



# National Economic Trends



## Is Inflation Dead?

U.S. consumer prices (all items) have increased less than 3 percent in the past year. Given the usual problems in measuring changes in product quality, some analysts think this performance is tantamount to price stability. Furthermore, most analysts do not see inflation as a serious threat in the near term. Such conclusions usually are based on the notion that the economy is operating well below its potential or that the M2 money stock is growing slowly. To assess the prospects for inflation in the near-term future it is useful to know how tight these relationships are.

Two simple and popular models provide alternative explanations of the inflationary process. One is based on a level of output consistent with a non-accelerating inflation rate, or what is usually referred to as potential GDP. According to this "output gap" view, there is little upward pressure on prices until the economy's level of production approaches its potential as determined by the size of the labor force and productivity. The other is the P-star model, which uses a measure of the money stock to determine an equilibrium price level. According to this view, if the price level

exceeds its equilibrium level, there is downward pressure on prices, and vice versa. Both models focus on excess aggregate demand as the determinant of inflation, but differ in their interpretation of how the inflation mechanism works.

The table below shows what the output-gap model and two versions of the P-star model would have predicted for consumer prices (less food and energy) for 1993 and what they imply for 1994. This measure of inflation rose at an estimated 3.1 percent rate in 1993. As the table shows, two of the three models accurately forecast that inflation would decelerate from 3.4 percent in 1992. For 1994, the models show contrasting forecasts. Both the output-gap and M1 version of the P-star model forecast an acceleration in inflation. The M2 version of the P-star model, on the other hand, projects a sharp deceleration. The most striking feature of these models, however, is their lack of precision. They all show a wide range between their upper and lower 90 percent statistical confidence limits, which suggests that forecasting inflation in the short run is still a very imprecise exercise.

—Keith M. Carlson

### FORECASTING INFLATION: TWO SIMPLE MODELS

<u>Model</u>	<u>1993 inflation forecast</u>	<u>1994 inflation forecast</u>
Output-gap	3.3% $\pm$ 1.6%	3.2% $\pm$ 1.6%
P-star		
M1 version	3.6 $\pm$ 1.6	3.9 $\pm$ 1.6
M2 version	3.0 $\pm$ 1.5	2.2 $\pm$ 1.5

Note: Inflation is measured as percent change from fourth quarter to fourth quarter in consumer prices less food and energy.

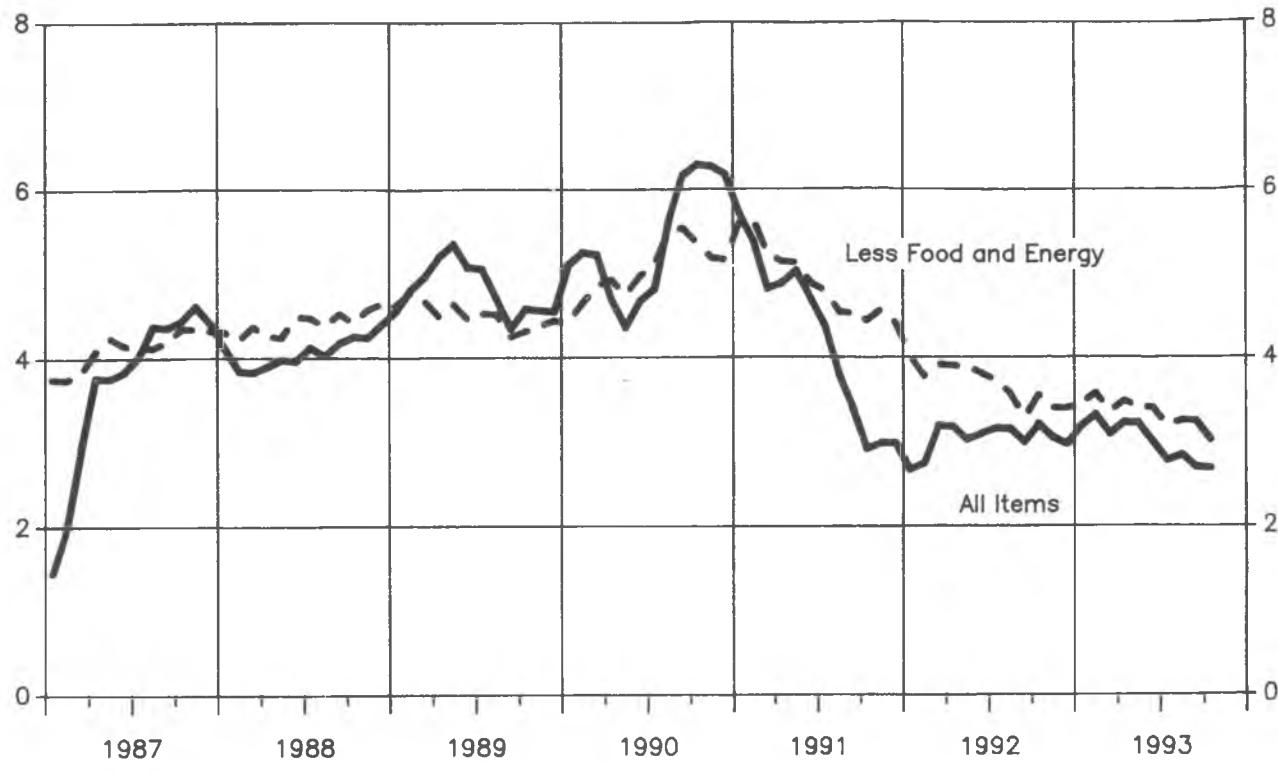
Views expressed do not necessarily reflect official positions of the Federal Reserve System.

*National Economic Trends* is published monthly by the Research and Public Information Division. Single-copy subscriptions are available free of charge by writing Research and Public Information, Federal Reserve Bank of St. Louis, Post Office Box 442, St. Louis, MO 63166-0442 or by calling 314-444-8809. Information in this publication is also included in the Federal Reserve Economic Data (FRED) electronic bulletin board. You can access FRED with a personal computer and a modem at 314-621-1824.

# Consumer Price Index – All Urban Consumers

Percent Change From Previous Year  
Seasonally Adjusted

Percent



Prepared by Federal Reserve Bank of St. Louis

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

Terminal Month	Initial Month															1982-84=100				
	3-92	4-92	5-92	6-92	7-92	8-92	9-92	10-92	11-92	12-92	1-93	2-93	3-93	4-93	5-93	6-93	7-93	8-93	9-93	
4-92	3.5																			139.7
5-92	2.6	1.7																		139.9
6-92	2.6	2.2	2.6																	140.2
7-92	2.8	2.6	3.0	3.5																140.6
8-92	2.8	2.6	2.9	3.0	2.6															140.9
9-92	2.6	2.4	2.6	2.6	2.2	1.7														141.1
10-92	3.0	2.9	3.1	3.2	3.2	3.5	5.2													141.7
11-92	2.9	2.8	3.0	3.1	3.0	3.2	3.9	2.6												142.0
12-92	2.8	2.7	2.8	2.9	2.8	2.8	3.2	2.1	1.7											142.2
1-93	3.1	3.1	3.2	3.3	3.3	3.4	3.9	3.4	3.9	6.1										142.9
2-93	3.2	3.2	3.3	3.4	3.4	3.6	4.0	3.6	4.0	5.2	4.3									143.4
3-93	3.1	3.0	3.2	3.2	3.2	3.3	3.6	3.2	3.4	4.0	3.0	1.7								143.6
4-93	3.2	3.2	3.4	3.4	3.4	3.5	3.8	3.6	3.8	4.3	3.7	3.4	5.1							144.2
5-93	3.1	3.1	3.2	3.3	3.3	3.3	3.5	3.3	3.4	3.8	3.2	2.8	3.4	1.7						144.4
6-93	2.9	2.9	3.0	3.0	3.0	3.0	3.1	2.9	2.9	3.1	2.5	2.1	2.2	0.8	0.0					144.4
7-93	2.8	2.7	2.8	2.8	2.8	2.8	2.9	2.6	2.7	2.8	2.3	1.9	1.9	0.8	0.4	0.8				144.5
8-93	2.8	2.8	2.8	2.9	2.8	2.8	2.9	2.7	2.7	2.9	2.4	2.1	2.2	1.5	1.4	2.1	3.4			144.9
9-93	2.7	2.6	2.7	2.7	2.6	2.6	2.7	2.5	2.5	2.5	2.1	1.8	1.8	1.2	1.0	1.4	1.7	0.0		144.9
10-93	2.8	2.7	2.8	2.8	2.8	2.8	2.9	2.7	2.7	2.8	2.4	2.2	2.3	1.8	1.8	2.3	2.8	2.5	5.1	145.5
	3-92	4-92	5-92	6-92	7-92	8-92	9-92	10-92	11-92	12-92	1-93	2-93	3-93	4-93	5-93	6-93	7-93	8-93	9-93	

Prepared by Federal Reserve Bank of St. Louis  
November 10, 1993

# Consumer Price Index - Food

(Compounded Annual Rates of Change)

Terminal Month	Initial Month																		1982-84=100	
	3-92	4-92	5-92	6-92	7-92	8-92	9-92	10-92	11-92	12-92	1-93	2-93	3-93	4-93	5-93	6-93	7-93	8-93	9-93	
4-92	0.9																			138.1
5-92	-2.2	-5.1																		137.5
6-92	-1.2	-2.2	0.9																	137.6
7-92	-1.1	-1.7	0.0	-0.9																137.5
8-92	0.5	0.4	2.3	3.1	7.2															138.3
9-92	1.0	1.0	2.6	3.2	5.4	3.5														138.7
10-92	0.9	0.9	2.1	2.4	3.5	1.7	0.0													138.7
11-92	0.9	0.9	1.9	2.1	2.9	1.5	0.4	0.9												138.8
12-92	1.2	1.2	2.1	2.3	3.0	2.0	1.4	2.2	3.5											139.2
1-93	1.5	1.5	2.4	2.6	3.2	2.4	2.2	2.9	4.0	4.4										139.7
2-93	1.5	1.6	2.3	2.5	3.0	2.3	2.1	2.6	3.2	3.1	1.7									139.9
3-93	1.5	1.6	2.3	2.4	2.8	2.2	2.0	2.4	2.8	2.6	1.7	1.7								140.1
4-93	1.7	1.8	2.5	2.6	3.0	2.5	2.4	2.8	3.1	3.0	2.6	3.0	4.4							140.6
5-93	2.0	2.1	2.7	2.9	3.2	2.8	2.7	3.1	3.5	3.5	3.3	3.8	4.8	5.2						141.2
6-93	1.5	1.5	2.1	2.2	2.5	2.0	1.8	2.1	2.2	2.0	1.6	1.5	1.4	0.0	-5.0					140.6
7-93	1.4	1.4	1.9	2.0	2.3	1.8	1.6	1.8	2.0	1.7	1.3	1.2	1.1	0.0	-2.5	0.0				140.6
8-93	1.5	1.6	2.0	2.1	2.3	2.0	1.8	2.0	2.1	1.9	1.6	1.6	1.5	0.9	-0.6	1.7	3.5			141.0
9-93	1.5	1.6	2.0	2.1	2.3	1.9	1.8	2.0	2.1	1.9	1.6	1.6	1.6	1.0	0.0	1.7	2.6	1.7		141.2
10-93	1.8	1.9	2.3	2.4	2.6	2.3	2.2	2.4	2.5	2.4	2.2	2.3	2.3	2.0	1.4	3.0	4.0	4.3	7.0	142.0

3-92 4-92 5-92 6-92 7-92 8-92 9-92 10-92 11-92 12-92 1-93 2-93 3-93 4-93 5-93 6-93 7-93 8-93 9-93

Prepared by Federal Reserve Bank of St. Louis  
November 10, 1993

# Consumer Price Index - Energy

(Compounded Annual Rates of Change)

