



# National Economic Trends



## Have Regulatory Burdens Slowed the Growth of Real GDP?

The slow rate of economic growth and job creation during the past several years has puzzled many analysts. Among the many conjectures offered to explain these developments, some say greater regulatory burdens have both raised the cost of hiring of new workers and reduced profit margins.

If true, increased regulation would discourage a general increase in output and thereby retard job creation as well. Moreover, even if they have no effect on total output, employment-related regulations will encourage firms to seek production processes that substitute capital for workers.

Some broad evidence to support this hypothesis can be found in a recent review of studies that attempt to quantify the costs of regulatory compliance.<sup>1</sup> Based on complete data for 1977 and 1988 and partial data for other years, the author of this survey synthesizes the available evidence into high and low estimates of regulatory costs. The chart below

shows (in 1988 dollars) the movements of these estimated costs and real GDP over three sub-periods relative to their 1977 levels (1977=100). The first interval (1977—1982) shows real output growth averaging 1.3 percent a year while real regulatory costs fell at an average annual rate of between 1.7 percent and 2.4 percent. During the period 1982—1988 (with the exception of 1987), regulatory costs continued to fall while growth in real GDP accelerated sharply.

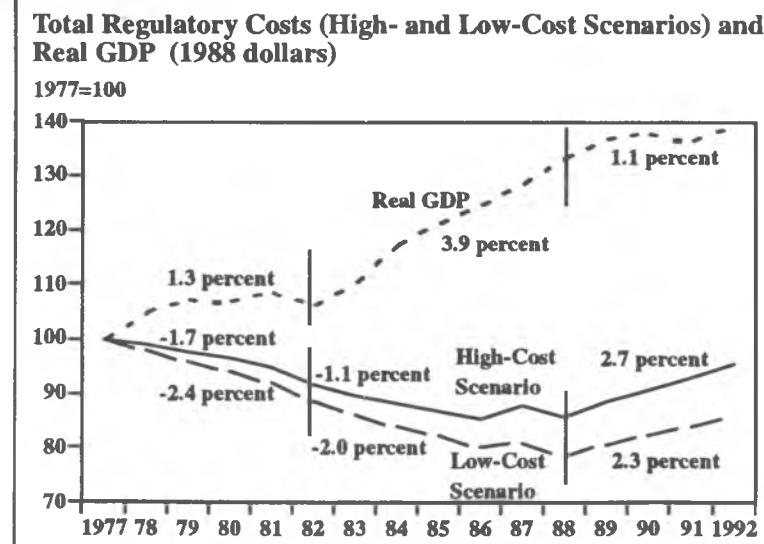
Since 1988, however, the trend of real regulatory costs has been reversed, rising between 2.3 percent and 2.7 percent each year.

Average growth in real GDP during the same period has slowed to a rate near 1 percent.

Although the 1992 estimates are based on incomplete data, their high and low cost values (in 1988 dollars) now range between \$533 billion and \$413 billion. Moreover, because these estimates do not include the 1990 amendments to the Clean Air Act, which experts project will add \$25 billion a year to the costs of regulatory compliance for the years 1992 and beyond, the chart underestimates the recent rise in regulatory costs under either scenario.

— Michael T. Belongia

<sup>1</sup> See Hopkins, Thomas D. *Cost of Regulation* (Rochester Institute of Technology, 1991).



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

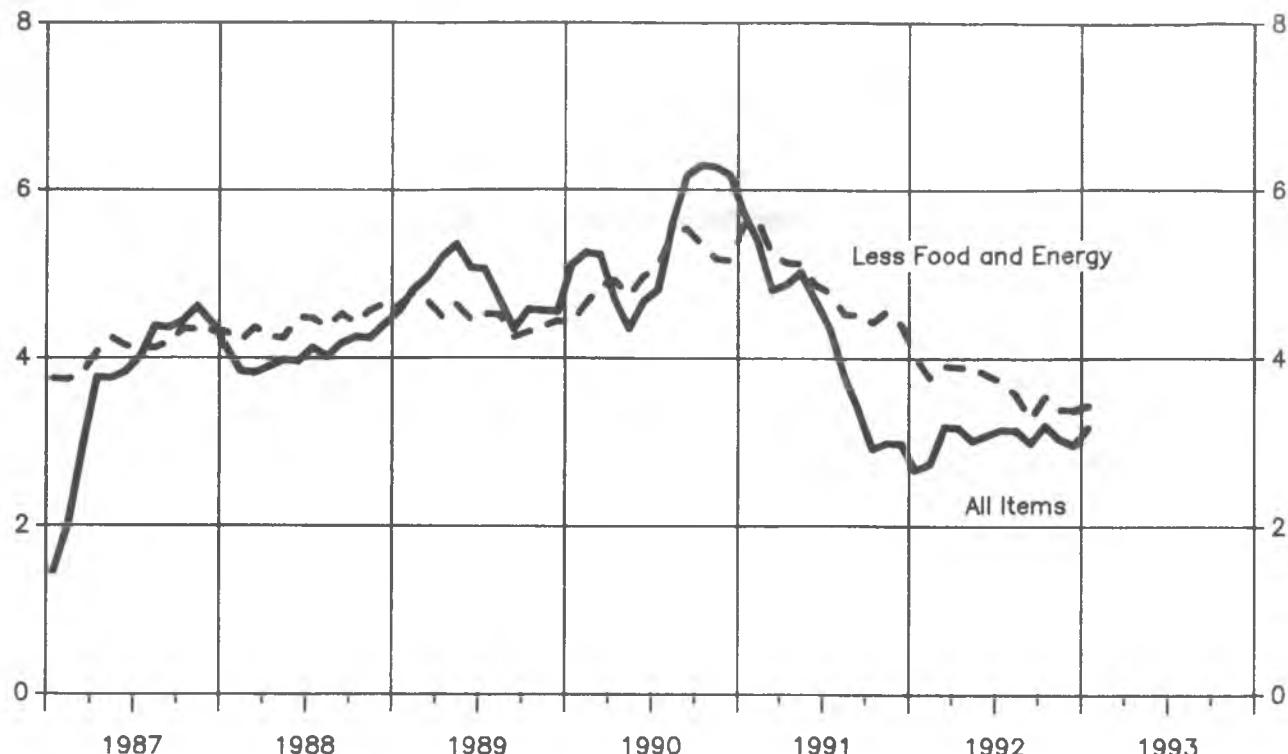
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# Consumer Price Index – All Urban Consumers

Percent Change From Previous Year  
Seasonally Adjusted

Percent

Percent



Prepared by Federal Reserve Bank of St. Louis

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

Terminal Month	Initial Month												1982-84=100							
	6-91	7-91	8-91	9-91	10-91	11-91	12-91	1-92	2-92	3-92	4-92	5-92	6-92	7-92	8-92	9-92	10-92	11-92	12-92	
7-91	2.7																	136.3		
8-91	2.7	2.7																136.6		
9-91	3.0	3.1	3.6															137.0		
10-91	2.9	3.0	3.1	2.7														137.3		
11-91	3.2	3.3	3.6	3.6	3.6	4.5												137.8		
12-91	3.1	3.2	3.3	3.3	3.5	2.6												138.1		
1-92	3.2	3.3	3.4	3.3	3.5	3.1	3.5											138.5		
2-92	3.1	3.2	3.2	3.2	3.3	2.9	3.1	2.6										138.8		
3-92	3.2	3.3	3.4	3.4	3.5	3.3	3.5	3.5	4.4									139.3		
4-92	3.3	3.3	3.4	3.4	3.5	3.3	3.5	3.5	4.0	3.5								139.7		
5-92	3.1	3.2	3.2	3.2	3.3	3.1	3.2	3.1	3.2	2.6	1.7							139.9		
6-92	3.1	3.1	3.2	3.1	3.2	3.0	3.1	3.0	3.1	2.6	2.2	2.6						140.2		
7-92	3.1	3.2	3.2	3.2	3.2	3.1	3.1	3.1	3.1	2.8	2.6	3.0	3.5					140.6		
8-92	3.1	3.1	3.1	3.1	3.2	3.0	3.1	3.0	3.0	2.8	2.6	2.9	3.0	2.6				140.9		
9-92	3.0	3.0	3.0	3.0	3.0	2.9	2.9	2.8	2.9	2.6	2.4	2.6	2.6	2.2	1.7			141.1		
10-92	3.1	3.2	3.2	3.2	3.2	3.1	3.1	3.1	3.2	3.0	2.9	3.1	3.2	3.2	3.5	5.2		141.7		
11-92	3.1	3.1	3.2	3.1	3.2	3.0	3.1	3.0	3.1	2.9	2.8	3.0	3.1	3.0	3.2	3.9	2.6		142.0	
12-92	3.0	3.0	3.1	3.0	3.1	2.9	3.0	2.9	2.9	2.8	2.7	2.8	2.9	2.8	2.8	3.2	2.1	1.7		142.2
1-93	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.1	3.1	3.2	3.3	3.3	3.4	3.9	3.4	3.9	6.1	142.9

6-91 7-91 8-91 9-91 10-91 11-91 12-91 1-92 2-92 3-92 4-92 5-92 6-92 7-92 8-92 9-92 10-92 11-92 12-92

Revised from 1988

Prepared by Federal Reserve Bank of St. Louis  
February 18, 1993

### Consumer Price Index - Food

(Compounded Annual Rates of Change)

Terminal Month	Initial Month													1982-84=100						
	6-91	7-91	8-91	9-91	10-91	11-91	12-91	1-92	2-92	3-92	4-92	5-92	6-92	7-92	8-92	9-92	10-92	11-92	12-92	
7-91	-5.9																	136.7		
8-91	-5.5	-5.1																136.1		
9-91	-3.7	-2.6	0.0															136.1		
10-91	-2.8	-1.7	0.0	0.0														136.1		
11-91	-1.0	0.2	2.1	3.1	6.3													136.8		
12-91	-0.3	0.9	2.4	3.3	4.9	3.6												137.2		
1-92	-0.4	0.6	1.8	2.2	3.0	1.3	-0.9											137.1		
2-92	0.1	1.0	2.1	2.5	3.1	2.1	1.3	3.6										137.5		
3-92	0.6	1.4	2.4	2.8	3.4	2.7	2.4	4.0	4.5									138.0		
4-92	0.6	1.4	2.2	2.5	3.0	2.3	2.0	2.9	2.6	0.9								138.1		
5-92	0.1	0.7	1.4	1.5	1.8	1.0	0.5	0.9	0.0	-2.2	-5.1							137.5		
6-92	0.1	0.7	1.3	1.5	1.7	1.0	0.6	0.9	0.2	-1.2	-2.2	0.9						137.6		
7-92	0.1	0.6	1.1	1.2	1.4	0.8	0.4	0.6	0.0	-1.1	-1.7	0.0	-0.9					137.5		
8-92	0.6	1.1	1.6	1.8	1.9	1.5	1.2	1.5	1.2	0.5	0.4	2.3	3.1	7.2				138.3		
9-92	0.8	1.3	1.8	1.9	2.1	1.7	1.5	1.8	1.5	1.0	1.0	2.6	3.2	5.4	3.5			138.7		
10-92	0.7	1.2	1.6	1.8	1.9	1.5	1.3	1.6	1.3	0.9	0.9	2.1	2.4	3.5	1.7	0.0		138.7		
11-92	0.7	1.1	1.6	1.7	1.8	1.5	1.3	1.5	1.3	0.9	0.9	1.9	2.1	2.9	1.5	0.4	0.9	138.8		
12-92	0.9	1.3	1.7	1.8	1.9	1.6	1.5	1.7	1.5	1.2	1.2	2.1	2.3	3.0	2.0	1.4	2.2	3.5	139.2	
1-93	1.1	1.5	1.9	2.0	2.1	1.8	1.7	1.9	1.7	1.5	1.5	2.4	2.6	3.2	2.4	2.2	2.9	4.0	4.4	139.7

6-91 7-91 8-91 9-91 10-91 11-91 12-91 1-92 2-92 3-92 4-92 5-92 6-92 7-92 8-92 9-92 10-92 11-92 12-92

Revised from 1988

Prepared by Federal Reserve Bank of St. Louis  
February 18, 1993

### Consumer Price Index - Energy

(Compounded Annual Rates of Change)

Terminal Month	Initial Month													1982-84=100						
	6-91	7-91	8-91	9-91	10-91	11-91	12-91	1-92	2-92	3-92	4-92	5-92	6-92	7-92	8-92	9-92	10-92	11-92	12-92	
7-91	-1.2																	100.6		
8-91	1.2	3.6																100.9		
9-91	1.6	3.0	2.4															101.1		
10-91	1.5	2.4	1.8	1.2														101.2		
11-91	1.9	2.7	2.4	2.4	3.6													101.5		
12-91	2.6	3.4	3.3	3.6	4.6	6.1												102.0		
1-92	0.7	1.0	0.5	0.0	-0.4	-2.3	-10.1											101.1		
2-92	0.0	0.2	-0.4	-0.9	-1.5	-3.1	-7.4	-4.6										100.7		
3-92	0.4	0.6	0.2	-0.2	-0.5	-1.5	-3.9	-0.6	3.6									101.0		
4-92	0.7	0.9	0.6	0.3	0.2	-0.5	-2.0	0.8	3.6	3.6								101.3		
5-92	1.2	1.4	1.2	1.0	1.0	0.6	-0.5	2.1	4.4	4.8	6.1							101.8		
6-92	2.4	2.7	2.6	2.6	2.8	2.7	2.2	4.8	7.3	8.6	11.1	16.4						103.1		
7-92	2.8	3.2	3.1	3.2	3.4	3.4	3.0	5.4	7.5	8.5	10.2	12.4	8.5					103.8		
8-92	2.3	2.6	2.5	2.6	2.6	2.1	3.9	5.4	5.8	6.3	6.4	1.8	-4.5					103.4		
9-92	2.1	2.4	2.3	2.3	2.4	1.8	3.4	4.6	4.8	5.0	4.8	1.2	-2.3	0.0				103.4		
10-92	2.4	2.6	2.5	2.6	2.7	2.6	3.7	4.8	5.0	5.2	5.0	2.3	0.4	2.9	6.0			103.9		
11-92	2.4	2.6	2.5	2.5	2.6	2.2	3.6	4.5	4.6	4.8	4.6	2.3	0.9	2.7	4.1	2.3		104.1		
12-92	2.1	2.3	2.2	2.2	2.3	1.9	3.0	3.8	3.8	3.9	3.6	1.6	0.2	1.5	1.9	0.0	-2.3	103.9		
1-93	2.3	2.5	2.4	2.4	2.5	2.4	2.2	3.3	4.0	4.1	4.1	3.9	2.2	1.2	2.3	2.9	1.9	1.7	5.9	104.4

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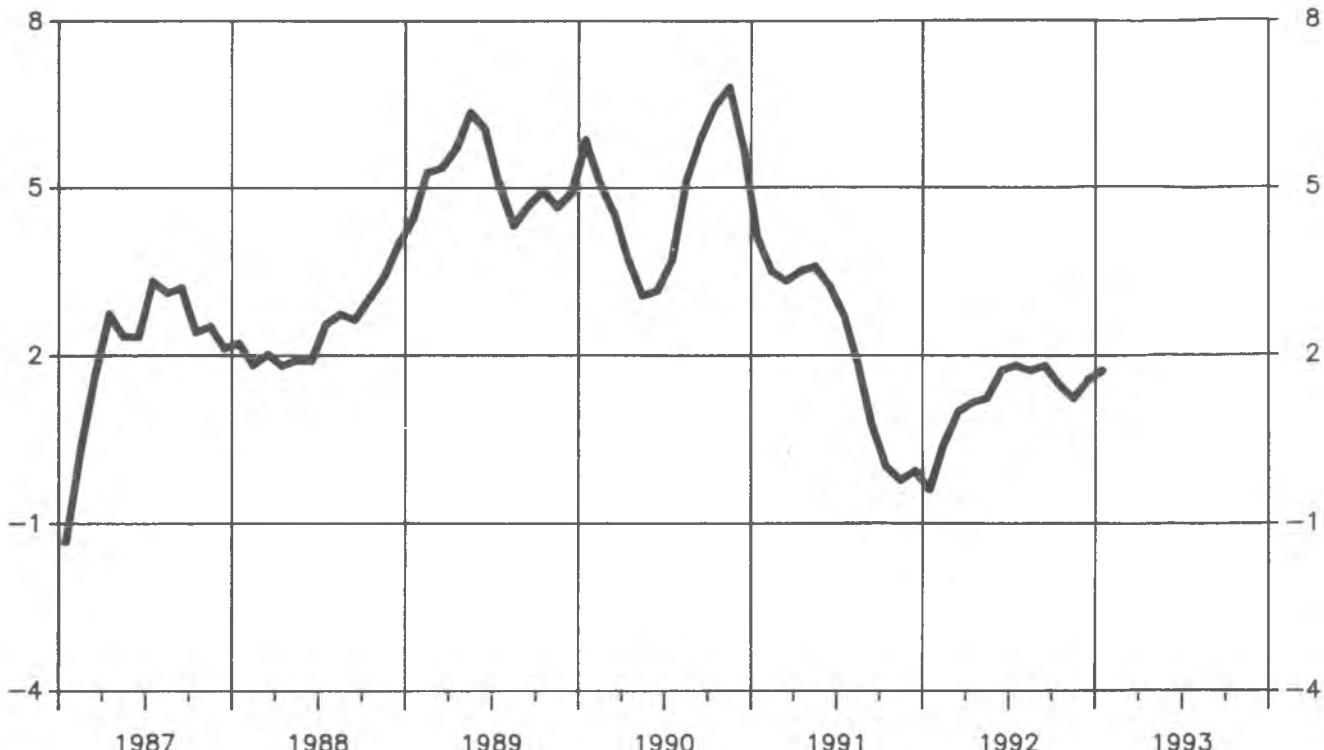
Prepared by Federal Reserve Bank of St. Louis  
February 18, 1993

