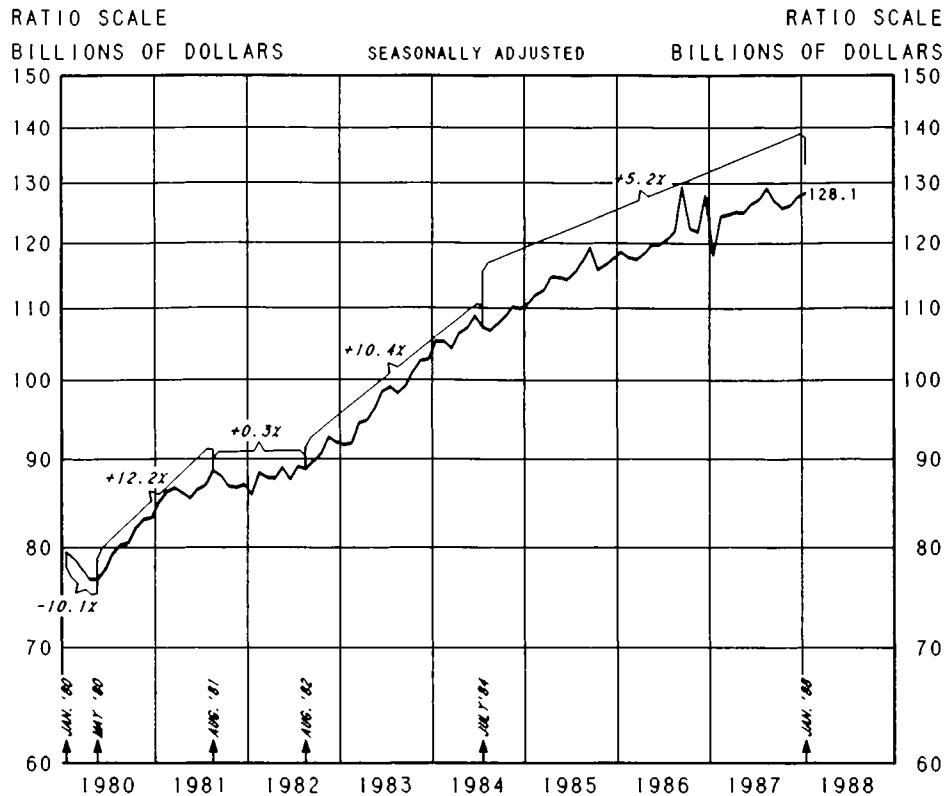
INITIAL MONTH

P- PRELIMINARY

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS  
FEBRUARY 26, 1988



# RETAIL SALES



SOURCE: U.S. DEPARTMENT OF COMMERCE

PERCENTAGES ARE ANNUAL RATES OF CHANGE FOR PERIODS INDICATED.

LATEST DATA PLOTTED: DECEMBER, JANUARY ADVANCE ESTIMATE

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS

## RETAIL SALES COMPOUNDED ANNUAL RATES OF CHANGE

| TERMINAL MONTH | INITIAL MONTH |      |       |       |       |       |       |      |      |      |      |      |      |      |       |       |       |       |       | MILLIONS OF DOLLARS |
|----------------|---------------|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|---------------------|
|                | 6-86          | 7-86 | 8-86  | 9-86  | 10-86 | 11-86 | 12-86 | 1-87 | 2-87 | 3-87 | 4-87 | 5-87 | 6-87 | 7-87 | 8-87  | 9-87  | 10-87 | 11-87 | 12-87 |                     |
| 7-86           | 9.1           |      |       |       |       |       |       |      |      |      |      |      |      |      |       |       |       |       |       | 120,478             |
| 8-86           | 11.2          | 13.3 |       |       |       |       |       |      |      |      |      |      |      |      |       |       |       |       |       | 121,735             |
| 9-86           | 35.7          | 51.4 | 102.4 |       |       |       |       |      |      |      |      |      |      |      |       |       |       |       |       | 129,101             |
| 10-86          | 6.7           | 5.9  | 2.4   | -48.2 |       |       |       |      |      |      |      |      |      |      |       |       |       |       |       | 122,222             |
| 11-86          | 4.3           | 3.2  | 0.0   | -29.7 | -4.7  |       |       |      |      |      |      |      |      |      |       |       |       |       |       | 121,731             |
| 12-86          | 14.0          | 15.0 | 15.4  | -4.3  | 30.0  | 77.4  |       |      |      |      |      |      |      |      |       |       |       |       |       | 127,687             |
| 1-87           | -2.2          | -4.0 | -7.1  | -23.5 | -13.0 | -16.8 | -61.0 |      |      |      |      |      |      |      |       |       |       |       |       | 118,049             |
| 2-87           | 5.9           | 5.5  | 4.2   | -8.7  | 5.1   | 8.6   | -15.0 | 85.4 |      |      |      |      |      |      |       |       |       |       |       | 124,280             |
| 3-87           | 5.6           | 5.2  | 4.1   | -6.9  | 4.7   | 7.2   | -9.3  | 38.2 | 3.1  |      |      |      |      |      |       |       |       |       |       | 124,593             |
| 4-87           | 5.4           | 5.0  | 4.0   | -5.4  | 4.5   | 6.5   | -6.3  | 25.6 | 3.3  | 3.6  |      |      |      |      |       |       |       |       |       | 124,960             |
| 5-87           | 4.8           | 4.4  | 3.4   | -4.9  | 3.7   | 5.2   | -5.2  | 18.3 | 1.9  | 1.3  | -0.9 |      |      |      |       |       |       |       |       | 124,867             |
| 6-87           | 5.6           | 5.3  | 4.5   | -2.9  | 5.1   | 6.5   | -2.1  | 17.6 | 5.0  | 5.6  | 6.6  | 14.8 |      |      |       |       |       |       |       | 126,307             |
| 7-87           | 5.7           | 5.5  | 4.8   | -1.9  | 5.3   | 6.6   | -0.8  | 15.9 | 5.5  | 6.1  | 6.9  | 11.0 | 7.4  |      |       |       |       |       |       | 127,061             |
| 8-87           | 6.6           | 6.5  | 5.9   | -0.1  | 6.6   | 8.0   | 1.5   | 16.3 | 7.6  | 8.6  | 9.8  | 13.7 | 13.1 | 19.2 |       |       |       |       |       | 128,931             |
| 9-87           | 4.8           | 4.5  | 3.8   | -1.8  | 4.1   | 5.0   | -0.9  | 11.3 | 3.5  | 3.6  | 3.6  | 4.7  | 1.5  | -1.3 | -18.2 |       |       |       |       | 126,790             |
| 10-87          | 3.8           | 3.4  | 2.7   | -2.5  | 2.8   | 3.5   | -1.9  | 8.7  | 1.6  | 1.4  | 1.1  | 1.5  | -1.6 | -4.4 | -14.4 | -10.4 |       |       |       | 125,631             |
| 11-87          | 3.7           | 3.4  | 2.8   | -2.1  | 2.8   | 3.5   | -1.4  | 8.1  | 1.8  | 1.7  | 1.4  | 1.8  | -0.6 | -2.5 | -8.8  | -3.7  | 3.5   |       |       | 125,990             |
| 12-87          | 4.3           | 4.1  | 3.5   | -1.0  | 3.7   | 4.3   | -0.2  | 8.7  | 3.1  | 3.1  | 3.0  | 3.6  | 1.8  | 0.8  | -3.4  | 2.1   | 9.1   | 14.9  |       | 127,459P            |
| 1-88           | 4.4           | 4.2  | 3.7   | -0.6  | 3.8   | 4.5   | 0.3   | 8.5  | 3.3  | 3.4  | 3.3  | 3.9  | 2.4  | 1.6  | -1.6  | 3.1   | 8.0   | 10.4  | 6.0   | 128,078E            |
|                | 6-86          | 7-86 | 8-86  | 9-86  | 10-86 | 11-86 | 12-86 | 1-87 | 2-87 | 3-87 | 4-87 | 5-87 | 6-87 | 7-87 | 8-87  | 9-87  | 10-87 | 11-87 | 12-87 |                     |
|                | INITIAL MONTH |      |       |       |       |       |       |      |      |      |      |      |      |      |       |       |       |       |       |                     |

P- PRELIMINARY  
E- ESTIMATED

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS  
FEBRUARY 11, 1988

HOURLY COMPENSATION, BUSINESS SECTOR  
COMPOUNDED ANNUAL RATES OF CHANGE

| TERMINAL<br>QUARTER | INITIAL QUARTER |      |      |      |      |      |      |      |      |      |      |      | 1977=100 |      |      |      |      |      |        |
|---------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|------|------|--------|
|                     | 1-83            | 2-83 | 3-83 | 4-83 | 1-84 | 2-84 | 3-84 | 4-84 | 1-85 | 2-85 | 3-85 | 4-85 | 1-86     | 2-86 | 3-86 | 4-86 | 1-87 | 2-87 | 3-87   |
| 2-83                | 2.5             |      |      |      |      |      |      |      |      |      |      |      |          |      |      |      |      |      | 160.8  |
| 3-83                | 2.0             | 1.5  |      |      |      |      |      |      |      |      |      |      |          |      |      |      |      |      | 161.4  |
| 4-83                | 3.2             | 3.5  | 5.6  |      |      |      |      |      |      |      |      |      |          |      |      |      |      |      | 163.6  |
| 1-84                | 3.8             | 4.2  | 5.5  | 5.5  |      |      |      |      |      |      |      |      |          |      |      |      |      |      | 165.8  |
| 2-84                | 3.5             | 3.8  | 4.6  | 4.1  | 2.7  |      |      |      |      |      |      |      |          |      |      |      |      |      | 166.9  |
| 3-84                | 3.7             | 3.9  | 4.5  | 4.2  | 3.5  | 4.4  |      |      |      |      |      |      |          |      |      |      |      |      | 168.7  |
| 4-84                | 3.7             | 3.9  | 4.4  | 4.1  | 3.6  | 4.1  | 3.8  |      |      |      |      |      |          |      |      |      |      |      | 170.3  |
| 1-85                | 3.9             | 4.1  | 4.5  | 4.3  | 4.0  | 4.4  | 4.4  | 5.0  |      |      |      |      |          |      |      |      |      |      | 172.4  |
| 2-85                | 4.0             | 4.2  | 4.6  | 4.4  | 4.2  | 4.6  | 4.7  | 5.1  | 5.2  |      |      |      |          |      |      |      |      |      | 174.6  |
| 3-85                | 4.2             | 4.4  | 4.7  | 4.6  | 4.5  | 4.8  | 4.9  | 5.3  | 5.4  | 5.6  |      |      |          |      |      |      |      |      | 177.0  |
| 4-85                | 4.3             | 4.5  | 4.8  | 4.7  | 4.6  | 4.9  | 5.0  | 5.3  | 5.4  | 5.5  | 5.3  |      |          |      |      |      |      |      | 179.3  |
| 1-86                | 4.2             | 4.3  | 4.6  | 4.5  | 4.4  | 4.6  | 4.7  | 4.9  | 4.8  | 4.7  | 4.2  | 3.2  |          |      |      |      |      |      | 180.7  |
| 2-86                | 4.1             | 4.3  | 4.5  | 4.4  | 4.3  | 4.5  | 4.5  | 4.6  | 4.5  | 4.4  | 3.9  | 3.3  | 3.4      |      |      |      |      |      | 182.2  |
| 3-86                | 4.0             | 4.2  | 4.4  | 4.3  | 4.2  | 4.3  | 4.3  | 4.4  | 4.3  | 4.1  | 3.7  | 3.2  | 3.2      | 3.1  |      |      |      |      | 183.6  |
| 4-86                | 4.0             | 4.1  | 4.3  | 4.2  | 4.1  | 4.2  | 4.2  | 4.3  | 4.2  | 4.0  | 3.7  | 3.3  | 3.3      | 3.3  | 3.5  |      |      |      | 185.2  |
| 1-87                | 3.8             | 3.9  | 4.1  | 4.0  | 3.9  | 4.0  | 3.9  | 3.9  | 3.8  | 3.6  | 3.3  | 2.9  | 2.8      | 2.6  | 2.4  | 1.3  |      |      | 185.8  |
| 2-87                | 3.8             | 3.9  | 4.0  | 3.9  | 3.8  | 3.9  | 3.9  | 3.9  | 3.8  | 3.6  | 3.3  | 3.0  | 2.9      | 2.8  | 2.7  | 2.3  | 3.3  |      | 187.3  |
| 3-87                | 3.8             | 3.9  | 4.0  | 3.9  | 3.8  | 3.9  | 3.9  | 3.9  | 3.8  | 3.6  | 3.4  | 3.1  | 3.1      | 3.0  | 3.0  | 2.8  | 3.6  | 3.9  | 189.1  |
| 4-87                | 3.8             | 3.8  | 4.0  | 3.9  | 3.8  | 3.9  | 3.8  | 3.8  | 3.7  | 3.5  | 3.3  | 3.1  | 3.1      | 3.0  | 3.0  | 2.9  | 3.4  | 3.4  | 190.5P |
|                     | 1-83            | 2-83 | 3-83 | 4-83 | 1-84 | 2-84 | 3-84 | 4-84 | 1-85 | 2-85 | 3-85 | 4-85 | 1-86     | 2-86 | 3-86 | 4-86 | 1-87 | 2-87 | 3-87   |