Terminal Month	Initial Month																		1982-84=100	
	3-92	4-92	5-92	6-92	7-92	8-92	9-92	10-92	11-92	12-92	1-93	2-93	3-93	4-93	5-93	6-93	7-93	8-93	9-93	
4-92	3.6																		101.3	
5-92	4.8	6.1																	101.8	
6-92	8.6	11.1	16.4																103.1	
7-92	8.5	10.2	12.4	8.5															103.8	
8-92	5.8	6.3	6.4	1.8	-4.5														103.4	
9-92	4.8	5.0	4.8	1.2	-2.3	0.0													103.4	
10-92	5.0	5.2	5.0	2.3	0.4	2.9	6.0												103.9	
11-92	4.6	4.8	4.6	2.3	0.9	2.7	4.1	2.3											104.1	
12-92	3.8	3.9	3.6	1.6	0.2	1.5	1.9	0.0	-2.3										103.9	
1-93	4.1	4.1	3.9	2.2	1.2	2.3	2.9	1.9	1.7	5.9									104.4	
2-93	3.2	3.2	2.9	1.3	0.3	1.2	1.4	0.3	-0.4	0.6	-4.5								104.0	
3-93	3.7	3.7	3.4	2.1	1.3	2.2	2.5	1.9	1.7	3.1	1.7	8.4							104.7	
4-93	3.6	3.6	3.3	2.1	1.4	2.2	2.5	1.9	1.9	2.9	1.9	5.3	2.3						104.9	
5-93	2.5	2.4	2.1	0.8	0.1	0.6	0.7	0.0	-0.4	0.0	-1.4	-0.4	-4.5	-10.9					103.9	
6-93	2.1	2.0	1.7	0.6	-0.1	0.3	0.4	-0.3	-0.7	-0.4	-1.6	-0.9	-3.8	-6.7	-2.3				103.7	
7-93	2.0	1.9	1.6	0.5	-0.1	0.3	0.3	-0.3	-0.6	-0.3	-1.3	-0.7	-2.8	-4.5	-1.1	0.0			103.7	
8-93	1.5	1.4	1.1	0.1	-0.5	-0.2	-0.2	-0.8	-1.2	-1.0	-2.0	-1.5	-3.4	-4.8	-2.7	-2.9	-5.6		103.2	
9-93	1.2	1.0	0.7	-0.2	-0.8	-0.5	-0.6	-1.2	-1.5	-1.4	-2.3	-2.0	-3.6	-4.7	-3.1	-3.4	-5.1	-4.6	102.8	
10-93	2.4	2.3	2.1	1.2	0.8	1.2	1.2	0.9	0.7	1.0	0.5	1.2	0.2	-0.2	2.1	3.2	4.3	9.7	26.0	104.8

3-92 4-92 5-92 6-92 7-92 8-92 9-92 10-92 11-92 12-92 1-93 2-93 3-93 4-93 5-93 6-93 7-93 8-93 9-93

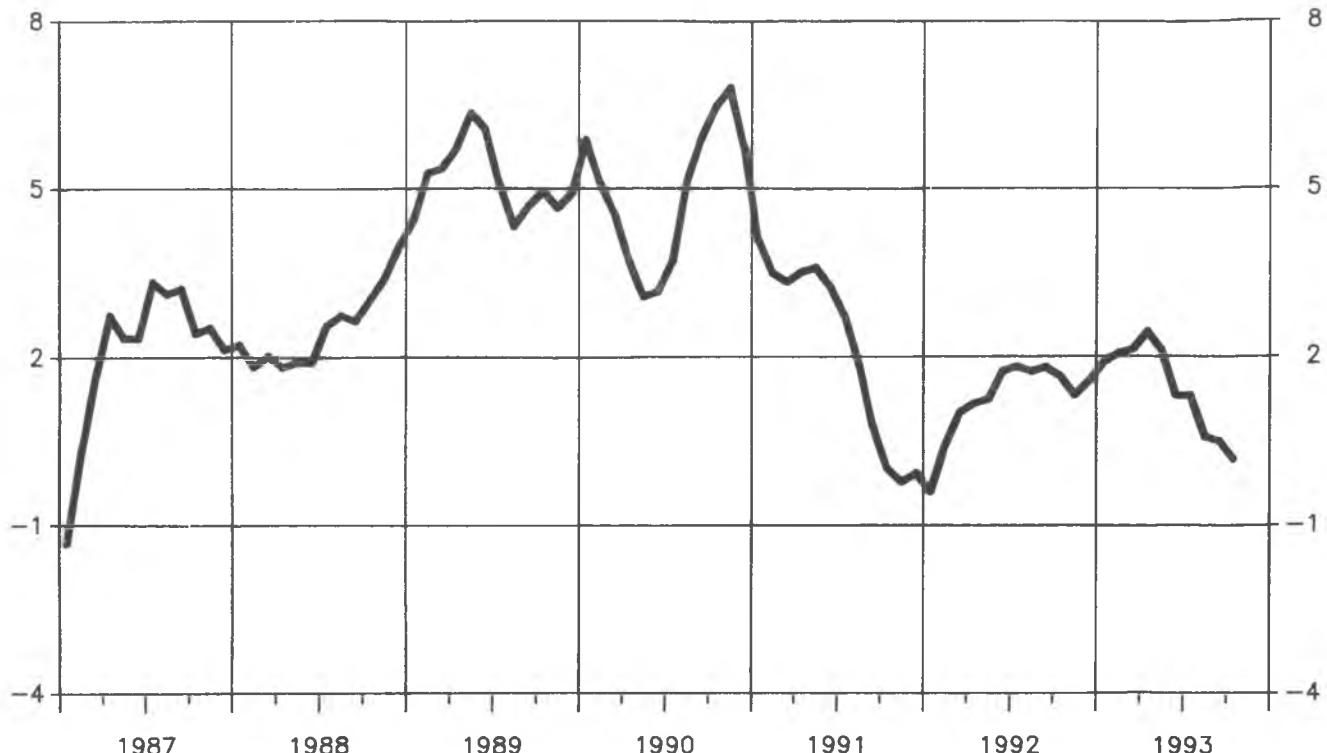
Prepared by Federal Reserve Bank of St. Louis  
November 10, 1993

# 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	
	3-92	4-92	5-92	6-92	7-92	8-92	9-92	10-92	11-92	12-92	1-93	2-93	3-93	4-93	5-93	6-93	7-93	8-93	9-93	
4-92	3.0																			122.8
5-92	3.5	4.0																		123.2
6-92	3.3	3.5	3.0																	123.5
7-92	2.5	2.3	1.5	0.0																123.5
8-92	2.2	2.0	1.3	0.5	1.0															123.6
9-92	2.3	2.2	1.7	1.3	2.0	3.0														123.9
10-92	2.1	2.0	1.6	1.2	1.6	2.0	1.0													124.0
11-92	1.6	1.4	1.0	0.6	0.7	0.6	-0.5	-1.9												123.8
12-92	1.4	1.2	0.8	0.5	0.6	0.5	-0.3	-1.0	0.0											123.8
1-93	1.7	1.5	1.2	1.0	1.1	1.2	0.7	0.6	2.0	3.9										124.2
2-93	2.0	1.9	1.6	1.5	1.7	1.8	1.6	1.7	2.9	4.4	4.9									124.7
3-93	2.1	2.0	1.9	1.7	1.9	2.1	1.9	2.1	3.2	4.3	4.4	3.9								125.1
4-93	2.5	2.4	2.3	2.2	2.5	2.7	2.6	2.9	3.9	4.9	5.3	5.4	6.9							125.8
5-93	2.3	2.3	2.1	2.0	2.2	2.4	2.3	2.5	3.3	3.9	3.9	3.6	3.4	0.0						125.8
6-93	1.7	1.6	1.4	1.3	1.4	1.5	1.3	1.3	1.8	2.1	1.7	1.0	0.0	-3.3	-6.5					125.1
7-93	1.6	1.5	1.3	1.2	1.3	1.3	1.2	1.2	1.6	1.8	1.5	0.8	0.0	-2.2	-3.3	0.0				125.1
8-93	1.0	0.9	0.7	0.6	0.6	0.6	0.4	0.3	0.5	0.6	0.1	-0.6	-1.5	-3.5	-4.7	-3.8	-7.4			124.3
9-93	1.1	1.0	0.8	0.6	0.7	0.7	0.5	0.4	0.7	0.8	0.4	-0.3	-1.0	-2.5	-3.1	-1.9	-2.8	1.9		124.5
10-93	0.9	0.8	0.6	0.4	0.5	0.4	0.2	0.2	0.4	0.4	0.0	-0.6	-1.2	-2.5	-3.0	-2.1	-2.8	-0.5	-2.9	124.2

3-92 4-92 5-92 6-92 7-92 8-92 9-92 10-92 11-92 12-92 1-93 2-93 3-93 4-93 5-93 6-93 7-93 8-93 9-93

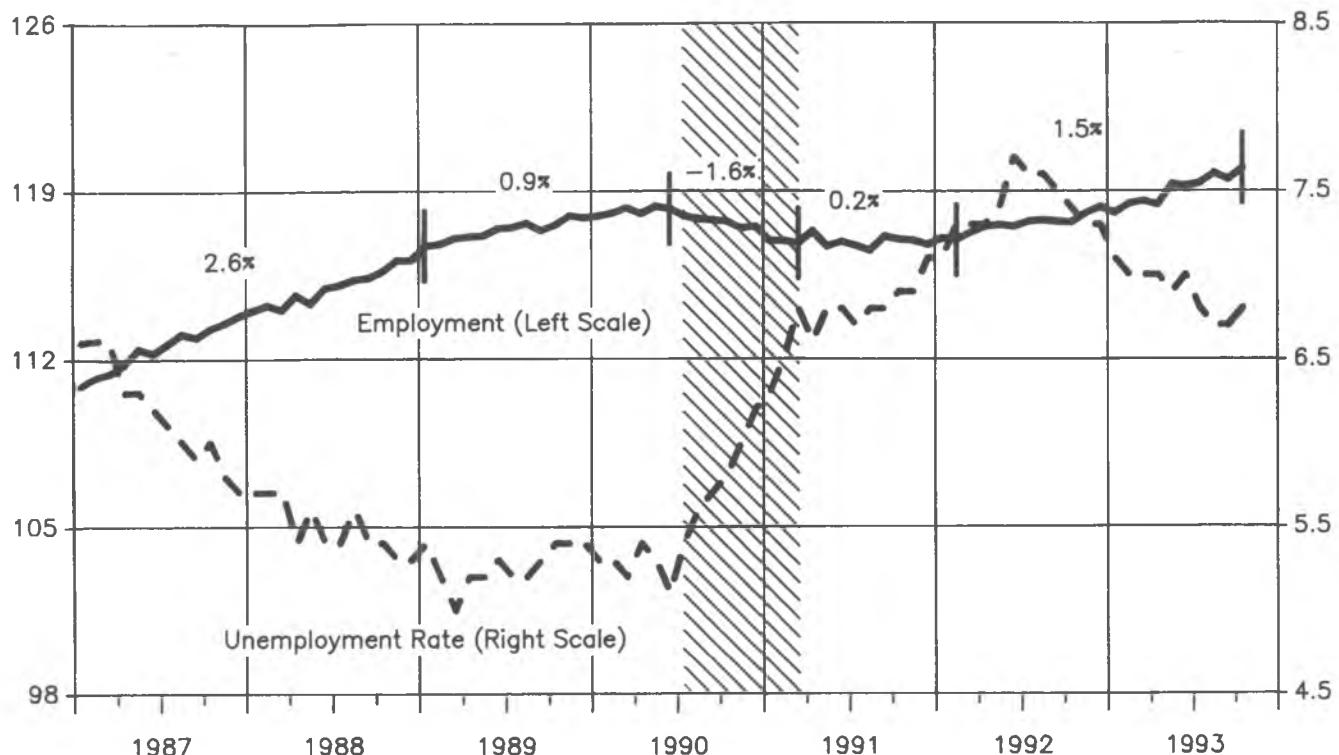
Prepared by Federal Reserve Bank of St. Louis  
November 9, 1993

# 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				
	3-92	4-92	5-92	6-92	7-92	8-92	9-92	10-92	11-92	12-92	1-93	2-93	3-93	4-93	5-93	6-93	7-93	8-93	9-93	
4-92	2.6																			117,518
5-92	1.6	0.6																		117,580
6-92	0.8	0.0	-0.7																	117,510
7-92	1.2	0.7	0.7	2.2																117,722
8-92	1.1	0.7	0.7	1.4	0.6															117,780
9-92	0.8	0.4	0.4	0.7	0.0	-0.6														117,724
10-92	0.6	0.3	0.2	0.5	-0.1	-0.5	-0.4													117,687
11-92	1.0	0.8	0.8	1.1	0.9	1.0	1.7	3.9												118,064
12-92	1.2	1.0	1.1	1.4	1.2	1.4	2.0	3.2	2.5											118,311
1-93	0.8	0.6	0.6	0.8	0.6	0.6	0.9	1.3	0.0	-2.4										118,071
2-93	1.1	1.0	1.0	1.2	1.1	1.1	1.5	2.0	1.3	0.7	3.9									118,451
3-93	1.1	1.0	1.0	1.2	1.1	1.1	1.4	1.8	1.3	0.9	2.5	1.2								118,565
4-93	0.9	0.8	0.8	0.9	0.8	0.8	1.0	1.2	0.7	0.3	1.2	-0.2	-1.5							118,416
5-93	1.5	1.4	1.4	1.6	1.6	1.7	2.0	2.3	2.1	2.0	3.1	2.8	3.6	9.0						119,273
6-93	1.3	1.2	1.3	1.5	1.4	1.5	1.7	2.0	1.7	1.5	2.3	2.0	2.2	4.1	-0.5					119,219
7-93	1.3	1.2	1.3	1.4	1.3	1.4	1.6	1.8	1.6	1.4	2.1	1.7	1.9	3.0	0.1	0.8				119,301
8-93	1.5	1.4	1.4	1.6	1.6	1.6	1.8	2.1	1.9	1.8	2.4	2.1	2.3	3.3	1.5	2.5	4.2		119,710	
9-93	1.2	1.2	1.2	1.3	1.3	1.3	1.5	1.6	1.4	1.3	1.8	1.5	1.5	2.1	0.5	0.8	0.8	-2.5		119,457
10-93	1.4	1.4	1.4	1.5	1.5	1.6	1.7	1.9	1.7	1.6	2.1	1.9	2.6	2.6	1.3	1.8	2.1	1.1	4.8	119,928