# Producer Price Index - Finished Goods

Percent Change From Previous Year  
Seasonally Adjusted

Percent

Percent



Prepared by Federal Reserve Bank of St. Louis

# Producer Price Index - Finished Goods

(Compounded Annual Rates of Change)

Terminal Month	Initial Month															1982 = 100				
	6-91	7-91	8-91	9-91	10-91	11-91	12-91	1-92	2-92	3-92	4-92	5-92	6-92	7-92	8-92	9-92	10-92	11-92	12-92	
7-91	-1.0																		121.3	
8-91	0.5	2.0																	121.5	
9-91	1.0	2.0	2.0																121.7	
10-91	1.5	2.3	2.5	3.0															122.0	
11-91	1.6	2.2	2.3	2.5	2.0														122.2	
12-91	0.8	1.2	1.0	0.7	-0.5	-2.9													121.9	
1-92	0.7	1.0	0.8	0.5	-0.3	-1.5	0.0												121.9	
2-92	1.0	1.3	1.2	1.0	0.5	0.0	1.5	3.0											122.2	
3-92	1.2	1.5	1.4	1.3	1.0	0.7	2.0	3.0	3.0										122.5	
4-92	1.4	1.7	1.6	1.6	1.3	1.2	2.2	3.0	3.0	3.0									122.8	
5-92	1.6	1.9	1.9	1.9	1.7	1.6	2.6	3.2	3.3	3.5	4.0								123.2	
6-92	1.7	2.0	2.0	2.0	1.8	1.8	2.6	3.2	3.2	3.3	3.5	3.0							123.5	
7-92	1.6	1.8	1.8	1.8	1.6	1.6	2.3	2.6	2.6	2.5	2.3	1.5	0.0						123.5	
8-92	1.6	1.7	1.7	1.7	1.6	1.5	2.1	2.4	2.3	2.2	2.0	1.3	0.5	1.0					123.6	
9-92	1.6	1.8	1.8	1.8	1.7	1.7	2.2	2.5	2.4	2.3	2.2	1.7	1.3	2.0	3.0				123.9	
10-92	1.5	1.6	1.6	1.6	1.5	1.4	1.9	2.1	2.0	1.8	1.6	1.2	0.7	1.0	1.0	-1.0			123.8	
11-92	1.3	1.5	1.4	1.4	1.3	1.2	1.6	1.8	1.6	1.5	1.3	0.8	0.4	0.5	0.3	-1.0	-1.0		123.7	
12-92	1.3	1.5	1.4	1.4	1.3	1.2	1.6	1.7	1.6	1.4	1.2	0.8	0.5	0.6	0.5	-0.3	0.0	1.0	123.8	
1-93	1.3	1.5	1.4	1.4	1.3	1.3	1.6	1.7	1.6	1.5	1.3	1.0	0.7	0.8	0.8	0.2	0.6	1.5	2.0	124.0

6-91 7-91 8-91 9-91 10-91 11-91 12-91 1-92 2-92 3-92 4-92 5-92 6-92 7-92 8-92 9-92 10-92 11-92 12-92

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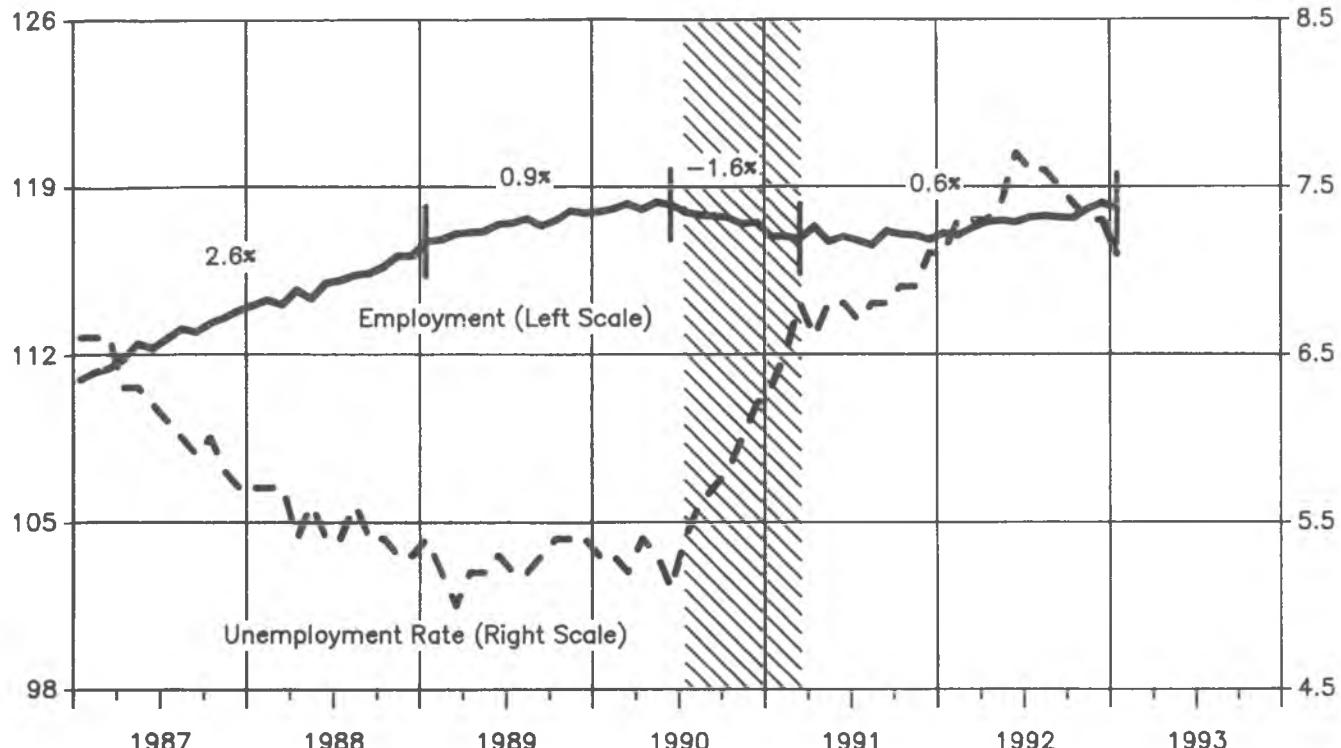
Prepared by Federal Reserve Bank of St. Louis  
February 12, 1993

# Civilian Employment and Unemployment Rate

Seasonally Adjusted

Millions of Persons

Percent



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							
	6-91	7-91	8-91	9-91	10-91	11-91	12-91	1-92	2-92	3-92	4-92	5-92	6-92	7-92	8-92	9-92	10-92	11-92	12-92	
7-91	-1.8																		116,711	
8-91	-1.8	-1.9																	116,522	
9-91	0.8	2.1	6.2																117,108	
10-91	0.2	0.9	2.4	-1.3															116,980	
11-91	0.1	0.6	1.4	-0.9	-0.5														116,932	
12-91	-0.2	0.1	0.6	-1.2	-1.2	-1.8													116,752	
1-92	0.2	0.6	1.1	-0.2	0.2	0.5	3.0												117,036	
2-92	0.1	0.4	0.8	-0.3	0.0	0.1	1.1	-0.8											116,962	
3-92	0.4	0.7	1.1	0.3	0.6	0.9	1.8	1.2	3.1										117,264	
4-92	0.7	0.9	1.3	0.6	0.9	1.2	2.0	1.7	2.9	2.6									117,518	
5-92	0.6	0.9	1.2	0.6	0.9	1.1	1.7	1.4	2.1	1.6	0.6								117,580	
6-92	0.5	0.7	1.0	0.5	0.7	0.8	1.3	1.0	1.4	0.8	0.0	-0.7							117,510	
7-92	0.7	0.9	1.1	0.6	0.8	1.0	1.4	1.2	1.6	1.2	0.7	0.7	2.2						117,722	
8-92	0.7	0.8	1.1	0.6	0.8	1.0	1.3	1.1	1.4	1.1	0.7	0.7	1.4	0.6					117,780	
9-92	0.6	0.7	1.0	0.5	0.7	0.8	1.1	0.9	1.1	0.8	0.4	0.4	0.7	0.0	-0.6				117,724	
10-92	0.5	0.7	0.9	0.5	0.6	0.7	1.0	0.7	0.9	0.6	0.3	0.2	0.5	-0.1	-0.5	-0.4			117,687	
11-92	0.7	0.9	1.1	0.7	0.9	1.0	1.2	1.1	1.3	1.0	0.8	0.8	1.1	0.9	1.0	1.7	3.9		118,064	
12-92	0.8	1.0	1.1	0.8	1.0	1.1	1.3	1.2	1.4	1.2	1.0	1.1	1.4	1.2	1.4	2.0	3.2	2.5	118,311	
1-93	0.6	0.8	0.9	0.6	0.7	0.8	1.0	0.9	1.0	0.8	0.6	0.6	0.8	0.6	0.6	0.9	1.3	0.0	-2.4	118,071

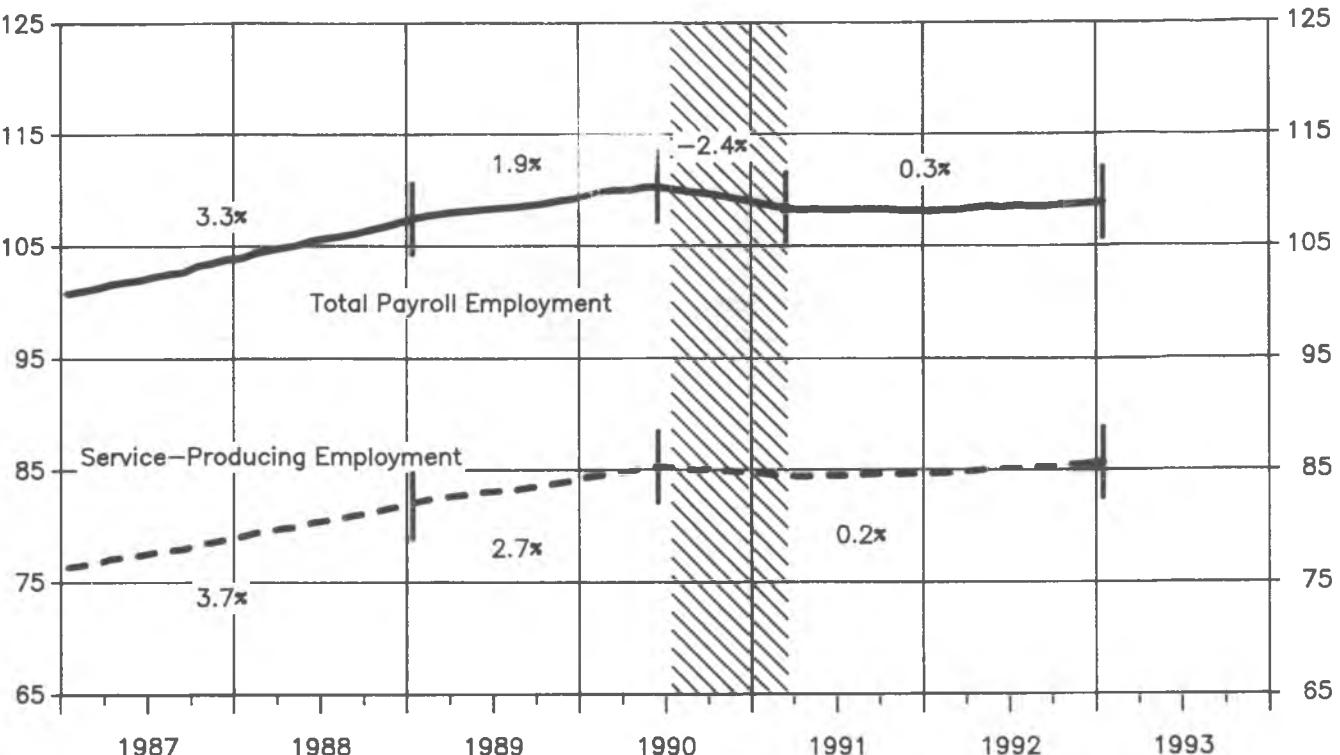
6-91 7-91 8-91 9-91 10-91 11-91 12-91 1-92 2-92 3-92 4-92 5-92 6-92 7-92 8-92 9-92 10-92 11-92 12-92

Prepared by Federal Reserve Bank of St. Louis  
February 5, 1993

**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					
	6-91	7-91	8-91	9-91	10-91	11-91	12-91	1-92	2-92	3-92	4-92	5-92	6-92	7-92	8-92	9-92	10-92	11-92
7-91	-0.4																	108,190
8-91	0.2	0.9																108,267
9-91	0.2	0.6	0.3															108,293
10-91	0.2	0.4	0.1	-0.1														108,285
11-91	-0.2	-0.1	-0.5	-0.9	-1.6													108,139
12-91	-0.1	-0.1	-0.3	-0.5	-0.7	0.2												108,154
1-92	-0.2	-0.2	-0.4	-0.5	-0.7	-0.2	0.6											108,100
2-92	-0.1	-0.1	-0.2	-0.3	-0.4	0.0	-0.1	0.5										108,142
3-92	0.0	0.0	-0.1	-0.2	-0.2	0.2	0.2	0.6	0.6									108,200
4-92	0.2	0.2	0.2	0.1	0.2	0.5	0.6	1.0	1.3	2.0								108,377
5-92	0.3	0.3	0.3	0.3	0.3	0.7	0.8	1.1	1.3	1.7	1.3							108,496
6-92	0.2	0.2	0.2	0.2	0.2	0.5	0.5	0.7	0.8	0.8	0.3	-0.8						108,423
7-92	0.3	0.4	0.3	0.3	0.4	0.6	0.7	0.9	1.0	1.1	0.8	0.5	1.9					108,594
8-92	0.2	0.3	0.2	0.2	0.2	0.4	0.5	0.6	0.6	0.6	0.3	0.0	0.3	-1.2				108,485
9-92	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.6	0.6	0.5	0.3	0.0	0.3	-0.5	0.1			108,497
10-92	0.2	0.3	0.2	0.2	0.3	0.4	0.5	0.6	0.6	0.6	0.4	0.2	0.4	-0.1	0.5	0.8		108,571
11-92	0.3	0.3	0.3	0.3	0.3	0.5	0.5	0.6	0.6	0.6	0.4	0.3	0.5	0.1	0.6	0.8	0.8	108,646
12-92	0.3	0.4	0.3	0.3	0.4	0.5	0.5	0.6	0.7	0.7	0.5	0.4	0.6	0.3	0.7	0.9	0.9	108,736
1-93	0.4	0.4	0.4	0.4	0.4	0.6	0.6	0.7	0.7	0.7	0.6	0.5	0.7	0.5	0.8	1.0	1.0	108,842

6-91 7-91 8-91 9-91 10-91 11-91 12-91 1-92 2-92 3-92 4-92 5-92 6-92 7-92 8-92 9-92 10-92 11-92 12-92