INITIAL QUARTER

P- PRELIMINARY

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS  
FEBRUARY 4, 1988

OUTPUT PER HOUR OF ALL PERSONS, BUSINESS SECTOR  
COMPOUNDED ANNUAL RATES OF CHANGE

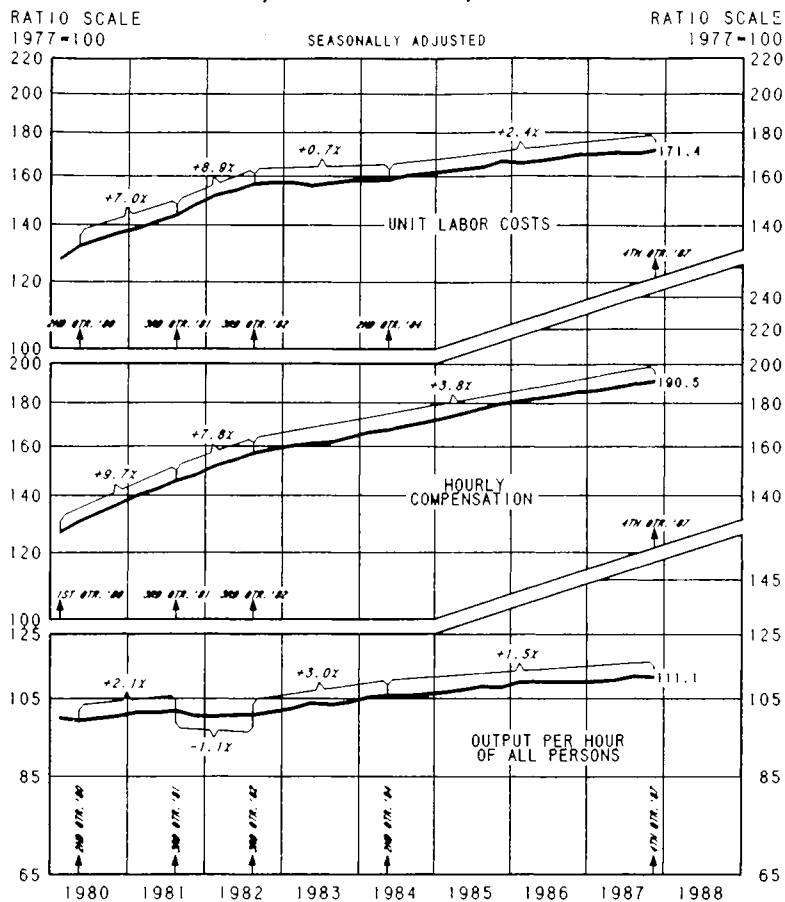
| TERMINAL<br>QUARTER | INITIAL QUARTER |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1977=100 |        |
|---------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|--------|
|                     | 1-83            | 2-83 | 3-83 | 4-83 | 1-84 | 2-84 | 3-84 | 4-84 | 1-85 | 2-85 | 3-85 | 4-85 | 1-86 | 2-86 | 3-86 | 4-86 | 1-87 | 2-87 | 3-87     |        |
| 2-83                | 6.0             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 103.4    |        |
| 3-83                | 2.2             | -1.5 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 103.0    |        |
| 4-83                | 2.4             | 0.6  | 2.7  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 103.7    |        |
| 1-84                | 3.1             | 2.2  | 4.1  | 5.5  |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 105.1    |        |
| 2-84                | 2.9             | 2.1  | 3.4  | 3.7  | 1.9  |      |      |      |      |      |      |      |      |      |      |      |      |      | 105.6    |        |
| 3-84                | 2.2             | 1.6  | 2.4  | 2.2  | 0.8  | -0.4 |      |      |      |      |      |      |      |      |      |      |      |      | 105.5    |        |
| 4-84                | 2.2             | 1.6  | 2.2  | 2.1  | 1.0  | 0.6  | 1.5  |      |      |      |      |      |      |      |      |      |      |      | 105.9    |        |
| 1-85                | 2.2             | 1.7  | 2.3  | 2.2  | 1.3  | 1.1  | 1.9  | 2.3  |      |      |      |      |      |      |      |      |      |      | 106.5    |        |
| 2-85                | 2.3             | 1.8  | 2.3  | 2.2  | 1.6  | 1.5  | 2.2  | 2.5  | 2.7  |      |      |      |      |      |      |      |      |      | 107.2    |        |
| 3-85                | 2.4             | 2.0  | 2.5  | 2.5  | 2.0  | 2.0  | 2.6  | 2.9  | 3.2  | 3.8  |      |      |      |      |      |      |      |      | 108.2    |        |
| 4-85                | 2.1             | 1.7  | 2.1  | 2.0  | 1.5  | 1.4  | 1.8  | 1.9  | 1.8  | 1.3  | -1.1 |      |      |      |      |      |      |      | 107.9    |        |
| 1-86                | 2.4             | 2.1  | 2.5  | 2.4  | 2.1  | 2.1  | 2.5  | 2.7  | 2.8  | 2.9  | 2.4  | 6.1  |      |      |      |      |      |      | 109.5    |        |
| 2-86                | 2.3             | 2.0  | 2.3  | 2.3  | 1.9  | 1.9  | 2.3  | 2.4  | 2.4  | 2.3  | 1.9  | 3.4  | 0.7  |      |      |      |      |      | 109.7    |        |
| 3-86                | 2.1             | 1.8  | 2.1  | 2.0  | 1.7  | 1.7  | 1.9  | 2.0  | 1.9  | 1.8  | 1.3  | 2.1  | 0.2  | -0.4 |      |      |      |      | 109.6    |        |
| 4-86                | 2.0             | 1.7  | 1.9  | 1.9  | 1.5  | 1.5  | 1.7  | 1.7  | 1.7  | 1.5  | 1.0  | 1.6  | 0.1  | -0.2 | 0.0  |      |      |      | 109.6    |        |
| 1-87                | 1.9             | 1.6  | 1.8  | 1.7  | 1.4  | 1.4  | 1.6  | 1.6  | 1.5  | 1.3  | 0.9  | 1.3  | 0.2  | 0.0  | 0.2  | 0.4  |      |      | 109.7    |        |
| 2-87                | 1.8             | 1.6  | 1.8  | 1.7  | 1.4  | 1.4  | 1.6  | 1.6  | 1.5  | 1.3  | 1.0  | 1.4  | 0.4  | 0.4  | 0.6  | 0.9  | 1.5  |      | 110.1    |        |
| 3-87                | 2.0             | 1.7  | 2.0  | 1.9  | 1.7  | 1.6  | 1.8  | 1.8  | 1.8  | 1.7  | 1.4  | 1.8  | 1.1  | 1.2  | 1.6  | 2.1  | 2.9  | 4.4  | 111.3    |        |
| 4-87                | 1.8             | 1.6  | 1.8  | 1.7  | 1.5  | 1.5  | 1.6  | 1.6  | 1.5  | 1.4  | 1.2  | 1.5  | 0.8  | 0.8  | 1.1  | 1.4  | 1.7  | 1.8  | -0.7     | 111.1P |
|                     | 1-83            | 2-83 | 3-83 | 4-83 | 1-84 | 2-84 | 3-84 | 4-84 | 1-85 | 2-85 | 3-85 | 4-85 | 1-86 | 2-86 | 3-86 | 4-86 | 1-87 | 2-87 | 3-87     |        |

INITIAL QUARTER

P- PRELIMINARY

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS  
FEBRUARY 4, 1988

# PRODUCTIVITY, COMPENSATION, AND LABOR COSTS



## UNIT LABOR COSTS, BUSINESS SECTOR COMPOUNDED ANNUAL RATES OF CHANGE

| TERMINAL<br>QUARTER | INITIAL QUARTER |      |      |      |      |      |      |      |      |      |      |      | 1977=100 |      |      |      |      |      |      |        |
|---------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|------|------|------|--------|
|                     | 1-83            | 2-83 | 3-83 | 4-83 | 1-84 | 2-84 | 3-84 | 4-84 | 1-85 | 2-85 | 3-85 | 4-85 | 1-86     | 2-86 | 3-86 | 4-86 | 1-87 | 2-87 | 3-87 |        |
| 2-83                | -3.3            |      |      |      |      |      |      |      |      |      |      |      |          |      |      |      |      |      |      | 155.5  |
| 3-83                | -0.1            | 3.1  |      |      |      |      |      |      |      |      |      |      |          |      |      |      |      |      |      | 156.7  |
| 4-83                | 0.8             | 2.8  | 2.6  |      |      |      |      |      |      |      |      |      |          |      |      |      |      |      |      | 157.7  |
| 1-84                | 0.6             | 2.0  | 1.4  | 0.3  |      |      |      |      |      |      |      |      |          |      |      |      |      |      |      | 157.8  |
| 2-84                | 0.6             | 1.6  | 1.1  | 0.4  | 0.5  |      |      |      |      |      |      |      |          |      |      |      |      |      |      | 158.0  |
| 3-84                | 1.3             | 2.3  | 2.0  | 1.9  | 2.7  | 4.9  |      |      |      |      |      |      |          |      |      |      |      |      |      | 159.9  |
| 4-84                | 1.4             | 2.3  | 2.1  | 2.0  | 2.5  | 3.6  | 2.3  |      |      |      |      |      |          |      |      |      |      |      |      | 160.8  |
| 1-85                | 1.6             | 2.3  | 2.2  | 2.1  | 2.6  | 3.3  | 2.5  | 2.8  |      |      |      |      |          |      |      |      |      |      |      | 161.9  |
| 2-85                | 1.7             | 2.3  | 2.2  | 2.1  | 2.5  | 3.0  | 2.4  | 2.5  | 2.2  |      |      |      |          |      |      |      |      |      |      | 162.8  |
| 3-85                | 1.7             | 2.3  | 2.2  | 2.1  | 2.4  | 2.8  | 2.3  | 2.3  | 2.1  | 2.0  |      |      |          |      |      |      |      |      |      | 163.6  |
| 4-85                | 2.1             | 2.7  | 2.6  | 2.6  | 3.0  | 3.4  | 3.1  | 3.3  | 3.5  | 4.1  | 6.3  |      |          |      |      |      |      |      |      | 166.1  |
| 1-86                | 1.7             | 2.2  | 2.1  | 2.0  | 2.3  | 2.5  | 2.1  | 2.1  | 1.9  | 1.8  | 1.7  | -2.6 |          |      |      |      |      |      |      | 165.0  |
| 2-86                | 1.8             | 2.2  | 2.2  | 2.1  | 2.3  | 2.6  | 2.2  | 2.2  | 2.1  | 2.1  | 2.1  | 0.1  | 2.9      |      |      |      |      |      |      | 166.2  |
| 3-86                | 1.9             | 2.3  | 2.2  | 2.2  | 2.4  | 2.6  | 2.3  | 2.4  | 2.3  | 2.3  | 2.4  | 1.1  | 3.1      | 3.2  |      |      |      |      |      | 167.5  |
| 4-86                | 2.0             | 2.4  | 2.4  | 2.3  | 2.5  | 2.7  | 2.5  | 2.5  | 2.5  | 2.5  | 2.6  | 1.7  | 3.2      | 3.4  | 3.6  |      |      |      |      | 169.0  |
| 1-87                | 2.0             | 2.3  | 2.3  | 2.2  | 2.4  | 2.6  | 2.3  | 2.3  | 2.3  | 2.3  | 2.3  | 1.6  | 2.7      | 2.6  | 2.3  | 1.0  |      |      |      | 169.4  |
| 2-87                | 1.9             | 2.3  | 2.2  | 2.2  | 2.4  | 2.5  | 2.3  | 2.3  | 2.2  | 2.2  | 2.3  | 1.6  | 2.5      | 2.4  | 2.2  | 1.4  | 1.9  |      |      | 170.2  |
| 3-87                | 1.8             | 2.1  | 2.0  | 2.0  | 2.1  | 2.2  | 2.0  | 2.0  | 1.9  | 1.9  | 1.9  | 1.3  | 1.9      | 1.7  | 1.4  | 0.6  | 0.5  | -0.9 |      | 169.8  |
| 4-87                | 1.9             | 2.2  | 2.1  | 2.1  | 2.2  | 2.4  | 2.2  | 2.2  | 2.1  | 2.1  | 2.1  | 1.6  | 2.2      | 2.1  | 1.9  | 1.4  | 1.6  | 1.4  | 3.8  | 171.4P |
|                     | 1-83            | 2-83 | 3-83 | 4-83 | 1-84 | 2-84 | 3-84 | 4-84 | 1-85 | 2-85 | 3-85 | 4-85 | 1-86     | 2-86 | 3-86 | 4-86 | 1-87 | 2-87 | 3-87 |        |
|                     | INITIAL QUARTER |      |      |      |      |      |      |      |      |      |      |      |          |      |      |      |      |      |      |        |