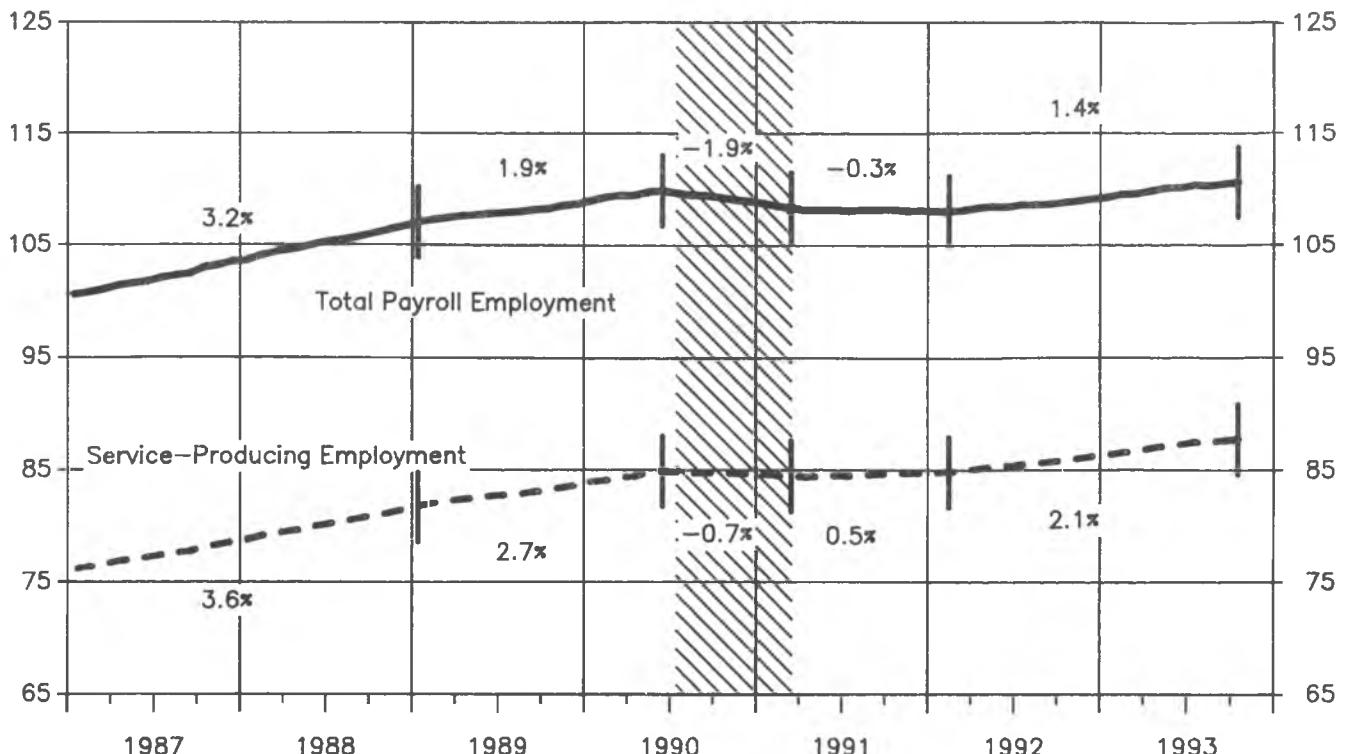
3-92 4-92 5-92 6-92 7-92 8-92 9-92 10-92 11-92 12-92 1-93 2-93 3-93 4-93 5-93 6-93 7-93 8-93 9-93

Prepared by Federal Reserve Bank of St. Louis  
November 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				
	3-92	4-92	5-92	6-92	7-92	8-92	9-92	10-92	11-92	12-92	1-93	2-93	3-93	4-93	5-93	6-93	7-93	8-93	9-93	
4-92	2.0																			108,347
5-92	1.7	1.4																		108,470
6-92	1.1	0.6	-0.2																	108,454
7-92	1.2	1.0	0.7	1.7																108,605
8-92	1.0	0.7	0.5	0.9	0.1															108,615
9-92	0.9	0.7	0.6	0.8	0.4	0.7														108,674
10-92	1.0	0.8	0.7	0.9	0.7	1.0	1.3													108,789
11-92	1.1	0.9	0.8	1.0	0.9	1.1	1.4	1.5												108,921
12-92	1.1	1.0	1.0	1.2	1.1	1.3	1.5	1.6	1.8											109,079
1-93	1.2	1.1	1.1	1.2	1.2	1.4	1.6	1.6	1.7	1.7										109,235
2-93	1.4	1.3	1.3	1.5	1.5	1.7	1.9	2.1	2.3	2.6	3.4									109,539
3-93	1.3	1.2	1.2	1.4	1.3	1.5	1.6	1.7	1.8	1.8	1.8	0.3								109,565
4-93	1.4	1.4	1.4	1.5	1.5	1.7	1.8	1.9	2.0	2.1	2.2	1.5	2.8							109,820
5-93	1.5	1.5	1.5	1.6	1.6	1.8	1.9	2.0	2.1	2.2	2.3	1.9	2.7	2.6						110,058
6-93	1.4	1.4	1.4	1.5	1.5	1.6	1.8	1.8	1.9	1.9	1.9	1.5	2.0	1.5	0.5					110,101
7-93	1.5	1.5	1.5	1.6	1.6	1.7	1.8	1.9	2.0	2.0	2.0	1.8	2.1	1.9	1.5	2.6				110,338
8-93	1.4	1.4	1.4	1.5	1.4	1.6	1.6	1.7	1.7	1.7	1.7	1.4	1.6	1.3	0.9	1.1	-0.4			110,305
9-93	1.4	1.4	1.4	1.5	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.5	1.7	1.4	1.1	1.3	0.7	1.8		110,467
10-93	1.4	1.4	1.4	1.5	1.5	1.6	1.7	1.7	1.7	1.7	1.7	1.5	1.7	1.5	1.3	1.5	1.1	1.9	1.9	110,644

3-92 4-92 5-92 6-92 7-92 8-92 9-92 10-92 11-92 12-92 1-93 2-93 3-93 4-93 5-93 6-93 7-93 8-93 9-93

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

**Service-Producing Employment**  
(Compounded Annual Rates of Change)

Terminal Month	Initial Month																		Thousands of Persons	
	3-92	4-92	5-92	6-92	7-92	8-92	9-92	10-92	11-92	12-92	1-93	2-93	3-93	4-93	5-93	6-93	7-93	8-93	9-93	
4-92	2.8																			85,096
5-92	2.4	1.9																		85,233
6-92	1.8	1.3	0.7																	85,282
7-92	1.9	1.7	1.5	2.3																85,445
8-92	1.8	1.6	1.5	1.8	1.4															85,542
9-92	1.8	1.6	1.5	1.8	1.5	1.7														85,662
10-92	1.8	1.6	1.6	1.8	1.6	1.8	1.9													85,794
11-92	1.8	1.7	1.6	1.8	1.7	1.8	1.9	1.9												85,926
12-92	1.9	1.8	1.7	1.9	1.8	1.9	2.0	2.1	2.4											86,094
1-93	1.9	1.8	1.8	1.9	1.9	2.0	2.0	2.0	2.1	2.2	2.0									86,234
2-93	2.0	1.9	1.9	2.1	2.1	2.2	2.3	2.4	2.6	2.6	3.3									86,470
3-93	1.9	1.9	1.9	2.0	1.9	2.0	2.1	2.1	2.2	2.1	2.2	1.1								86,549
4-93	2.1	2.0	2.1	2.2	2.2	2.3	2.4	2.5	2.5	2.6	2.6	2.8	2.6	4.1						86,840
5-93	2.2	2.1	2.1	2.3	2.3	2.4	2.4	2.5	2.5	2.6	2.7	2.9	2.7	3.5	3.0					87,052
6-93	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.4	2.5	2.5	2.6	2.4	2.9	2.2	1.5					87,160
7-93	2.2	2.2	2.2	2.3	2.3	2.4	2.4	2.5	2.6	2.6	2.7	2.6	2.9	2.6	2.4	3.2				87,390
8-93	2.1	2.0	2.0	2.1	2.1	2.2	2.2	2.3	2.3	2.3	2.3	2.2	2.4	2.0	1.6	1.7	0.2			87,402
9-93	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.3	2.3	2.2	2.4	2.1	1.8	1.9	1.3	2.5		87,579
10-93	2.1	2.0	2.0	2.1	2.1	2.2	2.2	2.2	2.3	2.3	2.3	2.2	2.3	2.0	1.8	1.9	1.5	2.2	1.9	87,713

3-92 4-92 5-92 6-92 7-92 8-92 9-92 10-92 11-92 12-92 1-93 2-93 3-93 4-93 5-93 6-93 7-93 8-93 9-93

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

**Goods-Producing Employment**  
(Compounded Annual Rates of Change)

Terminal Month	Initial Month																		Thousands of Persons	
	3-92	4-92	5-92	6-92	7-92	8-92	9-92	10-92	11-92	12-92	1-93	2-93	3-93	4-93	5-93	6-93	7-93	8-93	9-93	
4-92	-0.8																			23,251
5-92	-0.8	-0.7																		23,237
6-92	-1.6	-2.0	-3.3																	23,172
7-92	-1.4	-1.6	-2.0	-0.6																23,160
8-92	-2.0	-2.3	-2.8	-2.5	-4.4															23,073
9-92	-2.2	-2.4	-2.9	-2.7	-3.8	-3.1														23,012
10-92	-2.0	-2.2	-2.5	-2.3	-2.8	-2.0	-0.9													22,995
11-92	-1.7	-1.9	-2.1	-1.8	-2.1	-1.3	-0.4	0.0												22,995
12-92	-1.6	-1.7	-1.9	-1.6	-1.8	-1.1	-0.5	-0.3	-0.5											22,985
1-93	-1.4	-1.4	-1.5	-1.3	-1.4	-0.7	-0.1	0.1	0.2	0.8										23,001
2-93	-0.9	-0.9	-1.0	-0.7	-0.7	0.0	0.6	1.0	1.3	2.2	3.6									23,069
3-93	-1.1	-1.1	-1.1	-0.9	-0.9	-0.4	0.0	0.2	0.3	0.5	0.4	-2.7								23,016
4-93	-1.1	-1.2	-1.2	-1.0	-1.0	-0.6	-0.2	-0.1	-0.2	-0.1	-0.4	-2.3	-1.9							22,980
5-93	-1.0	-1.0	-1.0	-0.8	-0.8	-0.4	0.0	0.1	0.1	0.2	0.1	-1.1	-0.3	1.4						23,006
6-93	-1.1	-1.1	-1.2	-1.0	-0.7	-0.4	-0.4	-0.4	-0.4	-0.4	-0.6	-1.7	-1.3	-1.0	-3.3					22,961
7-93	-1.0	-1.0	-1.1	-0.9	-0.9	-0.6	-0.3	-0.3	-0.3	-0.3	-0.5	-1.3	-0.9	-0.6	-1.5	0.4				22,948
8-93	-1.1	-1.1	-1.2	-1.0	-1.0	-0.7	-0.5	-0.5	-0.5	-0.5	-0.7	-1.4	-1.2	-1.0	-1.8	-1.0	-2.3			22,903
9-93	-1.1	-1.1	-1.1	-1.0	-1.0	-0.7	-0.5	-0.5	-0.6	-0.6	-0.7	-1.3	-1.1	-1.0	-1.5	-0.9	-1.6	-0.8		22,888
10-93	-0.9	-0.9	-0.9	-0.8	-0.8	-0.5	-0.3	-0.3	-0.3	-0.3	-0.4	-0.9	-0.6	-0.4	-0.8	-0.1	-0.3	0.7	2.3	22,931

