



# National Economic Trends



## The Tax Act of 1986 and Its Effects on Consumer Borrowing

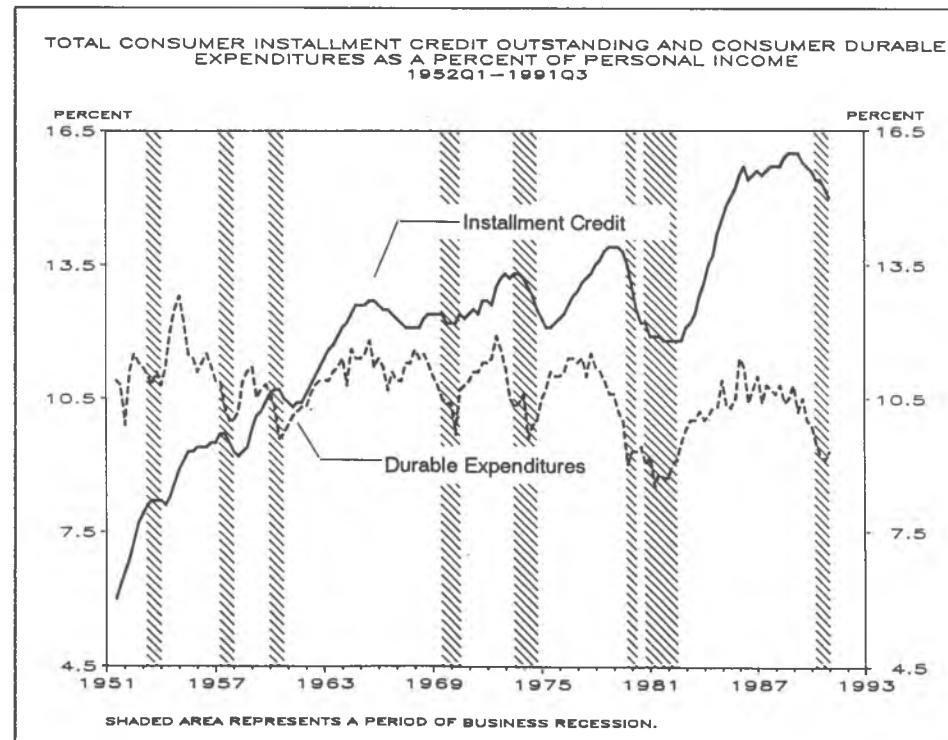
The Tax Reform Act of 1986 initiated the phasing-out of deductions for interest on consumer debt (except for mortgages) and also reduced households' marginal tax rates, thereby diminishing the value of the remaining deduction. In each year, beginning in 1987, households were permitted to deduct a declining portion of their interest expense from their taxable income. Since 1990, the deduction has been completely eliminated. Has the loss of the interest deduction had an effect on consumer borrowing in general and on the sales of consumer durables in particular? The accompanying chart suggests a few answers.

Consumer installment credit outstanding measures the short- to medium-term credit used to finance personal consumption or refinance consumer loans; it excludes home equity loans. The Commerce Department classifies the ratio of consumer installment credit to personal income as a lagging indicator, which means that the ratio historically has fallen late in a recession. In the most recent episode, this ratio peaked almost a year and a half before the recession began in July 1990, suggesting that

the Tax Reform Act slowed down consumer borrowing in the second half of the 1980s.

The chart also shows spending on consumer durables as a percentage of personal income. The recent downturn in this ratio occurred at about the time of the implementation of the 1986 Tax Act. Viewed in historical perspective, however, this ratio always peaks long before a recession begins. Consequently, it is difficult to conclude whether this most recent downturn in consumer durables spending is a response to the tax change or to normal cyclical forces.

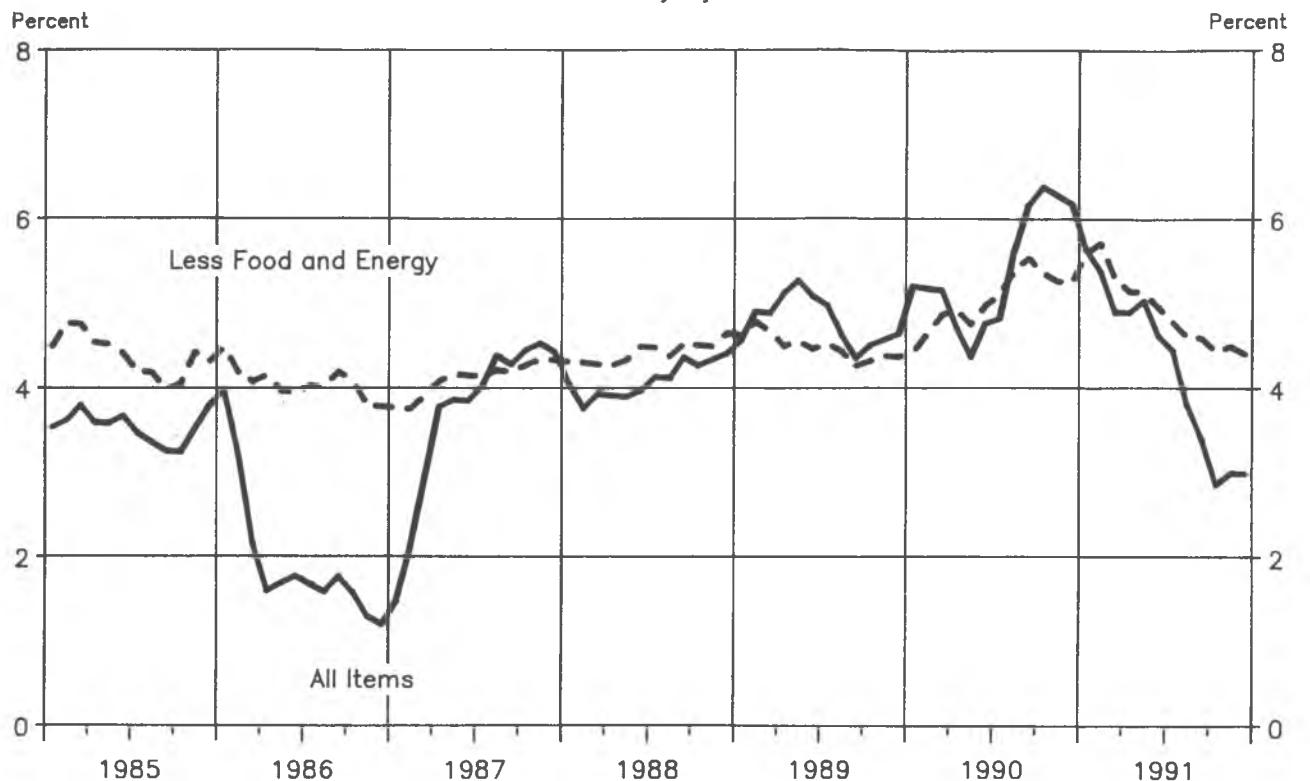
— Michael J. Duckett



Views expressed do not necessarily reflect official positions of the Federal Reserve System.

# Consumer Price Index – All Urban Consumers

Percent Change From Previous Year  
Seasonally Adjusted



Prepared by Federal Reserve Bank of St. Louis

## Consumer Price Index (Compounded Annual Rates of Change)

| Terminal Month | Initial Month |      |      |      |      |       |       |       |      |      |      |      | 1982-84=100 |      |      |      |      |       |       |       |
|----------------|---------------|------|------|------|------|-------|-------|-------|------|------|------|------|-------------|------|------|------|------|-------|-------|-------|
|                | 5-90          | 6-90 | 7-90 | 8-90 | 9-90 | 10-90 | 11-90 | 12-90 | 1-91 | 2-91 | 3-91 | 4-91 | 5-91        | 6-91 | 7-91 | 8-91 | 9-91 | 10-91 | 11-91 |       |
| 6-90           | 7.7           |      |      |      |      |       |       |       |      |      |      |      |             |      |      |      |      |       | 130.0 |       |
| 7-90           | 6.2           | 4.7  |      |      |      |       |       |       |      |      |      |      |             |      |      |      |      |       | 130.5 |       |
| 8-90           | 7.6           | 7.6  | 10.6 |      |      |       |       |       |      |      |      |      |             |      |      |      |      |       | 131.6 |       |
| 9-90           | 8.1           | 8.2  | 10.1 | 9.5  |      |       |       |       |      |      |      |      |             |      |      |      |      |       | 132.6 |       |
| 10-90          | 8.0           | 8.1  | 9.2  | 8.5  | 7.5  |       |       |       |      |      |      |      |             |      |      |      |      |       | 133.4 |       |
| 11-90          | 7.2           | 7.2  | 7.8  | 6.9  | 5.6  | 3.7   |       |       |      |      |      |      |             |      |      |      |      |       | 133.8 |       |
| 12-90          | 6.7           | 6.6  | 6.9  | 6.0  | 4.9  | 3.7   | 3.6   |       |      |      |      |      |             |      |      |      |      |       | 134.2 |       |
| 1-91           | 6.6           | 6.4  | 6.7  | 5.9  | 5.1  | 4.3   | 4.6   | 5.5   |      |      |      |      |             |      |      |      |      |       | 134.8 |       |
| 2-91           | 6.1           | 5.9  | 6.1  | 5.4  | 4.6  | 3.9   | 3.9   | 4.1   | 2.7  |      |      |      |             |      |      |      |      |       | 135.1 |       |
| 3-91           | 5.4           | 5.2  | 5.2  | 4.5  | 3.7  | 2.9   | 2.7   | 2.4   | 0.9  | -0.9 |      |      |             |      |      |      |      |       | 135.0 |       |
| 4-91           | 5.2           | 4.9  | 4.9  | 4.2  | 3.5  | 2.9   | 2.7   | 2.5   | 1.5  | 0.9  | 2.7  |      |             |      |      |      |      |       | 135.3 |       |
| 5-91           | 5.0           | 4.8  | 4.8  | 4.2  | 3.5  | 3.0   | 2.9   | 2.7   | 2.0  | 1.8  | 3.2  | 3.6  |             |      |      |      |      |       | 135.7 |       |
| 6-91           | 4.8           | 4.6  | 4.6  | 4.0  | 3.4  | 2.9   | 2.8   | 2.7   | 2.1  | 2.0  | 3.0  | 3.1  | 2.7         |      |      |      |      |       | 136.0 |       |
| 7-91           | 4.7           | 4.5  | 4.4  | 3.9  | 3.4  | 2.9   | 2.8   | 2.7   | 2.2  | 2.1  | 2.9  | 3.0  | 2.7         | 2.7  |      |      |      |       | 136.3 |       |
| 8-91           | 4.6           | 4.3  | 4.3  | 3.8  | 3.3  | 2.9   | 2.8   | 2.7   | 2.3  | 2.2  | 2.9  | 2.9  | 2.7         | 2.7  | 2.7  |      |      |       | 136.6 |       |
| 9-91           | 4.6           | 4.3  | 4.3  | 3.9  | 3.4  | 3.0   | 3.0   | 2.9   | 2.6  | 2.6  | 3.1  | 3.2  | 3.1         | 3.3  | 3.6  | 4.5  |      |       | 137.1 |       |
| 10-91          | 4.3           | 4.1  | 4.1  | 3.6  | 3.2  | 2.8   | 2.8   | 2.7   | 2.4  | 2.3  | 2.8  | 2.8  | 2.7         | 2.7  | 2.7  | 2.7  | 0.9  |       | 137.2 |       |
| 11-91          | 4.4           | 4.2  | 4.2  | 3.8  | 3.4  | 3.0   | 3.0   | 2.9   | 2.7  | 2.7  | 3.1  | 3.2  | 3.1         | 3.2  | 3.3  | 3.6  | 3.1  | 5.4   | 137.8 |       |
| 12-91          | 4.3           | 4.2  | 4.1  | 3.7  | 3.4  | 3.1   | 3.0   | 3.0   | 2.8  | 2.8  | 3.2  | 3.2  | 3.2         | 3.3  | 3.4  | 3.6  | 3.2  | 4.5   | 3.5   | 138.2 |
|                | 5-90          | 6-90 | 7-90 | 8-90 | 9-90 | 10-90 | 11-90 | 12-90 | 1-91 | 2-91 | 3-91 | 4-91 | 5-91        | 6-91 | 7-91 | 8-91 | 9-91 | 10-91 | 11-91 |       |

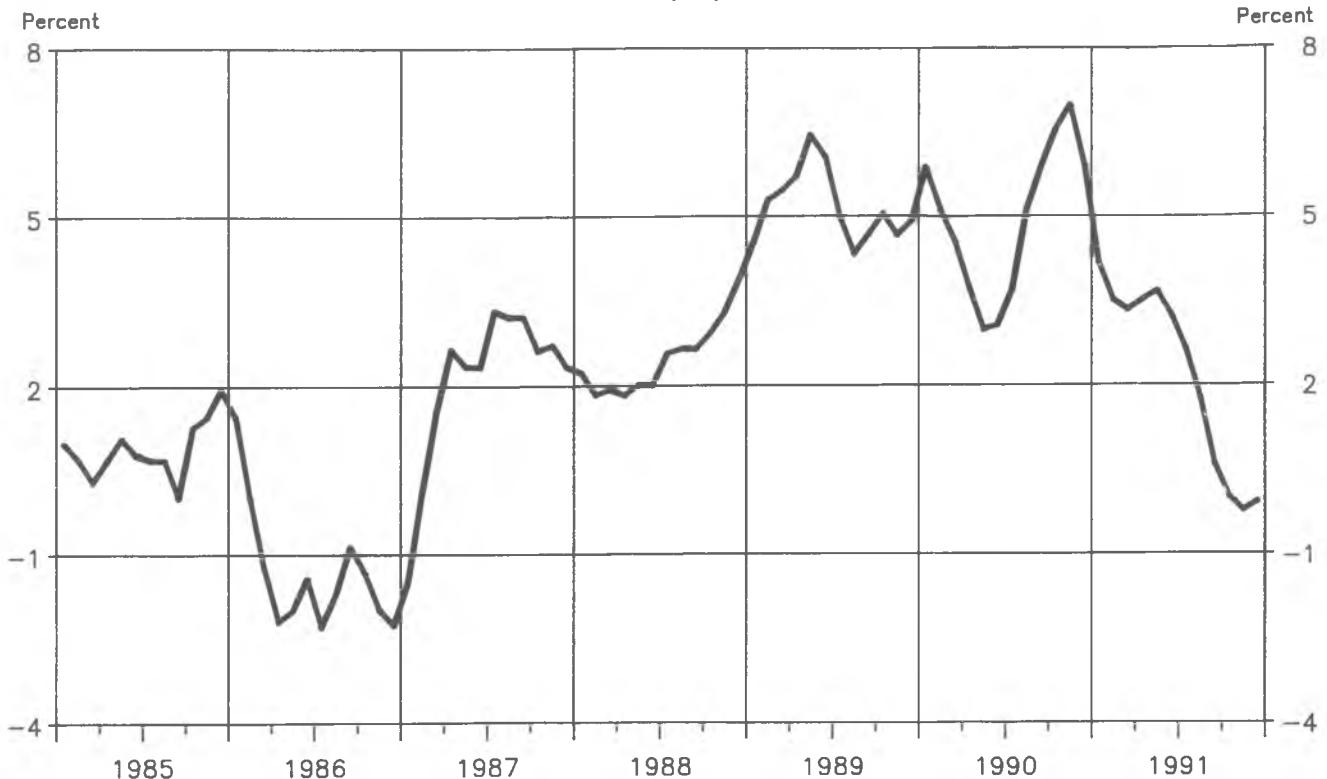
The CPI is for all urban consumers.