P- PRELIMINARY

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS  
FEBRUARY 4, 1988

**GROSS NATIONAL PRODUCT IN CURRENT DOLLARS  
COMPOUNDED ANNUAL RATES OF CHANGE**

| TERMINAL<br>QUARTER | INITIAL QUARTER |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | BILLIONS OF<br>DOLLARS<br>ANNUAL RATES |         |
|---------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------------------------|---------|
|                     | 1-83            | 2-83 | 3-83 | 4-83 | 1-84 | 2-84 | 3-84 | 4-84 | 1-85 | 2-85 | 3-85 | 4-85 | 1-86 | 2-86 | 3-86 | 4-86 | 1-87 | 2-87 | 3-87                                   |         |
| 2-83                | 13.0            |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                                        | 3,367.4 |
| 3-83                | 11.2            | 9.4  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                                        | 3,443.9 |
| 4-83                | 11.6            | 10.9 | 12.4 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                                        | 3,545.8 |
| 1-84                | 12.5            | 12.4 | 13.9 | 15.4 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                                        | 3,674.9 |
| 2-84                | 11.8            | 11.5 | 12.2 | 12.1 | 8.9  |      |      |      |      |      |      |      |      |      |      |      |      |      |                                        | 3,754.2 |
| 3-84                | 10.8            | 10.3 | 10.6 | 10.0 | 7.4  | 5.8  |      |      |      |      |      |      |      |      |      |      |      |      |                                        | 3,807.9 |
| 4-84                | 9.9             | 9.4  | 9.4  | 8.6  | 6.5  | 5.3  | 4.7  |      |      |      |      |      |      |      |      |      |      |      |                                        | 3,851.8 |
| 1-85                | 9.6             | 9.1  | 9.0  | 8.4  | 6.7  | 6.0  | 6.0  | 7.4  |      |      |      |      |      |      |      |      |      |      |                                        | 3,921.1 |
| 2-85                | 9.1             | 8.6  | 8.5  | 7.9  | 6.5  | 5.8  | 5.8  | 6.4  | 5.5  |      |      |      |      |      |      |      |      |      |                                        | 3,973.6 |
| 3-85                | 8.9             | 8.5  | 8.3  | 7.8  | 6.6  | 6.1  | 6.1  | 6.6  | 6.3  | 7.1  |      |      |      |      |      |      |      |      |                                        | 4,042.0 |
| 4-85                | 8.7             | 8.2  | 8.1  | 7.6  | 6.5  | 6.1  | 6.2  | 6.6  | 6.3  | 6.7  | 6.3  |      |      |      |      |      |      |      |                                        | 4,104.4 |
| 1-86                | 8.5             | 8.1  | 8.0  | 7.5  | 6.6  | 6.2  | 6.2  | 6.6  | 6.5  | 6.8  | 6.7  | 7.0  |      |      |      |      |      |      |                                        | 4,174.4 |
| 2-86                | 8.1             | 7.7  | 7.6  | 7.1  | 6.2  | 5.9  | 5.9  | 6.1  | 5.9  | 6.0  | 5.6  | 5.3  | 3.6  |      |      |      |      |      |                                        | 4,211.6 |
| 3-86                | 7.9             | 7.5  | 7.4  | 7.0  | 6.1  | 5.8  | 5.8  | 6.0  | 5.8  | 5.8  | 5.5  | 5.3  | 4.4  | 5.3  |      |      |      |      |                                        | 4,265.7 |
| 4-86                | 7.5             | 7.1  | 7.0  | 6.5  | 5.8  | 5.5  | 5.4  | 5.5  | 5.2  | 5.2  | 4.8  | 4.5  | 3.6  | 3.7  | 2.1  |      |      |      |                                        | 4,288.1 |
| 1-87                | 7.6             | 7.2  | 7.1  | 6.7  | 6.0  | 5.7  | 5.7  | 5.9  | 5.7  | 5.7  | 5.5  | 5.3  | 4.9  | 5.3  | 5.3  | 8.6  |      |      |                                        | 4,377.7 |
| 2-87                | 7.5             | 7.2  | 7.0  | 6.7  | 6.0  | 5.8  | 5.8  | 5.9  | 5.7  | 5.8  | 5.6  | 5.5  | 5.2  | 5.5  | 5.6  | 7.5  | 6.3  |      |                                        | 4,445.1 |
| 3-87                | 7.5             | 7.2  | 7.1  | 6.7  | 6.1  | 5.9  | 5.9  | 6.0  | 5.9  | 5.9  | 5.8  | 5.7  | 5.5  | 5.9  | 6.1  | 7.4  | 6.8  | 7.3  |                                        | 4,524.0 |
| 4-87                | 7.5             | 7.2  | 7.1  | 6.7  | 6.2  | 6.0  | 6.0  | 6.1  | 6.0  | 6.1  | 6.0  | 5.9  | 5.8  | 6.1  | 6.3  | 7.4  | 7.0  | 7.3  | 7.3                                    | 4,604.0 |
|                     | 1-83            | 2-83 | 3-83 | 4-83 | 1-84 | 2-84 | 3-84 | 4-84 | 1-85 | 2-85 | 3-85 | 4-85 | 1-86 | 2-86 | 3-86 | 4-86 | 1-87 | 2-87 | 3-87                                   |         |

INITIAL QUARTER

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS  
FEBRUARY 25, 1988

**GROSS NATIONAL PRODUCT IN 1982 DOLLARS  
COMPOUNDED ANNUAL RATES OF CHANGE**

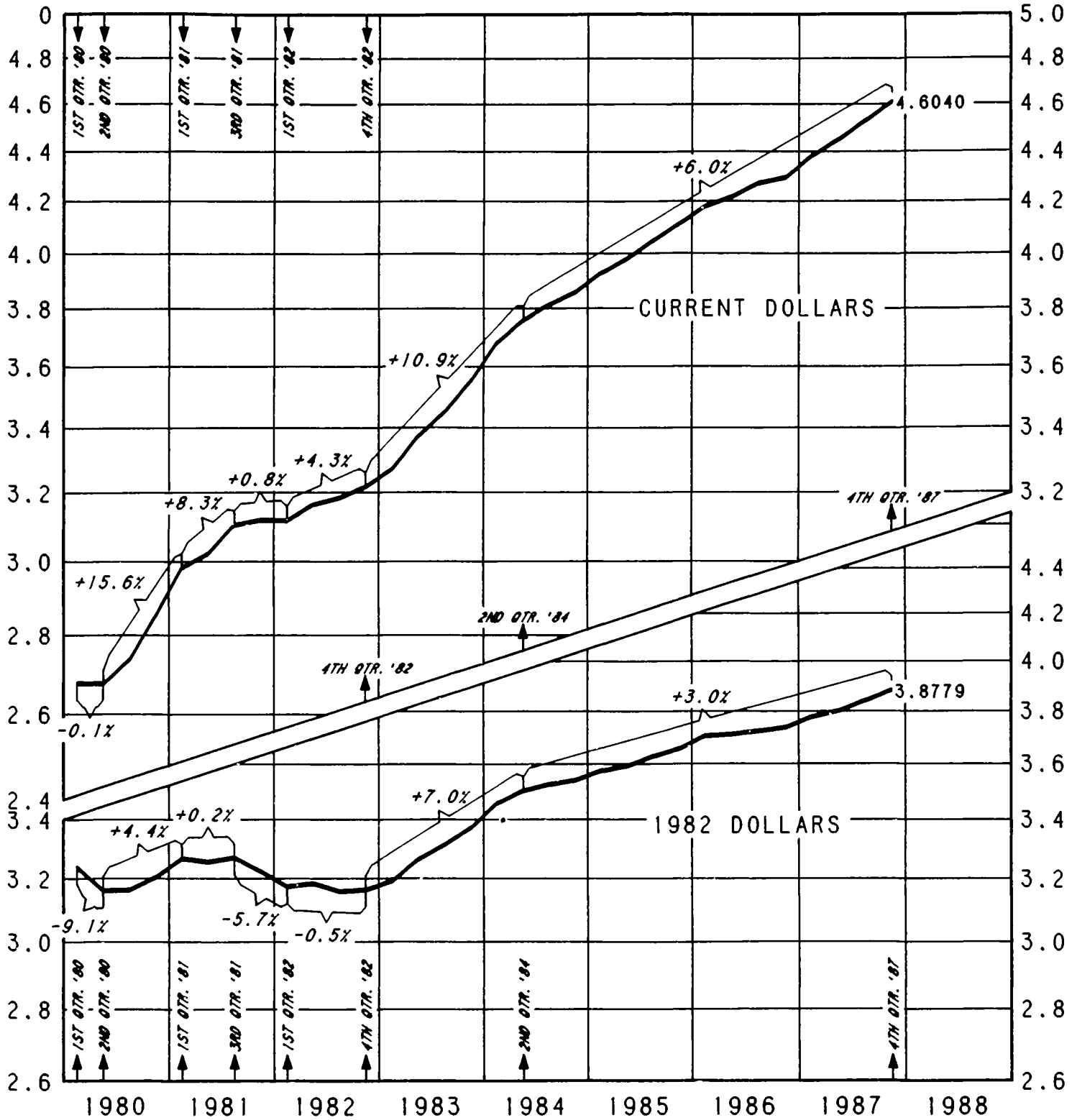
| TERMINAL<br>QUARTER | INITIAL QUARTER |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | BILLIONS OF<br>DOLLARS<br>ANNUAL RATES |
|---------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------------------------|
|                     | 1-83            | 2-83 | 3-83 | 4-83 | 1-84 | 2-84 | 3-84 | 4-84 | 1-85 | 2-85 | 3-85 | 4-85 | 1-86 | 2-86 | 3-86 | 4-86 | 1-87 | 2-87 | 3-87 |                                        |
| 2-83                | 9.3             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 3,258.3                                |
| 3-83                | 7.7             | 6.0  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 3,306.4                                |
| 4-83                | 7.5             | 6.7  | 7.3  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 3,365.1                                |
| 1-84                | 8.3             | 8.0  | 9.0  | 10.7 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 3,451.7                                |
| 2-84                | 7.7             | 7.4  | 7.8  | 8.1  | 5.5  |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 3,498.0                                |
| 3-84                | 6.9             | 6.4  | 6.5  | 6.2  | 4.0  | 2.6  |      |      |      |      |      |      |      |      |      |      |      |      |      | 3,520.6                                |
| 4-84                | 6.1             | 5.6  | 5.5  | 5.1  | 3.2  | 2.1  | 1.7  |      |      |      |      |      |      |      |      |      |      |      |      | 3,535.2                                |
| 1-85                | 5.8             | 5.3  | 5.2  | 4.8  | 3.4  | 2.7  | 2.8  | 3.8  |      |      |      |      |      |      |      |      |      |      |      | 3,568.7                                |
| 2-85                | 5.4             | 4.9  | 4.8  | 4.4  | 3.1  | 2.5  | 2.5  | 3.0  | 2.1  |      |      |      |      |      |      |      |      |      |      | 3,587.1                                |
| 3-85                | 5.3             | 4.8  | 4.7  | 4.3  | 3.3  | 2.8  | 2.9  | 3.3  | 3.1  | 4.1  |      |      |      |      |      |      |      |      |      | 3,623.0                                |
| 4-85                | 5.1             | 4.7  | 4.5  | 4.2  | 3.3  | 2.9  | 3.0  | 3.3  | 3.1  | 3.6  | 3.1  |      |      |      |      |      |      |      |      | 3,650.9                                |
| 1-86                | 5.1             | 4.7  | 4.6  | 4.3  | 3.5  | 3.2  | 3.3  | 3.7  | 3.6  | 4.2  | 4.2  | 5.4  |      |      |      |      |      |      |      | 3,698.8                                |
| 2-86                | 4.7             | 4.4  | 4.2  | 3.9  | 3.2  | 2.9  | 3.0  | 3.2  | 3.0  | 3.3  | 3.0  | 3.0  | 0.6  |      |      |      |      |      |      | 3,704.7                                |
| 3-86                | 4.5             | 4.1  | 4.0  | 3.7  | 3.0  | 2.7  | 2.8  | 2.9  | 2.8  | 2.9  | 2.6  | 2.5  | 1.0  | 1.4  |      |      |      |      |      | 3,718.0                                |
| 4-86                | 4.3             | 4.0  | 3.8  | 3.5  | 2.9  | 2.6  | 2.6  | 2.7  | 2.6  | 2.7  | 2.4  | 2.2  | 1.2  | 1.5  | 1.5  |      |      |      |      | 3,731.5                                |
| 1-87                | 4.3             | 4.0  | 3.8  | 3.6  | 3.0  | 2.8  | 2.8  | 2.9  | 2.8  | 2.9  | 2.7  | 2.6  | 2.0  | 2.4  | 2.9  | 4.4  |      |      |      | 3,772.2                                |
| 2-87                | 4.2             | 3.9  | 3.7  | 3.5  | 3.0  | 2.8  | 2.8  | 2.9  | 2.8  | 2.9  | 2.7  | 2.6  | 2.1  | 2.4  | 2.8  | 3.4  | 2.5  |      |      | 3,795.3                                |
| 3-87                | 4.2             | 3.9  | 3.8  | 3.6  | 3.1  | 2.9  | 2.9  | 3.0  | 2.9  | 3.0  | 2.9  | 2.9  | 2.5  | 2.8  | 3.2  | 3.7  | 3.4  | 4.3  |      | 3,835.9                                |
| 4-87                | 4.2             | 3.9  | 3.8  | 3.6  | 3.2  | 3.0  | 3.0  | 3.1  | 3.1  | 3.2  | 3.1  | 3.1  | 2.7  | 3.1  | 3.4  | 3.9  | 3.8  | 4.4  | 4.5  | 3,877.9                                |
|                     | 1-83            | 2-83 | 3-83 | 4-83 | 1-84 | 2-84 | 3-84 | 4-84 | 1-85 | 2-85 | 3-85 | 4-85 | 1-86 | 2-86 | 3-86 | 4-86 | 1-87 | 2-87 | 3-87 |                                        |