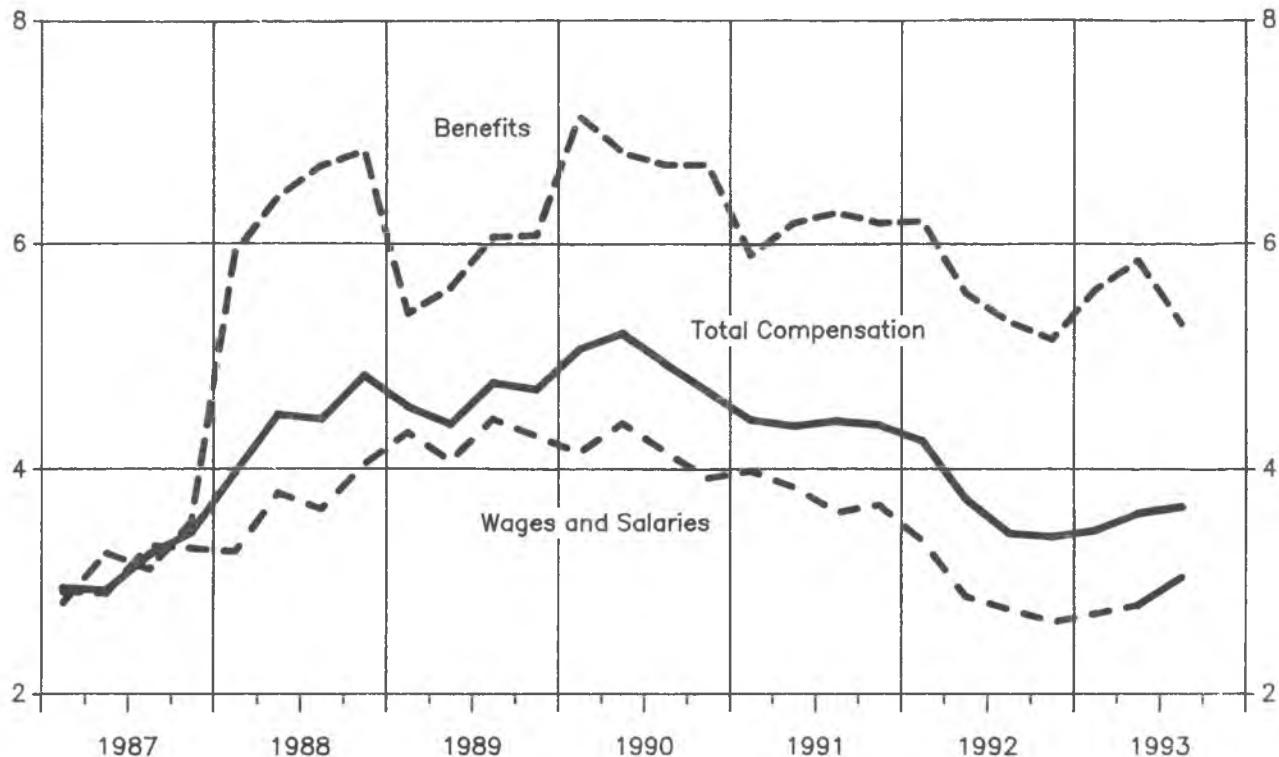
3-92 4-92 5-92 6-92 7-92 8-92 9-92 10-92 11-92 12-92 1-93 2-93 3-93 4-93 5-93 6-93 7-93 8-93 9-93

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

# Change in the Employment Cost Index and Its Components

Percent Change From Previous Year  
Seasonally Adjusted

Percent



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			
	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	4-92	1-93	2-93	
1-89	4.2																	98.8		
2-89	4.3	4.5																99.9		
3-89	4.7	4.9	5.3															101.2		
4-89	4.7	4.9	5.1	4.8														102.4		
1-90	4.9	5.1	5.2	5.2	5.6													103.8		
2-90	4.9	5.1	5.2	5.2	5.3	5.1												105.1		
3-90	4.8	4.9	5.0	4.9	5.0	4.7	4.3											106.2		
4-90	4.7	4.8	4.8	4.7	4.7	4.4	4.0	3.8										107.2		
1-91	4.7	4.7	4.8	4.7	4.7	4.4	4.2	4.2	4.6									108.4		
2-91	4.7	4.8	4.8	4.7	4.7	4.5	4.4	4.4	4.7	4.9								109.7		
3-91	4.7	4.7	4.8	4.7	4.7	4.5	4.4	4.4	4.6	4.7	4.4							110.9		
4-91	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	4.5	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	4.4	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	4.3	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	4.3	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	3.5		115.7		
1-93	4.3	4.3	4.3	4.2	4.2	4.0	3.9	3.9	3.9	3.8	3.7	3.6	3.6	3.5	3.6	3.9	4.2		116.9	
2-93	4.2	4.2	4.2	4.2	4.1	4.0	3.9	3.9	3.9	3.8	3.7	3.6	3.5	3.5	3.6	3.7	3.8	3.5		117.9
3-93	4.2	4.2	4.2	4.2	4.1	4.1	4.0	3.9	3.8	3.8	3.6	3.5	3.5	3.5	3.6	3.7	3.7	3.5	3.4	118.9

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 4-92 1-93 2-93

Data are for the last month of quarter.

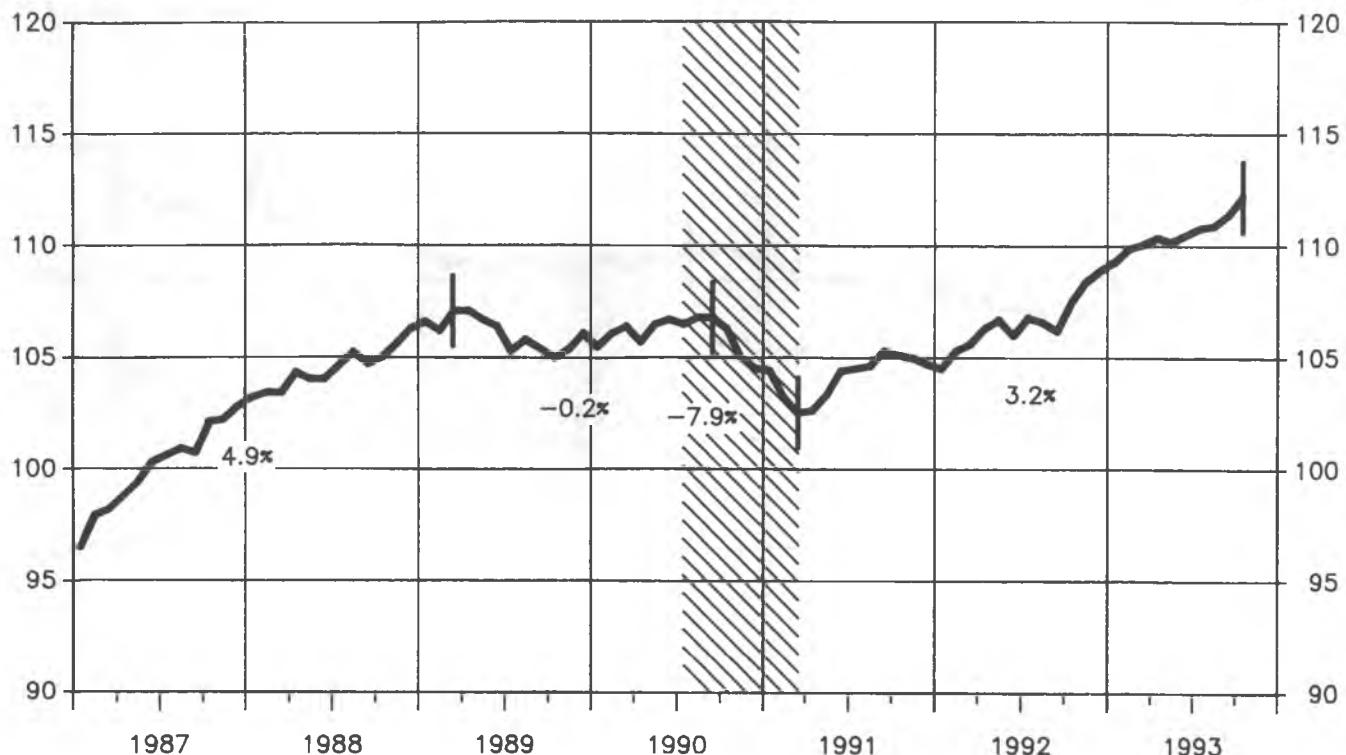
Prepared by Federal Reserve Bank of St. Louis  
October 26, 1993

# 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	
	3-92	4-92	5-92	6-92	7-92	8-92	9-92	10-92	11-92	12-92	1-93	2-93	3-93	4-93	5-93	6-93	7-93	8-93	9-93	
4-92	8.3																		106.3	
5-92	6.4	4.6																	106.7	
6-92	1.5	-1.7	-7.6																106.0	
7-92	3.4	1.9	0.6	9.4															106.8	
8-92	2.3	0.8	-0.4	3.4	-2.2														106.6	
9-92	1.1	-0.2	-1.4	0.8	-3.3	-4.4													106.2	
10-92	3.1	2.3	1.8	4.3	2.6	5.2	15.7												107.5	
11-92	4.0	3.4	3.2	5.5	4.6	6.9	13.1	10.5											108.4	
12-92	4.2	3.7	3.6	5.5	4.8	6.6	10.6	8.1	5.7										108.9	
1-93	4.2	3.8	3.7	5.4	4.7	6.2	9.0	6.9	5.1	4.5									109.3	
2-93	4.5	4.1	4.0	5.6	5.0	6.3	8.6	6.8	5.7	5.6	6.8								109.9	
3-93	4.3	3.9	3.8	5.2	4.7	5.7	7.5	5.9	4.8	4.5	4.5	2.2							110.1	
4-93	4.2	3.9	3.8	5.0	4.5	5.4	6.9	5.5	4.5	4.2	4.1	2.8	3.3						110.4	
5-93	3.7	3.4	3.3	4.3	3.8	4.5	5.7	4.3	3.3	2.9	2.5	1.1	0.5	-2.2					110.2	
6-93	3.7	3.4	3.3	4.2	3.8	4.4	5.4	4.2	3.3	3.0	2.7	1.6	1.5	0.5	3.3				110.5	
7-93	3.7	3.4	3.3	4.2	3.7	4.3	5.2	4.1	3.3	3.0	2.8	2.0	1.9	1.5	3.3	3.3			110.8	
8-93	3.5	3.2	3.1	3.9	3.5	4.0	4.8	3.8	3.1	2.8	2.5	1.8	1.8	1.4	2.6	2.2	1.1		110.9	
9-93	3.6	3.4	3.3	4.1	3.7	4.1	4.9	4.0	3.3	3.1	2.9	2.4	2.4	2.2	3.3	3.3	3.3	5.5	111.4	
10-93	3.9	3.7	3.6	4.4	4.0	4.5	5.2	4.4	3.8	3.6	3.6	3.2	3.3	3.3	4.4	4.7	5.2	7.2	9.0	112.2

3-92 4-92 5-92 6-92 7-92 8-92 9-92 10-92 11-92 12-92 1-93 2-93 3-93 4-93 5-93 6-93 7-93 8-93 9-93

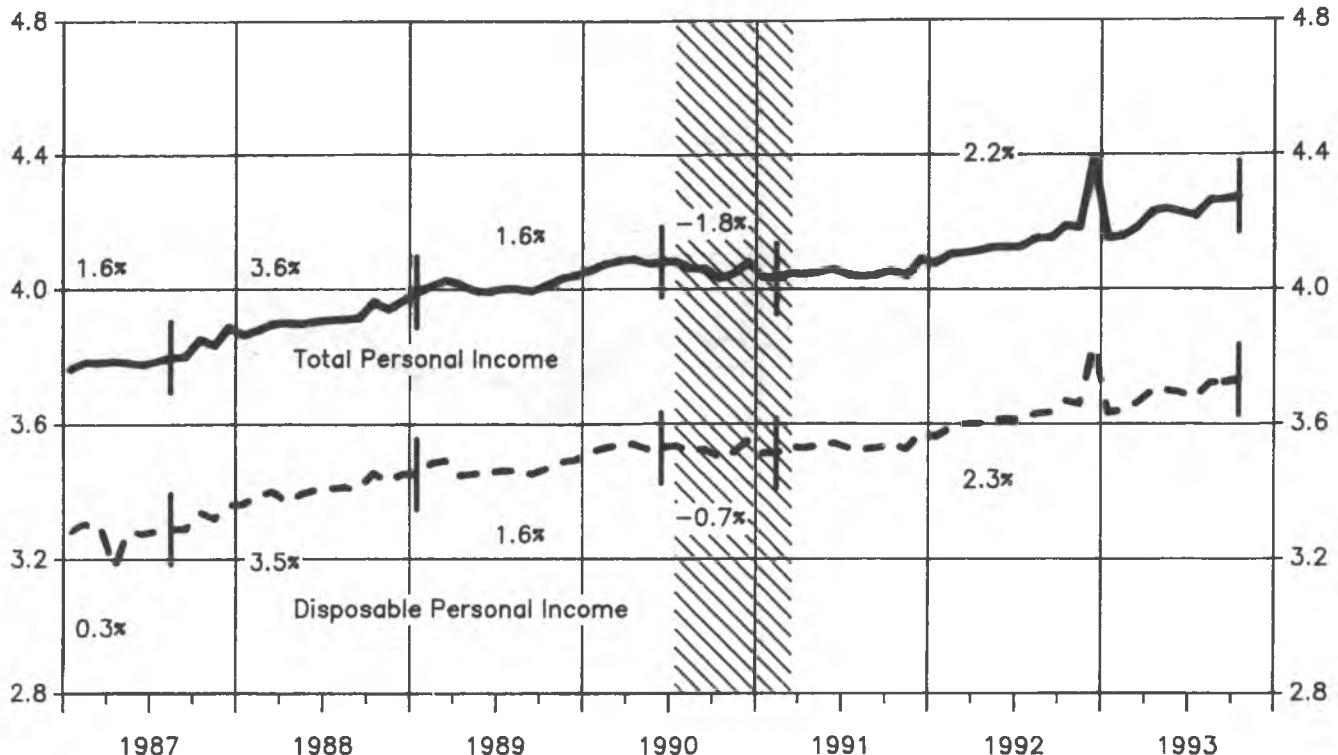
Prepared by Federal Reserve Bank of St. Louis  
November 15, 1993