Prepared by Federal Reserve Bank of St. Louis  
January 16, 1992



# Producer Price Index - Finished Goods

Percent Change From Previous Year  
Seasonally Adjusted



Prepared by Federal Reserve Bank of St. Louis

# Producer Price Index - Finished Goods

(Compounded Annual Rates of Change)

| Terminal Month | Initial Month |      |      |      |      |       |       |       |      |      |      |      |      | 1982 = 100 |      |      |      |       |
|----------------|---------------|------|------|------|------|-------|-------|-------|------|------|------|------|------|------------|------|------|------|-------|
|                | 5-90          | 6-90 | 7-90 | 8-90 | 9-90 | 10-90 | 11-90 | 12-90 | 1-91 | 2-91 | 3-91 | 4-91 | 5-91 | 6-91       | 7-91 | 8-91 | 9-91 | 10-91 |
| 6-90           | 0.0           |      |      |      |      |       |       |       |      |      |      |      |      |            |      |      |      | 117.6 |
| 7-90           | 2.1           | 4.2  |      |      |      |       |       |       |      |      |      |      |      |            |      |      |      | 118.0 |
| 8-90           | 5.9           | 9.0  | 14.1 |      |      |       |       |       |      |      |      |      |      |            |      |      |      | 119.3 |
| 9-90           | 8.4           | 11.3 | 15.1 | 16.2 |      |       |       |       |      |      |      |      |      |            |      |      |      | 120.8 |
| 10-90          | 9.9           | 12.5 | 15.4 | 16.1 | 16.0 |       |       |       |      |      |      |      |      |            |      |      |      | 122.3 |
| 11-90          | 9.0           | 10.9 | 12.7 | 12.3 | 10.4 | 5.0   |       |       |      |      |      |      |      |            |      |      |      | 122.8 |
| 12-90          | 6.9           | 8.2  | 9.0  | 7.7  | 5.1  | 0.0   | -4.8  |       |      |      |      |      |      |            |      |      |      | 122.3 |
| 1-91           | 6.2           | 7.1  | 7.6  | 6.4  | 4.0  | 0.3   | -1.9  | 1.0   |      |      |      |      |      |            |      |      |      | 122.4 |
| 2-91           | 4.4           | 5.0  | 5.1  | 3.7  | 1.4  | -1.9  | -4.2  | -3.9  | -8.5 |      |      |      |      |            |      |      |      | 121.5 |
| 3-91           | 3.7           | 4.1  | 4.1  | 2.7  | 0.7  | -2.1  | -3.9  | -3.5  | -5.7 | -2.9 |      |      |      |            |      |      |      | 121.2 |
| 4-91           | 3.4           | 3.8  | 3.7  | 2.5  | 0.7  | -1.6  | -2.9  | -2.4  | -3.5 | -1.0 | 1.0  |      |      |            |      |      |      | 121.3 |
| 5-91           | 3.7           | 4.0  | 4.0  | 2.9  | 1.4  | -0.6  | -1.5  | -0.8  | -1.2 | 1.3  | 3.5  | 6.1  |      |            |      |      |      | 121.9 |
| 6-91           | 3.0           | 3.2  | 3.1  | 2.1  | 0.7  | -1.1  | -1.9  | -1.5  | -1.9 | -0.2 | 0.7  | 0.5  | -4.8 |            |      |      |      | 121.4 |
| 7-91           | 2.5           | 2.7  | 2.6  | 1.6  | 0.3  | -1.3  | -2.1  | -1.7  | -2.1 | -0.8 | -0.2 | -0.7 | -3.9 | -2.9       |      |      |      | 121.1 |
| 8-91           | 2.6           | 2.8  | 2.7  | 1.8  | 0.5  | -0.9  | -1.5  | -1.1  | -1.4 | -0.2 | 0.4  | 0.2  | -1.6 | 0.0        | 3.0  |      |      | 121.4 |
| 9-91           | 2.5           | 2.6  | 2.5  | 1.7  | 0.6  | -0.7  | -1.3  | -0.9  | -1.1 | 0.0  | 0.5  | 0.4  | -1.0 | 0.3        | 2.0  | 1.0  |      | 121.5 |
| 10-91          | 2.8           | 3.0  | 2.9  | 2.2  | 1.1  | 0.0   | -0.4  | 0.0   | -0.1 | 1.0  | 1.6  | 1.7  | 0.8  | 2.2        | 4.0  | 4.5  | 8.2  | 122.3 |
| 11-91          | 2.8           | 2.9  | 2.8  | 2.1  | 1.2  | 0.2   | -0.2  | 0.2   | 0.1  | 1.1  | 1.6  | 1.7  | 1.0  | 2.2        | 3.5  | 3.7  | 5.0  | 2.0   |
| 12-91          | 2.5           | 2.6  | 2.5  | 1.8  | 0.9  | -0.1  | -0.5  | -0.1  | -0.2 | 0.7  | 1.1  | 1.1  | 0.4  | 1.3        | 2.2  | 2.0  | 2.3  | -0.5  |
|                |               |      |      |      |      |       |       |       |      |      |      |      |      |            |      |      |      | 122.2 |

5-90 6-90 7-90 8-90 9-90 10-90 11-90 12-90 1-91 2-91 3-91 4-91 5-91 6-91 7-91 8-91 9-91 10-91 11-91

Prepared by Federal Reserve Bank of St. Louis  
January 9, 1992

# Civilian Employment and Unemployment Rate

Seasonally Adjusted



Shaded area represents a period of business recession.

Percentages are annual rates of change for periods indicated.

Prepared by Federal Reserve Bank of St. Louis

## Civilian Employment (Compounded Annual Rates of Change)

| Terminal Month | Initial Month |      |      |      |      |       |       |       |      |      |      |      | Thousands of Persons |         |         |         |         |         |         |         |
|----------------|---------------|------|------|------|------|-------|-------|-------|------|------|------|------|----------------------|---------|---------|---------|---------|---------|---------|---------|
|                | 5-90          | 6-90 | 7-90 | 8-90 | 9-90 | 10-90 | 11-90 | 12-90 | 1-91 | 2-91 | 3-91 | 4-91 |                      |         |         |         |         |         |         |         |
| 6-90           | -1.1          |      |      |      |      |       |       |       |      |      |      |      | 118,267              |         |         |         |         |         |         |         |
| 7-90           | -2.1          | -3.2 |      |      |      |       |       |       |      |      |      |      | 117,948              |         |         |         |         |         |         |         |
| 8-90           | -2.0          | -2.4 | -1.6 |      |      |       |       |       |      |      |      |      | 117,785              |         |         |         |         |         |         |         |
| 9-90           | -1.5          | -1.7 | -0.9 | -0.2 |      |       |       |       |      |      |      |      | 117,763              |         |         |         |         |         |         |         |
| 10-90          | -1.5          | -1.6 | -1.1 | -0.8 | -1.3 |       |       |       |      |      |      |      | 117,631              |         |         |         |         |         |         |         |
| 11-90          | -1.9          | -2.0 | -1.7 | -1.7 | -2.5 | -3.6  |       |       |      |      |      |      | 117,273              |         |         |         |         |         |         |         |
| 12-90          | -1.3          | -1.3 | -1.0 | -0.8 | -1.0 | -0.8  | 2.1   |       |      |      |      |      | 117,476              |         |         |         |         |         |         |         |
| 1-91           | -1.8          | -1.9 | -1.6 | -1.6 | -2.0 | -2.2  | -1.5  | -5.0  |      |      |      |      | 116,977              |         |         |         |         |         |         |         |
| 2-91           | -1.6          | -1.7 | -1.5 | -1.4 | -1.7 | -1.8  | -1.1  | -2.7  | -0.4 |      |      |      | 116,937              |         |         |         |         |         |         |         |
| 3-91           | -1.6          | -1.6 | -1.4 | -1.4 | -1.6 | -1.6  | -1.1  | -2.2  | -0.7 | -1.1 |      |      | 116,834              |         |         |         |         |         |         |         |
| 4-91           | -0.9          | -0.9 | -0.6 | -0.5 | -0.5 | -0.4  | 0.2   | -0.2  | 1.4  | 2.3  | 5.8  |      | 117,388              |         |         |         |         |         |         |         |
| 5-91           | -1.4          | -1.4 | -1.2 | -1.2 | -1.3 | -1.3  | -0.9  | -1.5  | -0.6 | -0.7 | -0.5 | -6.5 | 116,730              |         |         |         |         |         |         |         |
| 6-91           | -1.1          | -1.1 | -1.0 | -0.9 | -1.0 | -0.9  | -0.5  | -1.0  | -0.1 | -0.1 | 0.3  | -2.4 | 1.9                  | 116,909 |         |         |         |         |         |         |
| 7-91           | -1.2          | -1.2 | -1.0 | -1.0 | -1.1 | -1.0  | -0.7  | -1.1  | -0.4 | -0.4 | -0.3 | -2.2 | 0.0                  | -1.8    | 116,729 |         |         |         |         |         |
| 8-91           | -1.3          | -1.3 | -1.1 | -1.1 | -1.2 | -1.2  | -0.9  | -1.3  | -0.7 | -0.8 | -0.7 | -2.3 | -0.8                 | -2.2    | -2.5    | 116,484 |         |         |         |         |
| 9-91           | -0.8          | -0.8 | -0.6 | -0.5 | -0.6 | -0.5  | -0.2  | -0.4  | 0.1  | 0.2  | 0.4  | -0.6 | 0.9                  | 0.6     | 1.9     | 6.4     | 117,089 |         |         |         |
| 10-91          | -0.9          | -0.9 | -0.7 | -0.7 | -0.7 | -0.6  | -0.4  | -0.6  | -0.1 | -0.1 | 0.0  | -0.9 | 0.3                  | -0.1    | 0.5     | 2.0     | -2.3    | 116,867 |         |         |
| 11-91          | -0.9          | -0.9 | -0.7 | -0.7 | -0.7 | -0.7  | -0.4  | -0.7  | -0.2 | -0.2 | -0.1 | -0.9 | 0.1                  | -0.3    | 0.1     | 1.0     | -1.6    | -1.0    | 116,772 |         |
| 12-91          | -0.9          | -0.9 | -0.7 | -0.7 | -0.7 | -0.7  | -0.4  | -0.6  | -0.2 | -0.2 | -0.1 | -0.8 | 0.0                  | -0.3    | 0.0     | 0.6     | -1.2    | -0.7    | -0.5    | 116,728 |

5-90 6-90 7-90 8-90 9-90 10-90 11-90 12-90 1-91 2-91 3-91 4-91 5-91 6-91 7-91 8-91 9-91 10-91 11-91

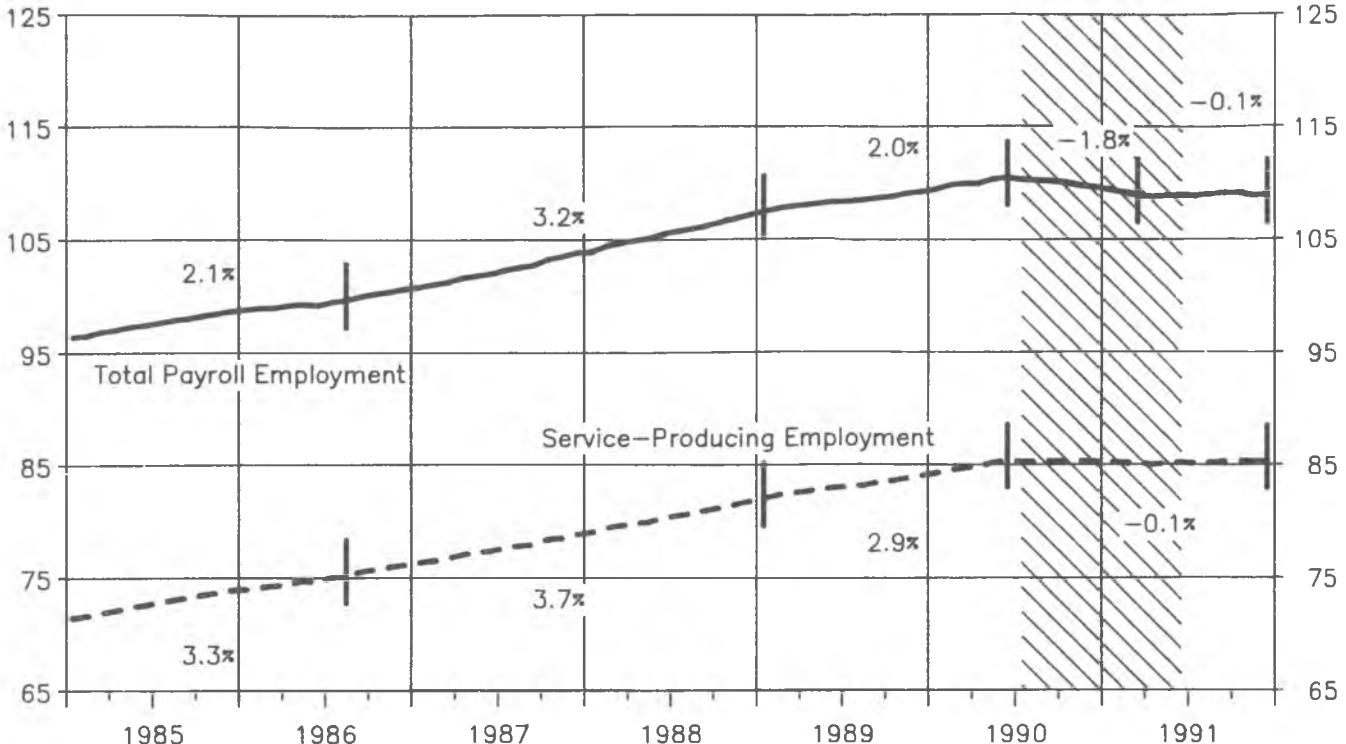
Data revised from 1987.

Prepared by Federal Reserve Bank of St. Louis  
January 10, 1992

**Payroll Employment**  
Seasonally Adjusted

Millions of Persons

Millions of Persons



Shaded area represents a period of business recession.

Percentages are annual rates of change for periods indicated.

Prepared by Federal Reserve Bank of St. Louis

**Payroll Employment**  
(Compounded Annual Rates of Change)

| Terminal Month | Initial Month |      |      |      |      |       |       |       |      |      |      |      | Thousands of Persons |      |      |      |      |       |         |
|----------------|---------------|------|------|------|------|-------|-------|-------|------|------|------|------|----------------------|------|------|------|------|-------|---------|
|                | 5-90          | 6-90 | 7-90 | 8-90 | 9-90 | 10-90 | 11-90 | 12-90 | 1-91 | 2-91 | 3-91 | 4-91 | 5-91                 | 6-91 | 7-91 | 8-91 | 9-91 | 10-91 | 11-91   |
| 6-90           | 1.4           |      |      |      |      |       |       |       |      |      |      |      |                      |      |      |      |      |       | 110,435 |
| 7-90           | -0.2          | -1.8 |      |      |      |       |       |       |      |      |      |      |                      |      |      |      |      |       | 110,269 |
| 8-90           | -0.5          | -1.5 | -1.2 |      |      |       |       |       |      |      |      |      |                      |      |      |      |      |       | 110,160 |
| 9-90           | -0.5          | -1.2 | -0.8 | -0.5 |      |       |       |       |      |      |      |      |                      |      |      |      |      |       | 110,113 |
| 10-90          | -0.7          | -1.2 | -1.0 | -1.0 | -1.0 |       |       |       |      |      |      |      |                      |      |      |      |      |       | 109,982 |
| 11-90          | -1.0          | -1.5 | -1.4 | -1.4 | -1.4 | -1.9  |       |       |      |      |      |      |                      |      |      |      |      |       | 109,761 |
| 12-90          | -1.1          | -1.5 | -1.4 | -1.5 | -1.8 | -2.0  | -2.0  |       |      |      |      |      |                      |      |      |      |      |       | 109,621 |
| 1-91           | -1.2          | -1.6 | -1.5 | -1.6 | -1.9 | -2.0  | -1.9  | -2.2  |      |      |      |      |                      |      |      |      |      |       | 109,418 |
| 2-91           | -1.4          | -1.7 | -1.7 | -1.8 | -2.1 | -2.2  | -2.2  | -2.5  | -2.8 |      |      |      |                      |      |      |      |      |       | 109,160 |
| 3-91           | -1.5          | -1.8 | -1.9 | -1.9 | -2.2 | -2.3  | -2.3  | -2.6  | -2.8 | -2.8 |      |      |                      |      |      |      |      |       | 108,902 |
| 4-91           | -1.5          | -1.8 | -1.8 | -1.9 | -2.1 | -2.3  | -2.2  | -2.4  | -2.5 | -2.5 | -2.3 | -1.8 |                      |      |      |      |      |       | 108,736 |
| 5-91           | -1.3          | -1.5 | -1.5 | -1.5 | -1.7 | -1.7  | -1.6  | -1.6  | -1.6 | -1.4 | -1.0 | -0.1 | 1.7                  |      |      |      |      |       | 108,887 |
| 6-91           | -1.2          | -1.4 | -1.4 | -1.4 | -1.5 | -1.5  | -1.4  | -1.3  | -1.2 | -0.8 | -0.1 | 0.8  | 0.0                  |      |      |      |      |       | 108,885 |
| 7-91           | -1.1          | -1.3 | -1.3 | -1.3 | -1.4 | -1.4  | -1.2  | -1.2  | -1.0 | -0.7 | -0.1 | 0.5  | -0.2                 | -0.3 |      |      |      |       | 108,859 |
| 8-91           | -1.0          | -1.1 | -1.1 | -1.1 | -1.1 | -1.1  | -1.0  | -0.9  | -0.7 | -0.3 | 0.2  | 0.6  | 0.3                  | 0.5  | 1.2  |      |      |       | 108,971 |
| 9-91           | -0.8          | -1.0 | -0.9 | -0.9 | -1.0 | -0.9  | -0.9  | -0.8  | -0.7 | -0.5 | -0.1 | 0.3  | 0.7                  | 0.5  | 0.7  | 1.1  | 1.1  |       | 109,066 |
| 10-91          | -0.8          | -0.9 | -0.9 | -0.8 | -0.9 | -0.8  | -0.7  | -0.6  | -0.4 | -0.1 | 0.3  | 0.6  | 0.4                  | 0.5  | 0.8  | 0.6  | 0.1  |       | 109,073 |
| 11-91          | -0.9          | -1.0 | -1.0 | -1.0 | -1.0 | -1.0  | -0.9  | -0.8  | -0.7 | -0.4 | -0.1 | 0.1  | -0.1                 | -0.2 | -0.1 | -0.6 | -1.4 | -2.9  | 108,808 |
| 12-91          | -0.8          | -1.0 | -0.9 | -0.9 | -0.9 | -0.9  | -0.8  | -0.7  | -0.6 | -0.4 | -0.1 | 0.1  | -0.1                 | -0.1 | 0.0  | -0.4 | -0.8 | -1.3  | 108,839 |