Prepared by Federal Reserve Bank of St. Louis  
February 5, 1993

## Service-Producing Employment

(Compounded Annual Rates of Change)

Terminal Month	Initial Month												Thousands of Persons						
	6-91	7-91	8-91	9-91	10-91	11-91	12-91	1-92	2-92	3-92	4-92	5-92	6-92	7-92	8-92	9-92	10-92	11-92	12-92
7-91	-0.3																	84,398	
8-91	0.4	1.1																84,476	
9-91	0.6	1.0	0.9															84,538	
10-91	0.6	0.9	0.7	0.6														84,581	
11-91	0.3	0.5	0.2	-0.1	-0.8													84,526	
12-91	0.4	0.5	0.3	0.2	-0.1	0.6												84,570	
1-92	0.3	0.4	0.3	0.1	0.0	0.3	0.0											84,573	
2-92	0.4	0.4	0.3	0.2	0.1	0.4	0.3	0.6										84,617	
3-92	0.4	0.5	0.4	0.3	0.2	0.5	0.5	0.7	0.7									84,668	
4-92	0.6	0.7	0.7	0.6	0.6	0.9	1.0	1.3	1.6	2.6								84,847	
5-92	0.7	0.8	0.7	0.7	0.7	1.0	1.1	1.3	1.6	2.0	1.4							84,948	
6-92	0.6	0.7	0.7	0.7	0.7	0.9	0.9	1.1	1.2	1.4	0.8	0.1						84,953	
7-92	0.8	0.9	0.9	0.8	0.9	1.1	1.1	1.3	1.5	1.7	1.4	1.3	2.6					85,135	
8-92	0.7	0.8	0.8	0.8	0.8	0.9	1.0	1.1	1.2	1.3	1.0	0.8	1.2	-0.2				85,123	
9-92	0.7	0.8	0.8	0.8	0.8	1.0	1.0	1.1	1.2	1.3	1.0	0.9	1.2	0.5	1.1			85,201	
10-92	0.8	0.9	0.8	0.8	0.9	1.0	1.0	1.1	1.2	1.3	1.1	1.0	1.2	0.8	1.3	1.4		85,301	
11-92	0.8	0.9	0.8	0.8	0.9	1.0	1.0	1.1	1.2	1.2	1.1	1.0	1.2	0.8	1.1	1.2	0.9	85,366	
12-92	0.8	0.9	0.9	0.9	0.9	1.0	1.1	1.2	1.2	1.3	1.1	1.1	1.2	1.0	1.2	1.3	1.2	85,475	
1-93	0.9	0.9	0.9	0.9	1.0	1.1	1.1	1.2	1.3	1.3	1.2	1.1	1.3	1.1	1.4	1.4	1.6	85,588	
	6-91	7-91	8-91	9-91	10-91	11-91	12-91	1-92	2-92	3-92	4-92	5-92	6-92	7-92	8-92	9-92	10-92	11-92	12-92

Prepared by Federal Reserve Bank of St. Louis  
February 5, 1993

## Goods-Producing Employment

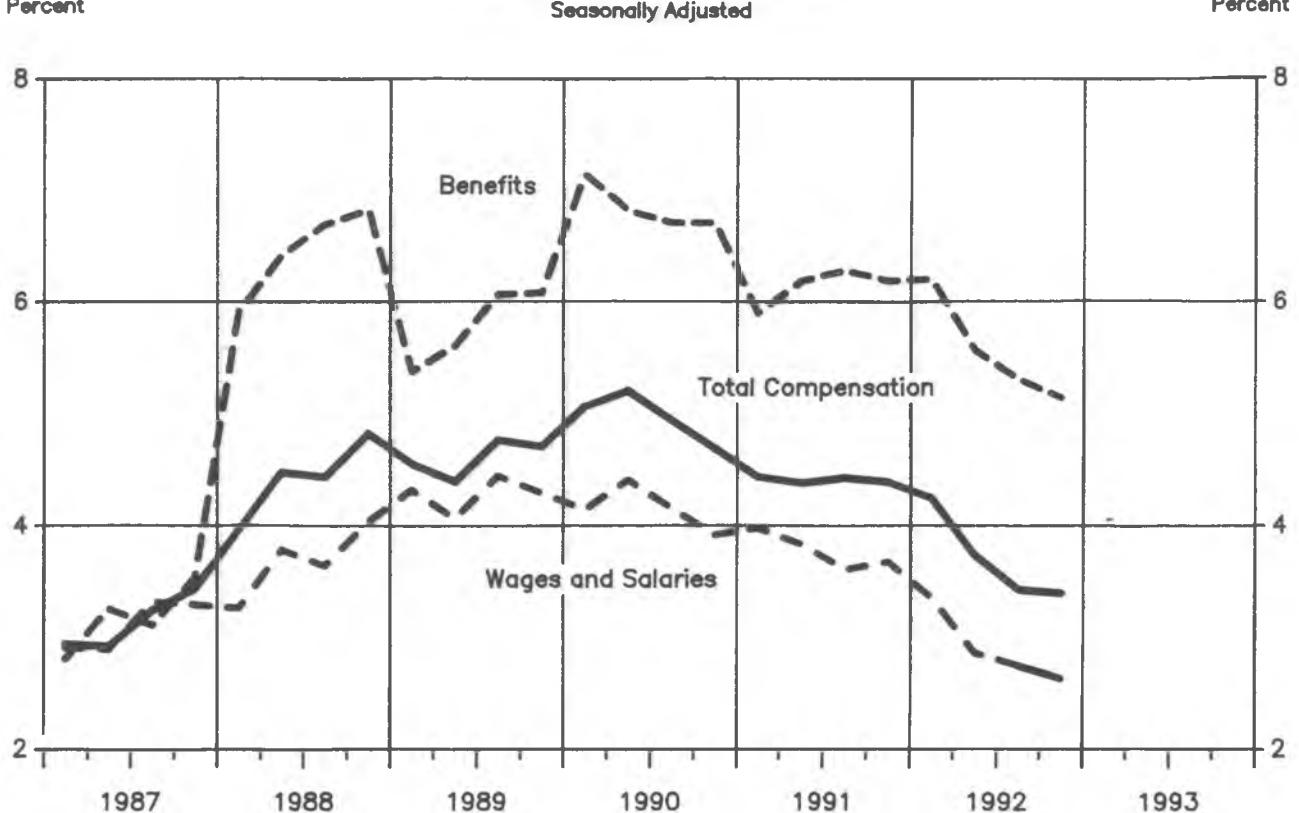
(Compounded Annual Rates of Change)

Terminal Month	Initial Month												Thousands of Persons							
	6-91	7-91	8-91	9-91	10-91	11-91	12-91	1-92	2-92	3-92	4-92	5-92	6-92	7-92	8-92	9-92	10-92	11-92	12-92	
7-91	-0.9																	23,792		
8-91	-0.5	-0.1																23,791		
9-91	-0.9	-0.9	-1.8															23,755		
10-91	-1.3	-1.5	-2.2	-2.5														23,704		
11-91	-2.0	-2.2	-3.0	-3.5	-4.5													23,613		
12-91	-1.9	-2.1	-2.6	-2.8	-3.0	-1.5												23,584		
1-92	-2.0	-2.2	-2.6	-2.9	-3.0	-2.2	-2.9											23,527		
2-92	-1.8	-1.9	-2.2	-2.3	-2.2	-1.5	-1.5	-0.1										23,525		
3-92	-1.5	-1.6	-1.9	-1.9	-1.7	-1.0	-0.9	0.1	0.4									23,532		
4-92	-1.4	-1.5	-1.6	-1.6	-1.5	-0.8	-0.7	0.1	0.1	-0.1								23,530		
5-92	-1.2	-1.2	-1.4	-1.3	-1.1	-0.5	-0.4	0.3	0.4	0.4	0.9							23,548		
6-92	-1.4	-1.5	-1.6	-1.6	-1.5	-1.0	-1.0	-0.6	-0.7	-1.0	-1.5	-3.9						23,470		
7-92	-1.4	-1.4	-1.5	-1.5	-1.4	-1.0	-0.9	-0.6	-0.7	-0.9	-1.2	-2.2	-0.6					23,459		
8-92	-1.6	-1.7	-1.8	-1.8	-1.7	-1.4	-1.4	-1.2	-1.4	-1.7	-2.1	-3.1	-2.7	-4.9				23,362		
9-92	-1.7	-1.8	-1.9	-1.9	-1.9	-1.6	-1.6	-1.5	-1.7	-2.0	-2.4	-3.2	-2.9	-4.1	-3.3			23,296		
10-92	-1.7	-1.8	-1.9	-1.9	-1.8	-1.6	-1.6	-1.5	-1.6	-1.9	-2.2	-2.8	-2.5	-3.2	-2.3	-1.3		23,270		
11-92	-1.6	-1.6	-1.7	-1.7	-1.7	-1.4	-1.4	-1.3	-1.4	-1.6	-1.8	-2.3	-1.9	-2.3	-1.4	-0.4	0.5	23,280		
12-92	-1.5	-1.6	-1.7	-1.7	-1.6	-1.4	-1.4	-1.2	-1.3	-1.5	-1.7	-2.1	-1.8	-2.0	-1.3	-0.6	-0.2	-1.0	23,261	
1-93	-1.5	-1.5	-1.6	-1.6	-1.5	-1.3	-1.3	-1.2	-1.3	-1.4	-1.6	-1.9	-1.6	-1.7	-1.1	-0.5	-0.3	-0.7	-0.4	23,254
	6-91	7-91	8-91	9-91	10-91	11-91	12-91	1-92	2-92	3-92	4-92	5-92	6-92	7-92	8-92	9-92	10-92	11-92	12-92	

Prepared by Federal Reserve Bank of St. Louis  
February 5, 1993

# 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				
	1-88	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	4-91	1-92	2-92	3-92	
2-88	5.2																		95.7	
3-88	4.5	3.8																	96.6	
4-88	4.7	4.4	5.1																97.8	
1-89	4.6	4.3	4.6	4.2															98.8	
2-89	4.5	4.4	4.6	4.3	4.5														99.9	
3-89	4.7	4.6	4.8	4.7	4.9	5.3													101.2	
4-89	4.7	4.6	4.8	4.7	4.9	5.1	4.8												102.4	
1-90	4.8	4.8	4.9	4.9	5.1	5.2	5.2	5.6											103.8	
2-90	4.8	4.8	4.9	4.9	5.1	5.2	5.2	5.3	5.1										105.1	
3-90	4.8	4.7	4.9	4.8	4.9	5.0	4.9	5.0	4.7	4.3									106.2	
4-90	4.7	4.6	4.7	4.7	4.8	4.8	4.7	4.7	4.4	4.0	3.8								107.2	
1-91	4.7	4.6	4.7	4.7	4.7	4.8	4.7	4.7	4.4	4.2	4.2	4.6							108.4	
2-91	4.7	4.7	4.7	4.7	4.8	4.8	4.7	4.7	4.5	4.4	4.4	4.7	4.9						109.7	
3-91	4.7	4.6	4.7	4.7	4.7	4.8	4.7	4.7	4.5	4.4	4.4	4.6	4.7	4.6					110.9	
4-91	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.5	4.4	4.3	4.3	4.4	4.3	4.1	3.7				111.9	
1-92	4.6	4.5	4.6	4.5	4.6	4.6	4.5	4.5	4.3	4.2	4.2	4.3	4.2	4.0	3.8	4.0			113.0	
2-92	4.5	4.4	4.5	4.4	4.4	4.4	4.4	4.3	4.2	4.1	4.0	4.1	4.0	3.7	3.5	3.4	2.9		113.8	
3-92	4.4	4.4	4.4	4.3	4.4	4.3	4.3	4.2	4.1	4.0	3.9	3.9	3.8	3.6	3.4	3.4	3.0	3.2		114.7
4-92	4.4	4.3	4.3	4.3	4.3	4.3	4.2	4.2	4.0	3.9	3.9	3.9	3.8	3.6	3.4	3.4	3.2	3.4		115.7

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 4-91 1-92 2-92 3-92

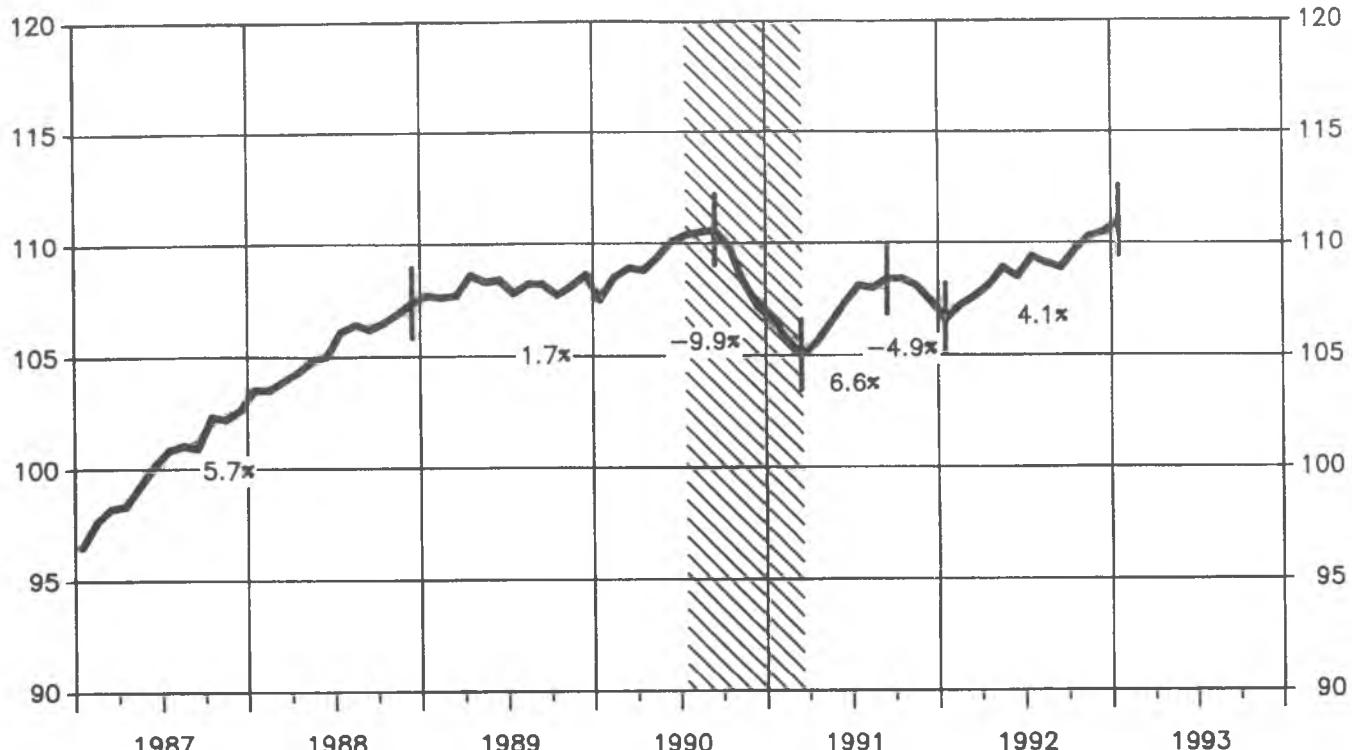
Data are for the last month of quarter. Revised from 1988.