# 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				
	3-92	4-92	5-92	6-92	7-92	8-92	9-92	10-92	11-92	12-92	1-93	2-93	3-93	4-93	5-93	6-93	7-93	8-93	9-93	
4-92	1.1																	3,600.4		
5-92	2.0	3.0																3,609.2		
6-92	1.7	2.1	1.2															3,612.7		
7-92	1.4	1.5	0.7	0.2														3,613.4		
8-92	2.1	2.4	2.1	2.6	5.1													3,628.4		
9-92	2.0	2.2	2.0	2.2	3.3	1.5												3,632.8		
10-92	3.3	3.7	3.9	4.6	6.0	6.5	11.8											3,666.8		
11-92	2.5	2.7	2.7	3.0	3.7	3.2	4.0	-3.2										3,656.9		
12-92	8.7	9.7	10.7	12.3	14.9	17.5	23.4	29.7	73.7									3,829.1		
1-93	1.1	1.1	0.9	0.9	1.0	0.2	-0.2	-3.9	-4.2	-47.2								3,630.7		
2-93	1.2	1.2	1.0	1.0	1.1	0.4	0.2	-2.5	-2.2	-26.6	1.9							3,636.5		
3-93	1.8	1.8	1.7	1.8	2.0	1.5	1.5	-0.4	0.3	-16.5	5.0	8.2						3,660.4		
4-93	2.5	2.6	2.6	2.7	3.0	2.7	2.9	1.5	2.5	-10.2	7.2	9.9	11.7					3,694.2		
5-93	2.4	2.5	2.5	2.6	2.8	2.6	2.7	1.4	2.2	-8.0	5.6	6.9	6.3	1.1				3,697.7		
6-93	2.1	2.2	2.1	2.2	2.4	2.1	2.1	1.0	1.6	-7.1	4.0	4.6	3.4	-0.5	-2.1			3,691.2		
7-93	1.7	1.7	1.6	1.6	1.7	1.5	1.4	0.4	0.8	-6.7	2.5	2.7	1.3	-1.9	-3.4	-4.6		3,676.6		
8-93	2.4	2.5	2.4	2.5	2.7	2.5	2.6	1.7	2.3	-4.3	4.2	4.6	3.9	2.0	2.3	4.5	14.6	3,718.6		
9-93	2.3	2.4	2.4	2.4	2.6	2.4	2.5	1.7	2.2	-3.7	3.8	4.1	3.4	1.9	2.1	3.5	7.8	1.4	3,722.8	
10-93	2.3	2.4	2.4	2.4	2.6	2.4	2.5	1.8	2.2	-3.1	3.7	3.9	3.3	2.0	2.2	3.3	6.1	2.0	2.7	3,731.0

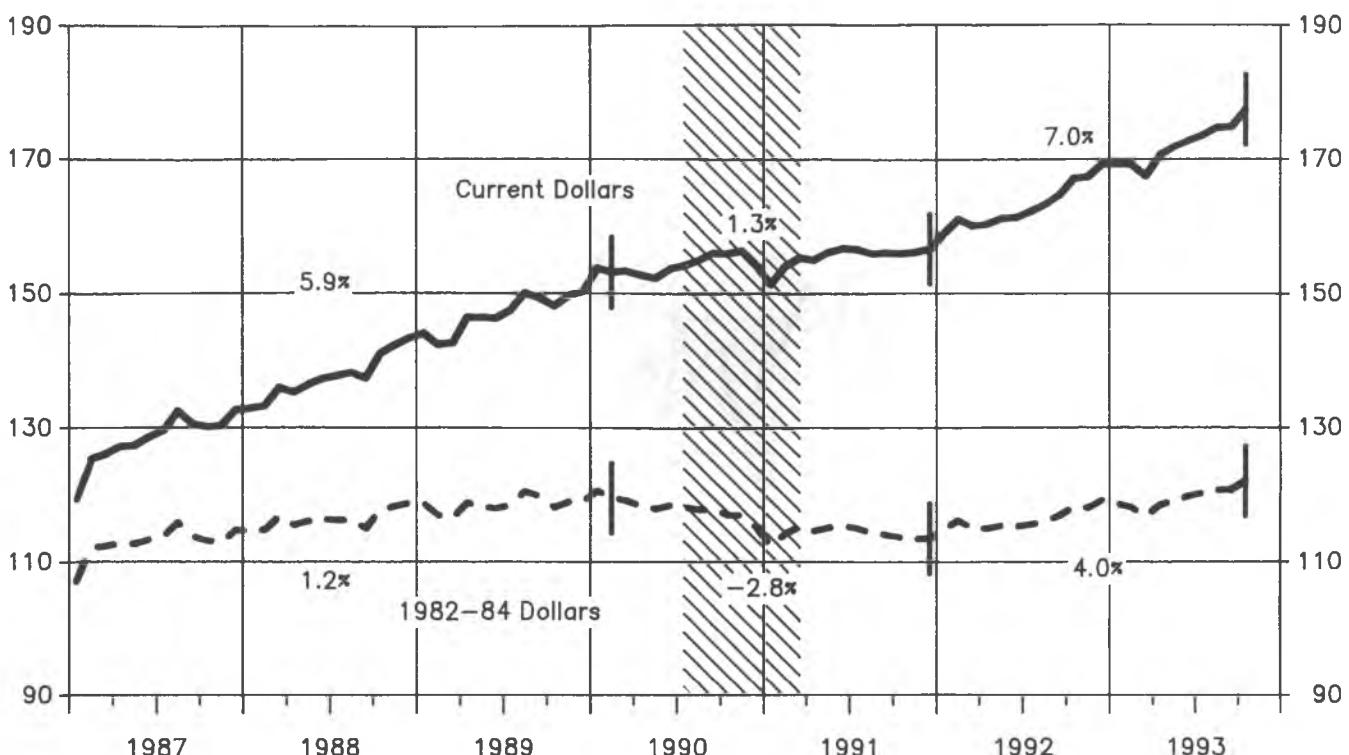
3-92 4-92 5-92 6-92 7-92 8-92 9-92 10-92 11-92 12-92 1-93 2-93 3-93 4-93 5-93 6-93 7-93 8-93 9-93

Prepared by Federal Reserve Bank of St. Louis  
December 2, 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	
	3-92	4-92	5-92	6-92	7-92	8-92	9-92	10-92	11-92	12-92	1-93	2-93	3-93	4-93	5-93	6-93	7-93	8-93	9-93	
4-92	-1.9																			114,711
5-92	1.4	4.8																		115,158
6-92	0.4	1.5	-1.6																	115,004
7-92	1.1	2.1	0.7	3.1																115,297
8-92	1.9	2.9	2.2	4.2	5.3															115,798
9-92	3.0	4.1	3.9	5.8	7.2	9.0														116,632
10-92	4.5	5.6	5.8	7.7	9.2	11.2	13.5													117,873
11-92	3.8	4.7	4.7	6.0	6.7	7.1	6.2	-0.6												117,811
12-92	4.7	5.6	5.7	7.0	7.8	8.4	8.2	5.6	12.3											118,956
1-93	3.7	4.3	4.3	5.2	5.5	5.5	4.7	1.9	3.2	-5.2										118,427
2-93	2.9	3.4	3.2	3.8	4.0	3.7	2.7	0.2	0.4	-5.1	-4.9									117,933
3-93	1.5	1.8	1.5	1.8	1.7	1.1	-0.1	-2.6	-3.1	-7.8	-9.1	-13.0								116,567
4-93	2.7	3.1	2.9	3.4	3.4	3.2	2.4	0.7	0.9	-1.7	-0.5	1.7	19.0							118,265
5-93	3.0	3.4	3.3	3.7	3.8	3.6	3.0	1.5	1.9	-0.1	1.3	3.4	12.8	7.0						118,931
6-93	3.2	3.6	3.5	3.9	4.0	3.9	3.3	2.1	2.5	1.0	2.2	4.1	10.5	6.6	6.2					119,526
7-93	3.3	3.7	3.6	4.0	4.1	4.0	3.5	2.4	2.8	1.5	2.7	4.3	9.1	6.0	5.6	5.0				120,010
8-93	3.4	3.8	3.7	4.1	4.1	4.0	3.6	2.7	3.0	1.9	3.0	4.4	8.3	5.7	5.3	4.9	4.9			120,485
9-93	3.3	3.6	3.5	3.9	3.9	3.8	3.4	2.5	2.8	1.8	2.7	3.9	7.0	4.7	4.2	3.5	2.8	0.8		120,570
10-93	3.8	4.1	4.1	4.4	4.5	4.5	4.1	3.4	3.8	2.9	3.9	5.1	7.9	6.2	6.0	6.0	6.3	7.1	13.7	121,871

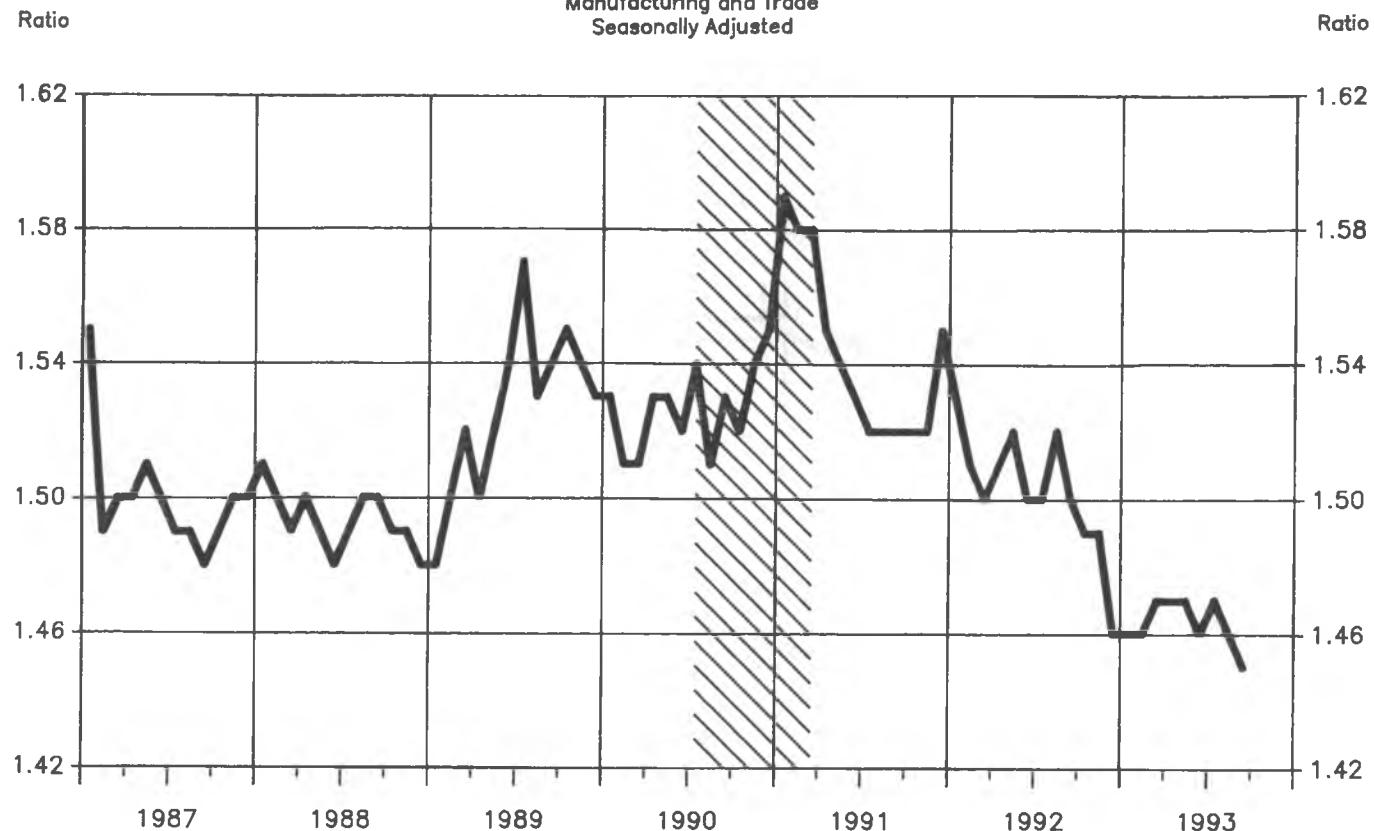
3-92 4-92 5-92 6-92 7-92 8-92 9-92 10-92 11-92 12-92 1-93 2-93 3-93 4-93 5-93 6-93 7-93 8-93 9-93