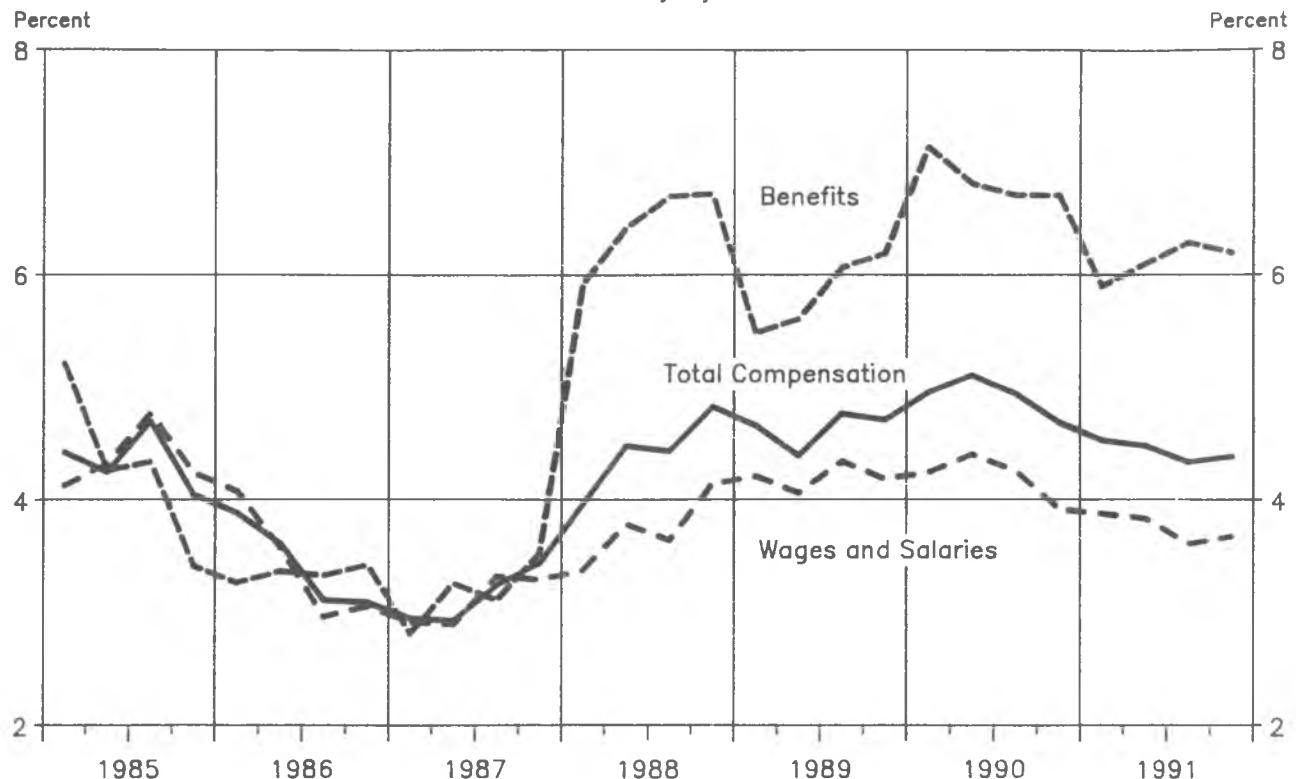
5-90 6-90 7-90 8-90 9-90 10-90 11-90 12-90 1-91 2-91 3-91 4-91 5-91 6-91 7-91 8-91 9-91 10-91 11-91

Prepared by Federal Reserve Bank of St. Louis  
January 10, 1992



# Change in the Employment Cost Index and Its Components

Percent Change From Previous Year  
Seasonally Adjusted



Total compensation is the sum of benefits and wages and salaries for private industry workers.

Prepared by Federal Reserve Bank of St. Louis

## Employment Cost Index - Total Compensation (Compounded Annual Rates of Change)

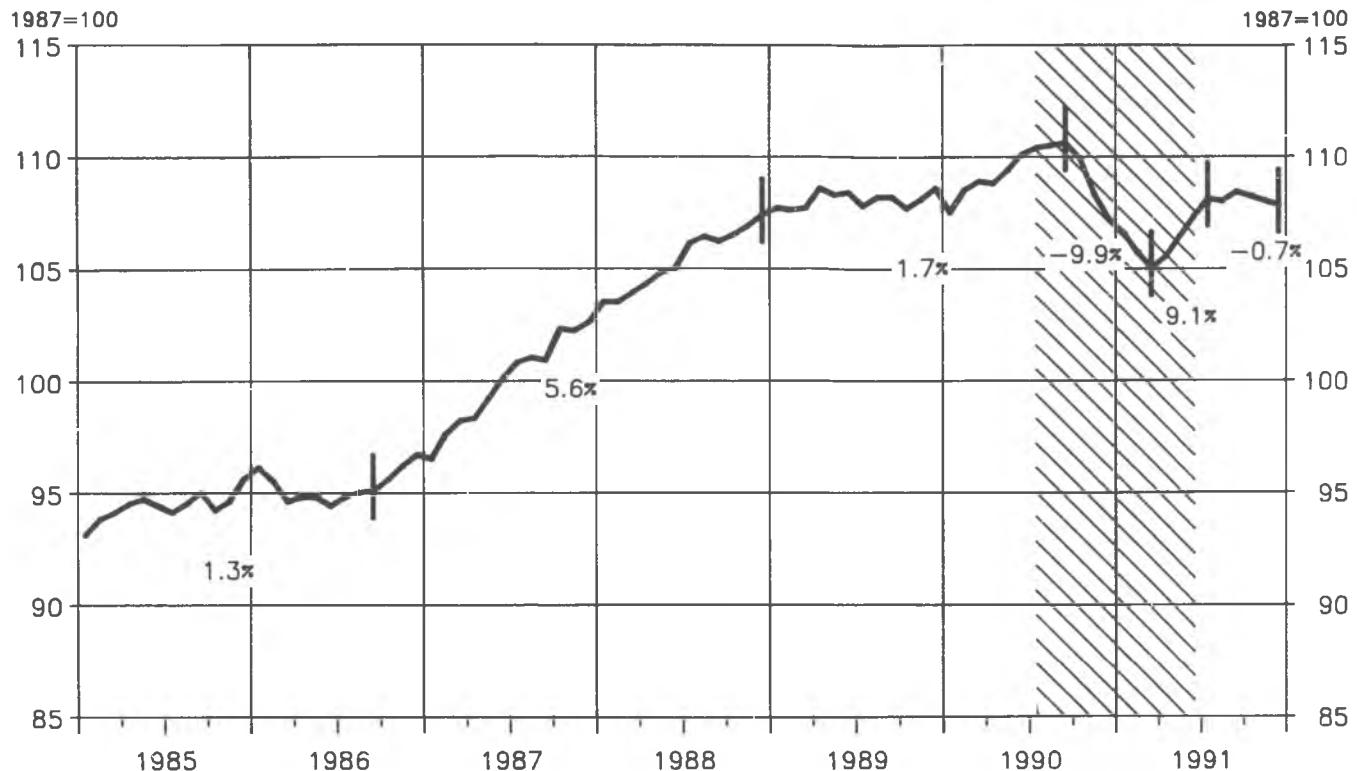
| Terminal Quarter | Initial Quarter |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | June 1989 = 100 |
|------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------------|
|                  | 1-87            | 2-87 | 3-87 | 4-87 | 1-88 | 2-88 | 3-88 | 4-88 | 1-89 | 2-89 | 3-89 | 4-89 | 1-90 | 2-90 | 3-90 | 4-90 | 1-91 | 2-91 | 3-91            |
| 2-87             | 3.1             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 91.6            |
| 3-87             | 3.6             | 4.0  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 92.5            |
| 4-87             | 3.5             | 3.7  | 3.5  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 93.3            |
| 1-88             | 4.0             | 4.2  | 4.4  | 5.2  |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 94.5            |
| 2-88             | 4.2             | 4.5  | 4.6  | 5.2  | 5.2  |      |      |      |      |      |      |      |      |      |      |      |      |      | 95.7            |
| 3-88             | 4.1             | 4.3  | 4.4  | 4.7  | 4.5  | 3.8  |      |      |      |      |      |      |      |      |      |      |      |      | 96.6            |
| 4-88             | 4.3             | 4.5  | 4.6  | 4.8  | 4.7  | 4.4  | 5.1  |      |      |      |      |      |      |      |      |      |      |      | 97.8            |
| 1-89             | 4.3             | 4.5  | 4.6  | 4.8  | 4.7  | 4.5  | 4.8  | 4.6  |      |      |      |      |      |      |      |      |      |      | 98.9            |
| 2-89             | 4.3             | 4.4  | 4.5  | 4.7  | 4.5  | 4.4  | 4.6  | 4.3  | 4.1  |      |      |      |      |      |      |      |      |      | 99.9            |
| 3-89             | 4.4             | 4.5  | 4.6  | 4.8  | 4.7  | 4.6  | 4.8  | 4.7  | 4.7  | 5.3  |      |      |      |      |      |      |      |      | 101.2           |
| 4-89             | 4.4             | 4.6  | 4.6  | 4.8  | 4.7  | 4.6  | 4.8  | 4.7  | 4.7  | 5.1  | 4.8  |      |      |      |      |      |      |      | 102.4           |
| 1-90             | 4.5             | 4.7  | 4.7  | 4.9  | 4.8  | 4.8  | 4.9  | 4.9  | 5.0  | 5.2  | 5.2  | 5.6  |      |      |      |      |      |      | 103.8           |
| 2-90             | 4.5             | 4.7  | 4.7  | 4.8  | 4.8  | 4.7  | 4.9  | 4.8  | 4.9  | 5.1  | 5.0  | 5.1  | 4.7  |      |      |      |      |      | 105.0           |
| 3-90             | 4.5             | 4.7  | 4.7  | 4.8  | 4.8  | 4.7  | 4.9  | 4.8  | 4.9  | 5.0  | 4.9  | 5.0  | 4.7  | 4.7  |      |      |      |      | 106.2           |
| 4-90             | 4.5             | 4.6  | 4.6  | 4.7  | 4.7  | 4.6  | 4.7  | 4.7  | 4.7  | 4.8  | 4.7  | 4.7  | 4.7  | 4.2  | 3.8  |      |      |      | 107.2           |
| 1-91             | 4.5             | 4.6  | 4.7  | 4.8  | 4.7  | 4.7  | 4.8  | 4.7  | 4.7  | 4.8  | 4.8  | 4.7  | 4.5  | 4.5  | 4.4  | 4.9  |      |      | 108.5           |
| 2-91             | 4.5             | 4.6  | 4.7  | 4.7  | 4.7  | 4.7  | 4.7  | 4.7  | 4.7  | 4.8  | 4.7  | 4.7  | 4.5  | 4.5  | 4.4  | 4.7  | 4.5  |      | 109.7           |
| 3-91             | 4.5             | 4.6  | 4.6  | 4.7  | 4.7  | 4.6  | 4.7  | 4.6  | 4.6  | 4.7  | 4.6  | 4.6  | 4.4  | 4.4  | 4.3  | 4.5  | 4.3  | 4.1  | 110.8           |
| 4-91             | 4.5             | 4.5  | 4.6  | 4.6  | 4.6  | 4.6  | 4.6  | 4.6  | 4.6  | 4.6  | 4.6  | 4.5  | 4.4  | 4.3  | 4.3  | 4.2  | 4.1  | 4.0  | 111.9           |

1-87 2-87 3-87 4-87 1-88 2-88 3-88 4-88 1-89 2-89 3-89 4-89 1-90 2-90 3-90 4-90 1-91 2-91 3-91

Data revised from 1987.

Prepared by Federal Reserve Bank of St. Louis  
January 28, 1992

**Industrial Production**  
Seasonally Adjusted



Shaded area represents a period of business recession.  
Percentages are annual rates of change for periods indicated.

Prepared by Federal Reserve Bank of St. Louis

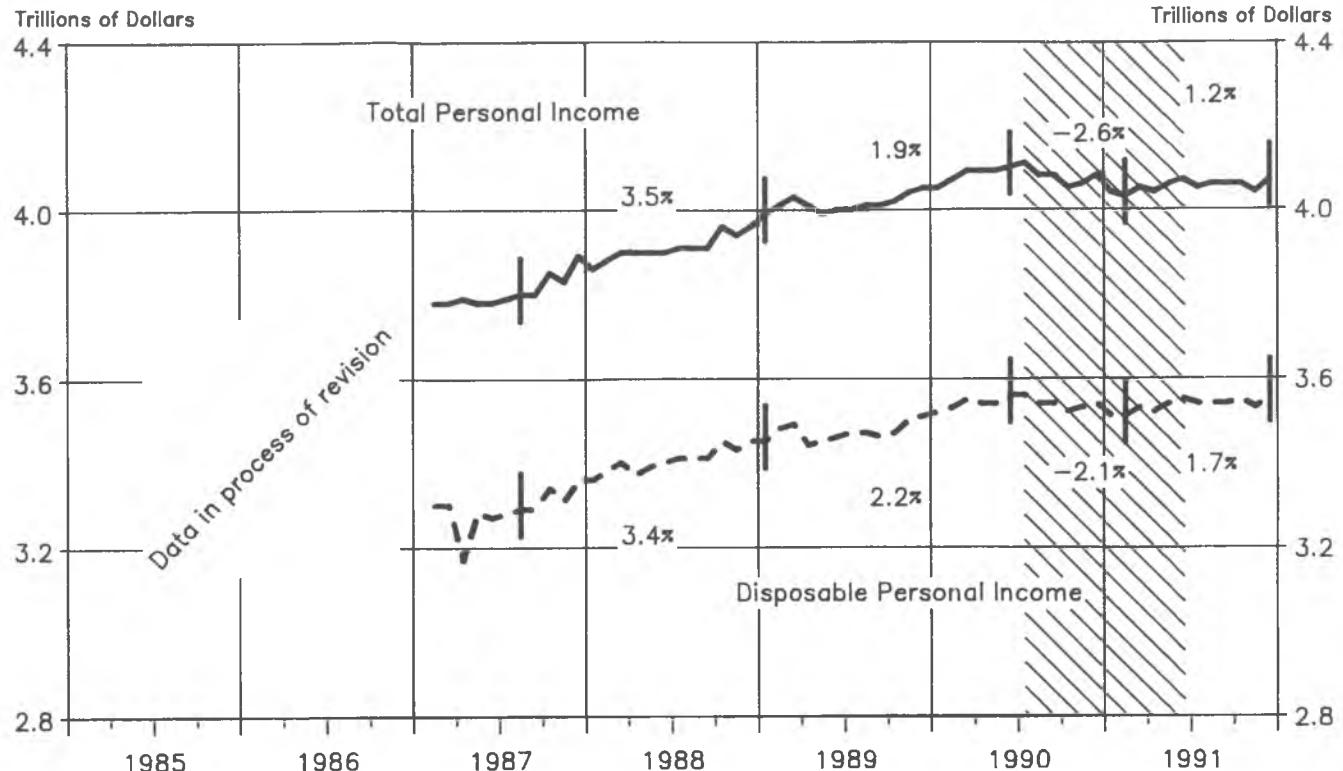
**Industrial Production**  
(Compounded Annual Rates of Change)

| Terminal Month | Initial Month |      |      |      |       |       |       |       |      |      |      |      | 1987 = 100 |      |      |      |      |       |
|----------------|---------------|------|------|------|-------|-------|-------|-------|------|------|------|------|------------|------|------|------|------|-------|
|                | 5-90          | 6-90 | 7-90 | 8-90 | 9-90  | 10-90 | 11-90 | 12-90 | 1-91 | 2-91 | 3-91 | 4-91 | 5-91       | 6-91 | 7-91 | 8-91 | 9-91 | 10-91 |
| 6-90           | 8.0           |      |      |      |       |       |       |       |      |      |      |      |            |      |      |      |      | 110.1 |
| 7-90           | 5.6           | 3.3  |      |      |       |       |       |       |      |      |      |      |            |      |      |      |      | 110.4 |
| 8-90           | 4.1           | 2.2  | 1.1  |      |       |       |       |       |      |      |      |      |            |      |      |      |      | 110.5 |
| 9-90           | 3.3           | 1.8  | 1.1  | 1.1  |       |       |       |       |      |      |      |      |            |      |      |      |      | 110.6 |
| 10-90          | 1.1           | -0.5 | -1.8 | -3.2 | -7.3  |       |       |       |      |      |      |      |            |      |      |      |      | 109.9 |
| 11-90          | -2.0          | -3.9 | -5.6 | -7.7 | -11.8 | -16.1 |       |       |      |      |      |      |            |      |      |      |      | 108.3 |
| 12-90          | -3.4          | -5.2 | -6.8 | -8.7 | -11.7 | -13.9 | -11.5 |       |      |      |      |      |            |      |      |      |      | 107.2 |
| 1-91           | -3.8          | -5.4 | -6.8 | -8.3 | -10.5 | -11.5 | -9.1  | -6.5  |      |      |      |      |            |      |      |      |      | 106.6 |
| 2-91           | -4.5          | -5.9 | -7.2 | -8.5 | -10.3 | -11.0 | -9.3  | -8.1  | -9.7 |      |      |      |            |      |      |      |      | 105.7 |
| 3-91           | -4.8          | -6.1 | -7.2 | -8.4 | -9.9  | -10.4 | -8.9  | -8.0  | -8.7 | -7.7 |      |      |            |      |      |      |      | 105.0 |
| 4-91           | -3.9          | -5.0 | -5.9 | -6.7 | -7.8  | -7.8  | -6.1  | -4.7  | -4.1 | -1.1 | 5.9  |      |            |      |      |      |      | 105.5 |
| 5-91           | -2.7          | -3.7 | -4.3 | -4.9 | -5.6  | -5.4  | -3.5  | -1.8  | -0.6 | 2.7  | 8.3  | 10.7 |            |      |      |      |      | 106.4 |
| 6-91           | -1.8          | -2.5 | -3.1 | -3.5 | -4.0  | -3.5  | -1.6  | 0.2   | 1.6  | 4.6  | 9.1  | 10.7 | 10.6       |      |      |      |      | 107.3 |
| 7-91           | -1.0          | -1.7 | -2.1 | -2.4 | -2.7  | -2.2  | -0.3  | 1.4   | 2.8  | 5.5  | 9.1  | 10.2 | 10.0       | 9.3  |      |      |      | 108.1 |
| 8-91           | -1.0          | -1.6 | -2.0 | -2.3 | -2.6  | -2.1  | -0.4  | 1.1   | 2.3  | 4.4  | 7.0  | 7.3  | 6.2        | 4.0  | -1.1 |      |      | 108.0 |
| 9-91           | -0.7          | -1.2 | -1.6 | -1.8 | -2.0  | -1.5  | 0.1   | 1.5   | 2.5  | 4.4  | 6.6  | 6.7  | 5.7        | 4.2  | 1.7  | 4.5  |      | 108.4 |
| 10-91          | -0.8          | -1.3 | -1.6 | -1.8 | -2.0  | -1.5  | -0.1  | 1.1   | 2.0  | 3.6  | 5.3  | 5.2  | 4.1        | 2.5  | 0.4  | 1.1  | -2.2 | 108.2 |
| 11-91          | -0.9          | -1.4 | -1.6 | -1.8 | -2.0  | -1.6  | -0.3  | 0.8   | 1.6  | 2.9  | 4.3  | 4.1  | 3.0        | 1.6  | -0.3 | 0.0  | -2.2 | 108.0 |
| 12-91          | -0.9          | -1.4 | -1.7 | -1.8 | -2.0  | -1.6  | -0.4  | 0.6   | 1.2  | 2.4  | 3.6  | 3.3  | 2.3        | 0.9  | -0.7 | -0.6 | -2.2 | 107.8 |

5-90 6-90 7-90 8-90 9-90 10-90 11-90 12-90 1-91 2-91 3-91 4-91 5-91 6-91 7-91 8-91 9-91 10-91 11-91

Prepared by Federal Reserve Bank of St. Louis  
January 16, 1992

**Personal Income in 1987 Dollars**  
Seasonally Adjusted



The personal consumption expenditures deflator is used to calculate real personal income

Shaded area represents a period of business recession.