Prepared by Federal Reserve Bank of St. Louis  
January 26, 1993

**Industrial Production**  
Seasonally Adjusted

1987=100

1987=100



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							
	6-91	7-91	8-91	9-91	10-91	11-91	12-91	1-92	2-92	3-92	4-92	5-92	6-92	7-92	8-92	9-92	10-92	11-92	12-92	
7-91	9.3																	108.1		
8-91	4.0	-1.1																108.0		
9-91	4.2	1.7	4.5															108.4		
10-91	3.1	1.1	2.2	0.0														108.4		
11-91	1.8	0.0	0.4	-1.6	-3.3													108.1		
12-91	0.2	-1.5	-1.7	-3.6	-5.4	-7.5												107.4		
1-92	-1.1	-2.8	-3.1	-4.9	-6.5	-8.0	-8.6											106.6		
2-92	-0.1	-1.4	-1.5	-2.6	-3.3	-3.3	-1.1	7.0										107.2		
3-92	0.4	-0.7	-0.6	-1.5	-1.8	-1.4	0.7	5.8	4.6									107.6		
4-92	0.9	0.0	0.1	-0.5	-0.6	0.0	2.0	5.7	5.1	5.7								108.1		
5-92	1.6	0.9	1.1	0.7	0.8	1.5	3.4	6.6	6.5	7.5	9.3							108.9		
6-92	1.1	0.4	0.6	0.1	0.1	0.6	2.1	4.3	3.7	3.4	2.2	-4.3						108.5		
7-92	1.8	1.2	1.4	1.1	1.2	1.8	3.2	5.3	5.0	5.1	4.9	2.8	10.4					109.4		
8-92	1.4	0.9	1.0	0.7	0.8	1.2	2.4	4.1	3.6	3.4	2.8	0.7	3.4	-3.2				109.1		
9-92	1.2	0.6	0.8	0.5	0.5	0.9	1.9	3.3	2.7	2.4	1.8	0.0	1.5	-2.7	-2.2			108.9		
10-92	1.7	1.2	1.3	1.1	1.2	1.6	2.6	3.9	3.5	3.4	3.0	1.8	3.4	1.1	3.3	9.2		109.7		
11-92	2.0	1.5	1.7	1.5	1.6	2.0	2.9	4.2	3.9	3.8	3.5	2.6	4.0	2.5	4.5	8.0	6.8		110.3	
12-92	2.0	1.6	1.7	1.5	1.7	2.0	2.9	4.0	3.7	3.6	3.3	2.5	3.7	2.4	3.9	6.0	4.5	2.2		110.5
1-93	2.2	1.8	2.0	1.8	1.9	2.3	3.1	4.1	3.9	3.8	3.6	2.9	4.0	2.9	4.2	5.9	4.8	3.9	5.6	111.0

6-91 7-91 8-91 9-91 10-91 11-91 12-91 1-92 2-92 3-92 4-92 5-92 6-92 7-92 8-92 9-92 10-92 11-92 12-92

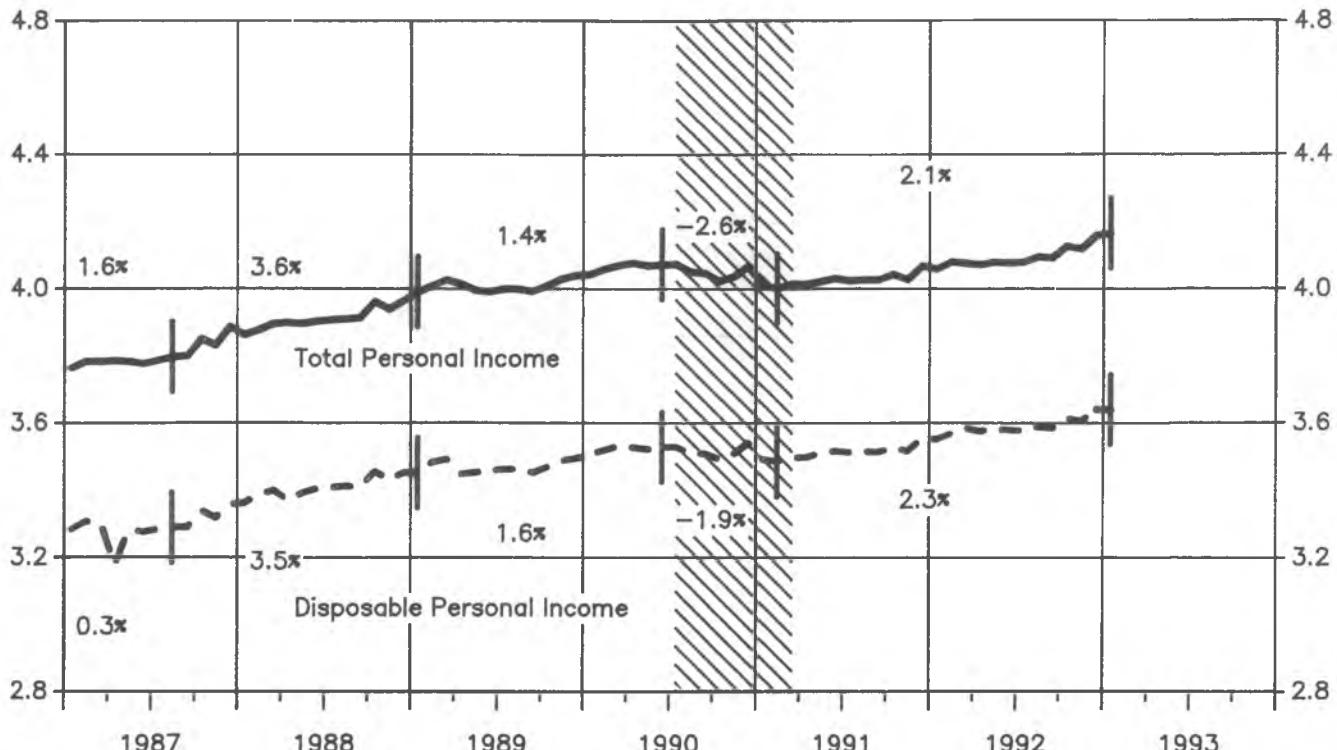
Prepared by Federal Reserve Bank of St. Louis  
February 18, 1993

# Personal Income in 1987 Dollars

Seasonally Adjusted

Trillions of Dollars

Trillions of Dollars



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							
	6-91	7-91	8-91	9-91	10-91	11-91	12-91	1-92	2-92	3-92	4-92	5-92	6-92	7-92	8-92	9-92	10-92	11-92	12-92	
7-91	-1.2																		3,510.4	
8-91	-0.2	0.8																	3,512.7	
9-91	-0.3	0.2	-0.5																3,511.3	
10-91	1.1	1.8	2.4	5.3															3,526.4	
11-91	0.0	0.3	0.1	0.4	-4.3														3,513.4	
12-91	2.2	2.9	3.4	4.8	4.5	14.2													3,552.5	
1-92	1.7	2.2	2.5	3.3	2.6	6.3	-1.1												3,549.3	
2-92	2.2	2.7	3.1	3.8	3.4	6.1	2.3	5.8											3,565.9	
3-92	2.6	3.1	3.4	4.1	3.8	6.0	3.4	5.6	5.5										3,581.9	
4-92	2.0	2.4	2.6	3.0	2.7	4.1	1.8	2.7	1.3	-2.8									3,573.3	
5-92	2.0	2.3	2.5	2.9	2.6	3.7	1.8	2.5	1.4	-0.6	1.8								3,578.6	
6-92	1.8	2.0	2.2	2.5	2.1	3.1	1.3	1.8	0.9	-0.6	0.5	-0.8							3,576.1	
7-92	1.6	1.8	1.9	2.2	1.8	2.6	1.1	1.4	0.6	-0.6	0.1	-0.7	-0.6						3,574.4	
8-92	1.7	2.0	2.1	2.3	2.0	2.7	1.4	1.8	1.1	0.2	1.0	0.8	1.6	3.8					3,585.5	
9-92	1.5	1.7	1.8	2.0	1.7	2.3	1.1	1.4	0.8	0.0	0.6	0.3	0.6	1.2	-1.3				3,581.7	
10-92	2.1	2.3	2.5	2.7	2.5	3.1	2.1	2.4	2.0	1.5	2.3	2.3	3.2	4.4	4.8	11.2			3,613.4	
11-92	1.8	2.0	2.1	2.2	2.0	2.6	1.6	1.8	1.4	0.9	1.5	1.4	1.8	2.5	2.0	3.7	-3.2		3,603.5	
12-92	2.4	2.6	2.7	2.9	2.8	3.3	2.5	2.8	2.5	2.2	2.8	3.0	3.6	4.5	4.6	6.7	4.5	12.9	3,660.1	
1-93	2.2	2.4	2.5	2.7	2.5	3.1	2.2	2.5	2.2	1.9	2.5	2.5	3.0	3.6	3.6	4.9	2.9	6.0	-0.4	3,638.9

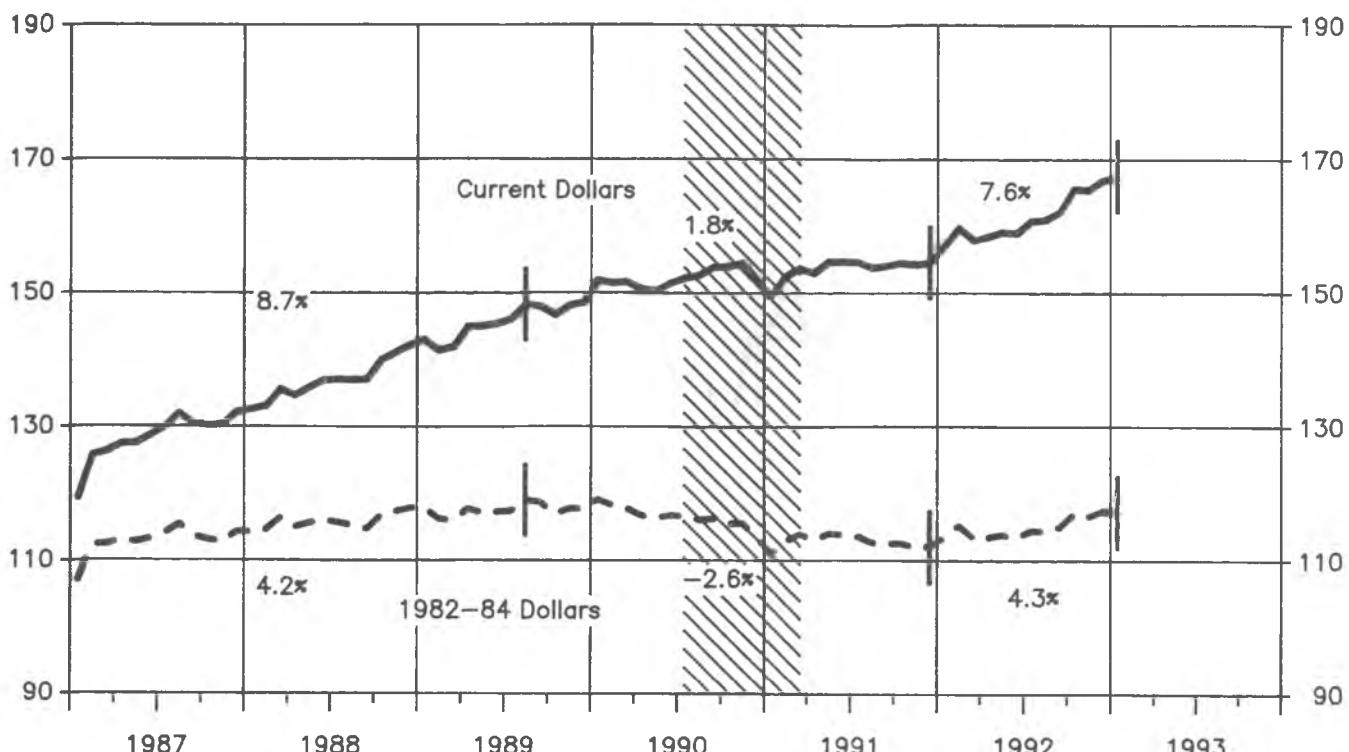
6-91 7-91 8-91 9-91 10-91 11-91 12-91 1-92 2-92 3-92 4-92 5-92 6-92 7-92 8-92 9-92 10-92 11-92 12-92

Prepared by Federal Reserve Bank of St. Louis  
March 1, 1993

**Retail Sales**  
Seasonally Adjusted

Billions of Dollars

Billions of Dollars



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							
	6-91	7-91	8-91	9-91	10-91	11-91	12-91	1-92	2-92	3-92	4-92	5-92	6-92	7-92	8-92	9-92	10-92	11-92	12-92	
7-91	-2.7																		113,470	
8-91	-6.0	-9.1																	112,567	
9-91	-4.4	-5.2	-1.1																112,461	
10-91	-3.2	-3.4	-0.4	0.4															112,501	
11-91	-3.7	-4.0	-2.2	-2.7	-5.8														111,940	
12-91	-3.1	-3.2	-1.7	-1.8	-3.0	0.0													111,938	
1-92	-0.5	-0.1	1.8	2.6	3.3	8.2	17.1												113,420	
2-92	1.8	2.5	4.5	5.7	7.1	11.8	18.2	19.2											115,096	
3-92	-0.5	-0.2	1.2	1.6	1.8	3.8	5.1	-0.5	-16.9										113,333	
4-92	-0.4	-0.1	1.1	1.4	1.6	3.1	3.9	-0.2	-8.6	0.4									113,375	
5-92	0.0	0.3	1.4	1.7	1.9	3.2	3.9	0.8	-4.7	2.1	3.8								113,732	
6-92	-0.3	-0.1	0.9	1.1	1.2	2.2	2.6	0.0	-4.4	0.2	0.1	-3.5							113,397	
7-92	0.5	0.8	1.7	2.0	2.2	3.3	3.7	1.7	-1.5	2.7	3.5	3.3	10.6						114,356	
8-92	0.4	0.6	1.5	1.8	1.9	2.8	3.1	1.3	-1.4	2.0	2.4	1.9	4.7	-1.0					114,265	
9-92	0.8	1.1	1.9	2.2	2.4	3.2	3.6	2.0	-0.2	2.8	3.3	3.2	5.5	3.1	7.2				114,933	
10-92	2.1	2.4	3.3	3.6	3.9	4.8	5.3	4.1	2.4	5.5	6.3	6.8	9.6	9.2	14.7	22.6			116,899	
11-92	1.7	2.0	2.8	3.1	3.3	4.1	4.5	3.3	1.6	4.2	4.8	4.9	6.7	5.8	8.1	8.5	-3.9		116,508	
12-92	2.1	2.4	3.2	3.5	3.7	4.4	4.8	3.8	2.3	4.7	5.3	5.5	7.1	6.4	8.3	8.6	2.2	8.8	117,333	
1-93	1.9	2.1	2.9	3.1	3.3	4.0	4.3	3.3	1.9	4.0	4.5	4.5	5.7	4.9	6.1	5.9	0.8	3.3	-2.0	117,139

6-91 7-91 8-91 9-91 10-91 11-91 12-91 1-92 2-92 3-92 4-92 5-92 6-92 7-92 8-92 9-92 10-92 11-92 12-92

Retail sales data deflated by CPI-U (1982-84=100). CPI revised from 1988.