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

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

# 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)

Termination Month	Initial Month																Millions of Dollars			
	2-92	3-92	4-92	5-92	6-92	7-92	8-92	9-92	10-92	11-92	12-92	1-93	2-93	3-93	4-93	5-93	6-93	7-93	8-93	
3-92	2.1																			832,300
4-92	3.6	5.2																		835,805
5-92	2.4	2.5	-0.2																	835,685
6-92	3.3	3.7	3.0	6.3																839,937
7-92	3.7	4.1	3.7	5.7	5.1															843,411
8-92	3.4	3.7	3.3	4.5	3.6	2.2														844,942
9-92	2.7	2.8	2.4	3.0	2.0	0.6	0.4	-1.3												844,032
10-92	2.5	2.6	2.1	2.6	1.7	0.6	-0.2	1.0												844,728
11-92	2.5	2.5	2.2	2.6	1.8	1.1	0.7	1.7	2.4											846,374
12-92	2.6	2.7	2.4	2.8	2.2	1.6	1.5	2.4	3.2	4.0										849,117
1-93	2.7	2.7	2.5	2.8	2.3	1.9	1.8	2.6	3.1	3.5	3.0									851,190
2-93	2.9	2.9	2.7	3.0	2.7	2.3	2.3	3.1	3.6	4.0	4.0	5.1								854,715
3-93	3.1	3.2	3.0	3.4	3.1	2.8	2.9	3.6	4.1	4.6	4.8	5.7	6.3							859,094
4-93	3.3	3.3	3.2	3.5	3.2	3.0	3.1	3.8	4.2	4.6	4.8	5.4	5.6	4.8						862,478
5-93	3.2	3.3	3.1	3.4	3.2	3.0	3.1	3.6	4.0	4.3	4.3	4.7	4.5	3.6	2.4					864,198
6-93	3.0	3.1	2.9	3.1	2.9	2.7	2.7	3.2	3.5	3.6	3.6	3.7	3.4	2.4	1.2	0.0				864,227
7-93	2.8	2.8	2.7	2.9	2.6	2.4	2.4	2.8	3.0	3.1	2.9	2.9	2.5	1.6	0.5	-0.4	-0.9			863,612
8-93	2.8	2.8	2.7	2.9	2.6	2.5	2.5	2.8	3.0	3.1	3.0	3.0	2.6	1.9	1.2	0.8	1.2	3.3		865,939
9-93	2.8	2.9	2.7	2.9	2.7	2.5	2.5	2.9	3.0	3.1	3.0	3.0	2.7	2.1	1.6	1.4	1.9	3.2	3.2	868,216
	2-92	3-92	4-92	5-92	6-92	7-92	8-92	9-92	10-92	11-92	12-92	1-93	2-93	3-93	4-93	5-93	6-93	7-93	8-93	

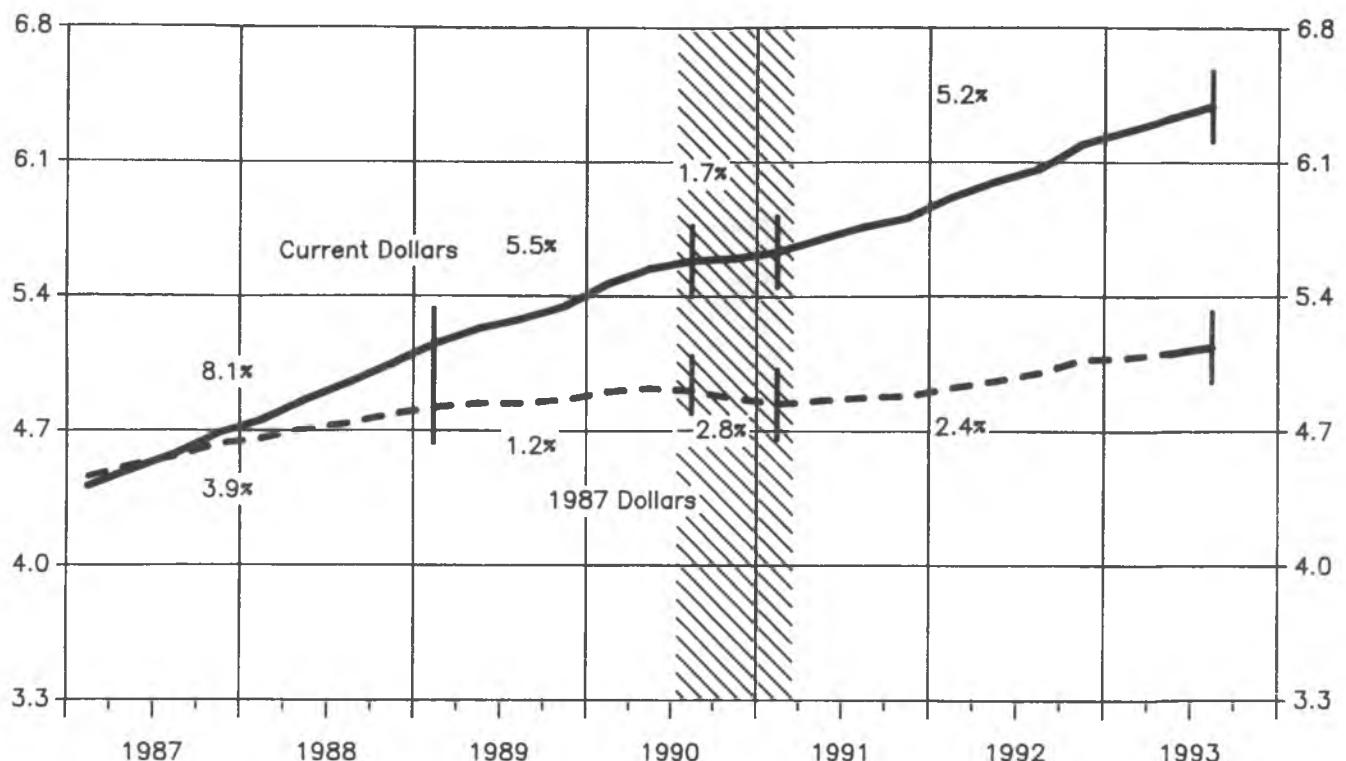
Prepared by Federal Reserve Bank of St. Louis  
November 15, 1993

# 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	
	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	4-92	1-93	2-93
1-89	3.2																		4,817.6
2-89	2.5	1.8																	4,839.0
3-89	1.7	0.9	0.0																4,839.0
4-89	1.6	1.1	0.7	1.5															4,856.7
1-90	2.0	1.7	1.6	2.5	3.5														4,898.3
2-90	1.9	1.6	1.6	2.2	2.5	1.5													4,917.1
3-90	1.5	1.2	1.1	1.4	1.4	0.3	-0.9												4,906.5
4-90	0.9	0.6	0.4	0.5	0.2	-0.8	-2.0	-3.2											4,867.2
1-91	0.5	0.2	0.0	0.0	-0.3	-1.2	-2.1	-2.8	-2.4										4,837.8
2-91	0.6	0.3	0.2	0.2	0.0	-0.7	-1.3	-1.4	-0.5	1.5									4,855.6
3-91	0.7	0.5	0.3	0.3	0.2	-0.4	-0.7	-0.7	0.1	1.4	1.4	1.4							4,872.6
4-91	0.7	0.5	0.3	0.4	0.2	-0.2	-0.5	-0.4	0.3	1.2	1.0	0.6							4,879.6
1-92	0.9	0.7	0.6	0.7	0.6	0.2	0.1	0.2	0.9	1.7	1.8	2.0	3.5						4,922.0
2-92	1.0	0.9	0.8	0.9	0.8	0.5	0.4	0.6	1.2	2.0	2.1	2.3	3.2	2.8					4,956.5
3-92	1.2	1.1	1.0	1.1	1.0	0.8	0.7	0.9	1.5	2.2	2.3	2.6	3.3	3.1	3.4				4,998.2
4-92	1.5	1.4	1.3	1.4	1.4	1.2	1.2	1.4	1.9	2.5	2.6	2.8	3.2	3.3	3.2	0.8			5,068.3
1-93	1.4	1.3	1.3	1.4	1.4	1.2	1.2	1.4	1.9	2.5	2.6	2.7	3.0	2.9	2.9	2.8	1.3	1.9	5,078.2
2-93	1.5	1.4	1.3	1.4	1.4	1.3	1.2	1.4	1.9	2.4	2.5	2.7	3.0	2.9	2.9	2.8	1.8	2.3	5,102.1
3-93	1.5	1.4	1.4	1.5	1.4	1.3	1.5	1.5	2.0	2.4	2.5	2.7	3.0	2.9	2.9	2.8	1.8	2.7	5,135.8

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 4-92 1-93 2-93

Third quarter data are preliminary estimates.

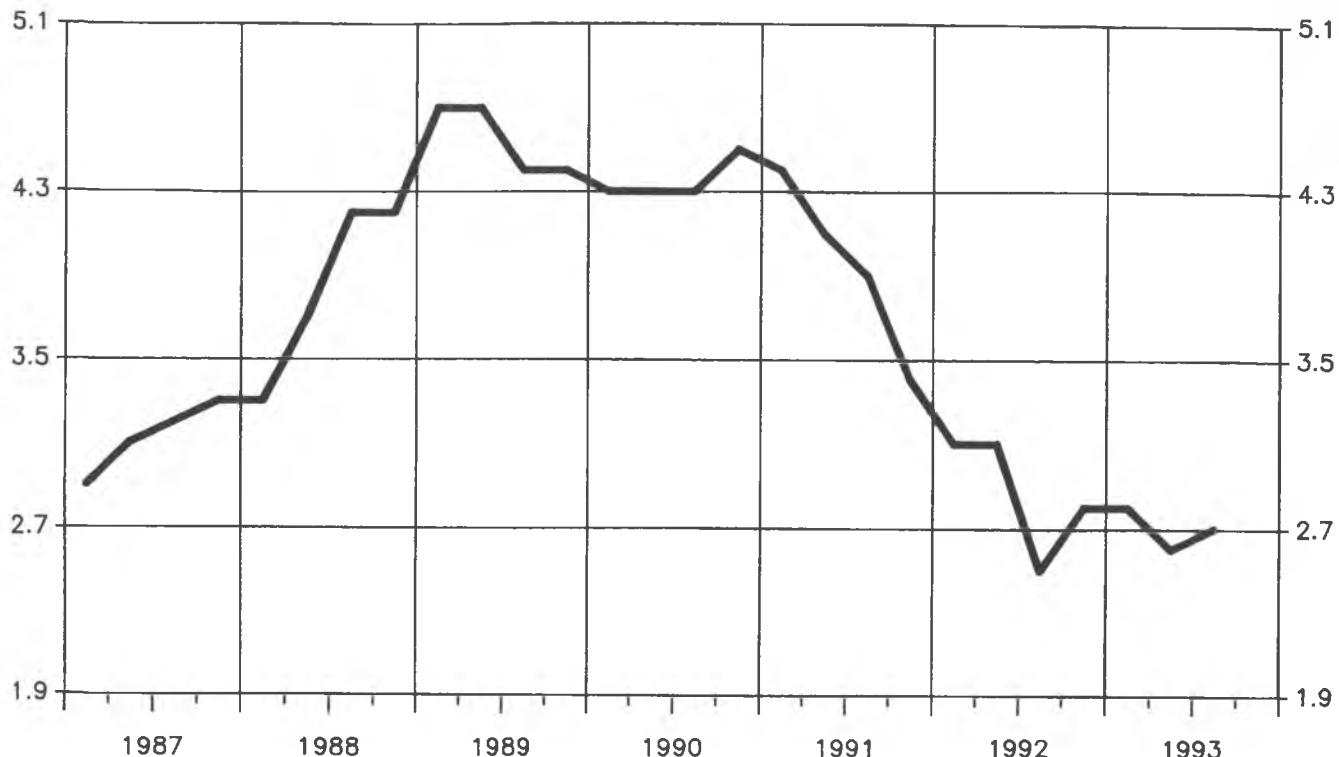
Prepared by Federal Reserve Bank of St. Louis  
December 1, 1993