Percentages are annual rates of change for periods indicated.

Prepared by Federal Reserve Bank of St. Louis

**Disposable Personal Income in 1987 Dollars**  
(Compounded Annual Rates of Change)

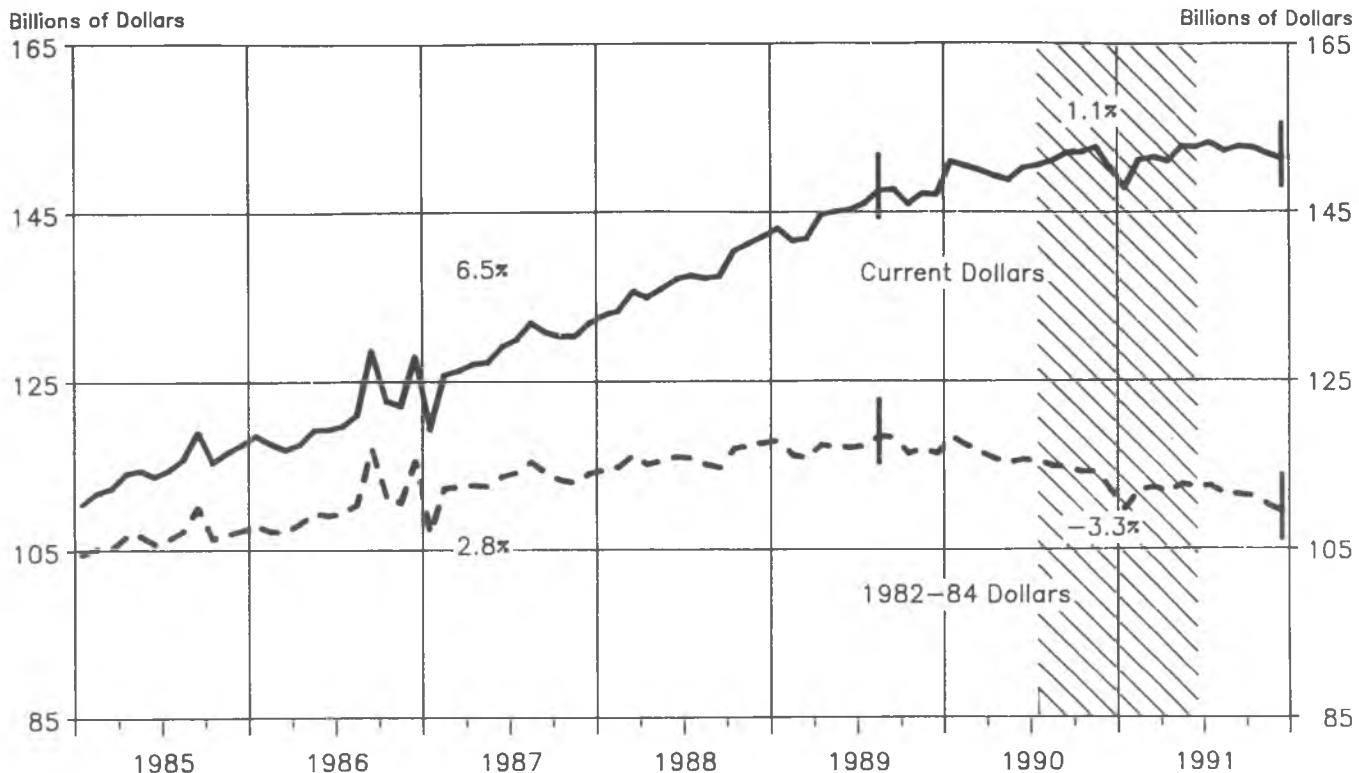
| Terminal Month | Initial Month |      |      |      |      |       |       |       |      |      |      |      | Billions of Dollars Annual Rates |      |      |      |      |       |         |
|----------------|---------------|------|------|------|------|-------|-------|-------|------|------|------|------|----------------------------------|------|------|------|------|-------|---------|
|                | 5-90          | 6-90 | 7-90 | 8-90 | 9-90 | 10-90 | 11-90 | 12-90 | 1-91 | 2-91 | 3-91 | 4-91 | 5-91                             | 6-91 | 7-91 | 8-91 | 9-91 | 10-91 | 11-91   |
| 6-90           | 5.8           |      |      |      |      |       |       |       |      |      |      |      |                                  |      |      |      |      |       | 3,555.1 |
| 7-90           | 3.6           | 1.4  |      |      |      |       |       |       |      |      |      |      |                                  |      |      |      |      |       | 3,559.3 |
| 8-90           | 0.3           | -2.4 | -6.1 |      |      |       |       |       |      |      |      |      |                                  |      |      |      |      |       | 3,540.8 |
| 9-90           | 0.2           | -1.6 | -3.0 | 0.1  |      |       |       |       |      |      |      |      |                                  |      |      |      |      |       | 3,541.1 |
| 10-90          | -1.5          | -3.2 | -4.7 | -4.0 | -8.0 |       |       |       |      |      |      |      |                                  |      |      |      |      |       | 3,516.6 |
| 11-90          | -0.6          | -1.8 | -2.6 | -1.5 | -2.2 | 3.9   |       |       |      |      |      |      |                                  |      |      |      |      |       | 3,527.8 |
| 12-90          | 0.3           | -0.6 | -1.0 | 0.3  | 0.3  | 4.8   | 5.7   |       |      |      |      |      |                                  |      |      |      |      |       | 3,544.1 |
| 1-91           | -1.2          | -2.2 | -2.8 | -2.1 | -2.6 | -0.8  | -3.1  | -11.1 |      |      |      |      |                                  |      |      |      |      |       | 3,509.6 |
| 2-91           | -1.2          | -2.0 | -2.5 | -1.9 | -2.3 | -0.8  | -2.4  | -6.2  | -1.0 |      |      |      |                                  |      |      |      |      |       | 3,506.8 |
| 3-91           | -0.3          | -1.0 | -1.3 | -0.6 | -0.7 | 0.8   | 0.0   | -1.8  | 3.2  | 7.5  |      |      |                                  |      |      |      |      |       | 3,528.1 |
| 4-91           | -0.4          | -1.0 | -1.3 | -0.7 | -0.8 | 0.4   | -0.3  | -1.7  | 1.7  | 3.0  | -1.4 |      |                                  |      |      |      |      |       | 3,524.1 |
| 5-91           | 0.0           | -0.5 | -0.7 | -0.1 | -0.1 | 1.1   | 0.6   | -0.4  | 2.5  | 3.7  | 1.8  | 5.0  |                                  |      |      |      |      |       | 3,538.5 |
| 6-91           | 0.3           | -0.2 | -0.3 | 0.3  | 0.3  | 1.4   | 1.1   | 0.3   | 2.8  | 3.7  | 2.5  | 4.4  | 3.9                              |      |      |      |      |       | 3,549.7 |
| 7-91           | -0.1          | -0.5 | -0.7 | -0.2 | -0.2 | 0.7   | 0.3   | -0.4  | 1.5  | 2.0  | 0.6  | 1.3  | -0.5                             | -4.7 |      |      |      |       | 3,535.5 |
| 8-91           | 0.1           | -0.3 | -0.5 | 0.0  | 0.0  | 0.8   | 0.5   | -0.1  | 1.6  | 2.0  | 0.9  | 1.5  | 0.3                              | -1.4 | 2.0  |      |      |       | 3,541.4 |
| 9-91           | 0.1           | -0.3 | -0.4 | 0.1  | 0.1  | 0.8   | 0.5   | 0.0   | 1.4  | 1.8  | 0.9  | 1.3  | 0.4                              | -0.7 | 1.3  | 0.6  |      |       | 3,543.1 |
| 10-91          | 0.1           | -0.2 | -0.3 | 0.1  | 0.1  | 0.8   | 0.6   | 0.1   | 1.4  | 1.7  | 0.9  | 1.2  | 0.5                              | -0.3 | 1.1  | 0.7  | 0.9  |       | 3,545.6 |
| 11-91          | -0.2          | -0.5 | -0.6 | -0.3 | -0.3 | 0.3   | 0.0   | -0.4  | 0.7  | 0.9  | 0.1  | 0.3  | -0.5                             | -1.4 | -0.5 | -1.3 | -2.3 | -5.3  | 3,529.5 |
| 12-91          | 0.3           | 0.1  | 0.0  | 0.4  | 0.4  | 1.0   | 0.8   | 0.4   | 1.5  | 1.7  | 1.1  | 1.4  | 0.9                              | 0.5  | 1.5  | 1.4  | 1.7  | 2.1   | 3,557.8 |

5-90 6-90 7-90 8-90 9-90 10-90 11-90 12-90 1-91 2-91 3-91 4-91 5-91 6-91 7-91 8-91 9-91 10-91 11-91

Data revised from 1987.

Prepared by Federal Reserve Bank of St. Louis  
January 30, 1992

**Retail Sales**  
Seasonally Adjusted



Shaded area represents a period of business recession.

The CPI is used to deflate retail sales data.

Percentages are annual rates of change for periods indicated.

Prepared by Federal Reserve Bank of St. Louis

**Retail Sales in 1982-84 Dollars**  
(Compounded Annual Rates of Change)

| Terminal Month | Initial Month |      |      |       |       |       |       |       |      |      |      |      | Millions of Dollars |         |         |         |         |         |         |
|----------------|---------------|------|------|-------|-------|-------|-------|-------|------|------|------|------|---------------------|---------|---------|---------|---------|---------|---------|
|                | 5-90          | 6-90 | 7-90 | 8-90  | 9-90  | 10-90 | 11-90 | 12-90 | 1-91 | 2-91 | 3-91 | 4-91 |                     |         |         |         |         |         |         |
| 6-90           | 4.0           |      |      |       |       |       |       |       |      |      |      |      | 115,505             |         |         |         |         |         |         |
| 7-90           | 1.0           | -1.9 |      |       |       |       |       |       |      |      |      |      | 115,324             |         |         |         |         |         |         |
| 8-90           | -1.4          | -4.0 | -6.0 |       |       |       |       |       |      |      |      |      | 114,729             |         |         |         |         |         |         |
| 9-90           | -1.3          | -3.1 | -3.7 | -1.3  |       |       |       |       |      |      |      |      | 114,608             |         |         |         |         |         |         |
| 10-90          | -2.3          | -3.8 | -4.5 | -3.7  | -6.1  |       |       |       |      |      |      |      | 114,008             |         |         |         |         |         |         |
| 11-90          | -1.8          | -2.9 | -3.1 | -2.2  | -2.6  | 1.0   |       |       |      |      |      |      | 114,102             |         |         |         |         |         |         |
| 12-90          | -4.8          | -6.2 | -7.0 | -7.3  | -9.2  | -10.7 | -21.0 |       |      |      |      |      | 111,885             |         |         |         |         |         |         |
| 1-91           | -7.1          | -8.5 | -9.6 | -10.3 | -12.4 | -14.4 | -21.3 | -21.5 |      |      |      |      | 109,646             |         |         |         |         |         |         |
| 2-91           | -3.8          | -4.7 | -5.1 | -5.0  | -5.7  | -5.6  | -7.7  | -0.3  | 26.8 |      |      |      | 111,837             |         |         |         |         |         |         |
| 3-91           | -3.0          | -3.8 | -4.0 | -3.8  | -4.2  | -3.8  | -4.9  | 1.1   | 14.8 | 3.9  |      |      | 112,198             |         |         |         |         |         |         |
| 4-91           | -3.4          | -4.1 | -4.3 | -4.1  | -4.5  | -4.2  | -5.2  | -0.8  | 7.2  | -1.4 | -6.4 |      | 111,579             |         |         |         |         |         |         |
| 5-91           | -2.3          | -2.8 | -2.9 | -2.5  | -2.7  | -2.2  | -2.7  | 1.4   | 8.1  | 2.5  | 1.8  | 10.8 | 112,535             |         |         |         |         |         |         |
| 6-91           | -2.3          | -2.8 | -2.9 | -2.6  | -2.7  | -2.3  | -2.8  | 0.6   | 5.8  | 1.1  | 0.1  | 3.6  | -3.1                | 112,237 |         |         |         |         |         |
| 7-91           | -2.0          | -2.5 | -2.5 | -2.2  | -2.3  | -1.9  | -2.2  | 0.8   | 5.1  | 1.2  | 0.5  | 3.0  | -0.7                | 1.7     | 112,395 |         |         |         |         |
| 8-91           | -2.6          | -3.1 | -3.2 | -2.9  | -3.1  | -2.7  | -3.2  | -0.7  | 2.7  | -0.8 | -1.7 | -0.5 | -4.0                | -4.4    | -10.2   | 111,391 |         |         |         |
| 9-91           | -2.5          | -2.9 | -3.0 | -2.7  | -2.8  | -2.5  | -2.9  | -0.6  | 2.3  | -0.7 | -1.5 | -0.5 | -3.1                | -3.1    | -5.5    | -0.5    | 111,348 |         |         |
| 10-91          | -2.5          | -2.8 | -2.9 | -2.7  | -2.8  | -2.5  | -2.8  | -0.8  | 1.8  | -0.9 | -1.6 | -0.8 | -3.0                | -2.9    | -4.4    | -1.3    | -2.2    | 111,139 |         |
| 11-91          | -2.9          | -3.3 | -3.4 | -3.2  | -3.4  | -3.2  | -3.5  | -1.7  | 0.5  | -2.1 | -2.8 | -2.2 | -4.3                | -4.5    | -6.0    | -4.5    | -6.5    | -10.6   | 110,110 |
| 12-91          | -3.2          | -3.6 | -3.7 | -3.5  | -3.7  | -3.5  | -3.8  | -2.2  | -0.3 | -2.6 | -3.3 | -3.0 | -4.8                | -5.0    | -6.3    | -5.3    | -6.9    | -9.2    | 109,373 |

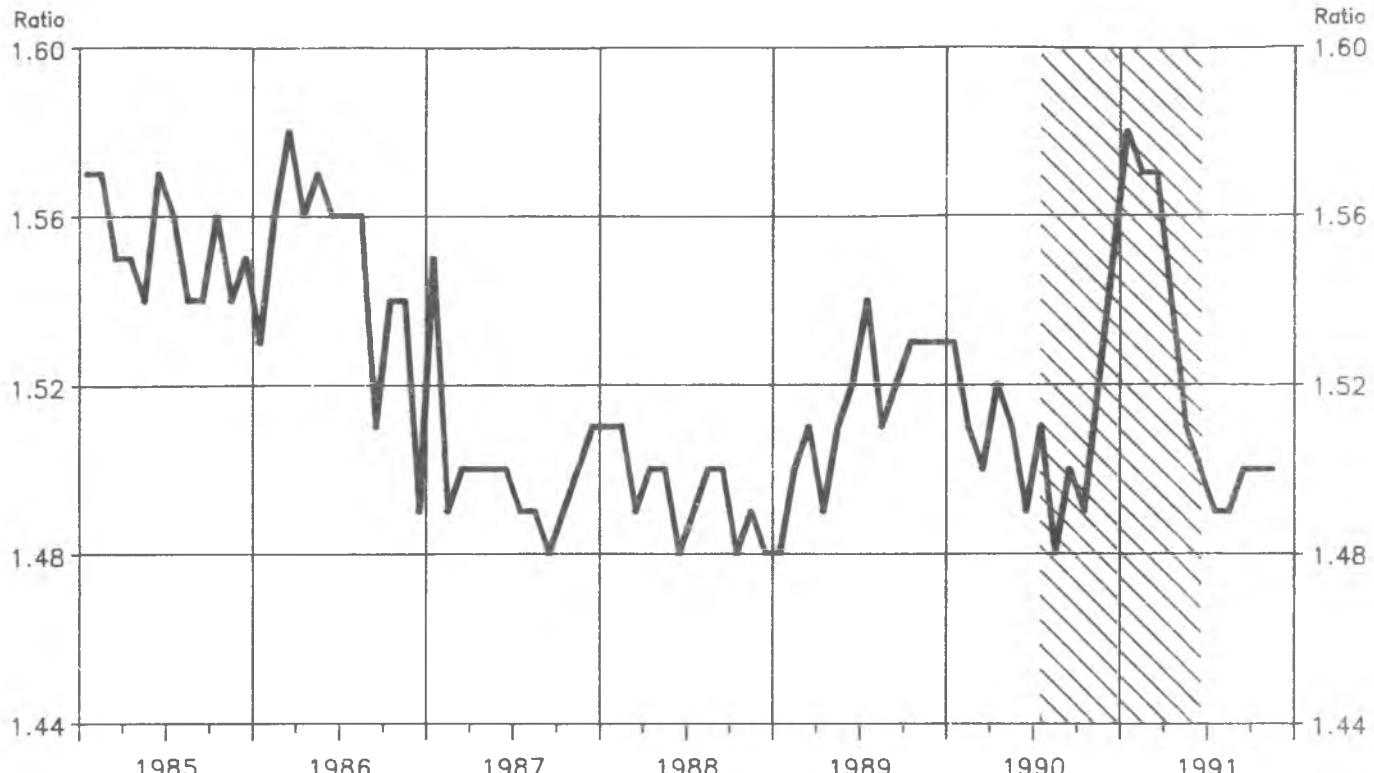
5-90 6-90 7-90 8-90 9-90 10-90 11-90 12-90 1-91 2-91 3-91 4-91 5-91 6-91 7-91 8-91 9-91 10-91 11-91

Retail sales data deflated by CPI-U (1982-84=100).