INITIAL QUARTER

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS  
FEBRUARY 25, 1988

# GROSS NATIONAL PRODUCT

RATIO SCALE QUARTERLY TOTALS AT ANNUAL RATES RATIO SCALE  
TRILLIONS OF DOLLARS SEASONALLY ADJUSTED TRILLIONS OF DOLLARS



SOURCE: U.S. DEPARTMENT OF COMMERCE

PERCENTAGES ARE ANNUAL RATES OF CHANGE FOR PERIODS INDICATED.

LATEST DATA PLOTTED: 4TH QUARTER

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS

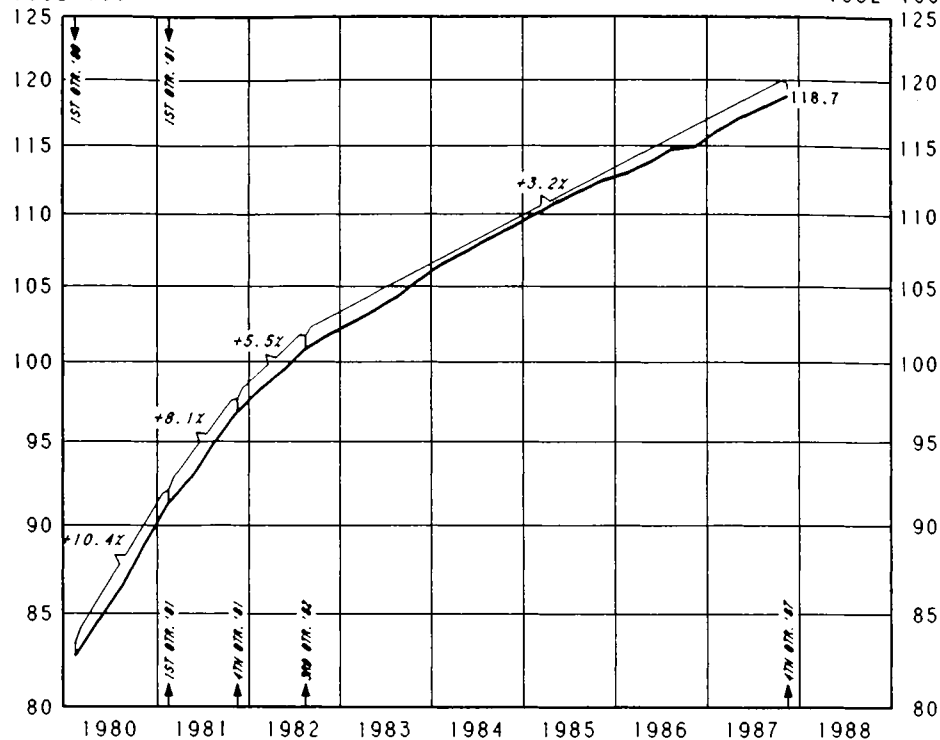
# GENERAL PRICE INDEX\*

RATIO SCALE

1982=100

RATIO SCALE

1982=100



\*AS USED IN NATIONAL INCOME ACCOUNTS

SOURCE: U.S. DEPARTMENT OF COMMERCE

PERCENTAGES ARE ANNUAL RATES OF CHANGE FOR PERIODS INDICATED.

LATEST DATA PLOTTED: 4TH QUARTER

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS

## IMPLICIT PRICE DEFLATOR FOR GROSS NATIONAL PRODUCT COMPOUNDED ANNUAL RATES OF CHANGE

| TERMINAL<br>QUARTER | INITIAL QUARTER |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1982 = 100 |      |       |
|---------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------------|------|-------|
|                     | 1-83            | 2-83 | 3-83 | 4-83 | 1-84 | 2-84 | 3-84 | 4-84 | 1-85 | 2-85 | 3-85 | 4-85 | 1-86 | 2-86 | 3-86 | 4-86 | 1-87       | 2-87 | 3-87  |
| 2-83                | 3.2             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |            |      | 103.3 |
| 3-83                | 3.3             | 3.5  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |            |      | 104.2 |
| 4-83                | 3.8             | 4.1  | 4.7  |      |      |      |      |      |      |      |      |      |      |      |      |      |            |      | 105.4 |
| 1-84                | 3.9             | 4.2  | 4.5  | 4.2  |      |      |      |      |      |      |      |      |      |      |      |      |            |      | 106.5 |
| 2-84                | 3.7             | 3.9  | 4.0  | 3.6  | 3.0  |      |      |      |      |      |      |      |      |      |      |      |            |      | 107.3 |
| 3-84                | 3.7             | 3.8  | 3.8  | 3.6  | 3.2  | 3.4  |      |      |      |      |      |      |      |      |      |      |            |      | 108.2 |
| 4-84                | 3.6             | 3.6  | 3.7  | 3.4  | 3.1  | 3.2  | 3.0  |      |      |      |      |      |      |      |      |      |            |      | 109.0 |
| 1-85                | 3.5             | 3.6  | 3.6  | 3.4  | 3.2  | 3.2  | 3.2  | 3.3  |      |      |      |      |      |      |      |      |            |      | 109.9 |
| 2-85                | 3.5             | 3.6  | 3.6  | 3.4  | 3.2  | 3.3  | 3.2  | 3.3  | 3.3  |      |      |      |      |      |      |      |            |      | 110.8 |
| 3-85                | 3.5             | 3.5  | 3.5  | 3.3  | 3.2  | 3.2  | 3.1  | 3.2  | 3.1  | 2.9  |      |      |      |      |      |      |            |      | 111.6 |
| 4-85                | 3.4             | 3.4  | 3.4  | 3.3  | 3.1  | 3.1  | 3.1  | 3.1  | 3.0  | 2.9  | 2.9  |      |      |      |      |      |            |      | 112.4 |
| 1-86                | 3.3             | 3.3  | 3.3  | 3.1  | 3.0  | 2.9  | 2.9  | 2.9  | 2.7  | 2.5  | 2.3  | 1.8  |      |      |      |      |            |      | 112.9 |
| 2-86                | 3.2             | 3.2  | 3.2  | 3.1  | 3.0  | 2.9  | 2.9  | 2.9  | 2.8  | 2.6  | 2.5  | 2.3  | 2.9  |      |      |      |            |      | 113.7 |
| 3-86                | 3.3             | 3.3  | 3.3  | 3.1  | 3.0  | 3.0  | 3.0  | 3.0  | 2.9  | 2.8  | 2.8  | 2.7  | 3.2  | 3.6  |      |      |            |      | 114.7 |
| 4-86                | 3.1             | 3.1  | 3.1  | 2.9  | 2.8  | 2.8  | 2.7  | 2.7  | 2.6  | 2.5  | 2.4  | 2.2  | 2.4  | 2.1  | 0.7  |      |            |      | 114.9 |
| 1-87                | 3.2             | 3.2  | 3.1  | 3.0  | 2.9  | 2.9  | 2.9  | 2.8  | 2.8  | 2.7  | 2.7  | 2.6  | 2.8  | 2.8  | 2.5  | 4.2  |            |      | 116.1 |
| 2-87                | 3.2             | 3.2  | 3.2  | 3.1  | 3.0  | 3.0  | 2.9  | 2.9  | 2.9  | 2.8  | 2.8  | 2.8  | 3.0  | 3.0  | 2.8  | 3.9  | 3.5        |      | 117.1 |
| 3-87                | 3.2             | 3.2  | 3.1  | 3.0  | 2.9  | 2.9  | 2.9  | 2.9  | 2.9  | 2.8  | 2.8  | 2.8  | 2.9  | 2.9  | 2.8  | 3.5  | 3.1        | 2.8  | 117.9 |
| 4-87                | 3.1             | 3.1  | 3.1  | 3.0  | 2.9  | 2.9  | 2.9  | 2.9  | 2.8  | 2.8  | 2.8  | 2.8  | 2.9  | 2.9  | 2.8  | 3.3  | 3.0        | 2.7  | 118.7 |
|                     | 1-83            | 2-83 | 3-83 | 4-83 | 1-84 | 2-84 | 3-84 | 4-84 | 1-85 | 2-85 | 3-85 | 4-85 | 1-86 | 2-86 | 3-86 | 4-86 | 1-87       | 2-87 | 3-87  |
|                     | INITIAL QUARTER |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |            |      |       |

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS  
FEBRUARY 25, 1988

**PERSONAL CONSUMPTION EXPENDITURES IN CURRENT DOLLARS  
COMPOUNDED ANNUAL RATES OF CHANGE**

| COMPILED ANNUAL RATES OF CHANGE |                 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | BILLIONS OF DOLLARS ANNUAL RATES |  |  |
|---------------------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------------------|--|--|
| TERMINAL QUARTER                | INITIAL QUARTER |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                                  |  |  |
|                                 | 1-83            | 2-83 | 3-83 | 4-83 | 1-84 | 2-84 | 3-84 | 4-84 | 1-85 | 2-85 | 3-85 | 4-85 | 1-86 | 2-86 | 3-86 | 4-86 | 1-87 | 2-87 | 3-87 |                                  |  |  |
| 2-83                            | 13.0            |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2,213.0                          |  |  |
| 3-83                            | 11.1            | 9.3  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2,262.8                          |  |  |
| 4-83                            | 10.6            | 9.5  | 9.7  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2,315.8                          |  |  |
| 1-84                            | 10.0            | 9.0  | 8.9  | 8.1  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2,361.1                          |  |  |
| 2-84                            | 10.0            | 9.2  | 9.2  | 8.9  | 9.8  |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2,417.0                          |  |  |
| 3-84                            | 9.2             | 8.5  | 8.3  | 7.8  | 7.7  | 5.6  |      |      |      |      |      |      |      |      |      |      |      |      |      | 2,450.3                          |  |  |
| 4-84                            | 8.9             | 8.3  | 8.1  | 7.7  | 7.5  | 6.4  | 7.2  |      |      |      |      |      |      |      |      |      |      |      |      | 2,493.4                          |  |  |
| 1-85                            | 9.0             | 8.4  | 8.3  | 8.0  | 8.0  | 7.4  | 8.3  | 9.4  |      |      |      |      |      |      |      |      |      |      |      | 2,549.9                          |  |  |
| 2-85                            | 8.9             | 8.4  | 8.3  | 8.1  | 8.1  | 7.7  | 8.3  | 8.9  | 8.4  |      |      |      |      |      |      |      |      |      |      | 2,602.0                          |  |  |
| 3-85                            | 9.0             | 8.6  | 8.5  | 8.4  | 8.4  | 8.1  | 8.8  | 9.3  | 9.3  | 10.1 |      |      |      |      |      |      |      |      |      | 2,665.4                          |  |  |
| 4-85                            | 8.7             | 8.3  | 8.2  | 8.0  | 8.0  | 7.7  | 8.1  | 8.3  | 7.9  | 7.7  | 5.3  |      |      |      |      |      |      |      |      | 2,700.1                          |  |  |
| 1-86                            | 8.4             | 8.0  | 7.9  | 7.7  | 7.7  | 7.4  | 7.7  | 7.8  | 7.4  | 7.0  | 5.5  | 5.7  |      |      |      |      |      |      |      | 2,737.9                          |  |  |
| 2-86                            | 8.1             | 7.7  | 7.6  | 7.4  | 7.3  | 7.0  | 7.2  | 7.2  | 6.7  | 6.3  | 5.1  | 4.9  | 4.1  |      |      |      |      |      |      | 2,765.8                          |  |  |
| 3-86                            | 8.3             | 7.9  | 7.8  | 7.7  | 7.6  | 7.4  | 7.6  | 7.7  | 7.4  | 7.2  | 6.4  | 6.8  | 7.4  | 10.7 |      |      |      |      |      | 2,837.1                          |  |  |
| 4-86                            | 7.9             | 7.6  | 7.5  | 7.3  | 7.2  | 6.9  | 7.1  | 7.1  | 6.7  | 6.5  | 5.8  | 5.9  | 5.9  | 6.8  | 3.1  |      |      |      |      | 2,858.6                          |  |  |
| 1-87                            | 7.8             | 7.4  | 7.3  | 7.1  | 7.0  | 6.8  | 6.9  | 6.8  | 6.5  | 6.3  | 5.6  | 5.7  | 5.7  | 6.2  | 4.0  | 5.0  |      |      |      | 2,893.8                          |  |  |
| 2-87                            | 7.7             | 7.4  | 7.3  | 7.1  | 7.0  | 6.8  | 6.9  | 6.9  | 6.6  | 6.4  | 5.8  | 5.9  | 6.0  | 6.4  | 5.0  | 6.0  | 7.1  |      |      | 2,943.7                          |  |  |
| 3-87                            | 7.8             | 7.5  | 7.4  | 7.3  | 7.2  | 7.0  | 7.1  | 7.1  | 6.9  | 6.7  | 6.3  | 6.4  | 6.6  | 7.0  | 6.1  | 7.2  | 8.3  | 9.5  |      | 3,011.3                          |  |  |
| 4-87                            | 7.4             | 7.1  | 7.0  | 6.9  | 6.8  | 6.6  | 6.6  | 6.6  | 6.3  | 6.1  | 5.7  | 5.7  | 5.7  | 6.0  | 5.1  | 5.6  | 5.8  | 5.2  | 1.1  | 3,019.2                          |  |  |
|                                 | 1-83            | 2-83 | 3-83 | 4-83 | 1-84 | 2-84 | 3-84 | 4-84 | 1-85 | 2-85 | 3-85 | 4-85 | 1-86 | 2-86 | 3-86 | 4-86 | 1-87 | 2-87 | 3-87 |                                  |  |  |