# 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	
	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	4-92	1-93
1-89	5.4																	106.9
2-89	5.0	4.6																108.1
3-89	4.6	4.2	3.8															109.1
4-89	4.4	4.0	3.7	3.7														110.1
1-90	4.5	4.3	4.2	4.4	5.2													111.5
2-90	4.5	4.3	4.3	4.4	4.8	4.4												112.7
3-90	4.4	4.3	4.2	4.3	4.5	4.2	4.0											113.8
4-90	4.4	4.3	4.2	4.3	4.5	4.2	4.1	4.3										115.0
1-91	4.5	4.3	4.3	4.4	4.6	4.4	4.4	4.6	5.0									116.4
2-91	4.3	4.2	4.2	4.2	4.3	4.1	4.1	4.1	4.0	3.1								117.3
3-91	4.2	4.1	4.0	4.1	4.1	4.0	3.9	3.9	3.7	3.1	3.1							118.2
4-91	4.1	3.9	3.9	3.9	3.9	3.7	3.6	3.6	3.4	2.9	2.7	2.4						118.9
1-92	4.0	3.9	3.9	3.9	3.9	3.7	3.7	3.6	3.5	3.1	3.1	3.1	3.8					120.0
2-92	4.0	3.9	3.8	3.8	3.8	3.7	3.6	3.5	3.4	3.1	3.1	3.1	3.4	3.0				120.9
3-92	3.8	3.7	3.6	3.6	3.6	3.4	3.3	3.2	3.0	2.7	2.7	2.5	2.6	2.0	1.0			121.2
4-92	3.7	3.6	3.6	3.6	3.5	3.4	3.3	3.2	3.1	2.8	2.8	2.7	2.8	2.5	2.2	3.3		122.2
1-93	3.7	3.6	3.6	3.6	3.5	3.4	3.3	3.3	3.1	2.9	2.9	2.9	2.9	2.8	2.7	3.5	3.6	123.3
2-93	3.7	3.6	3.5	3.5	3.5	3.3	3.2	3.2	3.1	2.9	2.8	2.8	2.8	2.7	2.6	3.1	3.0	124.0
3-93	3.5	3.4	3.4	3.4	3.3	3.2	3.1	3.0	2.9	2.7	2.7	2.6	2.7	2.5	2.4	2.7	2.5	124.5

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 4-92 1-93 2-93

Third quarter data are preliminary estimates.

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

### Final Sales in 1987 Dollars

(Compounded Annual Rates of Change)

Terminal Quarter	Initial Quarter															Billions of Dollars Annual Rates			
	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	4-92	1-93	2-93
1-89	1.5																	4,776.3	
2-89	1.8	2.2																4,802.0	
3-89	1.8	2.0	1.8															4,823.0	
4-89	1.5	1.6	1.2	0.7														4,831.8	
1-90	2.3	2.5	2.6	2.9	5.2													4,893.6	
2-90	1.8	1.9	1.8	1.8	2.4	-0.4												4,889.0	
3-90	1.6	1.7	1.6	1.5	1.8	0.1	0.5											4,895.6	
4-90	1.3	1.3	1.2	1.1	1.2	-0.2	0.0	-0.6										4,888.0	
1-91	0.9	0.8	0.6	0.4	0.4	-0.8	-0.9	-1.6	-2.7									4,855.2	
2-91	1.0	0.9	0.8	0.7	0.6	-0.3	-0.2	-0.5	-0.4	1.9								4,878.0	
3-91	0.9	0.8	0.7	0.5	0.5	-0.3	-0.3	-0.5	-0.4	0.8	-0.4							4,873.5	
4-91	0.8	0.7	0.6	0.5	0.4	-0.2	-0.2	-0.4	-0.3	0.5	-0.2	-0.1						4,872.5	
1-92	1.1	1.0	0.9	0.9	0.9	0.3	0.4	0.4	0.6	1.5	1.3	2.2	4.5					4,926.9	
2-92	1.1	1.1	1.0	0.9	0.9	0.5	0.6	0.6	0.8	1.5	1.3	1.9	2.9	1.4				4,943.8	
3-92	1.3	1.3	1.2	1.1	1.2	0.8	0.9	0.9	1.2	1.8	1.8	2.4	3.2	2.5	3.7			4,988.6	
4-92	1.5	1.5	1.5	1.5	1.5	1.2	1.4	1.5	1.7	2.4	2.5	3.0	3.8	3.6	4.7	5.8		5,059.6	
1-93	1.4	1.4	1.3	1.3	1.4	1.0	1.2	1.2	1.4	2.0	2.0	2.4	2.9	2.5	2.8	2.4	-0.8	5,048.9	
2-93	1.5	1.5	1.5	1.4	1.5	1.2	1.3	1.4	1.6	2.1	2.1	2.5	2.9	2.6	2.7	1.2	3.2	5,089.1	
3-93	1.6	1.6	1.6	1.6	1.6	1.4	1.5	1.6	1.8	2.2	2.3	2.6	3.0	2.7	3.0	2.8	1.9	3.3	5,130.4
	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	4-92	1-93	2-93

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

### Personal Consumption Expenditures in 1987 Dollars

(Compounded Annual Rates of Change)

Terminal Quarter	Initial Quarter															Billions of Dollars Annual Rates				
	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	4-92	1-93	2-93	
1-89	0.1																	3,203.6		
2-89	0.6	1.1																3,212.2		
3-89	1.4	2.0	2.9															3,235.3		
4-89	1.2	1.6	1.9	0.8														3,242.0		
1-90	1.5	1.9	2.2	1.8	2.8													3,264.4		
2-90	1.4	1.7	1.8	1.5	1.8	0.9												3,271.6		
3-90	1.5	1.8	1.9	1.6	1.9	1.5	2.1											3,288.4		
4-90	1.0	1.1	1.1	0.8	0.7	0.1	-0.3	-2.7										3,265.9		
1-91	0.6	0.6	0.5	0.2	0.0	-0.7	-1.2	-2.8	-2.8									3,242.7		
2-91	0.7	0.7	0.7	0.4	0.3	-0.2	-0.4	-1.3	-0.6	1.8								3,256.9		
3-91	0.7	0.8	0.8	0.5	0.4	0.1	-0.1	-0.6	0.0	1.5	1.3							3,267.1		
4-91	0.7	0.7	0.7	0.4	0.4	0.1	-0.1	-0.5	0.0	1.0	0.7	0.0						3,267.5		
1-92	0.9	1.0	1.0	0.8	0.8	0.6	0.5	0.3	0.9	1.8	1.9	2.2	4.3					3,302.3		
2-92	1.0	1.1	1.1	0.9	0.9	0.7	0.7	0.5	1.0	1.8	1.8	2.0	3.0	1.8				3,316.8		
3-92	1.2	1.3	1.3	1.2	1.2	1.1	1.0	0.9	1.5	2.2	2.3	2.6	3.4	3.0	4.2			3,350.9		
4-92	1.5	1.6	1.6	1.5	1.6	1.5	1.5	1.5	2.0	2.7	2.9	3.2	4.0	3.8	4.9	5.6		3,397.2		
1-93	1.4	1.5	1.6	1.5	1.5	1.4	1.5	1.4	1.9	2.5	2.6	2.8	3.3	3.1	3.5	3.2	0.8	3,403.8		
2-93	1.6	1.6	1.7	1.6	1.6	1.6	1.6	1.6	2.0	2.6	2.7	2.9	3.3	3.1	3.5	3.3	2.1	3.4	3,432.7	
3-93	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.2	2.7	2.9	3.1	3.5	3.3	3.7	3.5	2.9	3.9	4.4	3,469.6
	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	4-92	1-93	2-93	

Third quarter data are preliminary estimates.

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

# Residential Fixed Investment in 1987 Dollars

(Compounded Annual Rates of Change)

Terminal Quarter	Initial Quarter															Billions of Dollars Annual Rates				
	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	4-92	1-93	2-93	
1-89	-5.4																	222.2		
2-89	-8.6	-11.7																215.4		
3-89	-8.3	-9.7	-7.6															211.2		
4-89	-7.7	-8.4	-6.8	-5.9														208.0		
1-90	-4.9	-4.8	-2.3	0.4	7.1													211.6		
2-90	-7.3	-7.6	-6.6	-6.3	-6.4	-18.3												201.2		
3-90	-9.6	-10.2	-9.9	-10.5	-12.0	-20.2	-22.1											189.0		
4-90	-11.5	-12.4	-12.5	-13.5	-15.2	-21.6	-23.2	-24.3										176.3		
1-91	-13.2	-14.1	-14.5	-15.6	-17.4	-22.6	-24.0	-24.9	-25.5									163.8		
2-91	-11.9	-12.6	-12.7	-13.4	-14.5	-18.3	-18.3	-17.0	-13.1	1.2								164.3		
3-91	-9.5	-9.9	-9.8	-10.0	-10.6	-13.2	-12.2	-9.5	-4.0	9.0	17.3							171.0		
4-91	-7.4	-7.5	-7.1	-7.1	-7.2	-9.1	-7.5	-4.2	1.6	12.6	18.8	20.3						179.1		
1-92	-5.7	-5.7	-5.2	-4.9	-4.8	-6.2	-4.3	-1.0	4.5	13.7	18.2	18.6	16.8					186.2		
2-92	-4.0	-3.8	-3.2	-2.8	-2.4	-3.4	-1.4	2.0	7.2	15.3	19.1	19.6	19.3	21.8				195.6		
3-92	-3.6	-3.5	-2.8	-2.4	-2.1	-3.0	-1.1	1.9	6.3	12.8	15.3	14.7	12.9	11.0	1.2			196.2		
4-92	-1.7	-1.4	-0.6	-0.1	0.4	-0.2	1.8	4.9	9.3	15.4	18.0	18.1	17.6	17.8	15.9	32.8		210.6		
1-93	-1.5	-1.2	-0.5	0.0	0.5	0.0	1.8	4.6	8.4	13.6	15.5	15.2	14.2	13.5	10.9	16.1	1.5	211.4		
2-93	-1.9	-1.7	-1.1	-0.6	-0.2	-0.8	0.8	3.2	6.5	10.8	12.0	11.3	9.8	8.5	5.4	6.9	-4.1	-9.5	206.2	
3-93	-1.3	-1.1	-0.4	0.0	0.5	0.0	1.6	3.8	6.9	10.8	11.9	11.2	10.0	8.9	6.5	7.8	0.6	0.2	10.9	211.6

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 4-92 1-93 2-93

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

# Nonresidential Fixed Investment in 1987 Dollars

(Compounded Annual Rates of Change)

Terminal Quarter	Initial Quarter															Billions of Dollars Annual Rates				
	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	4-92	1-93	2-93	
1-89	0.5																	539.5		
2-89	1.3	2.0																542.2		
3-89	0.7	0.9	-0.3															541.8		
4-89	-0.4	-0.7	-2.0	-3.7														536.7		
1-90	1.7	2.0	2.0	3.1	10.4													550.2		
2-90	0.7	0.7	0.4	0.7	2.9	-4.1												544.5		
3-90	1.3	1.4	1.3	1.7	3.6	0.4	5.0											551.2		
4-90	0.1	0.1	-0.2	-0.2	0.7	-2.4	-1.6	-7.7										540.2		
1-91	-1.4	-1.7	-2.2	-2.5	-2.3	-5.2	-5.6	-10.5	-13.2									521.4		
2-91	-1.6	-1.8	-2.3	-2.6	-2.4	-4.7	-4.9	-8.0	-8.1	-2.7								517.8		
3-91	-1.8	-2.0	-2.4	-2.7	-2.6	-4.6	-4.7	-7.0	-6.7	-3.3	-3.8							512.8		
4-91	-2.1	-2.3	-2.7	-3.0	-2.9	-4.7	-4.8	-6.6	-6.3	-3.9	-4.5	-5.1						506.1		
1-92	-1.6	-1.8	-2.2	-2.4	-2.2	-3.7	-3.6	-5.0	-4.4	-2.1	-1.9	-0.9	3.5					510.5		
2-92	-0.5	-0.6	-0.8	-0.9	-0.6	-1.7	-1.5	-2.3	-1.4	1.1	2.1	4.2	9.2	15.1				528.8		
3-92	-0.2	-0.3	-0.5	-0.5	-0.2	-1.2	-0.9	-1.6	-0.7	1.6	2.5	4.1	7.4	9.3	3.8			533.8		
4-92	0.2	0.2	0.1	0.1	0.4	-0.4	-0.1	-0.6	0.3	2.4	3.3	4.8	7.4	8.8	5.7	7.6		543.7		
1-93	1.0	1.0	1.0	1.1	1.4	0.7	1.2	0.8	1.8	3.8	4.8	6.3	8.8	10.1	8.5	11.0	14.4	562.3		
2-93	1.8	1.9	1.9	2.0	2.5	1.9	2.4	2.1	3.2	5.2	6.2	7.7	10.1	11.4	10.5	12.8	15.5	16.6	584.3	
3-93	2.1	2.2	2.2	2.4	2.8	2.3	2.8	2.6	3.6	5.4	6.4	7.7	9.7	10.7	9.9	11.4	12.7	11.9	7.4	594.8

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 4-92 1-93 2-93

Third quarter data are preliminary estimates.