Prepared by Federal Reserve Bank of St. Louis  
January 14, 1992

# Inventories Compared With Monthly Sales

Manufacturing and Trade  
Seasonally Adjusted



Shaded area represents a period of business recession.

Prepared by Federal Reserve Bank of St. Louis

## Manufacturing and Trade Inventories (Compounded Annual Rates of Change)

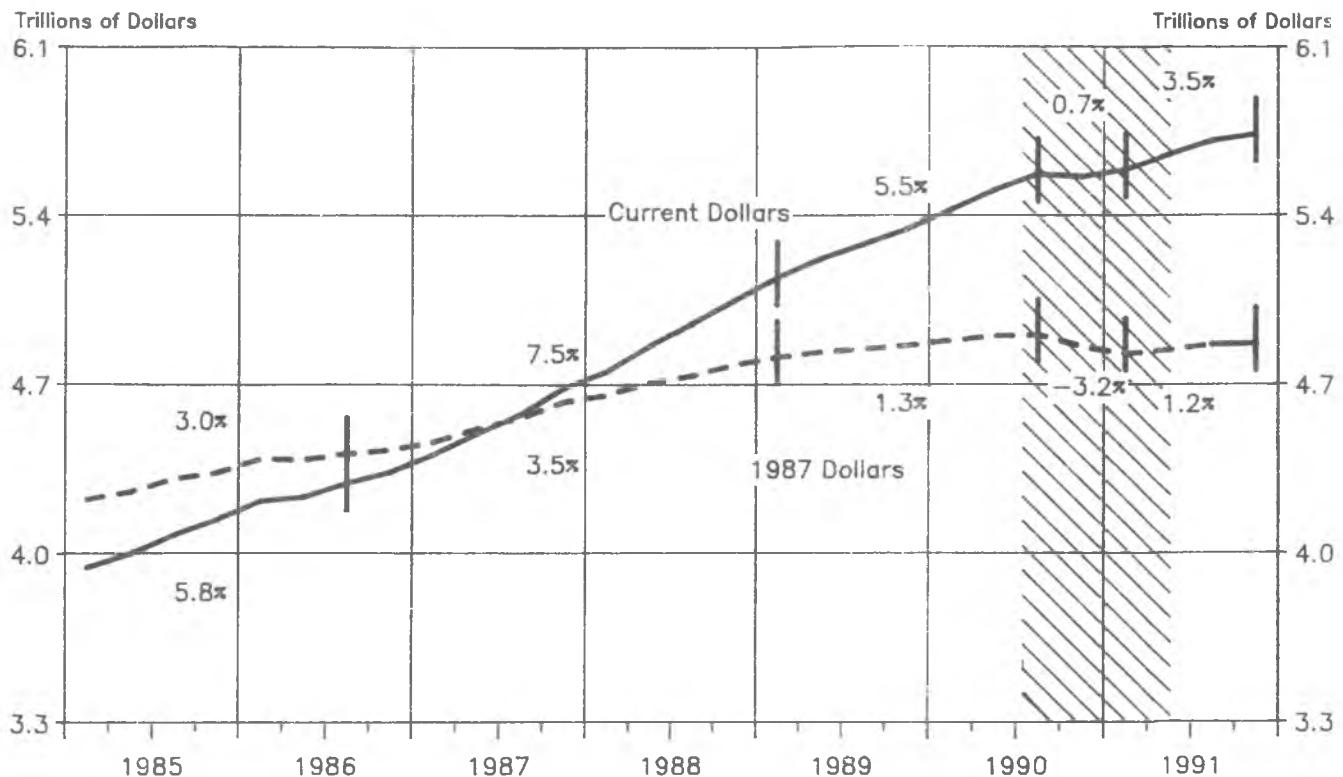
| Terminal Month | Initial Month |      |      |      |      |      |       |       |       |      |       |      |      |      |      |      |      |      |       | Millions of Dollars |
|----------------|---------------|------|------|------|------|------|-------|-------|-------|------|-------|------|------|------|------|------|------|------|-------|---------------------|
|                | 4-90          | 5-90 | 6-90 | 7-90 | 8-90 | 9-90 | 10-90 | 11-90 | 12-90 | 1-91 | 2-91  | 3-91 | 4-91 | 5-91 | 6-91 | 7-91 | 8-91 | 9-91 | 10-91 |                     |
| 5-90           | 5.6           |      |      |      |      |      |       |       |       |      |       |      |      |      |      |      |      |      |       | 816,667             |
| 6-90           | 0.1           | -5.1 |      |      |      |      |       |       |       |      |       |      |      |      |      |      |      |      |       | 813,118             |
| 7-90           | 2.8           | 1.5  | 8.5  |      |      |      |       |       |       |      |       |      |      |      |      |      |      |      |       | 818,689             |
| 8-90           | 4.0           | 3.5  | 8.1  | 7.6  |      |      |       |       |       |      |       |      |      |      |      |      |      |      |       | 823,683             |
| 9-90           | 3.9           | 3.5  | 6.5  | 5.5  | 3.4  |      |       |       |       |      |       |      |      |      |      |      |      |      |       | 825,964             |
| 10-90          | 4.0           | 3.7  | 6.0  | 5.2  | 4.0  | 4.7  |       |       |       |      |       |      |      |      |      |      |      |      |       | 829,140             |
| 11-90          | 3.8           | 3.5  | 5.3  | 4.5  | 3.5  | 3.6  | 2.5   |       |       |      |       |      |      |      |      |      |      |      |       | 830,857             |
| 12-90          | 2.6           | 2.2  | 3.4  | 2.4  | 1.2  | 0.5  | -1.6  | -5.5  |       |      |       |      |      |      |      |      |      |      |       | 826,961             |
| 1-91           | 3.0           | 2.7  | 3.9  | 3.1  | 2.3  | 2.0  | 1.1   | 0.4   | 6.7   |      |       |      |      |      |      |      |      |      |       | 831,445             |
| 2-91           | 2.3           | 1.9  | 2.8  | 2.0  | 1.1  | 0.7  | -0.3  | -1.3  | 0.9   | -4.6 |       |      |      |      |      |      |      |      |       | 828,201             |
| 3-91           | 0.9           | 0.4  | 1.1  | 0.2  | -0.8 | -1.5 | -2.7  | -4.0  | -3.5  | -8.2 | -11.8 |      |      |      |      |      |      |      |       | 819,615             |
| 4-91           | 0.5           | 0.0  | 0.6  | -0.3 | -1.2 | -1.9 | -2.9  | -4.0  | -3.6  | -6.8 | -7.9  | -3.9 |      |      |      |      |      |      |       | 816,893             |
| 5-91           | -0.1          | -0.6 | -0.2 | -1.0 | -1.9 | -2.6 | -3.6  | -4.6  | -4.4  | -7.0 | -7.7  | -5.6 | -7.3 |      |      |      |      |      |       | 811,713             |
| 6-91           | -0.6          | -1.1 | -0.7 | -1.5 | -2.4 | -3.0 | -4.0  | -4.9  | -4.7  | -6.9 | -7.4  | -6.0 | -7.0 | -6.6 |      |      |      |      |       | 807,105             |
| 7-91           | -0.6          | -1.0 | -0.7 | -1.5 | -2.2 | -2.8 | -3.6  | -4.3  | -4.1  | -5.8 | -6.1  | -4.6 | -4.9 | -3.6 | -0.4 |      |      |      |       | 806,802             |
| 8-91           | -0.6          | -1.0 | -0.7 | -1.4 | -2.1 | -2.5 | -3.2  | -3.9  | -3.7  | -5.1 | -5.1  | -3.8 | -3.7 | -2.5 | -0.3 | -0.2 |      |      |       | 806,648             |
| 9-91           | -0.1          | -0.4 | -0.1 | -0.7 | -1.3 | -1.7 | -2.3  | -2.7  | -2.4  | -3.5 | -3.4  | -1.9 | -1.5 | 0.0  | 2.3  | 3.8  | 7.9  |      |       | 811,793             |
| 10-91          | 0.0           | -0.3 | 0.0  | -0.6 | -1.1 | -1.4 | -1.9  | -2.3  | -2.0  | -2.9 | -2.7  | -1.4 | -0.9 | 0.4  | 2.2  | 3.1  | 4.8  | 1.8  |       | 813,024             |
| 11-91          | 0.1           | -0.2 | 0.1  | -0.4 | -0.9 | -1.2 | -1.7  | -2.0  | -1.7  | -2.5 | -2.2  | -1.0 | -0.5 | 0.6  | 2.1  | 2.8  | 3.8  | 1.9  | 1.9   | 814,285             |

4-90 5-90 6-90 7-90 8-90 9-90 10-90 11-90 12-90 1-91 2-91 3-91 4-91 5-91 6-91 7-91 8-91 9-91 10-91

Prepared by Federal Reserve Bank of St. Louis  
January 15, 1992

# Gross Domestic Product

Seasonally Adjusted



Shaded area represents a period of business recession.

Percentages are annual rates of change for periods indicated.

Prepared by Federal Reserve Bank of St. Louis

## Gross Domestic Product in 1987 Dollars

(Compounded Annual Rates of Change)

| Terminal Quarter | Initial Quarter |      |      |      |      |      |      |      |      |      |      |      |      |      |      | Billions of Dollars<br>Annual Rates |      |      |         |
|------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------------------------------|------|------|---------|
|                  | 1-87            | 2-87 | 3-87 | 4-87 | 1-88 | 2-88 | 3-88 | 4-88 | 1-89 | 2-89 | 3-89 | 4-89 | 1-90 | 2-90 | 3-90 | 4-90                                | 1-91 | 2-91 | 3-91    |
| 2-87             | 5.1             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                                     |      |      | 4,515.3 |
| 3-87             | 4.5             | 4.0  |      |      |      |      |      |      |      |      |      |      |      |      |      |                                     |      |      | 4,559.3 |
| 4-87             | 5.0             | 4.9  | 5.9  |      |      |      |      |      |      |      |      |      |      |      |      |                                     |      |      | 4,625.5 |
| 1-88             | 4.4             | 4.2  | 4.3  | 2.6  |      |      |      |      |      |      |      |      |      |      |      |                                     |      |      | 4,655.3 |
| 2-88             | 4.4             | 4.2  | 4.3  | 3.5  | 4.3  |      |      |      |      |      |      |      |      |      |      |                                     |      |      | 4,704.8 |
| 3-88             | 4.1             | 3.9  | 3.8  | 3.2  | 3.4  | 2.5  |      |      |      |      |      |      |      |      |      |                                     |      |      | 4,734.5 |
| 4-88             | 4.0             | 3.9  | 3.8  | 3.3  | 3.6  | 3.2  | 3.9  |      |      |      |      |      |      |      |      |                                     |      |      | 4,779.7 |
| 1-89             | 3.8             | 3.7  | 3.6  | 3.2  | 3.3  | 3.0  | 3.2  | 2.5  |      |      |      |      |      |      |      |                                     |      |      | 4,809.8 |
| 2-89             | 3.6             | 3.5  | 3.4  | 3.0  | 3.0  | 2.7  | 2.8  | 2.2  | 1.9  |      |      |      |      |      |      |                                     |      |      | 4,832.4 |
| 3-89             | 3.4             | 3.2  | 3.1  | 2.7  | 2.7  | 2.4  | 2.3  | 1.8  | 1.5  | 1.1  |      |      |      |      |      |                                     |      |      | 4,845.6 |
| 4-89             | 3.2             | 3.0  | 2.9  | 2.5  | 2.5  | 2.2  | 2.1  | 1.7  | 1.4  | 1.1  | 1.2  |      |      |      |      |                                     |      |      | 4,859.7 |
| 1-90             | 3.1             | 2.9  | 2.8  | 2.4  | 2.4  | 2.1  | 2.0  | 1.7  | 1.5  | 1.3  | 1.5  | 1.7  |      |      |      |                                     |      |      | 4,880.8 |
| 2-90             | 2.9             | 2.8  | 2.7  | 2.3  | 2.3  | 2.1  | 2.0  | 1.7  | 1.5  | 1.4  | 1.5  | 1.7  | 1.6  |      |      |                                     |      |      | 4,900.3 |
| 3-90             | 2.7             | 2.6  | 2.5  | 2.1  | 2.1  | 1.9  | 1.8  | 1.5  | 1.3  | 1.2  | 1.2  | 1.2  | 0.9  | 0.2  |      |                                     |      |      | 4,903.3 |
| 4-90             | 2.3             | 2.1  | 2.0  | 1.6  | 1.5  | 1.3  | 1.1  | 0.8  | 0.5  | 0.3  | 0.2  | -0.1 | -0.7 | -1.8 | -3.9 |                                     |      |      | 4,855.1 |
| 1-91             | 2.0             | 1.8  | 1.6  | 1.3  | 1.2  | 0.9  | 0.8  | 0.4  | 0.1  | -0.1 | -0.3 | -0.6 | -1.2 | -2.1 | -3.2 | -2.5                                |      |      | 4,824.0 |
| 2-91             | 1.9             | 1.8  | 1.6  | 1.3  | 1.2  | 1.0  | 0.8  | 0.5  | 0.3  | 0.1  | -0.1 | -0.3 | -0.7 | -1.2 | -1.7 | -0.6                                | 1.4  |      | 4,840.7 |
| 3-91             | 1.9             | 1.8  | 1.6  | 1.3  | 1.3  | 1.0  | 0.9  | 0.6  | 0.4  | 0.3  | 0.2  | 0.0  | -0.2 | -0.6 | -0.8 | 0.2                                 | 1.6  | 1.8  | 4,862.7 |
| 4-91             | 1.9             | 1.7  | 1.5  | 1.3  | 1.2  | 1.0  | 0.8  | 0.6  | 0.4  | 0.3  | 0.2  | 0.1  | -0.2 | -0.5 | -0.6 | 0.2                                 | 1.2  | 1.1  | 4,866.3 |

1-87 2-87 3-87 4-87 1-88 2-88 3-88 4-88 1-89 2-89 3-89 4-89 1-90 2-90 3-90 4-90 1-91 2-91 3-91

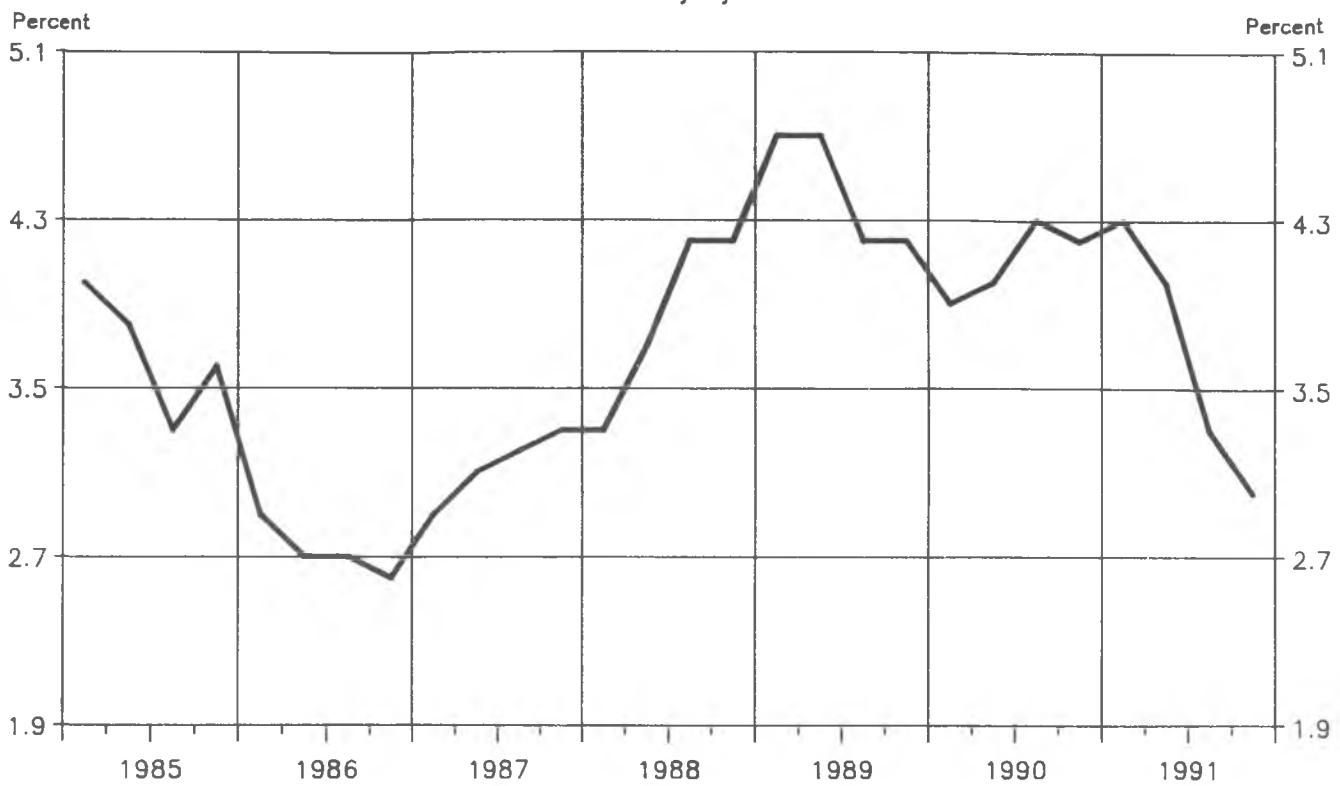
Fourth quarter 1991 data are advance estimates.