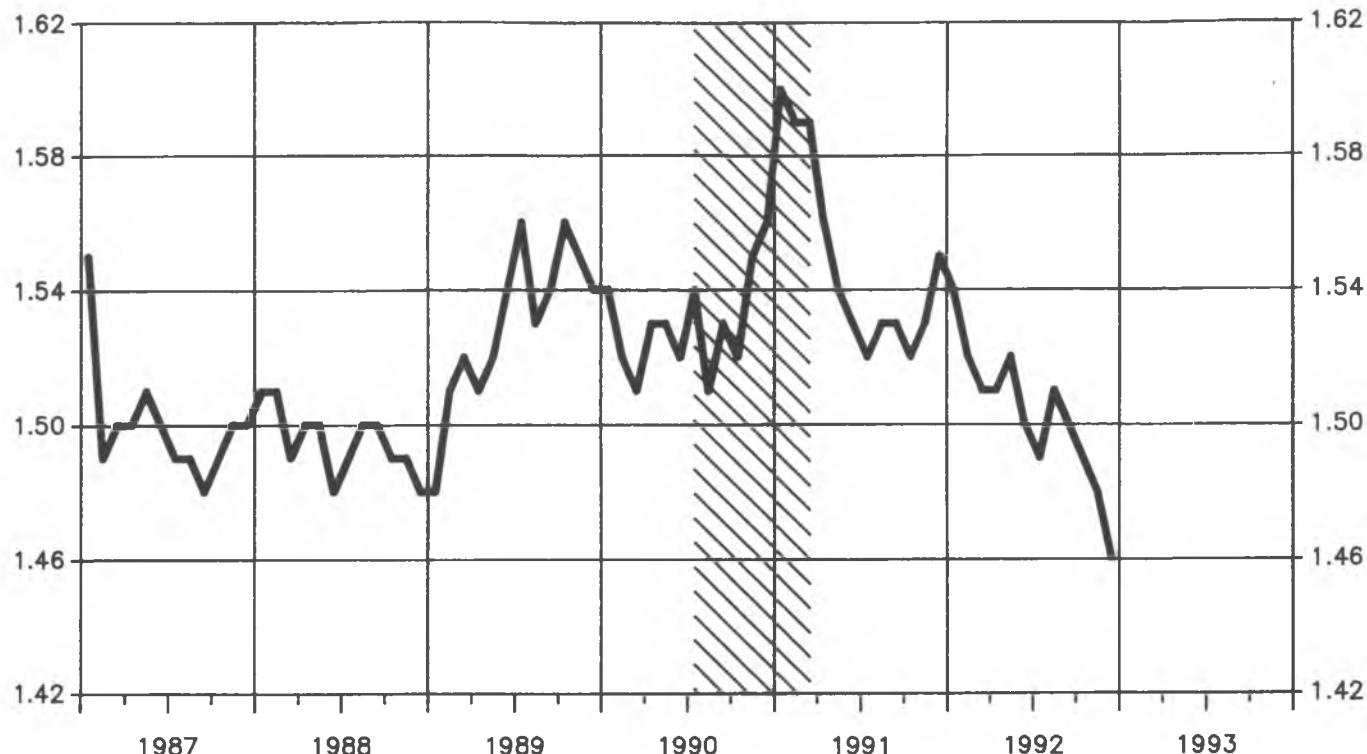
Prepared by Federal Reserve Bank of St. Louis  
February 11, 1993

# Inventories Compared With Monthly Sales

Manufacturing and Trade  
Seasonally Adjusted

Ratio

Ratio



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				
	5-91	6-91	7-91	8-91	9-91	10-91	11-91	12-91	1-92	2-92	3-92	4-92	5-92	6-92	7-92	8-92	9-92	10-92	11-92	
6-91	-5.0																			820,671
7-91	-3.1	-1.1																		819,898
8-91	-2.2	-0.7	-0.3																	819,684
9-91	-0.6	0.9	1.9	4.1																822,418
10-91	0.0	1.3	2.2	3.5	2.8															824,342
11-91	0.0	1.0	1.6	2.2	1.3	-0.1														824,239
12-91	0.6	1.6	2.2	2.8	2.4	2.1	4.5													827,246
1-92	0.0	0.7	1.0	1.3	0.6	-0.1	-0.1	-4.4												824,150
2-92	0.1	0.7	1.0	1.2	0.6	0.1	0.2	-1.9	0.7											824,609
3-92	0.3	0.9	1.2	1.4	0.9	0.5	0.7	-0.5	1.5	2.3										826,204
4-92	0.6	1.2	1.4	1.6	1.3	1.0	1.3	0.5	2.2	3.0	3.6									828,630
5-92	0.5	1.0	1.2	1.4	1.0	0.8	0.9	0.2	1.4	1.7	1.3	-0.9								828,032
6-92	0.9	1.4	1.6	1.8	1.5	1.4	1.6	1.1	2.3	2.7	2.8	2.4	5.7							831,872
7-92	1.2	1.7	1.9	2.1	1.9	1.8	2.0	1.7	2.7	3.2	3.4	3.3	5.4	5.2						835,373
8-92	1.2	1.7	1.9	2.1	1.9	1.8	2.1	1.8	2.7	3.0	3.2	3.1	4.4	3.7	2.3					836,972
9-92	1.0	1.4	1.6	1.8	1.6	1.5	1.6	1.3	2.1	2.3	2.3	2.0	2.7	1.7	0.1	-2.2				835,457
10-92	1.1	1.5	1.6	1.8	1.6	1.5	1.7	1.4	2.0	2.2	2.2	2.0	2.6	1.8	0.7	-0.1	1.9			836,788
11-92	1.1	1.5	1.7	1.8	1.6	1.5	1.7	1.4	2.0	2.2	2.2	2.0	2.5	1.8	1.0	0.6	2.0	2.0		838,164
12-92	1.3	1.7	1.8	2.0	1.8	1.8	1.9	1.7	2.3	2.4	2.4	2.3	2.7	2.3	1.7	1.5	2.8	3.2	4.4	841,207

5-91 6-91 7-91 8-91 9-91 10-91 11-91 12-91 1-92 2-92 3-92 4-92 5-92 6-92 7-92 8-92 9-92 10-92 11-92

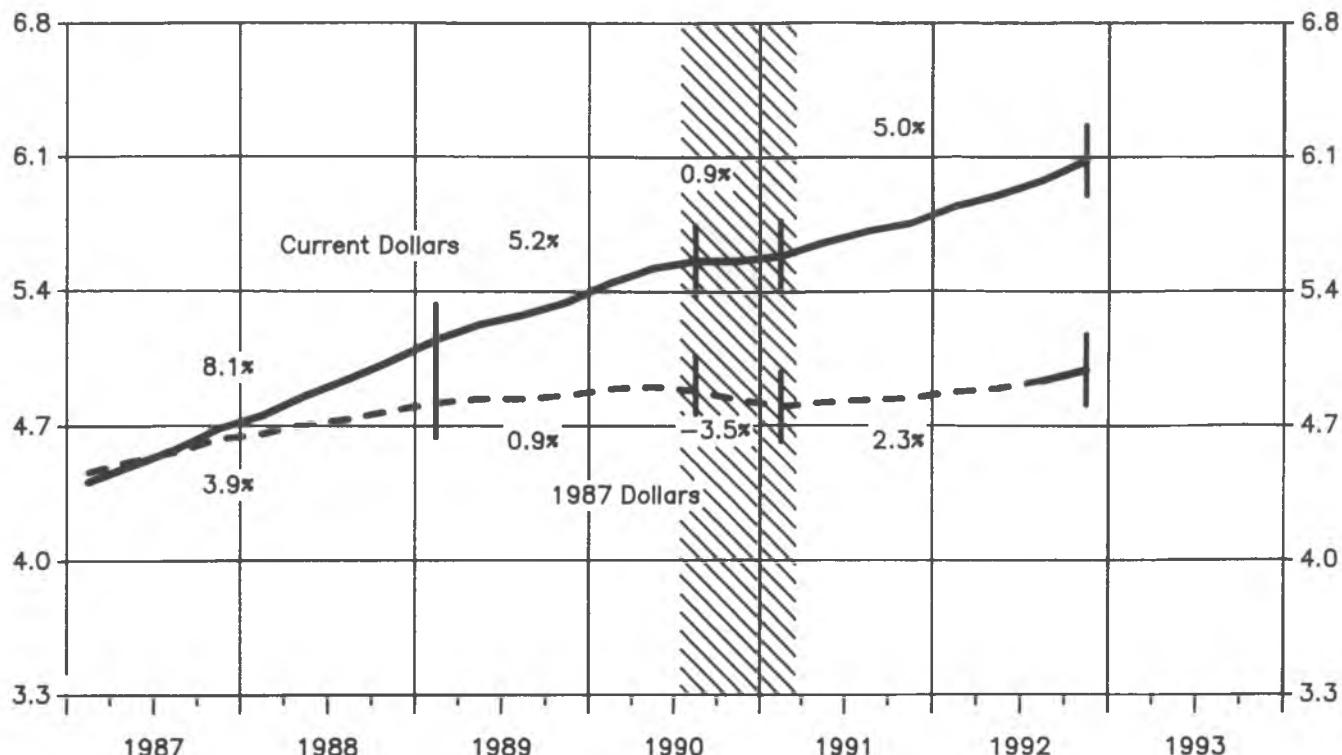
Prepared by Federal Reserve Bank of St. Louis  
February 12, 1993

# Gross Domestic Product

Seasonally Adjusted

Trillions of Dollars

Trillions of Dollars



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 Annual Rates					
	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	4-91	1-92	2-92
2-88	4.3																	4,704.8
3-88	3.4	2.5																4,734.5
4-88	3.6	3.2	3.9															4,779.7
1-89	3.5	3.2	3.5	3.2														4,817.6
2-89	3.1	2.9	3.0	2.5	1.8													4,839.0
3-89	2.6	2.3	2.2	1.7	0.9	0.0												4,839.0
4-89	2.4	2.1	2.1	1.6	1.1	0.7	1.5											4,856.7
1-90	2.5	2.2	2.2	1.9	1.5	1.4	2.2	2.8										4,890.8
2-90	2.3	2.1	2.0	1.7	1.4	1.3	1.8	1.9	1.0									4,902.7
3-90	1.9	1.7	1.6	1.2	0.9	0.7	0.9	0.7	-0.3	-1.6								4,882.6
4-90	1.4	1.1	0.9	0.6	0.2	-0.1	-0.1	-0.5	-1.6	-2.8	-3.9							4,833.8
1-91	1.0	0.7	0.5	0.2	-0.2	-0.5	-0.6	-1.0	-1.9	-2.9	-3.5	-3.0						4,796.7
2-91	1.1	0.8	0.6	0.3	0.0	-0.2	-0.3	-0.5	-1.2	-1.7	-1.8	-0.7	1.7					4,817.1
3-91	1.1	0.8	0.7	0.4	0.1	-0.1	-0.3	-0.8	-1.2	-1.0	-0.1	1.5	1.2					4,831.8
4-91	1.0	0.8	0.7	0.4	0.2	0.0	0.0	-0.2	-0.6	-0.9	-0.7	0.1	1.2	0.9	0.6			4,838.5
1-92	1.2	0.9	0.8	0.6	0.4	0.3	0.3	0.2	-0.2	-0.3	-0.1	0.7	1.6	1.6	1.7	2.9		4,873.7
2-92	1.2	1.0	0.9	0.7	0.5	0.4	0.4	0.3	0.0	-0.1	0.1	0.8	1.6	1.6	1.7	2.2	1.5	4,892.4
3-92	1.3	1.1	1.0	0.8	0.7	0.6	0.6	0.6	0.3	0.3	0.5	1.2	1.9	1.9	2.1	2.6	2.5	4,933.7
4-92	1.5	1.3	1.3	1.1	1.0	0.9	1.0	0.9	0.7	0.7	1.0	1.6	2.3	2.4	2.6	3.2	4.1	4,991.5

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 4-91 1-92 2-92 3-92

Fourth quarter 1992 data are preliminary estimates.

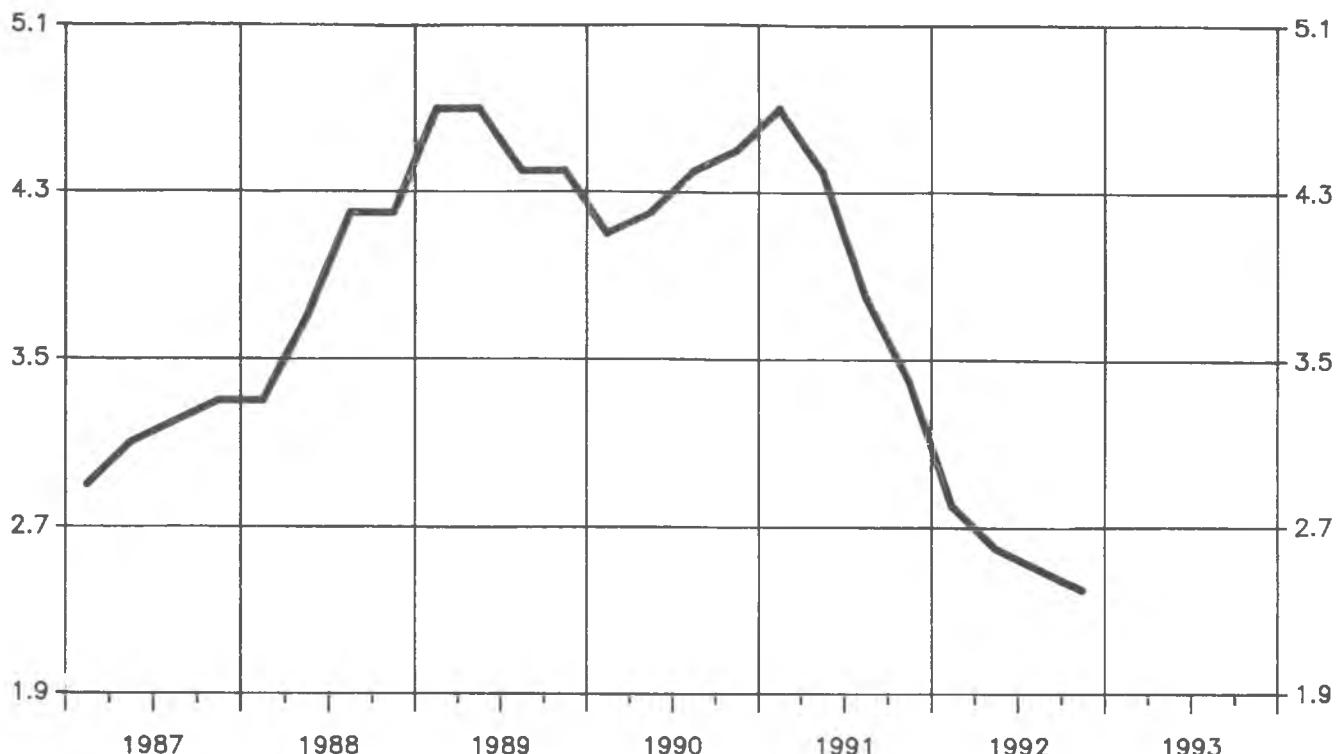
Prepared by Federal Reserve Bank of St. Louis  
February 26, 1993

# Implicit Price Deflator for GDP

Percent Change From Previous Year  
Seasonally Adjusted

Percent

Percent



Prepared by Federal Reserve Bank of St. Louis

## Implicit Price Deflator (Compounded Annual Rates of Change)

Terminal Quarter	Initial Quarter															1987 = 100			
	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	4-91	1-92	2-92	3-92
2-88	4.4																		103.2
3-88	4.8	5.1																	104.5
4-88	4.5	4.5	3.9																105.5
1-89	4.7	4.8	4.6	5.4															106.9
2-89	4.7	4.7	4.6	5.0	4.6														108.1
3-89	4.5	4.5	4.4	4.6	4.2	3.8													109.1
4-89	4.4	4.4	4.3	4.4	4.0	3.7	3.7												110.1
1-90	4.4	4.4	4.3	4.4	4.1	4.0	4.1	4.4											111.3
2-90	4.4	4.5	4.4	4.4	4.2	4.2	4.3	4.6	4.8										112.6
3-90	4.5	4.5	4.4	4.5	4.3	4.3	4.4	4.6	4.7	4.7									113.9
4-90	4.4	4.4	4.3	4.4	4.3	4.2	4.3	4.5	4.5	4.3	3.9								115.0
1-91	4.5	4.5	4.4	4.5	4.4	4.4	4.5	4.6	4.7	4.6	4.6	5.3							116.5
2-91	4.4	4.4	4.4	4.4	4.3	4.3	4.3	4.4	4.4	4.4	4.2	4.4	3.5						117.5
3-91	4.3	4.3	4.2	4.2	4.1	4.0	4.1	4.1	4.0	3.8	3.7	2.9	2.4						118.2
4-91	4.1	4.1	4.1	4.1	3.9	3.9	3.9	3.9	3.8	3.7	3.5	3.4	2.8	2.4	2.4				118.9
1-92	4.1	4.1	4.0	4.0	3.9	3.8	3.8	3.8	3.7	3.6	3.4	3.3	2.8	2.6	2.7	3.1			119.8
2-92	4.0	4.0	3.9	3.9	3.8	3.7	3.7	3.7	3.6	3.5	3.3	3.2	2.8	2.6	2.7	2.9	2.7		120.6
3-92	3.9	3.9	3.8	3.8	3.7	3.6	3.6	3.6	3.5	3.3	3.2	3.0	2.7	2.5	2.5	2.6	2.4	2.0	121.2
4-92	3.8	3.8	3.7	3.7	3.5	3.5	3.4	3.4	3.3	3.2	3.0	2.9	2.6	2.4	2.4	2.2	2.0	2.0	121.8
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	4-91	1-92	2-92	3-92	

Fourth quarter 1992 data are preliminary estimates.