INITIAL QUARTER

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS  
FEBRUARY 22, 1988

**PERSONAL CONSUMPTION EXPENDITURES IN 1982 DOLLARS  
COMPOUNDED ANNUAL RATES OF CHANGE**

| TERMINAL<br>QUARTER | CUMULATED ANNUAL RATES OF CHANGE |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | BILLIONS OF<br>DOLLARS<br>ANNUAL RATES |      |         |         |
|---------------------|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------------------------|------|---------|---------|
|                     | INITIAL QUARTER                  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                                        |      |         |         |
|                     | 1-83                             | 2-83 | 3-83 | 4-83 | 1-84 | 2-84 | 3-84 | 4-84 | 1-85 | 2-85 | 3-85 | 4-85 | 1-86 | 2-86 | 3-86 | 4-86 | 1-87                                   | 2-87 | 3-87    |         |
| 2-83                | 8.0                              |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                                        |      | 2,135.1 |         |
| 3-83                | 6.7                              | 5.3  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                                        |      | 2,163.0 |         |
| 4-83                | 6.3                              | 5.4  | 5.5  |      |      |      |      |      |      |      |      |      |      |      |      |      |                                        |      | 2,191.9 |         |
| 1-84                | 5.6                              | 4.8  | 4.6  | 3.7  |      |      |      |      |      |      |      |      |      |      |      |      |                                        |      | 2,212.1 |         |
| 2-84                | 5.8                              | 5.2  | 5.2  | 5.1  | 6.4  |      |      |      |      |      |      |      |      |      |      |      |                                        |      | 2,246.7 |         |
| 3-84                | 5.1                              | 4.6  | 4.4  | 4.0  | 4.1  | 1.9  |      |      |      |      |      |      |      |      |      |      |                                        |      | 2,257.3 |         |
| 4-84                | 5.0                              | 4.5  | 4.3  | 4.1  | 4.2  | 3.1  | 4.3  |      |      |      |      |      |      |      |      |      |                                        |      | 2,281.1 |         |
| 1-85                | 5.1                              | 4.7  | 4.6  | 4.4  | 4.6  | 4.0  | 5.1  | 5.9  |      |      |      |      |      |      |      |      |                                        |      | 2,314.1 |         |
| 2-85                | 5.0                              | 4.6  | 4.5  | 4.4  | 4.5  | 4.0  | 4.7  | 5.0  | 4.0  |      |      |      |      |      |      |      |                                        |      | 2,337.0 |         |
| 3-85                | 5.2                              | 4.9  | 4.8  | 4.7  | 4.9  | 4.6  | 5.3  | 5.6  | 5.4  | 6.9  |      |      |      |      |      |      |                                        |      | 2,376.1 |         |
| 4-85                | 4.8                              | 4.5  | 4.4  | 4.3  | 4.3  | 4.0  | 4.4  | 4.5  | 4.0  | 4.0  | 1.2  |      |      |      |      |      |                                        |      | 2,383.2 |         |
| 1-86                | 4.8                              | 4.5  | 4.4  | 4.3  | 4.4  | 4.1  | 4.5  | 4.5  | 4.1  | 4.2  | 2.8  | 4.5  |      |      |      |      |                                        |      | 2,409.7 |         |
| 2-86                | 4.7                              | 4.5  | 4.4  | 4.3  | 4.3  | 4.1  | 4.4  | 4.4  | 4.1  | 4.2  | 3.3  | 4.3  | 4.1  |      |      |      |                                        |      | 2,434.3 |         |
| 3-86                | 4.9                              | 4.7  | 4.6  | 4.6  | 4.6  | 4.4  | 4.8  | 4.8  | 4.7  | 4.8  | 4.3  | 5.3  | 5.7  | 7.3  |      |      |                                        |      | 2,477.5 |         |
| 4-86                | 4.6                              | 4.4  | 4.3  | 4.2  | 4.3  | 4.0  | 4.3  | 4.3  | 4.0  | 4.1  | 3.5  | 4.1  | 3.9  | 3.8  | 0.5  |      |                                        |      | 2,480.5 |         |
| 1-87                | 4.3                              | 4.0  | 3.9  | 3.8  | 3.8  | 3.6  | 3.8  | 3.7  | 3.4  | 3.4  | 2.8  | 3.1  | 2.7  | 2.3  | -0.1 | -0.7 |                                        |      | 2,475.9 |         |
| 2-87                | 4.1                              | 3.9  | 3.8  | 3.7  | 3.7  | 3.5  | 3.6  | 3.5  | 3.3  | 3.2  | 2.7  | 2.9  | 2.6  | 2.2  | 0.5  | 0.6  | 1.9                                    |      | 2,487.5 |         |
| 3-87                | 4.2                              | 4.0  | 3.9  | 3.8  | 3.8  | 3.6  | 3.7  | 3.7  | 3.5  | 3.4  | 3.0  | 3.3  | 3.0  | 2.8  | 1.7  | 2.2  | 3.7                                    | 5.4  | 2,520.7 |         |
| 4-87                | 3.8                              | 3.6  | 3.5  | 3.4  | 3.3  | 3.1  | 3.2  | 3.1  | 2.9  | 2.7  | 2.3  | 2.4  | 2.1  | 1.8  | 0.8  | 0.8  | 1.3                                    | 1.1  | -3.1    | 2,500.9 |
|                     | 1-83                             | 2-83 | 3-83 | 4-83 | 1-84 | 2-84 | 3-84 | 4-84 | 1-85 | 2-85 | 3-85 | 4-85 | 1-86 | 2-86 | 3-86 | 4-86 | 1-87                                   | 2-87 | 3-87    |         |

INITIAL QUARTER

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS  
FEBRUARY 22, 1988

**GROSS PRIVATE DOMESTIC INVESTMENT IN CURRENT DOLLARS  
COMPOUNDED ANNUAL RATES OF CHANGE**

| TERMINAL<br>QUARTER | INITIAL QUARTER |      |      |      |      |      |      |       |      |       |      |      |      |       |      |      |      |      | BILLIONS OF<br>DOLLARS<br>ANNUAL RATES |
|---------------------|-----------------|------|------|------|------|------|------|-------|------|-------|------|------|------|-------|------|------|------|------|----------------------------------------|
|                     | 1-83            | 2-83 | 3-83 | 4-83 | 1-84 | 2-84 | 3-84 | 4-84  | 1-85 | 2-85  | 3-85 | 4-85 | 1-86 | 2-86  | 3-86 | 4-86 | 1-87 | 2-87 | 3-87                                   |
| 2-83                | 52.5            |      |      |      |      |      |      |       |      |       |      |      |      |       |      |      |      |      | 481.3                                  |
| 3-83                | 47.2            | 35.9 |      |      |      |      |      |       |      |       |      |      |      |       |      |      |      |      | 519.7                                  |
| 4-83                | 42.8            | 42.1 | 55.9 |      |      |      |      |       |      |       |      |      |      |       |      |      |      |      | 579.8                                  |
| 1-84                | 54.8            | 53.3 | 62.8 | 71.0 |      |      |      |       |      |       |      |      |      |       |      |      |      |      | 663.0                                  |
| 2-84                | 42.0            | 38.0 | 38.7 | 31.2 | 0.7  |      |      |       |      |       |      |      |      |       |      |      |      |      | 664.2                                  |
| 3-84                | 34.8            | 30.3 | 29.0 | 21.3 | 2.2  | 3.7  |      |       |      |       |      |      |      |       |      |      |      |      | 670.3                                  |
| 4-84                | 28.2            | 23.7 | 21.3 | 14.1 | -0.2 | -0.7 | -5.0 |       |      |       |      |      |      |       |      |      |      |      | 661.8                                  |
| 1-85                | 22.1            | 17.5 | 14.7 | 8.0  | -3.7 | -5.1 | -9.2 | -13.3 |      |       |      |      |      |       |      |      |      |      | 638.6                                  |
| 2-85                | 20.2            | 16.1 | 13.5 | 7.7  | -1.8 | -2.4 | -4.3 | -4.0  | 6.3  |       |      |      |      |       |      |      |      |      | 648.4                                  |
| 3-85                | 16.6            | 12.6 | 10.0 | 4.7  | -3.5 | -4.3 | -8.2 | -6.6  | -3.1 | -11.7 |      |      |      |       |      |      |      |      | 628.6                                  |
| 4-85                | 16.4            | 12.8 | 10.5 | 5.9  | -1.1 | -1.3 | -2.3 | -1.7  | 2.6  | 0.7   | 14.9 |      |      |       |      |      |      |      | 650.8                                  |
| 1-86                | 16.9            | 13.6 | 11.6 | 7.6  | 1.5  | 1.6  | 1.3  | 2.6   | 7.0  | 7.3   | 18.2 | 21.6 |      |       |      |      |      |      | 683.4                                  |
| 2-86                | 15.3            | 12.2 | 10.2 | 6.5  | 1.1  | 1.1  | 0.8  | 1.8   | 5.1  | 4.8   | 10.9 | 9.0  | -2.3 |       |      |      |      |      | 679.4                                  |
| 3-86                | 13.2            | 10.2 | 8.3  | 4.9  | -0.1 | -0.2 | -0.7 | -0.1  | 2.3  | 1.5   | 5.1  | 2.1  | -6.5 | -10.5 |      |      |      |      | 660.8                                  |
| 4-86                | 12.2            | 9.5  | 7.6  | 4.4  | -0.2 | -0.2 | -0.7 | -0.1  | 1.9  | 1.2   | 4.0  | 1.4  | -4.5 | -5.6  | -0.4 |      |      |      | 660.2                                  |
| 1-87                | 13.1            | 10.5 | 8.9  | 6.0  | 1.8  | 1.9  | 1.7  | 2.5   | 4.7  | 4.5   | 7.4  | 6.0  | 2.4  | 4.0   | 12.2 | 26.3 |      |      | 699.9                                  |
| 2-87                | 12.4            | 9.9  | 8.4  | 5.6  | 1.8  | 1.9  | 1.7  | 2.4   | 4.3  | 4.1   | 6.6  | 5.2  | 2.2  | 3.4   | 8.5  | 13.3 | 1.6  |      | 702.6                                  |
| 3-87                | 11.8            | 9.5  | 8.0  | 5.4  | 1.9  | 2.0  | 1.8  | 2.5   | 4.2  | 3.9   | 6.1  | 4.9  | 2.3  | 3.3   | 7.1  | 9.6  | 2.2  | 2.8  | 707.4                                  |
| 4-87                | 12.7            | 10.6 | 9.2  | 6.9  | 3.6  | 3.8  | 3.8  | 4.6   | 6.4  | 6.4   | 8.6  | 7.8  | 6.0  | 7.5   | 11.5 | 14.6 | 11.0 | 16.0 | 756.8                                  |
|                     | 1-83            | 2-83 | 3-83 | 4-83 | 1-84 | 2-84 | 3-84 | 4-84  | 1-85 | 2-85  | 3-85 | 4-85 | 1-86 | 2-86  | 3-86 | 4-86 | 1-87 | 2-87 | 3-87                                   |