Prepared by Federal Reserve Bank of St. Louis  
January 29, 1992

# Implicit Price Deflator for GDP

Percent Change From Previous Year

Seasonally Adjusted



Prepared by Federal Reserve Bank of St. Louis

## Implicit Price Deflator

(Compounded Annual Rates of Change)

| Terminal Quarter | Initial Quarter |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1987 = 100 |       |       |
|------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------------|-------|-------|
|                  | 1-87            | 2-87 | 3-87 | 4-87 | 1-88 | 2-88 | 3-88 | 4-88 | 1-89 | 2-89 | 3-89 | 4-89 | 1-90 | 2-90 | 3-90 | 4-90 | 1-91       | 2-91  | 3-91  |
| 2-87             | 2.9             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |            | 99.5  |       |
| 3-87             | 3.1             | 3.3  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |            | 100.3 |       |
| 4-87             | 3.3             | 3.4  | 3.6  |      |      |      |      |      |      |      |      |      |      |      |      |      |            | 101.2 |       |
| 1-88             | 3.3             | 3.5  | 3.6  | 3.6  |      |      |      |      |      |      |      |      |      |      |      |      |            | 102.1 |       |
| 2-88             | 3.5             | 3.7  | 3.9  | 4.0  | 4.4  |      |      |      |      |      |      |      |      |      |      |      |            | 103.2 |       |
| 3-88             | 3.8             | 4.0  | 4.2  | 4.4  | 4.8  | 5.1  |      |      |      |      |      |      |      |      |      |      |            | 104.5 |       |
| 4-88             | 3.8             | 4.0  | 4.1  | 4.2  | 4.5  | 4.5  | 4.5  | 3.9  |      |      |      |      |      |      |      |      |            | 105.5 |       |
| 1-89             | 4.0             | 4.2  | 4.3  | 4.5  | 4.7  | 4.8  | 4.6  | 5.4  |      |      |      |      |      |      |      |      |            | 106.9 |       |
| 2-89             | 4.0             | 4.2  | 4.3  | 4.4  | 4.6  | 4.7  | 4.5  | 4.8  | 4.2  |      |      |      |      |      |      |      |            | 108.0 |       |
| 3-89             | 4.0             | 4.1  | 4.2  | 4.3  | 4.4  | 4.4  | 4.2  | 4.3  | 3.8  | 3.4  |      |      |      |      |      |      |            | 108.9 |       |
| 4-89             | 3.9             | 4.1  | 4.1  | 4.2  | 4.3  | 4.3  | 4.1  | 4.2  | 3.8  | 3.5  | 3.7  |      |      |      |      |      |            | 109.9 |       |
| 1-90             | 4.0             | 4.1  | 4.2  | 4.2  | 4.3  | 4.3  | 4.2  | 4.2  | 3.9  | 3.8  | 4.1  | 4.4  |      |      |      |      |            | 111.1 |       |
| 2-90             | 4.0             | 4.1  | 4.2  | 4.3  | 4.3  | 4.3  | 4.2  | 4.3  | 4.0  | 4.0  | 4.2  | 4.4  |      |      |      |      |            | 112.3 |       |
| 3-90             | 4.1             | 4.2  | 4.2  | 4.3  | 4.4  | 4.4  | 4.3  | 4.3  | 4.1  | 4.1  | 4.3  | 4.5  | 4.6  | 4.7  |      |      |            | 113.6 |       |
| 4-90             | 4.0             | 4.1  | 4.2  | 4.2  | 4.3  | 4.2  | 4.1  | 4.2  | 4.0  | 4.0  | 4.1  | 4.2  | 4.1  | 4.0  | 3.2  |      |            | 114.5 |       |
| 1-91             | 4.1             | 4.2  | 4.2  | 4.3  | 4.3  | 4.3  | 4.2  | 4.3  | 4.1  | 4.1  | 4.2  | 4.3  | 4.3  | 4.1  | 5.0  |      |            | 115.9 |       |
| 2-91             | 4.0             | 4.1  | 4.1  | 4.2  | 4.2  | 4.2  | 4.1  | 4.2  | 4.0  | 4.0  | 4.1  | 4.1  | 4.0  | 3.8  | 4.1  | 3.1  |            | 116.8 |       |
| 3-91             | 3.9             | 4.0  | 4.0  | 4.0  | 4.1  | 4.0  | 4.0  | 4.0  | 3.8  | 3.8  | 3.8  | 3.7  | 3.6  | 3.3  | 3.4  | 2.6  | 2.1        | 117.4 |       |
| 4-91             | 3.8             | 3.8  | 3.9  | 3.9  | 3.9  | 3.9  | 3.8  | 3.8  | 3.6  | 3.6  | 3.6  | 3.6  | 3.5  | 3.3  | 3.0  | 3.0  | 2.3        | 1.7   | 117.9 |
|                  | 1-87            | 2-87 | 3-87 | 4-87 | 1-88 | 2-88 | 3-88 | 4-88 | 1-89 | 2-89 | 3-89 | 4-89 | 1-90 | 2-90 | 3-90 | 4-90 | 1-91       | 2-91  | 3-91  |

Fourth quarter 1991 data are advance estimates.

Prepared by Federal Reserve Bank of St. Louis  
January 29, 1992

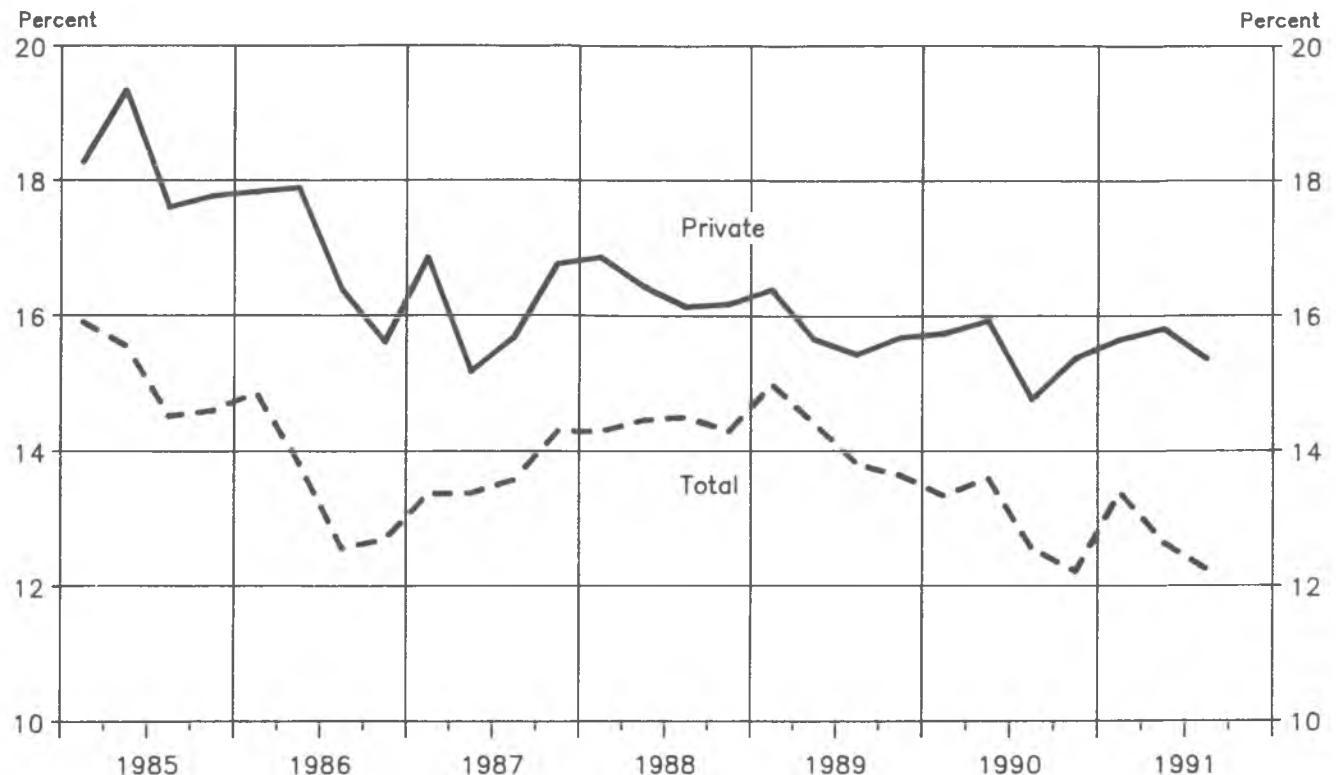








**Gross Saving as a Percent of GDP**  
Seasonally Adjusted



Total saving equals private saving (personal saving plus business saving) plus government surplus or deficit.

Prepared by Federal Reserve Bank of St. Louis

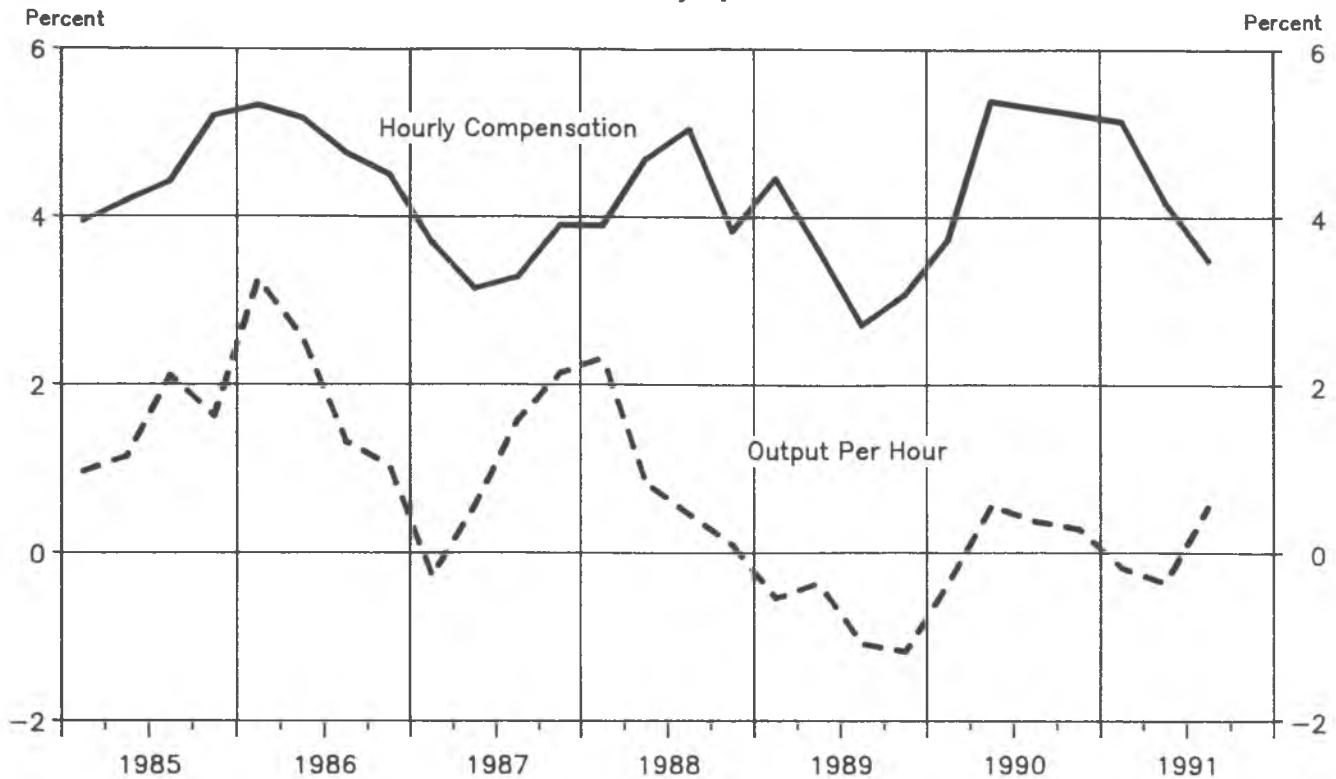
**Gross Private Saving**  
(Compounded Annual Rates of Change)

| Terminal Quarter | Initial Quarter |       |      |      |      |      |      |      |      |       |      |      |      |      |       | Billions of Dollars<br>Annual Rates |      |       |      |
|------------------|-----------------|-------|------|------|------|------|------|------|------|-------|------|------|------|------|-------|-------------------------------------|------|-------|------|
|                  | 4-86            | 1-87  | 2-87 | 3-87 | 4-87 | 1-88 | 2-88 | 3-88 | 4-88 | 1-89  | 2-89 | 3-89 | 4-89 | 1-90 | 2-90  | 3-90                                | 4-90 | 1-91  | 2-91 |
| 1-87             | 45.1            |       |      |      |      |      |      |      |      |       |      |      |      |      |       |                                     |      | 742.7 |      |
| 2-87             | 1.4             | -29.1 |      |      |      |      |      |      |      |       |      |      |      |      |       |                                     |      | 681.5 |      |
| 3-87             | 8.0             | -6.9  | 22.3 |      |      |      |      |      |      |       |      |      |      |      |       |                                     |      | 716.7 |      |
| 4-87             | 15.9            | 7.6   | 32.5 | 43.5 |      |      |      |      |      |       |      |      |      |      |       |                                     |      | 784.4 |      |
| 1-88             | 14.4            | 7.8   | 24.0 | 24.9 | 8.7  |      |      |      |      |       |      |      |      |      |       |                                     |      | 801.0 |      |
| 2-88             | 11.6            | 5.9   | 17.0 | 15.3 | 3.4  | -1.7 |      |      |      |       |      |      |      |      |       |                                     |      | 797.5 |      |
| 3-88             | 9.8             | 4.9   | 13.4 | 11.3 | 2.2  | -0.9 | 0.0  |      |      |       |      |      |      |      |       |                                     |      | 797.5 |      |
| 4-88             | 9.8             | 5.5   | 12.7 | 10.9 | 3.9  | 2.4  | 4.5  | 9.2  |      |       |      |      |      |      |       |                                     |      | 815.3 |      |
| 1-89             | 10.2            | 6.5   | 12.8 | 11.3 | 5.8  | 5.1  | 7.5  | 11.5 | 13.8 |       |      |      |      |      |       |                                     |      | 842.0 |      |
| 2-89             | 7.8             | 4.3   | 9.5  | 7.7  | 2.7  | 1.6  | 2.4  | 3.2  | 0.3  | -11.5 |      |      |      |      |       |                                     |      | 816.6 |      |
| 3-89             | 6.9             | 3.7   | 8.2  | 6.6  | 2.1  | 1.1  | 1.6  | 2.0  | -0.3 | -6.6  | -1.4 |      |      |      |       |                                     |      | 813.7 |      |
| 4-89             | 7.3             | 4.4   | 8.6  | 7.1  | 3.3  | 2.5  | 3.3  | 3.9  | 2.6  | -0.8  | 5.0  | 11.9 |      |      |       |                                     |      | 836.9 |      |
| 1-90             | 7.4             | 4.7   | 8.5  | 7.2  | 3.8  | 3.2  | 3.9  | 4.6  | 3.7  | 1.3   | 6.0  | 9.9  | 8.0  |      |       |                                     |      | 853.1 |      |
| 2-90             | 7.7             | 5.2   | 8.7  | 7.6  | 4.5  | 4.1  | 4.8  | 5.5  | 4.9  | 3.2   | 7.3  | 10.4 | 9.6  | 11.3 |       |                                     |      | 876.2 |      |
| 3-90             | 5.3             | 2.9   | 5.9  | 4.7  | 1.7  | 1.0  | 1.3  | 1.5  | 0.5  | -1.6  | 0.5  | 1.0  | -2.4 | -7.2 | -22.6 |                                     |      | 821.9 |      |
| 4-90             | 6.0             | 3.8   | 6.7  | 5.5  | 2.9  | 2.4  | 2.8  | 3.1  | 2.3  | 0.8   | 3.0  | 3.9  | 2.0  | 0.1  | -5.0  | 16.5                                |      | 853.9 |      |
| 1-91             | 6.2             | 4.1   | 6.9  | 5.8  | 3.4  | 2.9  | 3.4  | 3.7  | 3.1  | 1.9   | 3.9  | 4.9  | 3.5  | 2.4  | -0.4  | 13.0                                | 9.7  | 873.8 |      |
| 2-91             | 6.4             | 4.4   | 7.0  | 6.0  | 3.8  | 3.4  | 3.8  | 4.2  | 3.7  | 2.6   | 4.6  | 5.5  | 4.4  | 3.7  | 1.9   | 11.7                                | 9.4  | 893.0 |      |
| 3-91             | 5.6             | 3.7   | 6.1  | 5.2  | 3.0  | 2.6  | 2.9  | 3.2  | 2.7  | 1.6   | 3.2  | 3.8  | 2.7  | 1.8  | 0.0   | 6.6                                 | 3.5  | 876.4 |      |
|                  | 4-86            | 1-87  | 2-87 | 3-87 | 4-87 | 1-88 | 2-88 | 3-88 | 4-88 | 1-89  | 2-89 | 3-89 | 4-89 | 1-90 | 2-90  | 3-90                                | 4-90 | 1-91  | 2-91 |

Third quarter 1991 data are final estimates.