Prepared by Federal Reserve Bank of St. Louis  
February 26, 1993

### Final Sales in 1987 Dollars

(Compounded Annual Rates of Change)

Terminal Quarter	Initial Quarter															Billions of Dollars Annual Rates				
	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	4-91	1-92	2-92	3-92	
2-88	4.6																		4,688.7	
3-88	3.2	1.9																	4,710.9	
4-88	3.5	3.0	4.1																4,758.7	
1-89	3.0	2.5	2.8	1.5															4,776.3	
2-89	2.9	2.4	2.6	1.8	2.2														4,802.0	
3-89	2.7	2.3	2.4	1.8	2.0	1.8													4,823.0	
4-89	2.4	2.0	2.0	1.5	1.6	1.2	0.7												4,831.8	
1-90	2.6	2.4	2.4	2.1	2.2	2.3	2.5	4.3											4,883.3	
2-90	2.2	1.9	1.9	1.6	1.6	1.4	1.3	1.6	-1.1										4,870.0	
3-90	2.0	1.7	1.7	1.3	1.3	1.2	1.0	1.1	-0.5	0.1									4,871.4	
4-90	1.7	1.5	1.4	1.1	1.0	0.8	0.6	0.6	-0.6	-0.4	-0.9								4,860.6	
1-91	1.3	1.0	0.9	0.6	0.5	0.2	0.0	-0.2	-1.3	-1.3	-2.0	-3.2							4,821.8	
2-91	1.3	1.0	1.0	0.7	0.6	0.4	0.2	0.1	-0.8	-0.7	-0.9	-1.0	1.3						4,837.4	
3-91	1.2	0.9	0.8	0.6	0.5	0.3	0.1	0.0	-0.7	-0.6	-0.8	-0.8	0.4	-0.5					4,831.2	
4-91	1.1	0.9	0.8	0.5	0.4	0.2	0.1	0.0	-0.6	-0.5	-0.7	-0.6	0.3	-0.3	0.0				4,830.9	
1-92	1.3	1.1	1.0	0.8	0.8	0.6	0.5	0.5	0.0	0.2	0.2	0.4	1.3	1.4	2.3	4.7			4,886.3	
2-92	1.2	1.0	1.0	0.7	0.7	0.6	0.5	0.4	0.0	0.1	0.2	0.3	1.0	1.0	1.5	2.2	-0.1		4,884.6	
3-92	1.3	1.1	1.1	0.9	0.8	0.7	0.7	0.7	0.3	0.4	0.5	0.7	1.3	1.3	1.8	2.4	1.3	2.8	4,918.7	
4-92	1.5	1.4	1.3	1.2	1.1	1.1	1.0	1.0	0.7	0.9	1.0	1.2	1.9	2.0	2.5	3.1	2.6	4.0	5.2	4,981.5
	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	4-91	1-92	2-92	3-92	

Prepared by Federal Reserve Bank of St. Louis  
February 26, 1993

### Personal Consumption Expenditures in 1987 Dollars

(Compounded Annual Rates of Change)

Terminal Quarter	Initial Quarter															Billions of Dollars Annual Rates				
	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	4-91	1-92	2-92	3-92	
2-88	2.5																		3,147.8	
3-88	2.7	2.9																	3,170.6	
4-88	3.2	3.5	4.1																3,202.9	
1-89	2.4	2.4	2.1	0.1															3,203.6	
2-89	2.1	2.0	1.8	0.6	1.1														3,212.2	
3-89	2.3	2.2	2.0	1.4	2.0	2.9													3,235.3	
4-89	2.1	2.0	1.8	1.2	1.6	1.9	0.8												3,242.0	
1-90	2.1	2.0	1.9	1.4	1.7	2.0	1.5	2.2											3,259.5	
2-90	1.9	1.8	1.6	1.2	1.4	1.5	1.0	1.1	0.1										3,260.1	
3-90	1.8	1.8	1.6	1.3	1.5	1.5	1.2	1.3	0.9	1.7									3,273.9	
4-90	1.4	1.3	1.1	0.7	0.8	0.7	0.3	0.2	-0.5	-0.7	-3.1								3,248.0	
1-91	1.0	0.9	0.7	0.3	0.3	0.2	-0.2	-0.5	-1.1	-1.5	-3.1	-3.0							3,223.5	
2-91	1.1	1.0	0.8	0.5	0.5	0.4	0.1	-0.1	-0.5	-0.6	-1.4	-0.5	2.0						3,239.3	
3-91	1.1	1.0	0.8	0.5	0.6	0.5	0.2	0.2	-0.2	-0.2	-0.7	0.1	1.7	1.5					3,251.2	
4-91	1.0	0.9	0.8	0.5	0.5	0.5	0.2	0.1	-0.2	-0.2	-0.6	0.0	1.1	0.6	-0.3				3,249.0	
1-92	1.3	1.2	1.1	0.8	0.9	0.9	0.7	0.6	0.5	0.5	0.3	1.0	2.0	2.1	2.4	5.1			3,289.3	
2-92	1.2	1.1	1.0	0.8	0.8	0.8	0.6	0.6	0.4	0.4	0.3	0.8	1.6	1.5	2.4	-0.1			3,288.5	
3-92	1.3	1.2	1.1	0.9	1.0	1.0	0.8	0.9	0.7	0.8	0.7	1.2	2.0	1.9	2.1	2.9	1.8	3.7	3,318.4	
4-92	1.5	1.4	1.4	1.2	1.3	1.3	1.1	1.2	1.1	1.2	1.1	1.7	2.4	2.4	2.6	3.3	2.8	4.3	4.8	3,357.7
	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	4-91	1-92	2-92	3-92	

Fourth quarter 1992 data are preliminary estimates.

Prepared by Federal Reserve Bank of St. Louis  
February 26, 1993

## Residential Fixed Investment in 1987 Dollars

(Compounded Annual Rates of Change)

Terminal Quarter	Initial Quarter															Billions of Dollars Annual Rates			
	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	4-91	1-92	2-92	3-92
2-88	3.7																		222.0
3-88	3.2	2.7																	223.5
4-88	3.2	3.0	3.3																225.3
1-89	1.0	0.1	-1.2	-5.4															222.2
2-89	-1.7	-3.0	-4.8	-8.6	-11.7														215.4
3-89	-2.7	-3.9	-5.5	-8.3	-9.7	-7.6													211.2
4-89	-3.2	-4.2	-5.6	-7.7	-8.4	-6.8	-5.9												208.0
1-90	-2.1	-2.9	-3.9	-5.2	-5.2	-2.9	-0.5	5.3											210.7
2-90	-3.8	-4.7	-5.7	-7.1	-7.4	-6.3	-5.9	-5.9	-15.9										201.8
3-90	-5.9	-6.9	-8.0	-9.5	-10.2	-9.9	-10.5	-11.9	-19.5	-22.9									189.1
4-90	-7.5	-8.6	-9.7	-11.2	-12.0	-12.1	-13.0	-14.7	-20.4	-22.6	-22.4								177.5
1-91	-9.3	-10.4	-11.6	-13.1	-14.1	-14.4	-15.5	-17.3	-22.1	-24.1	-24.7	-26.9							164.1
2-91	-8.1	-9.1	-10.1	-11.3	-11.9	-12.0	-12.6	-13.7	-17.0	-17.3	-15.3	-11.6	7.0						166.9
3-91	-6.7	-7.5	-8.3	-9.2	-9.6	-9.4	-9.6	-10.1	-12.5	-11.8	-8.7	-3.7	10.6	14.4					172.6
4-91	-5.6	-6.2	-6.9	-7.7	-7.9	-7.5	-7.5	-7.7	-9.4	-8.3	-5.0	-0.1	10.9	12.9	11.3				177.3
1-92	-4.2	-4.7	-5.2	-5.8	-5.8	-5.3	-5.0	-4.9	-6.1	-4.7	-1.2	3.6	13.1	15.2	15.6	20.1			185.6
2-92	-3.2	-3.7	-4.1	-4.6	-4.5	-3.9	-3.6	-3.3	-4.2	-2.7	0.6	5.1	13.0	14.6	14.6	16.3	12.6		191.2
3-92	-3.1	-3.4	-3.8	-4.3	-4.2	-3.6	-3.2	-3.0	-3.8	-2.3	0.6	4.4	10.8	11.5	10.8	10.7	6.2	0.2	191.3
4-92	-1.7	-2.0	-2.3	-2.6	-2.4	-1.7	-1.3	-0.9	-1.4	0.2	3.1	6.9	12.8	13.8	13.7	14.3	12.5	12.4	26.1
	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	4-91	1-92	2-92	3-92

Prepared by Federal Reserve Bank of St. Louis  
February 26, 1993

## Nonresidential Fixed Investment in 1987 Dollars

(Compounded Annual Rates of Change)

Terminal Quarter	Initial Quarter															Billions of Dollars Annual Rates			
	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	4-91	1-92	2-92	3-92
2-88	11.0																		531.4
3-88	6.9	2.9																	535.2
4-88	5.5	2.8	2.7																538.8
1-89	4.2	2.0	1.6	0.5															539.5
2-89	3.8	2.0	1.7	1.3	2.0														542.2
3-89	3.1	1.6	1.2	0.7	0.9	-0.3													541.8
4-89	2.1	0.7	0.2	-0.4	-0.7	-2.0	-3.7												536.7
1-90	2.6	1.4	1.2	0.9	1.0	0.6	1.1	6.2											544.8
2-90	1.5	0.4	0.0	-0.4	-0.6	-1.2	-1.5	-0.4	-6.6										535.6
3-90	1.9	1.0	0.7	0.4	0.4	0.1	0.2	1.5	-0.7	5.6									542.9
4-90	0.8	-0.2	-0.5	-0.9	-1.1	-1.6	-1.8	-1.4	-3.8	-2.3	-9.6								529.3
1-91	-0.7	-1.7	-2.1	-2.7	-3.1	-3.8	-4.3	-4.5	-6.9	-7.1	-12.8	-15.8							507.0
2-91	-0.9	-1.8	-2.2	-2.7	-3.1	-3.7	-4.2	-4.2	-6.2	-6.1	-9.7	-9.7	-3.1						503.0
3-91	-1.1	-1.9	-2.3	-2.8	-3.1	-3.6	-4.1	-4.1	-5.7	-5.6	-8.1	-7.6	-3.2	-3.4					498.7
4-91	-1.3	-2.2	-2.6	-3.0	-3.3	-3.8	-4.2	-4.2	-5.6	-5.5	-7.6	-7.0	-3.9	-4.3	-5.2				492.1
1-92	-1.1	-1.8	-2.2	-2.5	-2.8	-3.2	-3.5	-3.5	-4.6	-4.3	-5.9	-5.1	-2.2	-1.9	-1.2	3.0			495.8
2-92	-0.1	-0.8	-1.0	-1.3	-1.4	-1.7	-1.8	-1.7	-2.5	-2.0	-3.0	-1.8	1.2	2.3	4.3	9.4	16.1		514.7
3-92	0.0	-0.6	-0.8	-1.0	-1.1	-1.4	-1.4	-1.2	-1.9	-1.4	-2.3	-1.1	1.5	2.5	4.0	7.3	9.5	3.1	518.7
4-92	0.5	0.0	-0.2	-0.4	-0.6	-0.6	-0.3	-0.9	-0.3	-1.0	0.2	2.7	3.7	5.2	7.9	9.6	6.5	9.9	531.1
	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	4-91	1-92	2-92	3-92

Fourth quarter 1992 data are preliminary estimates.

Prepared by Federal Reserve Bank of St. Louis  
February 26, 1993

### Exports in 1987 Dollars

(Compounded Annual Rates of Change)

Terminal Quarter	Initial Quarter																Billions of Dollars Annual Rates				
	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	4-91	1-92	2-92	3-92		
2-88	10.3																			417.2	
3-88	8.5	6.8																		424.1	
4-88	10.3	10.3	14.0																	438.2	
1-89	11.6	12.1	14.9	15.7																454.5	
2-89	12.6	13.1	15.3	16.0	16.3															472.0	
3-89	10.5	10.5	11.5	10.7	8.3	8.8														472.9	
4-89	10.9	11.0	11.8	11.3	9.9	6.8	13.1													487.7	
1-90	10.8	10.9	11.6	11.2	10.1	8.0	11.9	10.7												500.2	
2-90	10.4	10.4	11.0	10.5	9.4	7.8	10.2	8.8	7.0											508.7	
3-90	9.3	9.2	9.5	8.9	7.8	6.1	7.5	5.7	3.3	-0.2										508.4	
4-90	9.5	9.4	9.7	9.2	8.3	7.0	8.3	7.2	6.0	5.5	11.6									522.6	
1-91	8.2	8.0	8.2	7.5	6.5	5.2	6.0	4.6	3.1	1.9	3.0	-5.0								515.9	
2-91	8.8	8.7	8.9	8.4	7.6	6.6	7.4	6.5	5.7	5.4	7.3	5.2	16.6							536.1	
3-91	8.6	8.5	8.7	8.2	7.5	6.5	7.3	6.5	5.8	5.5	7.0	5.5	11.3	6.2						544.2	
4-91	8.9	8.9	9.0	8.6	8.0	7.2	7.9	7.3	6.8	6.8	8.3	7.4	11.9	9.7	13.3					561.4	
1-92	8.6	8.4	8.6	8.2	7.5	6.8	7.4	6.8	6.3	6.2	7.3	6.5	9.6	7.4	7.9	2.9				565.4	
2-92	7.9	7.8	7.9	7.4	6.8	6.1	6.6	5.9	5.4	5.2	6.0	5.1	7.3	5.1	4.7	0.7	-1.4			563.4	
3-92	8.0	7.9	7.9	7.6	7.0	6.3	6.8	6.2	5.8	5.7	6.4	5.7	7.6	5.9	5.8	3.5	3.7	9.2		575.9	
4-92	8.1	8.0	8.1	7.7	7.2	6.6	7.0	6.5	6.2	6.1	6.8	6.2	7.9	6.5	6.6	5.0	5.7	9.5	9.8		589.5

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 4-91 1-92 2-92 3-92

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### Imports in 1987 Dollars

(Compounded Annual Rates of Change)

Terminal Quarter	Initial Quarter																Billions of Dollars Annual Rates				
	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	4-91	1-92	2-92	3-92		
2-88	-4.0																			515.2	
3-88	2.2	8.7																		526.1	
4-88	5.3	10.2	11.7																	540.9	
1-89	2.7	5.0	3.1	-4.8																534.3	
2-89	3.3	5.2	4.0	0.4	5.8															541.9	
3-89	3.8	5.4	4.6	2.4	6.2	6.5														550.5	
4-89	3.7	5.1	4.4	2.6	5.2	4.9	3.3													555.0	
1-90	3.6	4.7	4.1	2.6	4.5	4.1	3.0	2.6												558.6	
2-90	3.8	4.8	4.2	3.0	4.7	4.4	3.7	3.9	5.1											565.6	
3-90	3.5	4.4	3.9	2.8	4.1	3.8	3.1	3.1	3.3	1.5										567.7	
4-90	2.4	3.0	2.4	1.3	2.2	1.6	0.7	0.1	-0.8	-3.6	-8.5									555.3	
1-91	0.8	1.3	0.6	-0.6	0.0	-0.9	-2.0	-3.1	-4.4	-7.4	-11.6	-14.6								533.8	
2-91	1.9	2.4	1.9	0.9	1.6	1.1	0.3	-0.2	-0.7	-2.1	-3.3	-0.6	15.6							553.5	
3-91	2.9	3.5	3.1	2.3	3.0	2.7	2.3	2.1	2.0	1.4	1.4	5.0	16.4	17.1						575.8	
4-91	3.0	3.5	3.1	2.5	3.1	2.9	2.5	2.4	2.4	1.9	2.0	4.8	12.2	10.5	4.2					581.8	
1-92	3.0	3.5	3.2	2.5	3.2	2.9	2.6	2.5	2.5	2.1	2.2	4.5	9.9	8.1	3.9	3.5				586.8	
2-92	3.7	4.2	3.9	3.4	4.0	3.9	3.6	3.7	3.8	3.6	3.9	6.1	10.9	9.7	7.4	9.0	14.7			607.3	
3-92	4.3	4.8	4.6	4.1	4.8	4.7	4.5	4.6	4.8	4.8	5.2	7.3	11.5	10.7	9.2	10.9	14.8	14.8		628.6	
4-92	4.4	4.8	4.6	4.2	4.8	4.7	4.6	4.7	4.9	4.9	5.3	7.1	10.7	9.9	8.5	9.6	11.7	10.2	5.7		637.6

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 4-91 1-92 2-92 3-92

Fourth quarter 1992 data are preliminary estimates.