INITIAL QUARTER

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS  
FEBRUARY 25, 1988

**GROSS PRIVATE DOMESTIC INVESTMENT IN 1982 DOLLARS  
COMPOUNDED ANNUAL RATES OF CHANGE**

| TERMINAL<br>QUARTER | INITIAL QUARTER |      |      |      |      |      |      |       |      |       |      |      |      |       |      |      |      |      | BILLIONS OF<br>DOLLARS<br>ANNUAL RATES |
|---------------------|-----------------|------|------|------|------|------|------|-------|------|-------|------|------|------|-------|------|------|------|------|----------------------------------------|
|                     | 1-83            | 2-83 | 3-83 | 4-83 | 1-84 | 2-84 | 3-84 | 4-84  | 1-85 | 2-85  | 3-85 | 4-85 | 1-86 | 2-86  | 3-86 | 4-86 | 1-87 | 2-87 | 3-87                                   |
| 2-83                | 68.9            |      |      |      |      |      |      |       |      |       |      |      |      |       |      |      |      |      | 486.9                                  |
| 3-83                | 51.0            | 35.0 |      |      |      |      |      |       |      |       |      |      |      |       |      |      |      |      | 524.8                                  |
| 4-83                | 42.4            | 40.5 | 56.3 |      |      |      |      |       |      |       |      |      |      |       |      |      |      |      | 577.2                                  |
| 1-84                | 53.4            | 48.6 | 55.9 | 66.0 |      |      |      |       |      |       |      |      |      |       |      |      |      |      | 655.2                                  |
| 2-84                | 41.4            | 35.2 | 35.3 | 30.1 | 2.0  |      |      |       |      |       |      |      |      |       |      |      |      |      | 658.4                                  |
| 3-84                | 34.2            | 28.2 | 26.6 | 20.6 | 2.8  | 3.6  |      |       |      |       |      |      |      |       |      |      |      |      | 664.2                                  |
| 4-84                | 27.8            | 21.9 | 19.5 | 13.6 | 0.1  | -0.8 | -5.0 |       |      |       |      |      |      |       |      |      |      |      | 655.7                                  |
| 1-85                | 21.7            | 16.1 | 13.2 | 7.5  | -3.5 | -5.3 | -9.4 | -13.6 |      |       |      |      |      |       |      |      |      |      | 632.1                                  |
| 2-85                | 20.2            | 15.2 | 12.6 | 7.8  | -1.2 | -1.9 | -3.7 | -3.0  | 8.9  |       |      |      |      |       |      |      |      |      | 645.7                                  |
| 3-85                | 16.3            | 11.6 | 9.0  | 4.5  | -3.3 | -4.3 | -6.2 | -6.6  | -2.8 | -13.2 |      |      |      |       |      |      |      |      | 623.2                                  |
| 4-85                | 16.1            | 11.8 | 9.5  | 5.6  | -1.0 | -1.5 | -2.5 | -1.9  | 2.4  | -0.7  | 13.5 |      |      |       |      |      |      |      | 643.3                                  |
| 1-86                | 16.4            | 12.6 | 10.6 | 7.2  | 1.5  | 1.4  | 1.0  | 2.3   | 6.7  | 6.0   | 17.1 | 20.8 |      |       |      |      |      |      | 674.4                                  |
| 2-86                | 14.6            | 11.0 | 9.0  | 5.9  | 0.7  | 0.5  | 0.1  | 1.0   | 4.2  | 3.1   | 9.2  | 7.1  | -5.1 |       |      |      |      |      | 665.6                                  |
| 3-86                | 12.5            | 9.0  | 7.1  | 4.1  | -0.6 | -0.9 | -1.5 | -0.9  | 1.4  | -0.1  | 3.5  | 0.4  | -8.5 | -11.8 |      |      |      |      | 645.0                                  |
| 4-86                | 11.0            | 7.7  | 5.8  | 3.0  | -1.4 | -1.7 | -2.3 | -1.9  | -0.1 | -1.5  | 1.0  | -1.9 | -8.5 | -10.1 | -8.4 |      |      |      | 631.0                                  |
| 1-87                | 12.0            | 9.0  | 7.3  | 4.8  | 0.8  | 0.7  | 0.5  | 1.1   | 3.1  | 2.3   | 5.1  | 3.5  | -0.4 | 1.2   | 8.5  | 28.5 |      |      | 671.8                                  |
| 2-87                | 11.3            | 8.5  | 6.9  | 4.5  | 0.9  | 0.8  | 0.5  | 1.1   | 2.9  | 2.1   | 4.6  | 3.1  | -0.1 | 1.2   | 6.0  | 14.0 | 1.1  |      | 673.7                                  |
| 3-87                | 11.0            | 8.2  | 6.8  | 4.5  | 1.1  | 1.1  | 0.9  | 1.4   | 3.1  | 2.5   | 4.8  | 3.4  | 0.7  | 2.0   | 5.7  | 10.9 | 3.0  | 5.0  | 681.9                                  |
| 4-87                | 11.5            | 9.0  | 7.6  | 5.6  | 2.4  | 2.5  | 2.4  | 3.0   | 4.7  | 4.3   | 6.4  | 5.6  | 3.6  | 5.1   | 8.9  | 13.7 | 9.1  | 13.3 | 717.2                                  |
|                     | 1-83            | 2-83 | 3-83 | 4-83 | 1-84 | 2-84 | 3-84 | 4-84  | 1-85 | 2-85  | 3-85 | 4-85 | 1-86 | 2-86  | 3-86 | 4-86 | 1-87 | 2-87 | 3-87                                   |

INITIAL QUARTER

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS  
FEBRUARY 25, 1988



GOVERNMENT PURCHASES OF GOODS AND SERVICES IN CURRENT DOLLARS  
COMPOUNDED ANNUAL RATES OF CHANGE

| TERMINAL<br>QUARTER | INITIAL QUARTER |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | BILLIONS OF<br>DOLLARS<br>ANNUAL RATES |       |  |
|---------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------------------------|-------|--|
|                     | 1-83            | 2-83 | 3-83 | 4-83 | 1-84 | 2-84 | 3-84 | 4-84 | 1-85 | 2-85 | 3-85 | 4-85 | 1-86 | 2-86 | 3-86 | 4-86 | 1-87 | 2-87 | 3-87                                   |       |  |
| 2-83                | 4.3             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 675.2                                  |       |  |
| 3-83                | 3.8             | 3.3  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 680.7                                  |       |  |
| 4-83                | 1.6             | 0.3  | -2.7 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 676.1                                  |       |  |
| 1-84                | 4.3             | 4.2  | 4.7  | 12.6 |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 696.5                                  |       |  |
| 2-84                | 8.0             | 9.0  | 10.9 | 18.4 | 24.6 |      |      |      |      |      |      |      |      |      |      |      |      |      | 735.8                                  |       |  |
| 3-84                | 7.7             | 8.4  | 9.7  | 14.1 | 14.9 | 6.0  |      |      |      |      |      |      |      |      |      |      |      |      | 746.6                                  |       |  |
| 4-84                | 8.0             | 8.6  | 9.7  | 13.1 | 13.2 | 8.0  | 9.9  |      |      |      |      |      |      |      |      |      |      |      | 764.5                                  |       |  |
| 1-85                | 8.3             | 8.9  | 9.9  | 12.6 | 12.6 | 8.8  | 10.3 | 10.7 |      |      |      |      |      |      |      |      |      |      | 784.1                                  |       |  |
| 2-85                | 8.4             | 8.9  | 9.7  | 11.9 | 11.8 | 8.8  | 9.7  | 9.6  | 8.6  |      |      |      |      |      |      |      |      |      | 800.5                                  |       |  |
| 3-85                | 9.2             | 9.8  | 10.6 | 12.7 | 12.7 | 10.4 | 11.5 | 12.1 | 12.8 | 17.1 |      |      |      |      |      |      |      |      | 832.8                                  |       |  |
| 4-85                | 9.5             | 10.0 | 10.8 | 12.6 | 12.6 | 10.7 | 11.7 | 12.1 | 12.6 | 14.6 | 12.1 |      |      |      |      |      |      |      | 857.0                                  |       |  |
| 1-86                | 8.2             | 8.6  | 9.1  | 10.5 | 10.3 | 8.4  | 8.8  | 8.5  | 8.0  | 7.8  | 3.4  | -4.6 |      |      |      |      |      |      | 846.9                                  |       |  |
| 2-86                | 8.4             | 8.7  | 9.2  | 10.5 | 10.2 | 8.6  | 8.9  | 8.8  | 8.4  | 8.3  | 5.5  | 2.4  | 9.9  |      |      |      |      |      | 867.2                                  |       |  |
| 3-86                | 8.1             | 8.4  | 8.9  | 10.0 | 9.7  | 8.2  | 8.5  | 8.3  | 7.9  | 7.7  | 5.5  | 3.4  | 7.6  | 5.3  |      |      |      |      | 878.5                                  |       |  |
| 4-86                | 7.8             | 8.1  | 8.5  | 9.4  | 9.2  | 7.7  | 7.9  | 7.7  | 7.3  | 7.0  | 5.1  | 3.4  | 6.3  | 4.5  | 3.6  |      |      |      | 886.3                                  |       |  |
| 1-87                | 7.6             | 7.8  | 8.2  | 9.1  | 8.8  | 7.4  | 7.6  | 7.3  | 6.9  | 6.7  | 5.0  | 3.6  | 5.8  | 4.5  | 4.1  | 4.5  |      |      | 896.2                                  |       |  |
| 2-87                | 7.7             | 8.0  | 8.3  | 9.1  | 8.8  | 7.6  | 7.8  | 7.6  | 7.2  | 7.0  | 5.7  | 4.6  | 6.6  | 5.8  | 5.9  | 7.1  | 9.7  |      | 917.1                                  |       |  |
| 3-87                | 7.6             | 7.9  | 8.1  | 8.8  | 8.6  | 7.4  | 7.6  | 7.3  | 7.0  | 6.8  | 5.6  | 4.7  | 6.4  | 5.7  | 5.7  | 6.5  | 7.5  | 5.3  | 929.0                                  |       |  |
| 4-87                | 7.8             | 8.0  | 8.3  | 9.0  | 8.8  | 7.7  | 7.9  | 7.7  | 7.4  | 7.3  | 6.3  | 5.6  | 7.1  | 6.6  | 6.9  | 7.7  | 8.8  | 8.4  | 11.6                                   | 954.8 |  |
|                     | 1-83            | 2-83 | 3-83 | 4-83 | 1-84 | 2-84 | 3-84 | 4-84 | 1-85 | 2-85 | 3-85 | 4-85 | 1-86 | 2-86 | 3-86 | 4-86 | 1-87 | 2-87 | 3-87                                   |       |  |
|                     | INITIAL QUARTER |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                                        |       |  |