Prepared by Federal Reserve Bank of St. Louis  
January 29, 1992

**Business Productivity and Compensation**  
 Percent Change From Previous Year  
 Seasonally Adjusted



Prepared by Federal Reserve Bank of St. Louis

**Business Sector Output per Hour**  
 (Compounded Annual Rates of Change)

| Terminal Quarter | Initial Quarter |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1982 = 100 |      |      |      |       |       |
|------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------------|------|------|------|-------|-------|
|                  | 4-86            | 1-87 | 2-87 | 3-87 | 4-87 | 1-88 | 2-88 | 3-88 | 4-88 | 1-89 | 2-89 | 3-89 | 4-89 | 1-90 | 2-90 | 3-90       | 4-90 | 1-91 | 2-91 |       |       |
| 1-87             | 0.4             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |            |      |      |      | 108.1 |       |
| 2-87             | 2.2             | 4.1  |      |      |      |      |      |      |      |      |      |      |      |      |      |            |      |      |      | 109.2 |       |
| 3-87             | 2.4             | 3.4  | 2.6  |      |      |      |      |      |      |      |      |      |      |      |      |            |      |      |      | 109.9 |       |
| 4-87             | 2.1             | 2.7  | 2.0  | 1.5  |      |      |      |      |      |      |      |      |      |      |      |            |      |      |      | 110.3 |       |
| 1-88             | 1.9             | 2.3  | 1.7  | 1.3  | 1.1  |      |      |      |      |      |      |      |      |      |      |            |      |      |      | 110.6 |       |
| 2-88             | 1.3             | 1.5  | 0.8  | 0.2  | -0.4 | -1.8 |      |      |      |      |      |      |      |      |      |            |      |      |      | 110.1 |       |
| 3-88             | 1.3             | 1.4  | 0.9  | 0.5  | 0.1  | -0.4 | 1.1  |      |      |      |      |      |      |      |      |            |      |      |      | 110.4 |       |
| 4-88             | 1.1             | 1.2  | 0.7  | 0.4  | 0.1  | -0.2 | 0.5  | 0.0  |      |      |      |      |      |      |      |            |      |      |      | 110.4 |       |
| 1-89             | 0.8             | 0.9  | 0.4  | 0.1  | -0.2 | -0.5 | -0.1 | -0.7 | -1.4 |      |      |      |      |      |      |            |      |      |      | 110.0 |       |
| 2-89             | 0.6             | 0.7  | 0.2  | -0.1 | -0.4 | -0.7 | -0.4 | -0.8 | -1.3 | -1.1 |      |      |      |      |      |            |      |      |      | 109.7 |       |
| 3-89             | 0.4             | 0.4  | 0.0  | -0.3 | -0.6 | -0.8 | -0.7 | -1.1 | -1.4 | -1.4 | -1.8 |      |      |      |      |            |      |      |      | 109.2 |       |
| 4-89             | 0.3             | 0.3  | 0.0  | -0.3 | -0.5 | -0.8 | -0.6 | -0.9 | -1.2 | -1.1 | -1.1 | -0.4 |      |      |      |            |      |      |      | 109.1 |       |
| 1-90             | 0.5             | 0.5  | 0.1  | -0.1 | -0.3 | -0.5 | -0.3 | -0.5 | -0.6 | -0.4 | -0.1 | 0.7  | 1.8  |      |      |            |      |      |      | 109.6 |       |
| 2-90             | 0.6             | 0.6  | 0.3  | 0.1  | 0.0  | -0.1 | 0.1  | -0.1 | -0.1 | 0.2  | 0.5  | 1.3  | 2.2  | 2.6  |      |            |      |      |      | 110.3 |       |
| 3-90             | 0.4             | 0.4  | 0.1  | -0.1 | -0.2 | -0.4 | -0.2 | -0.4 | -0.4 | -0.2 | -0.1 | 0.4  | 0.6  | 0.0  | -2.5 |            |      |      |      | 109.6 |       |
| 4-90             | 0.3             | 0.3  | 0.1  | -0.1 | -0.3 | -0.4 | -0.3 | -0.4 | -0.5 | -0.3 | -0.2 | 0.1  | 0.3  | -0.2 | -1.6 | -0.7       |      |      |      | 109.4 |       |
| 1-91             | 0.3             | 0.3  | 0.0  | -0.1 | -0.3 | -0.4 | -0.2 | -0.4 | -0.4 | -0.3 | -0.2 | 0.1  | 0.2  | -0.2 | -1.1 | -0.4       | 0.0  |      |      | 109.4 |       |
| 2-91             | 0.4             | 0.4  | 0.2  | 0.0  | -0.1 | -0.2 | -0.1 | -0.2 | -0.2 | 0.0  | 0.1  | 0.4  | 0.5  | 0.2  | -0.4 | 0.4        | 0.9  | 1.8  |      | 109.9 |       |
| 3-91             | 0.4             | 0.4  | 0.2  | 0.1  | 0.0  | -0.1 | 0.0  | -0.1 | -0.1 | 0.1  | 0.2  | 0.5  | 0.6  | 0.4  | -0.1 | 0.5        | 1.0  | 1.5  | 1.1  |       | 110.2 |
|                  | 4-86            | 1-87 | 2-87 | 3-87 | 4-87 | 1-88 | 2-88 | 3-88 | 4-88 | 1-89 | 2-89 | 3-89 | 4-89 | 1-90 | 2-90 | 3-90       | 4-90 | 1-91 | 2-91 |       |       |

Data revised historically

Prepared by Federal Reserve Bank of St. Louis  
 January 3, 1992

**Net Federal Debt**  
(Compounded Annual Rates of Change)

| Terminal Quarter | Initial Quarter |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | Billions of Dollars |         |
|------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------------|---------|
|                  | 4-86            | 1-87 | 2-87 | 3-87 | 4-87 | 1-88 | 2-88 | 3-88 | 4-88 | 1-89 | 2-89 | 3-89 | 4-89 | 1-90 | 2-90 | 3-90 | 4-90 | 1-91 | 2-91                |         |
| 1-87             | 7.1             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                     | 1,833.8 |
| 2-87             | 8.6             | 10.2 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                     | 1,878.7 |
| 3-87             | 7.5             | 7.6  | 5.2  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                     | 1,902.6 |
| 4-87             | 7.9             | 8.1  | 7.1  | 9.1  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                     | 1,944.4 |
| 1-88             | 8.2             | 8.4  | 7.9  | 9.3  | 9.4  |      |      |      |      |      |      |      |      |      |      |      |      |      |                     | 1,988.7 |
| 2-88             | 7.9             | 8.1  | 7.6  | 8.4  | 8.1  | 6.8  |      |      |      |      |      |      |      |      |      |      |      |      |                     | 2,021.5 |
| 3-88             | 8.0             | 8.1  | 7.7  | 8.4  | 8.1  | 7.5  | 8.3  |      |      |      |      |      |      |      |      |      |      |      |                     | 2,062.0 |
| 4-88             | 7.6             | 7.7  | 7.3  | 7.7  | 7.3  | 6.6  | 6.6  | 4.9  |      |      |      |      |      |      |      |      |      |      |                     | 2,086.9 |
| 1-89             | 7.5             | 7.6  | 7.2  | 7.6  | 7.3  | 6.7  | 6.7  | 6.0  | 7.1  |      |      |      |      |      |      |      |      |      |                     | 2,122.8 |
| 2-89             | 7.3             | 7.3  | 7.0  | 7.3  | 7.0  | 6.5  | 6.4  | 5.8  | 6.2  | 5.4  |      |      |      |      |      |      |      |      |                     | 2,150.7 |
| 3-89             | 7.4             | 7.4  | 7.1  | 7.3  | 7.1  | 6.7  | 6.7  | 6.3  | 6.8  | 6.6  | 7.8  |      |      |      |      |      |      |      |                     | 2,191.7 |
| 4-89             | 7.4             | 7.5  | 7.2  | 7.4  | 7.2  | 6.9  | 7.0  | 6.7  | 7.2  | 7.2  | 8.1  | 8.4  |      |      |      |      |      |      |                     | 2,236.3 |
| 1-90             | 8.0             | 8.1  | 7.9  | 8.2  | 8.1  | 7.9  | 8.1  | 8.0  | 8.7  | 9.1  | 10.3 | 11.6 | 14.9 |      |      |      |      |      |                     | 2,315.4 |
| 2-90             | 8.2             | 8.3  | 8.2  | 8.5  | 8.4  | 8.3  | 8.5  | 8.5  | 9.1  | 9.5  | 10.6 | 11.5 | 13.1 | 11.3 |      |      |      |      |                     | 2,378.3 |
| 3-90             | 8.5             | 8.6  | 8.5  | 8.8  | 8.8  | 8.7  | 8.9  | 9.0  | 9.6  | 10.0 | 11.0 | 11.8 | 12.9 | 11.9 | 12.6 |      |      |      |                     | 2,449.8 |
| 4-90             | 8.8             | 8.9  | 8.8  | 9.1  | 9.1  | 9.1  | 9.3  | 9.4  | 10.0 | 10.5 | 11.3 | 12.0 | 13.0 | 12.3 | 12.8 | 13.1 |      |      |                     | 2,526.4 |
| 1-91             | 8.8             | 8.9  | 8.9  | 9.1  | 9.1  | 9.1  | 9.3  | 9.4  | 9.9  | 10.3 | 11.0 | 11.6 | 12.2 | 11.6 | 11.6 | 11.2 | 9.3  |      |                     | 2,582.9 |
| 2-91             | 9.0             | 9.1  | 9.0  | 9.3  | 9.3  | 9.3  | 9.5  | 9.6  | 10.1 | 10.4 | 11.1 | 11.5 | 12.1 | 11.5 | 11.6 | 11.2 | 10.3 | 11.4 |                     | 2,653.5 |
| 3-91             | 9.4             | 9.5  | 9.5  | 9.7  | 9.8  | 9.8  | 10.0 | 10.2 | 10.7 | 11.1 | 11.7 | 12.2 | 12.8 | 12.4 | 12.6 | 12.6 | 12.5 | 14.1 | 17.0                | 2,759.5 |

4-86 1-87 2-87 3-87 4-87 1-88 2-88 3-88 4-88 1-89 2-89 3-89 4-89 1-90 2-90 3-90 4-90 1-91 2-91

Prepared by Federal Reserve Bank of St. Louis  
January 30, 1992

**FEDERAL GOVERNMENT DEBT**  
(billions of dollars)  
Seasonally Adjusted End of Month Totals

|      | Gross federal debt | Federal debt held by agencies and trusts | Net federal debt | Federal debt held by Federal Reserve Banks | Federal debt held by private investors | Federal debt held by foreign investors |
|------|--------------------|--|------------------|--|--|--|
| 1988 | 2487.6             | 499.3                                    | 1998.7           | 221.3                                      | 1763.7                                 | 330.5                                  |
|      | 2550.3             | 527.9                                    | 2021.5           | 226.2                                      | 1797.5                                 | 342.0                                  |
|      | 2615.3             | 552.1                                    | 2062.0           | 232.5                                      | 1832.2                                 | 350.5                                  |
|      | 2671.0             | 585.1                                    | 2086.9           | 232.4                                      | 1854.8                                 | 363.3                                  |
| 1989 | 2740.9             | 618.0                                    | 2122.8           | 232.8                                      | 1886.4                                 | 373.6                                  |
|      | 2802.7             | 650.0                                    | 2150.7           | 230.2                                      | 1920.6                                 | 366.2                                  |
|      | 2871.8             | 678.1                                    | 2191.7           | 224.2                                      | 1970.1                                 | 400.9                                  |
|      | 2938.3             | 703.6                                    | 2236.3           | 222.4                                      | 2011.8                                 | 392.9                                  |
| 1990 | 3049.0             | 735.2                                    | 2315.4           | 223.8                                      | 2094.2                                 | 382.4                                  |
|      | 3146.9             | 765.1                                    | 2378.3           | 229.6                                      | 2154.7                                 | 380.0                                  |
|      | 3249.5             | 797.4                                    | 2449.8           | 236.3                                      | 2220.6                                 | 411.5                                  |
|      | 3351.4             | 823.4                                    | 2526.4           | 252.7                                      | 2283.7                                 | 422.4                                  |
| 1991 | 3461.7             | 881.8                                    | 2582.9           | 252.3                                      | 2337.2                                 | 426.9                                  |
|      | 3541.5             | 883.6                                    | 2653.5           | 252.8                                      | 2412.4                                 | 439.0                                  |
|      | 3683.7             | 921.4                                    | 2759.5           | 269.3                                      | 2504.4                                 | 452.0                                  |

Columns may not add because each component is seasonally adjusted separately. Gross federal debt equals debt held by agencies and trusts plus net federal debt. Net federal debt equals debt held by Federal Reserve banks plus debt held by private investors (which includes debt held by foreign investors). Sources: Original data may be found in the *Treasury Bulletin* and also in the *Federal Reserve Bulletin*; seasonally adjusted series prepared by this Bank.

**FEDERAL GOVERNMENT BUDGETS**  
 (billions of dollars, quarterly totals seasonally adjusted at annual rates)

| Quarters | Receipts                              |                                  | Expenditures                          |                                  | Surplus or deficit(—)                 |                                  |
|----------|---------------------------------------|----------------------------------|---------------------------------------|----------------------------------|---------------------------------------|----------------------------------|
|          | National<br>income accounts<br>budget | Cyclically<br>adjusted<br>budget | National<br>income accounts<br>budget | Cyclically<br>adjusted<br>budget | National<br>income accounts<br>budget | Cyclically<br>adjusted<br>budget |
| 1984 1   | \$ 711.8                              | \$ 744.7                         | \$ 875.5                              | \$ 859.8                         | \$ -163.7                             | \$ -115.1                        |
| 2        | 722.8                                 | 747.9                            | 876.1                                 | 880.4                            | -153.2                                | -132.5                           |
| 3        | 728.8                                 | 754.4                            | 892.5                                 | 895.6                            | -163.7                                | -141.2                           |
| 4        | 739.8                                 | 771.0                            | 926.6                                 | 925.3                            | -186.8                                | -154.3                           |
| 1985 1   | 797.8                                 | 819.3                            | 947.7                                 | 953.0                            | -149.9                                | -133.7                           |
| 2        | 758.6                                 | 780.7                            | 964.9                                 | 964.4                            | -206.3                                | -183.7                           |
| 3        | 794.3                                 | 811.8                            | 976.3                                 | 991.3                            | -182.0                                | -179.5                           |
| 4        | 803.6                                 | 822.0                            | 990.8                                 | 1012.6                           | -187.2                                | -190.6                           |
| 1986 1   | 809.4                                 | 816.4                            | 992.7                                 | 1001.4                           | -183.3                                | -185.0                           |
| 2        | 814.2                                 | 832.2                            | 1038.0                                | 1045.2                           | -223.8                                | -213.0                           |
| 3        | 828.2                                 | 852.1                            | 1047.9                                | 1032.4                           | -219.7                                | -180.3                           |
| 4        | 856.8                                 | 875.5                            | 1034.3                                | 1038.7                           | -177.5                                | -163.2                           |
| 1987 1   | 858.4                                 | 875.1                            | 1048.1                                | 1057.4                           | -189.7                                | -182.3                           |
| 2        | 928.6                                 | 938.1                            | 1058.9                                | 1060.4                           | -130.3                                | -122.3                           |
| 3        | 924.5                                 | 927.2                            | 1059.0                                | 1065.6                           | -134.5                                | -138.4                           |
| 4        | 943.5                                 | 930.0                            | 1096.3                                | 1103.0                           | -152.7                                | -173.0                           |
| 1988 1   | 940.5                                 | 924.9                            | 1098.0                                | 1098.0                           | -157.5                                | -173.1                           |
| 2        | 970.4                                 | 949.5                            | 1105.0                                | 1111.4                           | -134.6                                | -161.9                           |
| 3        | 977.8                                 | 953.0                            | 1097.3                                | 1098.2                           | -119.5                                | -145.2                           |
| 4        | 1000.6                                | 971.4                            | 1135.5                                | 1156.1                           | -134.9                                | -184.7                           |
| 1989 1   | 1045.7                                | 1014.3                           | 1160.2                                | 1181.0                           | -114.5                                | -166.7                           |
| 2        | 1061.8                                | 1032.2                           | 1172.3                                | 1187.3                           | -110.5                                | -155.1                           |
| 3        | 1050.8                                | 1020.2                           | 1179.2                                | 1182.0                           | -128.4                                | -161.8                           |
| 4        | 1062.7                                | 1035.4                           | 1206.0                                | 1208.2                           | -143.3                                | -172.8                           |
| 1990 1   | 1086.8                                | 1061.7                           | 1247.6                                | 1252.2                           | -160.8                                | -190.5                           |
| 2        | 1106.3                                | 1093.4                           | 1263.2                                | 1275.4                           | -156.9                                | -182.0                           |
| 3        | 1115.4                                | 1116.0                           | 1265.1                                | 1273.6                           | -149.7                                | -157.6                           |
| 4        | 1110.7                                | 1132.1                           | 1304.4                                | 1311.2                           | -193.6                                | -179.1                           |
| 1991 1   | 1115.2                                | 1160.1                           | 1261.6                                | 1257.9                           | -146.4                                | -97.8                            |
| 2        | 1114.3                                | 1173.7                           | 1321.0                                | 1319.3                           | -206.7                                | -145.6                           |
| 3        | 1124.6                                | N.A.                             | 1334.8                                | N.A.                             | -210.2                                | N.A.                             |
| 4        | N.A.                                  | N.A.                             | 1362.0                                | N.A.                             | N.A.                                  | N.A.                             |