Prepared by Federal Reserve Bank of St. Louis  
February 26, 1993

# Government Purchases of Goods and Services in 1987 Dollars

(Compounded Annual Rates of Change)

Terminal Quarter	Initial Quarter															Billions of Dollars Annual Rates				
	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	4-91	1-92	2-92	3-92	
2-88	0.9																		885.6	
3-88	0.0	-0.9																	883.7	
4-88	1.6	2.0	5.0																894.5	
1-89	0.8	0.8	1.6	-1.6															890.8	
2-89	1.7	1.9	2.8	1.8	5.3														902.3	
3-89	2.1	2.4	3.2	2.6	4.9	4.5													912.2	
4-89	1.9	2.0	2.6	2.0	3.3	2.3	0.2												912.6	
1-90	2.4	2.6	3.2	2.9	4.0	3.6	3.2	6.4											926.8	
2-90	2.3	2.4	2.9	2.6	3.5	3.0	2.5	3.7	1.1										929.4	
3-90	1.8	1.9	2.3	1.9	2.5	2.0	1.4	1.8	-0.4	-2.0									924.8	
4-90	2.2	2.3	2.7	2.4	3.0	2.7	2.3	2.8	1.7	2.0	6.1								938.5	
1-91	2.3	2.4	2.7	2.5	3.0	2.7	2.4	2.8	2.0	2.3	4.4	2.8							945.1	
2-91	2.1	2.2	2.5	2.2	2.7	2.4	2.1	2.4	1.6	1.7	3.0	1.5	0.2						945.6	
3-91	1.8	1.9	2.1	1.8	2.2	1.8	1.5	1.7	1.0	0.9	1.7	0.2	-1.0	-2.3					940.2	
4-91	1.5	1.5	1.7	1.4	1.7	1.4	1.0	1.1	0.4	0.3	0.7	-0.6	-1.7	-2.6	-3.0				933.1	
1-92	1.5	1.5	1.7	1.4	1.7	1.4	1.1	1.2	0.5	0.5	0.9	-0.1	-0.9	-1.2	-0.7	1.7			937.0	
2-92	1.3	1.3	1.5	1.2	1.5	1.2	0.9	0.9	0.4	0.3	0.6	-0.3	-0.9	-1.2	-0.8	0.2	-1.2		934.2	
3-92	1.5	1.5	1.6	1.4	1.6	1.4	1.1	1.2	0.7	0.6	1.0	0.3	-0.1	-0.2	0.3	1.4	1.3	3.8	943.0	
4-92	1.3	1.3	1.4	1.2	1.4	1.1	0.9	0.9	0.4	0.4	0.6	0.0	-0.4	-0.5	-0.2	0.5	0.1	0.8	-2.1	938.0
	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	4-91	1-92	2-92	3-92	

Fourth quarter 1992 data are preliminary estimates.

Prepared by Federal Reserve Bank of St. Louis  
February 26, 1992

## Corporate Profits

(Compounded Annual Rates of Change)

Terminal Quarter	Initial Quarter															Billions of Dollars Annual Rates				
	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	4-91	1-92	2-92	
1-88	10.7																		352.1	
2-88	12.5	14.5																	364.2	
3-88	8.6	7.6	1.2																365.3	
4-88	10.2	10.0	7.9	15.0															378.3	
1-89	6.0	4.9	1.9	2.3	-9.1														369.4	
2-89	5.1	4.0	1.6	1.7	-4.4	0.5													369.9	
3-89	2.3	1.0	-1.5	-2.2	-7.3	-6.4	-12.9												357.3	
4-89	1.6	0.4	-1.8	-2.4	-6.3	-5.3	-8.2	-3.1											354.5	
1-90	3.1	2.2	0.5	0.4	-2.3	-0.5	-0.8	5.8	15.6										367.6	
2-90	4.6	3.9	2.7	2.9	1.0	3.1	3.8	10.1	17.3	19.1									384.0	
3-90	0.9	-0.1	-1.6	-1.9	-4.1	-3.3	-4.0	-1.7	-1.2	-8.6	-29.9								351.4	
4-90	0.1	-0.8	-2.3	-2.6	-4.6	-4.0	-4.7	-3.0	-3.0	-8.5	-19.7	-8.2							344.0	
1-91	0.6	-0.2	-1.5	-1.7	-3.4	-2.7	-3.2	-1.4	-1.1	-4.9	-11.8	-1.0	6.7						349.6	
2-91	0.3	-0.4	-1.6	-1.8	-3.4	-2.7	-3.1	-1.6	-1.4	-4.4	-9.6	-1.6	1.9	-2.6					347.3	
3-91	-0.2	-0.9	-2.0	-2.2	-3.7	-3.1	-3.5	-2.3	-2.2	-4.8	-9.0	-2.9	-1.1	-4.7	-6.8				341.2	
4-91	0.3	-0.4	-1.4	-1.6	-2.8	-2.2	-2.5	-1.3	-1.0	-3.2	-6.5	-1.0	0.9	-1.0	-0.1	7.1			347.1	
1-92	2.7	2.2	1.4	1.4	0.5	1.3	1.4	2.9	3.6	2.2	0.0	6.1	9.2	9.8	14.3	26.7	49.8		384.0	
2-92	2.8	2.3	1.6	1.6	0.8	1.6	1.6	3.1	3.7	2.5	0.6	5.9	8.4	8.8	11.8	18.9	25.2	4.7	388.4	
3-92	1.8	1.4	0.6	0.6	-0.3	0.4	0.3	1.5	2.0	0.7	-1.2	3.2	4.9	6.6	6.1	9.6	10.5	-5.1	-13.9	374.1
	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	4-91	1-92	2-92	

Corporate profits with capital consumption and inventory valuation adjustments. Third quarter data are final estimates.

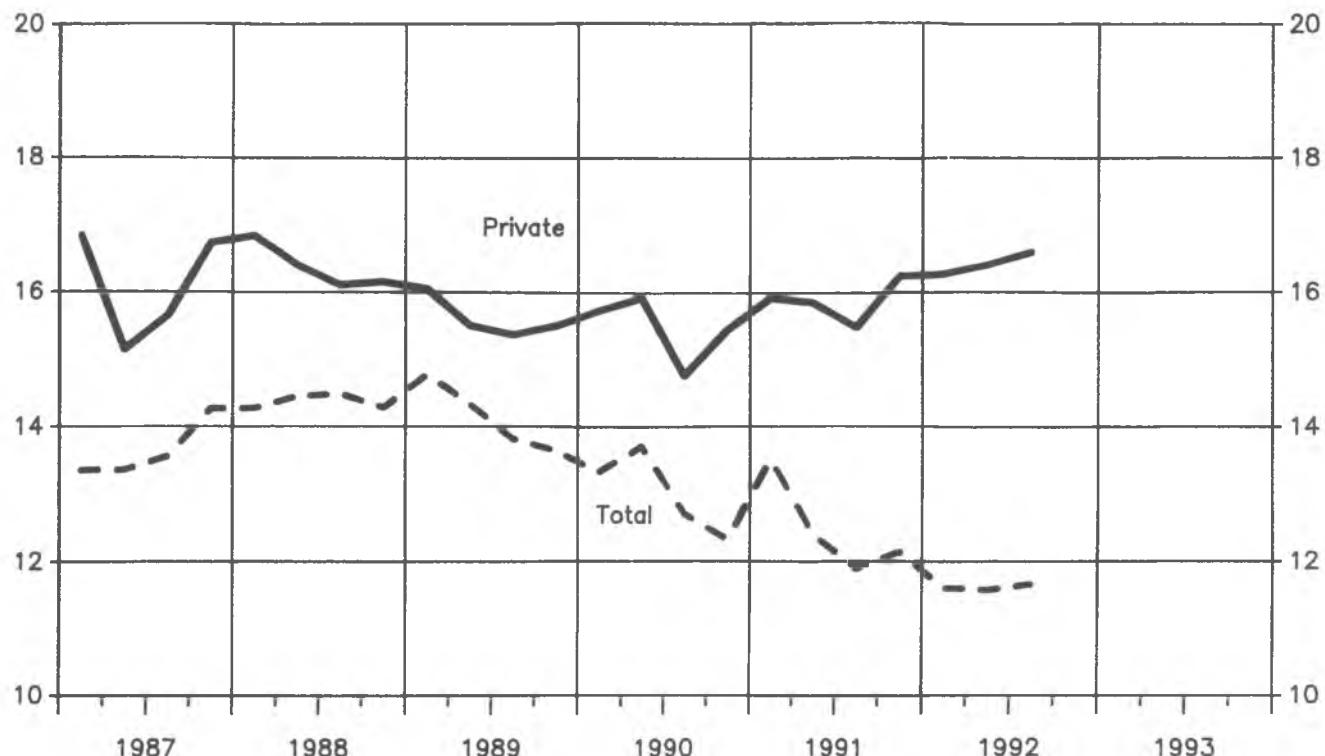
Prepared by Federal Reserve Bank of St. Louis  
February 26, 1993

# Gross Saving as a Percent of GDP

Seasonally Adjusted

Percent

Percent



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		Annual Rates		
	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	4-91	1-92	2-92	
1-88	8.8																		800.4	
2-88	3.4	-1.7																	797.0	
3-88	2.3	-0.8	0.0																797.0	
4-88	4.0	2.4	4.5	9.2															814.8	
1-89	4.4	3.3	5.0	7.6	6.0														826.7	
2-89	2.3	1.1	1.8	2.3	-0.9	-7.4													811.0	
3-89	2.0	0.9	1.4	1.8	-0.6	-3.7	0.1												811.2	
4-89	2.8	2.0	2.6	3.2	1.7	0.3	6.4	8.9											828.6	
1-90	4.0	3.5	4.2	4.9	4.1	3.7	7.6	11.6	14.4										856.9	
2-90	4.7	4.3	5.0	5.8	5.2	5.1	8.4	11.4	12.7	11.0									879.5	
3-90	1.7	1.0	1.3	1.5	0.4	-0.5	1.0	1.2	-1.2	-8.2	-24.1								820.9	
4-90	3.1	2.6	3.1	3.4	2.7	2.2	3.9	4.7	3.7	0.4	-4.5	20.1							859.3	
1-91	4.0	3.6	4.1	4.5	4.0	3.7	5.4	6.3	5.8	3.8	1.5	17.4	14.8						889.4	
2-91	3.9	3.6	4.0	4.4	3.9	3.7	5.2	5.9	5.4	3.7	2.0	12.5	8.9	3.4					896.9	
3-91	3.3	2.9	3.3	3.5	3.0	2.8	4.0	4.4	3.8	2.2	0.5	7.8	4.0	-1.0	-5.2				884.9	
4-91	4.5	4.2	4.7	5.0	4.7	4.6	5.8	6.5	6.2	5.1	4.1	11.0	8.8	6.9	8.6	24.5			934.8	
1-92	4.6	4.4	4.8	5.1	4.8	4.7	5.9	6.5	6.3	5.3	4.5	10.2	8.4	6.8	8.0	15.3	6.7		950.1	
2-92	4.8	4.6	5.0	5.3	5.0	5.0	6.1	6.6	6.4	5.6	4.9	9.9	8.3	7.0	7.9	12.7	7.3	7.8		968.1
3-92	5.1	4.9	5.3	5.6	5.4	5.3	6.4	6.9	6.8	6.0	5.5	9.9	8.6	7.6	8.4	12.1	8.3	9.0	10.3	992.1

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 4-91 1-92 2-92

Third quarter 1992 data are final estimates.

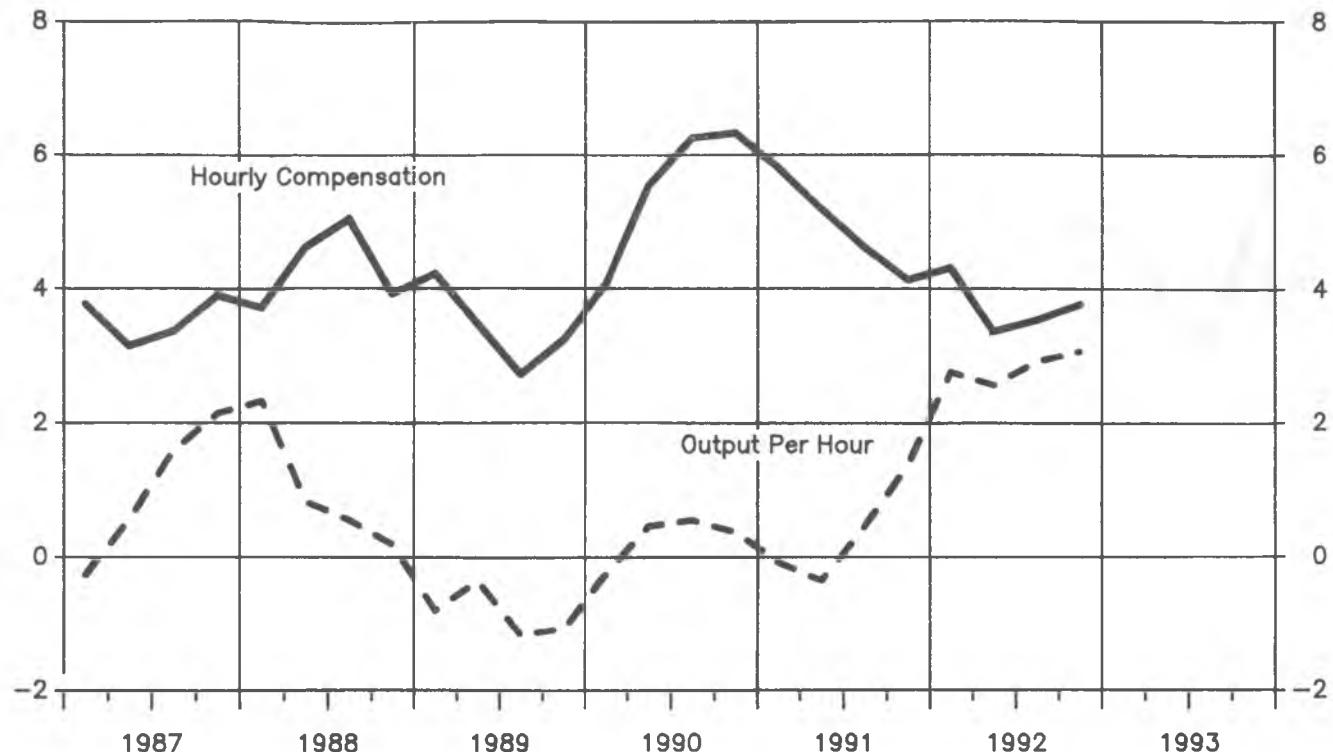
Prepared by Federal Reserve Bank of St. Louis  
February 26, 1993

# Business Productivity and Compensation

Percent Change From Previous Year  
Seasonally Adjusted

Percent

Percent



Prepared by Federal Reserve Bank of St. Louis

## Business Sector Output per Hour

(Compounded Annual Rates of Change)

Terminal Quarter	Initial Quarter															1982 = 100				
	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	4-91	1-92	2-92	3-92	
2-88	-1.8																		110.1	
3-88	-0.2	1.5																	110.5	
4-88	-0.1	0.7	0.0																110.5	
1-89	-0.8	-0.5	-1.4	-2.9															109.7	
2-89	-0.7	-0.4	-1.0	-1.4	0.0														109.7	
3-89	-0.8	-0.7	-1.2	-1.6	-0.9	-1.8													109.2	
4-89	-0.7	-0.5	-0.9	-1.1	-0.5	-0.7	0.4												109.3	
1-90	-0.5	-0.4	-0.7	-0.8	-0.3	-0.4	0.4	0.4											109.4	
2-90	-0.2	0.0	-0.2	-0.2	0.4	0.5	1.2	1.7	3.0										110.2	
3-90	-0.3	-0.1	-0.3	-0.4	0.1	0.1	0.5	0.6	0.7	-1.4									109.8	
4-90	-0.3	-0.1	-0.3	-0.4	0.0	0.0	0.4	0.4	0.4	-0.9	-0.4								109.7	
1-91	-0.4	-0.3	-0.4	-0.5	-0.2	-0.2	0.1	0.0	-0.1	-1.1	-0.9	-1.5							109.3	
2-91	-0.2	-0.1	-0.2	-0.3	0.0	0.0	0.3	0.3	0.3	-0.4	0.0	0.2	1.8						109.8	
3-91	-0.1	0.1	-0.1	-0.1	0.2	0.2	0.5	0.5	0.5	0.1	0.5	0.7	1.8	1.8					110.3	
4-91	0.1	0.3	0.2	0.2	0.5	0.5	0.8	0.9	0.9	0.6	1.0	1.4	2.3	2.6	3.3				111.2	
1-92	0.4	0.5	0.5	0.5	0.8	0.9	1.1	1.2	1.3	1.1	1.5	1.9	2.7	3.0	3.7	4.0			112.3	
2-92	0.4	0.6	0.5	0.5	0.8	0.9	1.1	1.2	1.3	1.1	1.4	1.8	2.4	2.6	2.8	2.5	1.1		112.6	
3-92	0.6	0.7	0.7	0.7	1.0	1.1	1.3	1.4	1.5	1.3	1.7	2.0	2.5	2.7	2.9	2.8	2.1	3.2	113.5	
4-92	0.8	0.9	0.9	0.9	1.2	1.3	1.5	1.6	1.7	1.6	1.9	2.2	2.7	2.9	3.1	3.1	2.7	3.6	3.9	114.6