INITIAL QUARTER

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS  
FEBRUARY 25, 1988

GOVERNMENT PURCHASES OF GOODS AND SERVICES IN 1982 DOLLARS  
COMPOUNDED ANNUAL RATES OF CHANGE

| TERMINAL<br>QUARTER | COMPOUNDED ANNUAL RATES OF CHANGE |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | BILLIONS OF<br>DOLLARS |       |
|---------------------|-----------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------------------------|-------|
|                     | INITIAL QUARTER                   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | ANNUAL RATES           |       |
|                     | 1-83                              | 2-83 | 3-83 | 4-83 | 1-84 | 2-84 | 3-84 | 4-84 | 1-85 | 2-85 | 3-85 | 4-85 | 1-86 | 2-86 | 3-86 | 4-86 | 1-87 | 2-87 | 3-87                   |       |
| 2-83                | 1.1                               |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                        | 650.9 |
| 3-83                | 1.4                               | 1.7  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                        | 653.6 |
| 4-83                | -1.4                              | -2.7 | -6.8 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                        | 642.2 |
| 1-84                | 0.6                               | 0.4  | -0.2 | 6.9  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                        | 653.0 |
| 2-84                | 3.8                               | 4.5  | 5.5  | 12.2 | 17.7 |      |      |      |      |      |      |      |      |      |      |      |      |      |                        | 680.2 |
| 3-84                | 3.6                               | 4.1  | 4.7  | 8.9  | 9.9  | 2.6  |      |      |      |      |      |      |      |      |      |      |      |      |                        | 684.5 |
| 4-84                | 3.8                               | 4.3  | 4.8  | 7.9  | 8.3  | 3.9  | 5.2  |      |      |      |      |      |      |      |      |      |      |      |                        | 693.2 |
| 1-85                | 4.1                               | 4.5  | 5.0  | 7.6  | 7.7  | 4.6  | 5.6  | 6.0  |      |      |      |      |      |      |      |      |      |      |                        | 703.4 |
| 2-85                | 4.2                               | 4.6  | 5.0  | 7.1  | 7.2  | 4.7  | 5.4  | 5.5  | 5.0  |      |      |      |      |      |      |      |      |      |                        | 712.1 |
| 3-85                | 5.3                               | 5.8  | 6.3  | 8.3  | 8.6  | 6.8  | 7.9  | 8.8  | 10.3 | 15.7 |      |      |      |      |      |      |      |      |                        | 738.6 |
| 4-85                | 5.6                               | 6.0  | 6.5  | 8.3  | 8.5  | 7.1  | 8.0  | 8.7  | 9.6  | 12.0 | 8.4  |      |      |      |      |      |      |      |                        | 753.7 |
| 1-86                | 4.3                               | 4.7  | 5.0  | 6.3  | 6.3  | 4.7  | 5.1  | 5.1  | 4.9  | 4.8  | -0.3 | -8.3 |      |      |      |      |      |      |                        | 737.6 |
| 2-86                | 4.6                               | 4.9  | 5.2  | 6.5  | 6.4  | 5.1  | 5.5  | 5.5  | 5.4  | 5.5  | 2.4  | -0.6 | 7.8  |      |      |      |      |      |                        | 751.6 |
| 3-86                | 4.5                               | 4.8  | 5.0  | 6.2  | 6.1  | 4.9  | 5.2  | 5.2  | 5.0  | 5.0  | 2.5  | 0.6  | 5.4  | 3.0  |      |      |      |      |                        | 757.2 |
| 4-86                | 4.7                               | 5.0  | 5.2  | 6.3  | 6.3  | 5.2  | 5.5  | 5.5  | 5.4  | 5.5  | 3.6  | 2.4  | 6.2  | 5.4  | 7.9  |      |      |      |                        | 771.8 |
| 1-87                | 4.0                               | 4.2  | 4.4  | 5.3  | 5.2  | 4.1  | 4.3  | 4.1  | 3.9  | 3.8  | 1.9  | 0.6  | 3.0  | 1.4  | 0.6  | -6.2 |      |      |                        | 759.6 |
| 2-87                | 4.0                               | 4.2  | 4.3  | 5.2  | 5.1  | 4.1  | 4.2  | 4.1  | 3.9  | 3.8  | 2.2  | 1.1  | 3.1  | 2.0  | 1.7  | -1.3 | 3.8  |      |                        | 766.7 |
| 3-87                | 3.9                               | 4.1  | 4.2  | 5.0  | 4.9  | 4.0  | 4.1  | 4.0  | 3.8  | 3.6  | 2.2  | 1.4  | 3.1  | 2.1  | 1.9  | 0.0  | 3.2  | 2.6  |                        | 771.7 |
| 4-87                | 4.4                               | 4.6  | 4.8  | 5.5  | 5.4  | 4.6  | 4.8  | 4.7  | 4.6  | 4.6  | 3.4  | 2.8  | 4.5  | 3.9  | 4.1  | 3.2  | 6.5  | 7.9  | 13.4                   | 796.3 |
|                     | 1-83                              | 2-83 | 3-83 | 4-83 | 1-84 | 2-84 | 3-84 | 4-84 | 1-85 | 2-85 | 3-85 | 4-85 | 1-86 | 2-86 | 3-86 | 4-86 | 1-87 | 2-87 | 3-87                   |       |
|                     | INITIAL QUARTER                   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                        |       |

INITIAL QUARTER

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS  
FEBRUARY 25, 1988

DISPOSABLE PERSONAL INCOME IN CURRENT DOLLARS  
COMPOUNDED ANNUAL RATES OF CHANGE

| TERMINAL<br>QUARTER | INITIAL QUARTER |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |         | BILLIONS OF<br>DOLLARS<br>ANNUAL RATES |  |  |
|---------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------|----------------------------------------|--|--|
|                     | 1-83            | 2-83 | 3-83 | 4-83 | 1-84 | 2-84 | 3-84 | 4-84 | 1-85 | 2-85 | 3-85 | 4-85 | 1-86 | 2-86 | 3-86 | 4-86 | 1-87 | 2-87 | 3-87    |                                        |  |  |
| 2-83                | 8.7             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2,395.4 |                                        |  |  |
| 3-83                | 8.5             | 8.2  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2,443.2 |                                        |  |  |
| 4-83                | 10.5            | 11.4 | 14.6 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2,527.9 |                                        |  |  |
| 1-84                | 11.3            | 12.2 | 14.3 | 14.0 |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2,611.8 |                                        |  |  |
| 2-84                | 10.0            | 10.3 | 11.0 | 9.3  | 4.8  |      |      |      |      |      |      |      |      |      |      |      |      |      | 2,642.8 |                                        |  |  |
| 3-84                | 9.6             | 9.8  | 10.1 | 8.7  | 6.2  | 7.5  |      |      |      |      |      |      |      |      |      |      |      |      | 2,691.1 |                                        |  |  |
| 4-84                | 9.0             | 9.1  | 9.2  | 7.9  | 6.0  | 6.6  | 5.7  |      |      |      |      |      |      |      |      |      |      |      | 2,728.6 |                                        |  |  |
| 1-85                | 8.5             | 8.5  | 8.5  | 7.3  | 5.8  | 6.1  | 5.4  | 5.0  |      |      |      |      |      |      |      |      |      |      | 2,762.2 |                                        |  |  |
| 2-85                | 9.0             | 9.0  | 9.2  | 8.3  | 7.2  | 7.8  | 7.9  | 9.0  | 13.1 |      |      |      |      |      |      |      |      |      | 2,848.4 |                                        |  |  |
| 3-85                | 8.1             | 8.0  | 8.0  | 7.0  | 5.9  | 6.1  | 5.8  | 5.8  | 6.2  | -0.2 |      |      |      |      |      |      |      |      | 2,847.2 |                                        |  |  |
| 4-85                | 8.1             | 8.0  | 8.0  | 7.2  | 6.3  | 6.5  | 6.4  | 6.5  | 7.0  | 4.1  | 8.6  |      |      |      |      |      |      |      | 2,906.6 |                                        |  |  |
| 1-86                | 8.1             | 8.1  | 8.1  | 7.4  | 6.6  | 6.8  | 6.7  | 6.9  | 7.4  | 5.5  | 8.5  | 8.4  |      |      |      |      |      |      | 2,966.0 |                                        |  |  |
| 2-86                | 8.1             | 8.1  | 8.0  | 7.4  | 6.7  | 6.9  | 6.9  | 7.1  | 7.5  | 6.1  | 8.3  | 8.1  | 7.8  |      |      |      |      |      | 3,022.4 |                                        |  |  |
| 3-86                | 7.7             | 7.6  | 7.5  | 6.9  | 6.2  | 6.4  | 6.3  | 6.3  | 6.6  | 5.3  | 6.7  | 6.1  | 4.9  | 2.1  |      |      |      |      | 3,038.2 |                                        |  |  |
| 4-86                | 7.4             | 7.3  | 7.2  | 6.6  | 5.9  | 6.1  | 5.9  | 5.9  | 6.1  | 4.9  | 6.0  | 5.3  | 4.3  | 2.6  | 3.1  |      |      |      | 3,061.6 |                                        |  |  |
| 1-87                | 7.4             | 7.4  | 7.3  | 6.8  | 6.2  | 6.3  | 6.2  | 6.2  | 6.4  | 5.5  | 6.4  | 6.0  | 5.4  | 4.6  | 5.9  | 8.7  |      |      | 3,125.9 |                                        |  |  |
| 2-87                | 7.0             | 6.9  | 6.8  | 6.3  | 5.7  | 5.8  | 5.7  | 5.7  | 5.7  | 4.8  | 5.6  | 5.1  | 4.4  | 3.6  | 4.1  | 4.6  | 0.6  |      | 3,130.6 |                                        |  |  |
| 3-87                | 7.1             | 7.0  | 6.9  | 6.4  | 5.9  | 6.0  | 5.9  | 5.9  | 6.0  | 5.2  | 5.9  | 5.6  | 5.1  | 4.6  | 5.2  | 5.9  | 4.5  | 8.5  | 3,195.3 |                                        |  |  |
| 4-87                | 7.3             | 7.2  | 7.1  | 6.7  | 6.2  | 6.3  | 6.2  | 6.3  | 6.4  | 5.7  | 6.4  | 6.1  | 5.8  | 5.5  | 6.2  | 6.9  | 6.4  | 9.4  | 10.2    | 3,274.2                                |  |  |
|                     | 1-83            | 2-83 | 3-83 | 4-83 | 1-84 | 2-84 | 3-84 | 4-84 | 1-85 | 2-85 | 3-85 | 4-85 | 1-86 | 2-86 | 3-86 | 4-86 | 1-87 | 2-87 | 3-87    |                                        |  |  |
|                     | INITIAL QUARTER |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |         |                                        |  |  |

INITIAL QUARTER

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS  
FEBRUARY 25, 1988

DISPOSABLE PERSONAL INCOME IN 1982 DOLLARS  
COMPOUNDED ANNUAL RATES OF CHANGE

| TERMINAL<br>QUARTER | INITIAL QUARTER |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | BILLIONS OF<br>DOLLARS<br>ANNUAL RATES |         |  |
|---------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------------------------|---------|--|
|                     | 1-83            | 2-83 | 3-83 | 4-83 | 1-84 | 2-84 | 3-84 | 4-84 | 1-85 | 2-85 | 3-85 | 4-85 | 1-86 | 2-86 | 3-86 | 4-86 | 1-87 | 2-87 | 3-87                                   |         |  |
| 2-83                | 4.0             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2,311.1                                |         |  |
| 3-83                | 4.1             | 4.3  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2,335.4                                |         |  |
| 4-83                | 6.1             | 7.2  | 10.2 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2,392.7                                |         |  |
| 1-84                | 6.9             | 7.9  | 9.8  | 9.4  |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2,446.9                                |         |  |
| 2-84                | 5.8             | 6.3  | 7.0  | 5.4  | 1.6  |      |      |      |      |      |      |      |      |      |      |      |      |      | 2,456.6                                |         |  |
| 3-84                | 5.5             | 5.8  | 6.2  | 4.8  | 2.7  | 3.7  |      |      |      |      |      |      |      |      |      |      |      |      | 2,479.2                                |         |  |
| 4-84                | 5.1             | 5.3  | 5.5  | 4.3  | 2.7  | 3.3  | 2.8  |      |      |      |      |      |      |      |      |      |      |      | 2,496.3                                |         |  |
| 1-85                | 4.7             | 4.8  | 4.8  | 3.8  | 2.4  | 2.7  | 2.2  | 1.7  |      |      |      |      |      |      |      |      |      |      | 2,506.8                                |         |  |
| 2-85                | 5.1             | 5.2  | 5.3  | 4.6  | 3.6  | 4.1  | 4.3  | 5.0  | 8.5  |      |      |      |      |      |      |      |      |      | 2,558.4                                |         |  |
| 3-85                | 4.2             | 4.3  | 4.3  | 3.4  | 2.5  | 2.6  | 2.4  | 2.2  | 2.5  | -3.1 |      |      |      |      |      |      |      |      | 2,538.2                                |         |  |
| 4-85                | 4.2             | 4.3  | 4.3  | 3.5  | 2.7  | 2.9  | 2.8  | 2.8  | 3.1  | 0.6  | 4.4  |      |      |      |      |      |      |      | 2,565.5                                |         |  |
| 1-86                | 4.5             | 4.5  | 4.6  | 3.9  | 3.3  | 3.5  | 3.5  | 3.6  | 4.1  | 2.7  | 5.8  | 7.2  |      |      |      |      |      |      | 2,610.5                                |         |  |
| 2-86                | 4.7             | 4.8  | 4.8  | 4.3  | 3.8  | 4.1  | 4.1  | 4.3  | 4.9  | 4.0  | 6.5  | 7.5  | 7.8  |      |      |      |      |      | 2,660.2                                |         |  |
| 3-86                | 4.3             | 4.3  | 4.3  | 3.8  | 3.3  | 3.5  | 3.4  | 3.5  | 3.9  | 3.0  | 4.5  | 4.6  | 3.3  | -1.0 |      |      |      |      | 2,653.2                                |         |  |
| 4-86                | 4.1             | 4.1  | 4.0  | 3.6  | 3.0  | 3.2  | 3.1  | 3.2  | 3.4  | 2.5  | 3.7  | 3.6  | 2.4  | -0.3 | 0.5  |      |      |      | 2,656.7                                |         |  |
| 1-87                | 4.0             | 4.0  | 4.0  | 3.5  | 3.0  | 3.1  | 3.1  | 3.1  | 3.3  | 2.6  | 3.6  | 3.4  | 2.5  | 0.7  | 1.6  | 2.7  |      |      | 2,674.6                                |         |  |
| 2-87                | 3.5             | 3.4  | 3.4  | 2.9  | 2.4  | 2.5  | 2.4  | 2.3  | 2.4  | 1.7  | 2.4  | 2.1  | 1.1  | -0.6 | -0.4 | -0.8 | -4.3 |      | 2,645.5                                |         |  |
| 3-87                | 3.5             | 3.5  | 3.4  | 3.0  | 2.6  | 2.7  | 2.6  | 2.5  | 2.6  | 2.0  | 2.7  | 2.4  | 1.6  | 0.4  | 0.8  | 0.9  | 0.0  | 4.5  | 2,674.7                                |         |  |
| 4-87                | 3.6             | 3.6  | 3.6  | 3.2  | 2.8  | 2.9  | 2.8  | 2.8  | 2.9  | 2.4  | 3.0  | 2.8  | 2.2  | 1.3  | 1.8  | 2.1  | 1.9  | 5.1  | 5.7                                    | 2,712.1 |  |
|                     | 1-83            | 2-83 | 3-83 | 4-83 | 1-84 | 2-84 | 3-84 | 4-84 | 1-85 | 2-85 | 3-85 | 4-85 | 1-86 | 2-86 | 3-86 | 4-86 | 1-87 | 2-87 | 3-87                                   |         |  |
|                     | INITIAL QUARTER |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                                        |         |  |