N.A. — Not Available

|                       | Fiscal years |           |           |           |           |           |           |           | Estimates |           |
|-----------------------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                       | Actual       |           |           |           |           |           |           |           | 1992      | 1993      |
|                       | 1984         | 1985      | 1986      | 1987      | 1988      | 1989      | 1990      | 1991      |           |           |
| <b>Total budget</b>   |              |           |           |           |           |           |           |           |           |           |
| Receipts              | \$ 666.5     | \$ 734.1  | \$ 769.1  | \$ 854.1  | \$ 909.0  | \$ 990.7  | \$ 1031.3 | \$ 1054.3 | \$ 1075.7 | \$ 1164.8 |
| Outlays               | 851.8        | 946.3     | 990.3     | 1003.8    | 1064.1    | 1144.1    | 1251.8    | 1323.0    | \$ 1475.1 | \$ 1516.7 |
| Surplus or deficit(—) | \$ -185.3    | \$ -212.3 | \$ -221.2 | \$ -149.7 | \$ -155.1 | \$ -153.4 | \$ -220.5 | \$ -268.7 | \$ -399.4 | \$ -351.9 |

| Calendar years                    |           |           |           |           |           |           |           |  |  |  |
|-----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--|--|--|
| National income accounts budget   |           |           |           |           |           |           |           |  |  |  |
| Receipts                          | \$ 725.8  | \$ 788.6  | \$ 827.2  | \$ 913.8  | \$ 972.3  | \$ 1055.2 | \$ 1104.8 |  |  |  |
| Expenditures                      | 892.7     | 969.9     | 1028.2    | 1065.6    | 1065.6    | 1179.4    | 1270.1    |  |  |  |
| Surplus or deficit(—)             | \$ -166.9 | \$ -181.4 | \$ -201.0 | \$ -151.8 | \$ -151.8 | \$ -124.2 | \$ -165.3 |  |  |  |
| <b>Cyclically adjusted budget</b> |           |           |           |           |           |           |           |  |  |  |
| Receipts                          | \$ 754.5  | \$ 808.5  | \$ 844.1  | \$ 917.6  | \$ 949.7  | \$ 1025.5 | \$ 1100.8 |  |  |  |
| Expenditures                      | 890.3     | 980.3     | 1029.4    | 1071.6    | 1115.9    | 1189.6    | 1278.1    |  |  |  |
| Surplus or deficit(—)             | \$ -135.8 | \$ -171.9 | \$ -185.4 | \$ -154.0 | \$ -166.2 | \$ -164.1 | \$ -177.3 |  |  |  |

Fiscal years refer to the budget year which runs from October 1 through September 30.

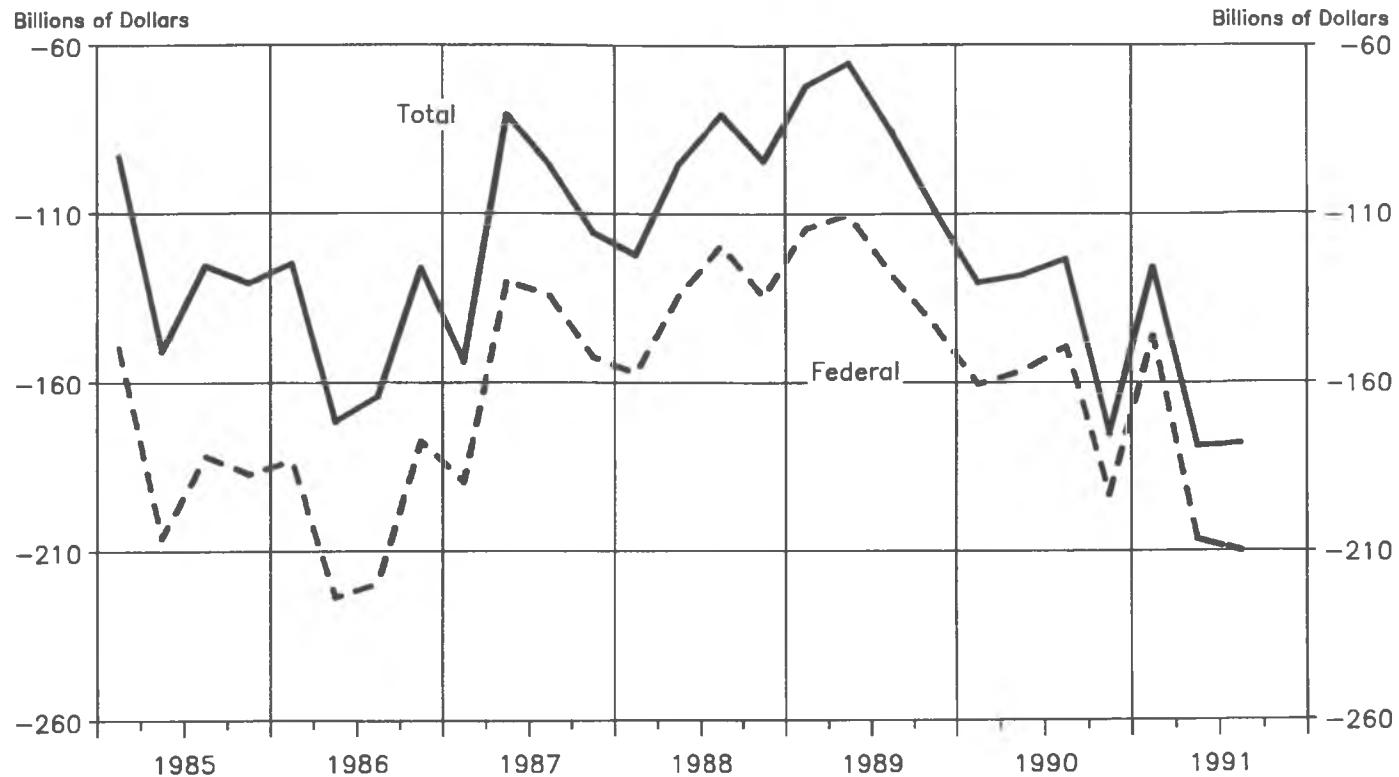
Total budget outlays include federal entities that are off-budget.

Cyclically adjusted budget data are in process of revision.

Source: Office of Management and Budget and U.S. Department of Commerce.

Prepared by Federal Reserve Bank of St. Louis

### Government Deficit(-)/Surplus(+) Seasonally Adjusted



National income accounts basis

Prepared by Federal Reserve Bank of St. Louis

### Federal Defense Expenditures (Compounded Annual Rates of Change)

| Terminal Quarter | Initial Quarter |      |      |      |      |      |      |      |      |      |      |      | Billions of Dollars<br>Annual Rates |      |      |      |      |       |       |       |
|------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|-------------------------------------|------|------|------|------|-------|-------|-------|
|                  | 1-87            | 2-87 | 3-87 | 4-87 | 1-88 | 2-88 | 3-88 | 4-88 | 1-89 | 2-89 | 3-89 | 4-89 | 1-90                                | 2-90 | 3-90 | 4-90 | 1-91 | 2-91  | 3-91  |       |
| 2-87             | 11.5            |      |      |      |      |      |      |      |      |      |      |      |                                     |      |      |      |      | 291.6 |       |       |
| 3-87             | 9.4             | 7.5  |      |      |      |      |      |      |      |      |      |      |                                     |      |      |      |      | 296.9 |       |       |
| 4-87             | 5.7             | 2.9  | -1.5 |      |      |      |      |      |      |      |      |      |                                     |      |      |      |      | 295.8 |       |       |
| 1-88             | 4.5             | 2.3  | -0.1 | 1.2  |      |      |      |      |      |      |      |      |                                     |      |      |      |      | 296.7 |       |       |
| 2-88             | 3.1             | 1.1  | -0.9 | -0.7 | -2.5 |      |      |      |      |      |      |      |                                     |      |      |      |      | 294.8 |       |       |
| 3-88             | 2.4             | 0.7  | -1.0 | -0.8 | -1.8 | -1.1 |      |      |      |      |      |      |                                     |      |      |      |      | 294.0 |       |       |
| 4-88             | 2.6             | 1.2  | 0.0  | 0.3  | 0.0  | 1.4  | 3.9  |      |      |      |      |      |                                     |      |      |      |      | 296.8 |       |       |
| 1-89             | 1.8             | 0.4  | -0.7 | -0.5 | -0.9 | -0.4 | -0.1 | -3.9 |      |      |      |      |                                     |      |      |      |      | 293.9 |       |       |
| 2-89             | 2.3             | 1.2  | 0.3  | 0.6  | 0.5  | 1.3  | 2.0  | 1.1  | 6.4  |      |      |      |                                     |      |      |      |      | 298.5 |       |       |
| 3-89             | 3.0             | 2.1  | 1.5  | 1.9  | 2.0  | 3.0  | 4.0  | 4.1  | 8.3  | 10.1 |      |      |                                     |      |      |      |      | 305.8 |       |       |
| 4-89             | 2.2             | 1.4  | 0.7  | 1.0  | 0.9  | 1.5  | 2.1  | 1.6  | 3.5  | 2.1  | -5.4 |      |                                     |      |      |      |      | 301.6 |       |       |
| 1-90             | 2.9             | 2.2  | 1.7  | 2.0  | 2.1  | 2.8  | 3.4  | 3.4  | 5.2  | 4.9  | 2.3  | 10.6 |                                     |      |      |      |      | 309.3 |       |       |
| 2-90             | 3.0             | 2.4  | 1.9  | 2.2  | 2.4  | 3.0  | 3.6  | 3.5  | 5.1  | 4.8  | 3.0  | 7.5  | 4.5                                 |      |      |      |      | 312.7 |       |       |
| 3-90             | 2.7             | 2.0  | 1.6  | 1.9  | 1.9  | 2.4  | 2.9  | 2.7  | 3.9  | 3.4  | 1.7  | 4.2  | 1.2                                 | -2.0 |      |      |      | 311.1 |       |       |
| 4-90             | 3.3             | 2.7  | 2.4  | 2.7  | 2.9  | 3.4  | 3.9  | 3.9  | 5.1  | 4.9  | 3.9  | 6.3  | 4.9                                 | 5.1  | 12.8 |      |      | 320.6 |       |       |
| 1-91             | 4.0             | 3.5  | 3.3  | 3.6  | 3.8  | 4.5  | 5.0  | 5.1  | 6.3  | 6.3  | 5.7  | 8.1  | 7.4                                 | 8.4  | 14.1 | 15.4 |      | 332.3 |       |       |
| 2-91             | 3.5             | 3.0  | 2.7  | 3.0  | 3.2  | 3.7  | 4.1  | 4.1  | 5.1  | 4.9  | 4.2  | 5.8  | 4.9                                 | 5.0  | 7.5  | 4.9  | -4.6 | 328.4 |       |       |
| 3-91             | 2.9             | 2.4  | 2.1  | 2.3  | 2.4  | 2.8  | 3.1  | 3.0  | 3.8  | 3.5  | 2.7  | 3.9  | 2.8                                 | 2.4  | 3.6  | 0.7  | -5.9 | -7.2  | 322.3 |       |
| 4-91             | 1.9             | 1.4  | 1.1  | 1.2  | 1.2  | 1.5  | 1.7  | 1.5  | 2.0  | 1.6  | 0.7  | 1.5  | 0.3                                 | -0.4 | -0.1 | -3.1 | -8.6 | -10.5 | -13.6 | 310.7 |
|                  | 1-87            | 2-87 | 3-87 | 4-87 | 1-88 | 2-88 | 3-88 | 4-88 | 1-89 | 2-89 | 3-89 | 4-89 | 1-90                                | 2-90 | 3-90 | 4-90 | 1-91 | 2-91  | 3-91  |       |

1-87 2-87 3-87 4-87 1-88 2-88 3-88 4-88 1-89 2-89 3-89 4-89 1-90 2-90 3-90 4-90 1-91 2-91 3-91

Prepared by Federal Reserve Bank of St. Louis  
January 29, 1992

**Federal Nondefense Expenditures**  
 (Compounded Annual Rates of Change)

| Terminal Quarter | Initial Quarter |      |      |      |      |      |      |      |      |      |      |      |      |      |      | Billions of Dollars |      |      |         |              |
|------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------------|------|------|---------|--------------|
|                  | 1-87            | 2-87 | 3-87 | 4-87 | 1-88 | 2-88 | 3-88 | 4-88 | 1-89 | 2-89 | 3-89 | 4-89 | 1-90 | 2-90 | 3-90 | 4-90                | 1-91 | 2-91 | 3-91    | Annual Rates |
| 2-87             | 1.6             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                     |      |      | 767.3   |              |
| 3-87             | -0.6            | -2.7 |      |      |      |      |      |      |      |      |      |      |      |      |      |                     |      |      | 762.1   |              |
| 4-87             | 6.4             | 8.8  | 21.7 |      |      |      |      |      |      |      |      |      |      |      |      |                     |      |      | 800.5   |              |
| 1-88             | 4.8             | 6.0  | 10.6 | 0.4  |      |      |      |      |      |      |      |      |      |      |      |                     |      |      | 801.3   |              |
| 2-88             | 4.8             | 5.6  | 8.5  | 2.4  | 4.5  |      |      |      |      |      |      |      |      |      |      |                     |      |      | 810.2   |              |
| 3-88             | 3.4             | 3.7  | 5.4  | 0.5  | 0.5  | -3.4 |      |      |      |      |      |      |      |      |      |                     |      |      | 803.3   |              |
| 4-88             | 5.5             | 6.1  | 8.0  | 4.8  | 6.3  | 7.2  | 18.8 |      |      |      |      |      |      |      |      |                     |      |      | 838.7   |              |
| 1-89             | 6.5             | 7.2  | 8.9  | 6.5  | 8.1  | 9.3  | 16.3 | 13.8 |      |      |      |      |      |      |      |                     |      |      | 866.3   |              |
| 2-89             | 6.1             | 6.7  | 8.1  | 6.0  | 7.2  | 7.8  | 11.9 | 8.5  | 3.5  |      |      |      |      |      |      |                     |      |      | 873.8   |              |
| 3-89             | 5.5             | 5.9  | 7.1  | 5.1  | 5.9  | 6.2  | 8.7  | 5.6  | 1.6  | -0.2 |      |      |      |      |      |                     |      |      | 873.4   |              |
| 4-89             | 6.3             | 6.8  | 7.9  | 6.3  | 7.2  | 7.6  | 9.9  | 7.8  | 5.9  | 7.1  | 15.0 |      |      |      |      |                     |      |      | 904.4   |              |
| 1-90             | 7.1             | 7.6  | 8.7  | 7.3  | 8.2  | 8.7  | 10.9 | 9.4  | 8.3  | 10.0 | 15.4 | 15.9 |      |      |      |                     |      |      | 938.3   |              |
| 2-90             | 6.9             | 7.4  | 8.4  | 7.1  | 7.9  | 8.3  | 10.1 | 8.7  | 7.7  | 8.8  | 11.9 | 10.5 | 5.3  |      |      |                     |      |      | 950.5   |              |
| 3-90             | 6.5             | 6.9  | 7.8  | 6.6  | 7.2  | 7.5  | 9.0  | 7.6  | 6.6  | 7.3  | 9.2  | 7.4  | 3.4  | 1.5  |      |                     |      |      | 954.0   |              |
| 4-90             | 7.0             | 7.4  | 8.2  | 7.1  | 7.7  | 8.1  | 9.4  | 8.3  | 7.5  | 8.2  | 10.0 | 8.8  | 6.5  | 7.1  | 13.1 |                     |      |      | 983.8   |              |
| 1-91             | 5.0             | 5.2  | 5.8  | 4.7  | 5.1  | 5.1  | 6.0  | 4.7  | 3.6  | 3.6  | 4.2  | 2.2  | -1.0 | -3.0 | -5.1 | -20.4               |      |      | 929.3   |              |
| 2-91             | 6.3             | 6.6  | 7.3  | 6.3  | 6.8  | 7.0  | 8.0  | 7.0  | 6.2  | 6.6  | 7.6  | 6.4  | 4.6  | 4.4  | 5.4  | 1.8                 | 30.2 |      | 992.6   |              |
| 3-91             | 6.4             | 6.7  | 7.4  | 6.5  | 6.9  | 7.1  | 8.0  | 7.1  | 6.4  | 6.8  | 7.7  | 6.7  | 5.2  | 5.2  | 6.1  | 3.9                 | 18.7 | 8.3  | 1,012.5 |              |
| 4-91             | 6.9             | 7.2  | 7.9  | 7.1  | 7.5  | 7.7  | 8.6  | 7.8  | 7.3  | 7.7  | 8.6  | 7.8  | 6.7  | 7.0  | 8.1  | 6.9                 | 17.9 | 12.2 | 16.2    | 1,051.3      |
|                  | 1-87            | 2-87 | 3-87 | 4-87 | 1-88 | 2-88 | 3-88 | 4-88 | 1-89 | 2-89 | 3-89 | 4-89 | 1-90 | 2-90 | 3-90 | 4-90                | 1-91 | 2-91 | 3-91    |              |

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