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February 4, 1993

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

Terminal Quarter	Initial Quarter																		Billions of Dollars		
	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	4-91	1-92			
1-88	9.4																		1,988.4		
2-88	8.1	6.8																	2,021.6		
3-88	8.2	7.6	8.3																2,062.4		
4-88	7.3	6.6	6.4	4.6															2,085.7		
1-89	7.3	6.7	6.7	5.9	7.2														2,122.1		
2-89	7.0	6.6	6.5	5.9	6.5	5.9													2,152.7		
3-89	7.1	6.7	6.7	6.3	6.8	6.6	7.4												2,191.4		
4-89	7.2	6.9	6.9	6.7	7.2	7.2	7.9	8.3											2,235.7		
1-90	8.1	7.9	8.1	8.0	8.7	9.1	10.2	11.6	15.0										2,315.4		
2-90	8.5	8.4	8.6	8.6	9.3	9.7	10.7	11.8	13.5	12.0									2,382.2		
3-90	8.8	8.7	8.9	9.0	9.6	10.0	10.9	11.8	12.9	11.9	11.7								2,449.1		
4-90	9.1	9.1	9.3	9.4	10.0	10.5	11.2	12.0	13.0	12.3	12.4	13.1							2,525.8		
1-91	9.1	9.1	9.3	9.4	10.0	10.3	10.9	11.6	12.2	11.5	11.3	11.1	9.2						2,582.0		
2-91	9.4	9.4	9.6	9.7	10.2	10.5	11.1	11.7	12.3	11.7	11.6	11.6	10.8	12.5					2,658.9		
3-91	9.8	9.8	10.0	10.2	10.7	11.1	11.6	12.2	12.8	12.4	12.4	12.6	12.5	14.1	15.8				2,758.3		
4-91	9.8	9.8	10.0	10.1	10.6	10.9	11.4	11.9	12.3	11.9	11.9	12.0	11.7	12.5	12.5	9.4			2,820.8		
1-92	9.8	9.9	10.1	10.2	10.6	10.9	11.4	11.8	12.2	11.9	11.8	11.9	11.6	12.2	12.1	10.3	11.3		2,897.3		
2-92	10.1	10.1	10.3	10.5	10.9	11.2	11.6	12.0	12.4	12.1	12.1	12.2	12.0	12.6	12.6	11.6	12.7	14.2		2,994.8	
3-92	10.0	10.1	10.3	10.4	10.8	11.1	11.5	11.8	12.1	11.9	11.8	11.8	11.7	12.1	12.0	11.1	11.6	11.8	9.5		3,063.6

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 4-91 1-92 2-92

Prepared by Federal Reserve Bank of St. Louis  
February 26, 1993

**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 March	2487.5	498.9	1988.4	220.8	1765.2	330.9
June	2548.8	528.3	2021.6	227.1	1796.9	343.5
September	2614.3	552.1	2062.4	232.7	1830.8	348.6
December	2672.8	584.8	2085.7	231.6	1853.8	362.7
1989 March	2738.1	617.3	2122.1	232.5	1887.1	374.8
June	2801.9	650.3	2152.7	231.2	1921.0	367.7
September	2870.1	678.7	2191.4	224.4	1967.8	398.8
December	2942.1	702.9	2235.7	221.1	2011.0	391.7
1990 March	3046.9	734.0	2315.4	223.5	2096.6	383.3
June	3146.8	766.2	2382.2	230.7	2156.0	390.0
September	3247.7	798.4	2449.1	236.8	2217.6	407.8
December	3353.0	822.3	2525.8	250.9	2282.6	418.9
1991 March	3458.3	880.3	2582.0	252.3	2339.8	426.3
June	3542.0	884.9	2658.9	254.4	2414.6	437.3
September	3681.5	922.9	2758.3	269.8	2500.6	445.0
December	3788.4	961.4	2820.8	271.7	2556.6	451.4
1992 March	3873.6	978.4	2897.3	273.1	2640.2	469.8
June	3988.7	995.9	2994.8	276.3	2731.5	493.9
September	4080.9	1020.4	3063.6	302.1	2776.6	503.5

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 income accounts budget	Cyclically adjusted budget	National income accounts budget	Cyclically adjusted budget	National income accounts budget	Cyclically adjusted budget
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	1050.9	1014.3	1160.8	1181.0	—110.0	—166.7
2	1064.5	1032.2	1174.2	1187.3	—109.7	—155.1
3	1053.6	1020.2	1181.5	1182.0	—128.0	—161.8
4	1068.3	1035.4	1209.8	1208.2	—141.5	—172.8
1990 1	1086.7	1061.7	1254.5	1252.2	—167.8	—190.5
2	1109.6	1093.4	1266.5	1275.4	—156.9	—182.0
3	1119.9	1116.0	1265.5	1273.6	—145.6	—157.6
4	1113.3	1132.1	1307.9	1311.2	—194.6	—179.1
1991 1	1114.6	1160.1	1264.4	1257.9	—149.9	—97.8
2	1117.3	1173.7	1329.4	1319.3	—212.2	—145.6
3	1127.7	N.A.	1348.7	N.A.	—221.0	N.A.
4	1129.4	N.A.	1388.1	N.A.	—258.7	N.A.
1992 1	1143.3	N.A.	1432.5	N.A.	—289.2	N.A.
2	1149.8	N.A.	1452.7	N.A.	—302.9	N.A.
3	1155.4	N.A.	1459.8	N.A.	—304.4	N.A.
4	N.A.	N.A.	1481.7	N.A.	N.A.	N.A.

N.A. — Not Available

Total budget	Fiscal years								Estimates	
	Actual									
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Receipts	\$ 734.1	\$ 769.1	\$ 854.1	\$ 909.0	\$ 990.7	\$ 1031.3	\$ 1054.3	\$ 1091.6	\$ 1147.6	\$ 1230.3
Outlays	946.4	990.3	1003.9	1064.1	1143.2	1252.7	1323.8	1381.8	1474.9	1522.7
Surplus or deficit(—)	\$ -212.3	\$ -221.2	\$ -149.8	\$ -155.2	\$ -152.5	\$ -221.4	\$ -269.5	\$ -290.2	\$ -327.3	\$ -292.4

National income accounts budget	Calendar years								Estimates	
	Actual									
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Receipts	\$ 788.6	\$ 827.2	\$ 913.8	\$ 972.3	\$ 1059.3	\$ 1107.4	\$ 1122.2	\$ 1161.5		
Expenditures	969.9	1028.2	1065.6	1109.0	1181.6	1273.6	1332.7	1456.7		
Surplus or deficit(—)	\$ -181.4	\$ -201.0	\$ -151.8	\$ -136.6	\$ -122.3	\$ -166.2	\$ -210.4	\$ -295.2		
Cyclically adjusted budget										
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
	\$ 808.5	\$ 844.1	\$ 917.6	\$ 949.7	\$ 1025.5	\$ 1100.8				
Receipts	980.3	1029.4	1071.6	1115.9	1189.6	1278.1				
Expenditures										
Surplus or deficit(—)	\$ -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.

Estimates from OMB's Budget Baselines, Historical Data, and Alternatives for the Future (January 6, 1993).

Cyclically adjusted budget data are in process of revision.

Totals may not add due to rounding.

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

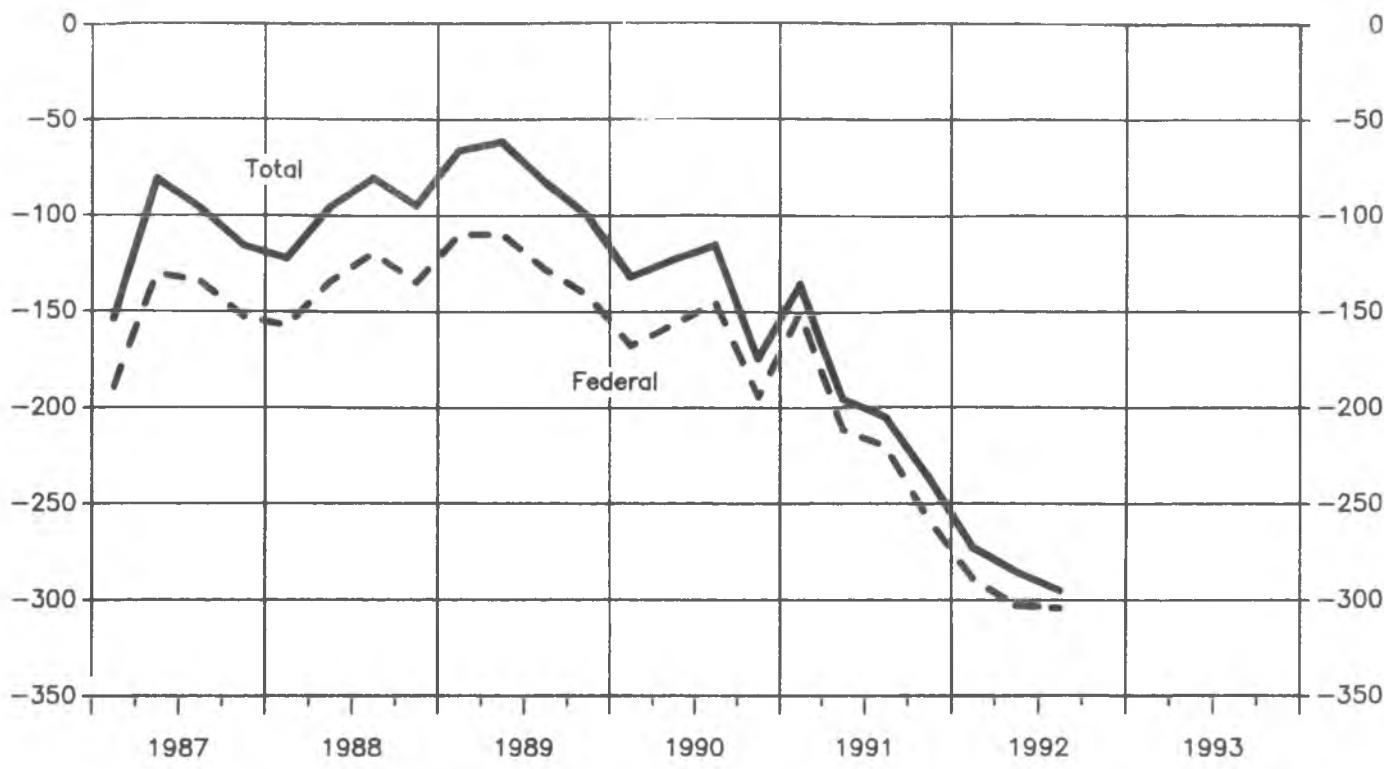
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# Government Deficit(-)/Surplus(+)

Seasonally Adjusted

Billions of Dollars

Billions of Dollars



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 Annual Rates			
	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	4-91	1-92	2-92	3-92
2-88	-2.5																		294.8
3-88	-1.8	-1.1																	294.0
4-88	0.0	1.4	3.9																296.8
1-89	-1.1	-0.6	-0.3	-4.4															293.5
2-89	0.4	1.2	1.9	0.9	6.6														298.2
3-89	1.9	2.8	3.8	3.8	8.2	9.9													305.3
4-89	1.1	1.7	2.3	1.9	4.1	2.9	-3.6												302.5
1-90	2.5	3.2	4.0	4.0	6.2	6.0	4.2	12.6											311.6
2-90	2.4	3.0	3.6	3.6	5.3	4.9	3.3	7.0	1.7										312.9
3-90	1.6	2.0	2.4	2.2	3.4	2.7	1.0	2.6	-2.0	-5.6									308.4
4-90	3.2	3.7	4.3	4.4	5.7	5.5	4.7	6.8	5.0	6.7	20.6								323.2
1-91	3.9	4.5	5.0	5.2	6.4	6.4	5.8	7.8	6.7	8.4	16.2	11.9							332.4
2-91	2.9	3.4	3.8	3.8	4.8	4.5	3.8	5.1	3.7	4.2	7.6	1.7	-7.6						325.9
3-91	2.4	2.7	3.1	3.0	3.8	3.5	2.7	3.6	2.2	2.3	4.4	-0.5	-6.2	-4.8					321.9
4-91	1.6	1.9	2.1	2.0	2.6	2.2	1.4	2.0	0.6	0.4	1.6	-2.6	-7.0	-6.8	-8.7				314.7
1-92	1.4	1.7	1.9	1.7	2.2	1.8	1.1	1.6	0.3	0.1	1.1	-2.4	-5.7	-5.0	-5.1	-1.4			313.6
2-92	1.2	1.4	1.6	1.4	1.9	1.5	0.8	1.2	0.0	-0.2	0.6	-2.4	-5.0	-4.4	-4.2	-1.9	-2.4		311.7
3-92	1.7	1.9	2.1	2.0	2.5	2.2	1.5	2.0	1.0	0.9	1.8	-0.6	-2.6	-1.5	-0.7	2.1	3.9	10.5	319.6
4-92	1.5	1.8	1.9	1.8	2.2	1.9	1.4	1.8	0.9	0.8	1.5	-0.7	-2.3	-1.4	-0.7	1.4	2.3	4.7	319.0
	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	4-91	1-92	2-92	3-92

Fourth quarter data are preliminary estimates.

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February 26, 1993

Federal Reserve Bank of St. Louis  
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**Federal Nondefense Expenditures**  
 (Compounded Annual Rates of Change)

Terminal Quarter	Initial Quarter															Billions of Dollars Annual Rates				
	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	4-91	1-92	2-92	3-92	
2-88	4.5																	810.2		
3-88	0.5	-3.4																803.3		
4-88	6.3	7.2	18.8															838.7		
1-89	8.2	9.5	16.6	14.4														867.3		
2-89	7.4	8.1	12.2	9.1	4.1													876.0		
3-89	6.1	6.5	9.1	6.0	2.1	0.1												876.2		
4-89	7.4	7.8	10.2	8.2	6.2	7.3	15.0											907.3		
1-90	8.5	9.1	11.3	9.8	8.7	10.3	15.8	16.6										942.9		
2-90	8.0	8.5	10.3	8.9	7.9	8.9	11.9	10.5	4.6									953.6		
3-90	7.4	7.7	9.2	7.8	6.8	7.3	9.2	7.4	3.0	1.5								957.1		
4-90	7.8	8.1	9.5	8.4	7.5	8.1	9.8	8.5	6.0	6.6	12.0							984.7		
1-91	5.2	5.2	6.1	4.8	3.7	3.6	4.2	2.2	-1.2	-3.0	-5.2	-19.7						932.0		
2-91	7.2	7.4	8.4	7.4	6.7	7.0	8.1	6.9	5.1	5.2	6.5	3.9	34.4					1,003.5		
3-91	7.3	7.6	8.5	7.6	7.0	7.3	8.3	7.3	5.8	6.1	7.3	5.7	21.4	9.6				1,026.8		
4-91	8.1	8.4	9.3	8.6	8.1	8.5	9.4	8.8	7.7	8.2	9.6	9.0	20.7	14.4	19.4			1,073.4		
1-92	8.7	9.0	9.9	9.3	8.9	9.3	10.3	9.8	8.9	9.6	11.0	10.8	20.1	15.6	18.7	18.1		1,118.9		
2-92	8.7	8.9	9.8	9.2	8.8	9.2	10.1	9.6	8.8	9.4	10.6	10.3	17.6	13.7	15.1	13.0	8.1	1,141.0		
3-92	8.2	8.4	9.2	8.5	8.1	8.4	9.2	8.7	7.9	8.3	9.1	8.7	14.4	10.8	11.0	8.4	3.8	-0.3	1,140.2	
4-92	8.2	8.4	9.1	8.5	8.1	8.4	9.1	8.6	7.9	8.3	9.0	8.7	13.5	10.3	10.5	8.3	5.3	3.8	8.1	1,162.7
	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	4-91	1-92	2-92	3-92	

Fourth quarter data are preliminary estimates.

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 February 26, 1993