INITIAL QUARTER

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS  
FEBRUARY 25, 1988

| CORPORATE PROFITS AFTER TAXES*                                     |                 |      |      |      |       |       |       |       |       |      |      |       |       |      |      |      |       |      |       |                                        |
|--------------------------------------------------------------------|-----------------|------|------|------|-------|-------|-------|-------|-------|------|------|-------|-------|------|------|------|-------|------|-------|----------------------------------------|
| COMPOUNDED ANNUAL RATES OF CHANGE                                  |                 |      |      |      |       |       |       |       |       |      |      |       |       |      |      |      |       |      |       |                                        |
| TERMINAL<br>QUARTER                                                | INITIAL QUARTER |      |      |      |       |       |       |       |       |      |      |       |       |      |      |      |       |      |       | BILLIONS OF<br>DOLLARS<br>ANNUAL RATES |
| 4-82                                                               | 1-83            | 2-83 | 3-83 | 4-83 | 1-84  | 2-84  | 3-84  | 4-84  | 1-85  | 2-85 | 3-85 | 4-85  | 1-86  | 2-86 | 3-86 | 4-86 | 1-87  | 2-87 |       |                                        |
| 1-83                                                               | 26.4            |      |      |      |       |       |       |       |       |      |      |       |       |      |      |      |       |      | 110.6 |                                        |
| 12-83                                                              | 47.3            | 71.7 |      |      |       |       |       |       |       |      |      |       |       |      |      |      |       |      | 126.6 |                                        |
| 3-83                                                               | 49.5            | 62.5 | 53.9 |      |       |       |       |       |       |      |      |       |       |      |      |      |       |      | 141.0 |                                        |
| 4-83                                                               | 37.5            | 41.4 | 28.3 | 7.0  |       |       |       |       |       |      |      |       |       |      |      |      |       |      | 143.4 |                                        |
| 1-84                                                               | 35.5            | 37.9 | 28.2 | 17.0 | 27.9  |       |       |       |       |      |      |       |       |      |      |      |       |      | 152.5 |                                        |
| 2-84                                                               | 28.1            | 28.4 | 19.4 | 9.8  | 11.2  | -3.4  |       |       |       |      |      |       |       |      |      |      |       |      | 151.2 |                                        |
| 3-84                                                               | 19.0            | 17.8 | 9.2  | 0.3  | -1.9  | -14.0 | -23.5 |       |       |      |      |       |       |      |      |      |       |      | 141.4 |                                        |
| 4-84                                                               | 15.5            | 14.0 | 6.5  | -1.0 | -2.9  | -11.5 | -15.2 | -6.1  |       |      |      |       |       |      |      |      |       |      | 139.2 |                                        |
| 1-85                                                               | 7.8             | 5.7  | -1.4 | -8.4 | -11.2 | -19.0 | -23.6 | -23.6 | -37.8 |      |      |       |       |      |      |      |       |      | 123.6 |                                        |
| 2-85                                                               | 7.4             | 5.5  | -0.7 | -6.7 | -8.8  | -14.8 | -17.5 | -15.3 | -19.6 | 3.9  |      |       |       |      |      |      |       |      | 124.8 |                                        |
| 3-85                                                               | 8.2             | 6.6  | 1.1  | -4.1 | -5.6  | -10.2 | -11.5 | -8.3  | -9.0  | 10.1 | 16.7 |       |       |      |      |      |       |      | 129.7 |                                        |
| 4-85                                                               | 8.8             | 7.3  | 2.4  | -2.1 | -3.2  | -7.0  | -7.6  | -4.0  | -3.4  | 11.8 | 16.0 | 15.3  |       |      |      |      |       |      | 134.4 |                                        |
| 1-86                                                               | 4.6             | 3.0  | -1.7 | -6.0 | -7.3  | -11.0 | -12.0 | -9.9  | -10.7 | -2.2 | -4.1 | -13.1 | -34.5 |      |      |      |       |      | 120.9 |                                        |
| 2-86                                                               | 4.7             | 3.1  | -1.1 | -5.0 | -6.2  | -9.3  | -10.1 | -8.0  | -8.3  | -0.8 | -2.0 | -7.5  | -17.2 | 4.7  |      |      |       |      | 122.3 |                                        |
| 3-86                                                               | 6.1             | 4.8  | 0.9  | -2.6 | -3.5  | -6.1  | -6.4  | -4.0  | -3.7  | 3.5  | 3.4  | 0.4   | -4.1  | 16.0 | 28.5 |      |       |      | 130.2 |                                        |
| 4-86                                                               | 6.5             | 5.3  | 1.6  | -1.6 | -2.2  | -4.6  | -4.7  | -2.4  | -1.9  | 4.7  | 4.9  | 2.6   | -0.3  | 14.7 | 20.0 | 12.2 |       |      | 134.0 |                                        |
| 1-87                                                               | 5.1             | 3.9  | 0.5  | -2.5 | -3.2  | -5.4  | -5.6  | -3.6  | -3.3  | 2.2  | 1.9  | -0.4  | -3.2  | 6.7  | 7.4  | -1.8 | -14.1 |      | 129.0 |                                        |
| 2-87                                                               | 5.8             | 4.7  | 1.5  | -1.3 | -1.8  | -3.8  | -3.8  | -1.8  | -1.4  | 3.8  | 3.8  | 2.1   | 0.0   | 8.9  | 10.0 | 4.4  | 0.7   | 18.2 | 134.5 |                                        |
| 3-87                                                               | 6.7             | 5.7  | 2.7  | 0.2  | -0.3  | -2.0  | -1.9  | 0.1   | 0.7   | 5.7  | 5.9  | 4.6   | 3.2   | 11.3 | 12.6 | 9.0  | 7.9   | 21.0 | 23.9  | 141.9                                  |
| 4-82                                                               | 1-83            | 2-83 | 3-83 | 4-83 | 1-84  | 2-84  | 3-84  | 4-84  | 1-85  | 2-85 | 3-85 | 4-85  | 1-86  | 2-86 | 3-86 | 4-86 | 1-87  | 2-87 |       |                                        |
| * NATIONAL INCOME BASIS                                            |                 |      |      |      |       |       |       |       |       |      |      |       |       |      |      |      |       |      |       |                                        |
| INITIAL QUARTER                                                    |                 |      |      |      |       |       |       |       |       |      |      |       |       |      |      |      |       |      |       |                                        |
| PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS<br>FEBRUARY 25, 1988 |                 |      |      |      |       |       |       |       |       |      |      |       |       |      |      |      |       |      |       |                                        |

## HISTORICAL SOURCES OF

### NATIONAL INCOME AND PRODUCT ACCOUNTS DATA

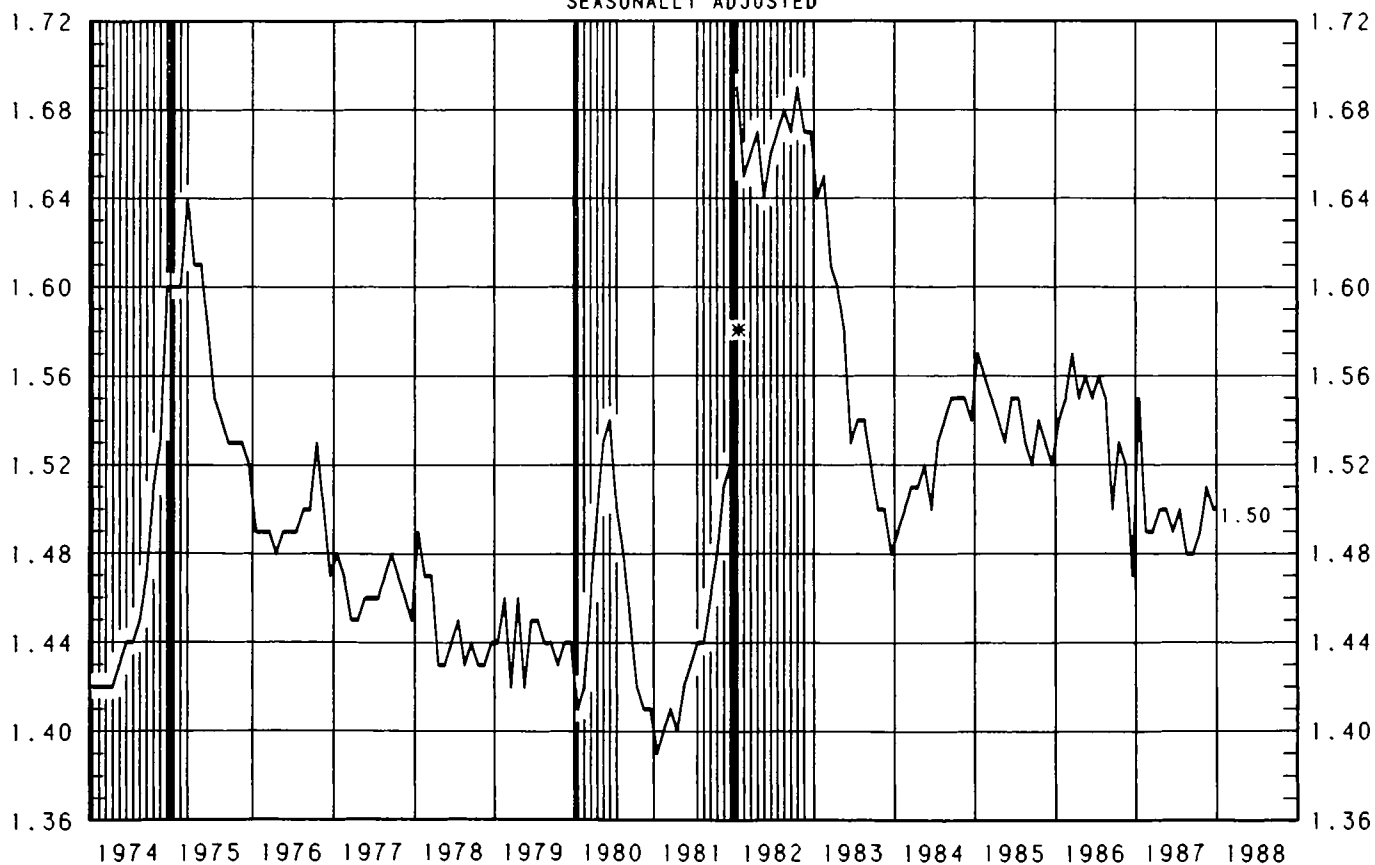
Estimates for the series in the regular quarterly presentation of NIPA tables for 1984-87:II are published in the July 1987 Survey of Current Business and 1983 in the July 1986 Survey of Current Business. Estimates for NIPA series for 1929-82 are published in The National Income and Product Accounts of the United States, 1929-82: Statistical Tables.

For further information and prices, write to the National Income and Wealth Division (BE-54), Bureau of Economic Analysis, U.S. Department of Commerce, Washington, D.C. 20230.

# INVENTORIES COMPARED WITH MONTHLY SALES

## MANUFACTURING AND TRADE

### SEASONALLY ADJUSTED



SOURCE: U.S. DEPARTMENT OF COMMERCE

\*BEGINNING IN 1982, INVENTORY DATA REFLECT CHANGES IN ESTIMATION PROCEDURES.

SHADED AREAS REPRESENT PERIODS OF BUSINESS RECESSIONS.

LATEST DATA PLOTTED: DECEMBER PRELIMINARY

PREPARED BY FEDERAL RESERVE BANK OF ST. LOUIS