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

### Exports in 1987 Dollars

(Compounded Annual Rates of Change)

Terminal Quarter	Initial Quarter																Billions of Dollars Annual Rates			
	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	4-92	1-93	2-93	
1-89	15.7																		454.5	
2-89	16.0	16.3																	472.0	
3-89	10.7	8.3	0.8																472.9	
4-89	11.3	9.9	6.8	13.1															487.7	
1-90	11.5	10.4	8.5	12.6	12.1														501.8	
2-90	10.8	9.8	8.3	10.9	9.8	7.6													511.1	
3-90	8.9	7.8	6.2	7.5	5.8	2.7	-1.9												508.6	
4-90	9.0	8.0	6.7	8.0	6.7	5.0	3.7	9.6											520.4	
1-91	7.8	6.9	5.6	6.5	5.2	3.5	2.2	4.3	-0.8										519.4	
2-91	8.9	8.2	7.2	8.2	7.4	6.5	6.2	9.1	8.8	19.4									542.9	
3-91	8.4	7.7	6.8	7.5	6.8	5.9	5.6	7.5	6.8	10.9	3.0								546.9	
4-91	8.8	8.2	7.4	8.2	7.6	6.9	6.8	8.7	8.4	11.7	8.0	13.3							564.2	
1-92	8.5	7.9	7.2	7.8	7.3	6.7	6.5	8.0	7.7	9.9	7.0	9.0	4.9						571.0	
2-92	7.8	7.2	6.5	7.0	6.5	5.8	5.6	6.8	6.3	7.8	5.0	5.7	2.1	-0.6					570.2	
3-92	7.7	7.2	6.5	7.0	6.5	5.9	5.7	6.7	6.3	7.5	5.3	5.9	3.6	2.9	6.5				579.3	
4-92	7.8	7.3	6.7	7.1	6.6	6.2	6.0	6.9	6.6	7.7	5.9	6.5	4.9	4.8	7.6	8.8			591.6	
1-93	7.2	6.6	6.0	6.4	5.9	5.4	5.2	6.0	5.6	6.4	4.7	4.9	3.4	3.0	4.2	3.0	-2.4		588.0	
2-93	7.0	6.5	5.9	6.2	5.8	5.3	5.1	5.8	5.4	6.1	4.5	4.8	3.4	3.1	4.0	3.2	0.5	3.6	593.2	
3-93	6.5	6.0	5.4	5.7	5.3	4.8	4.6	5.1	4.7	5.3	3.8	4.0	2.7	2.3	2.9	2.0	-0.1	1.0	-1.5	591.0

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 4-92 1-93 2-93

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

### Imports in 1987 Dollars

(Compounded Annual Rates of Change)

Terminal Quarter	Initial Quarter																Billions of Dollars Annual Rates		
	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	4-92	1-93	2-93
1-89	-4.8																		534.3
2-89	0.4	5.8																	541.9
3-89	2.4	6.2	6.5																550.5
4-89	2.6	5.2	4.9	3.3															555.0
1-90	3.2	5.3	5.1	4.4	5.6														562.6
2-90	3.6	5.3	5.2	4.8	5.5	5.4													570.0
3-90	3.1	4.5	4.2	3.7	3.8	2.9	0.5												570.7
4-90	1.5	2.4	1.9	1.0	0.4	-1.3	-4.4	-9.1											557.2
1-91	0.0	0.6	-0.1	-1.2	-2.0	-3.8	-6.7	-10.1	-11.1										541.0
2-91	1.1	1.8	1.3	0.6	0.1	-0.9	-2.4	-3.4	-0.4	11.7									556.2
3-91	2.0	2.8	2.4	1.9	1.7	1.1	0.3	0.2	3.5	11.7	11.8								571.9
4-91	2.4	3.1	2.8	2.4	2.3	1.8	1.2	1.4	4.2	9.9	9.0	6.3							580.7
1-92	2.5	3.1	2.9	2.5	2.5	2.1	1.6	1.8	4.1	8.4	7.3	5.1	3.8						586.2
2-92	3.4	4.1	3.9	3.7	3.7	3.5	3.3	3.7	6.0	9.8	9.3	8.6	9.7	15.9					608.2
3-92	3.8	4.4	4.3	4.1	4.2	4.1	3.9	4.4	6.5	9.7	9.3	8.7	9.5	12.5	9.2				621.8
4-92	3.9	4.5	4.4	4.3	4.3	4.2	4.1	4.5	6.4	9.1	8.7	8.1	8.5	10.2	7.4	5.6			630.3
1-93	4.3	4.9	4.9	4.8	4.9	4.8	4.8	5.2	6.9	9.4	9.1	8.7	9.2	10.5	8.8	8.6	11.6		647.9
2-93	4.8	5.4	5.4	5.3	5.5	5.4	5.5	5.9	7.5	9.9	9.6	9.3	9.8	11.1	9.9	10.1	12.5	13.3	668.4
3-93	4.9	5.4	5.4	5.4	5.5	5.5	5.5	5.9	7.4	9.5	9.2	8.9	9.3	10.2	9.1	9.1	10.3	9.6	678.3

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 4-92 1-93 2-93

Third quarter data are preliminary estimates.

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

# Government Purchases of Goods and Services in 1987 Dollars

(Compounded Annual Rates of Change)

Terminal Quarter	Initial Quarter															Billions of Dollars Annual Rates				
	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	4-92	1-93	2-93	
1-89	-1.6																	890.8		
2-89	1.8	5.3																902.3		
3-89	2.6	4.9	4.5															912.2		
4-89	2.0	3.3	2.3	0.2														912.6		
1-90	3.0	4.2	3.8	3.5	7.0													928.1		
2-90	2.7	3.6	3.1	2.7	4.0	1.1												930.6		
3-90	2.2	2.9	2.4	1.9	2.4	0.2	-0.6											929.2		
4-90	2.6	3.3	2.9	2.6	3.3	2.1	2.6	5.8										942.4		
1-91	2.7	3.2	2.9	2.7	3.2	2.2	2.6	4.3	2.8									948.9		
2-91	2.5	3.0	2.7	2.5	2.9	2.1	2.3	3.3	2.1	1.4								952.3		
3-91	2.1	2.5	2.2	1.9	2.2	1.4	1.5	2.0	0.7	-0.3	-2.0							947.6		
4-91	1.5	1.8	1.5	1.2	1.3	0.5	0.4	0.6	-0.7	-1.8	-3.4	-4.7						936.2		
1-92	1.6	1.9	1.6	1.3	1.5	0.8	0.8	1.0	0.1	-0.6	-1.3	-0.9	3.0					943.1		
2-92	1.4	1.7	1.4	1.1	1.2	0.6	0.5	0.7	-0.1	-0.7	-1.2	-1.0	1.0	-1.0				940.7		
3-92	1.6	1.9	1.6	1.4	1.5	0.9	0.9	1.1	0.5	0.1	-0.2	0.3	2.0	1.5	4.1			950.2		
4-92	1.4	1.6	1.4	1.2	1.2	0.7	0.7	0.8	0.2	-0.1	-0.4	-0.1	1.1	0.5	1.3	-1.4		946.9		
1-93	1.0	1.1	0.8	0.6	0.6	0.1	0.0	0.1	-0.5	-0.9	-1.3	-1.2	-0.4	-1.3	-1.3	-3.9	-6.4	931.3		
2-93	1.1	1.3	1.1	0.8	0.9	0.4	0.4	0.5	-0.1	-0.4	-0.6	-0.4	0.3	-0.2	0.0	-1.3	-1.2	4.3	941.1	
3-93	1.1	1.2	1.0	0.8	0.8	0.4	0.4	0.4	0.0	-0.3	-0.5	-0.3	0.3	-0.1	0.1	-0.9	-0.7	2.2	0.3	941.7

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 4-92 1-93 2-93

Third quarter data are preliminary estimates.

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

## Corporate Profits

(Compounded Annual Rates of Change)

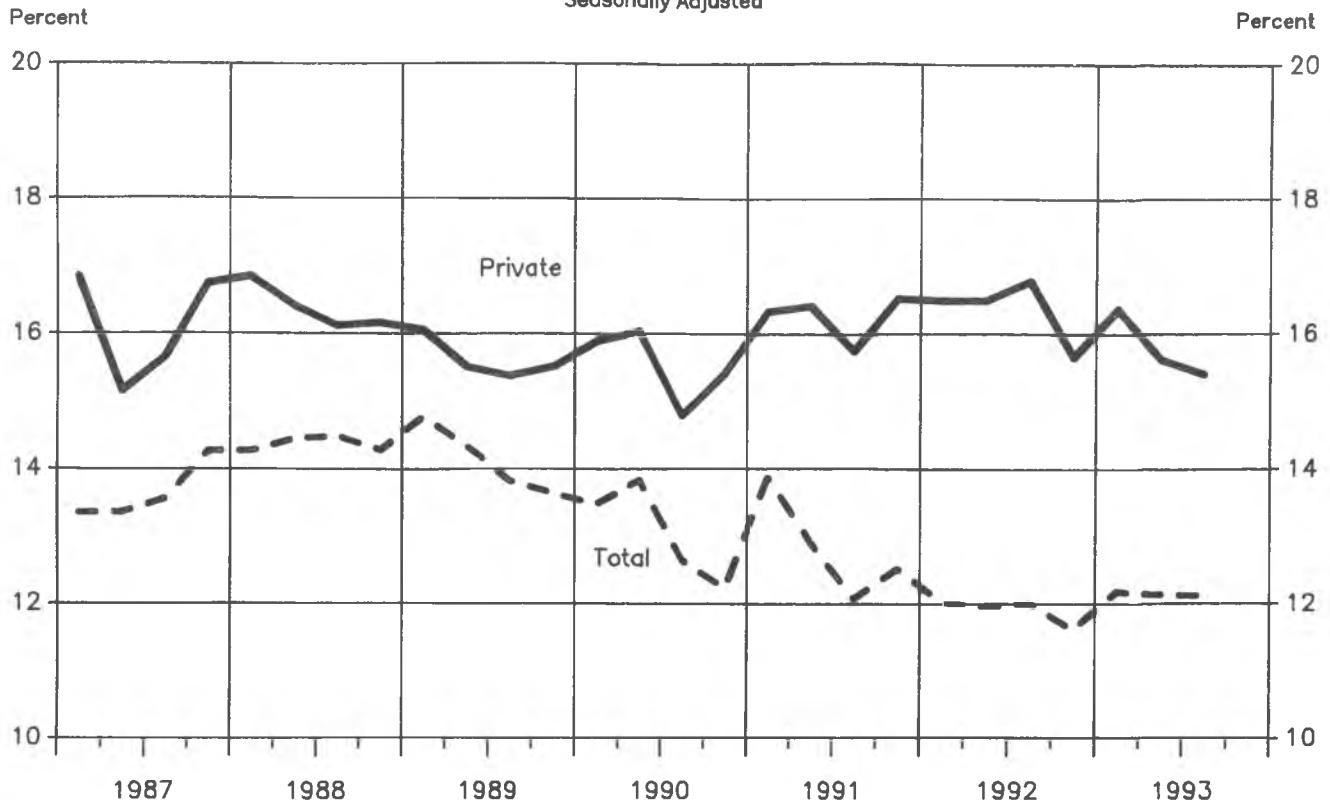
Terminal Quarter	Initial Quarter															Billions of Dollars Annual Rates		
	4-88	1-89	2-89	3-89	4-89	1-90	2-90	3-90	4-90	1-91	2-91	3-91	4-91	1-92	2-92	3-92	4-92	1-93
1-89	-9.1																	369.4
2-89	-4.4	0.5																369.9
3-89	-7.3	-6.4	-12.9															357.3
4-89	-6.3	-5.3	-8.2	-3.1														354.5
1-90	0.9	3.6	4.6	14.7	35.7													382.6
2-90	5.4	8.6	10.7	19.9	33.3	31.0												409.3
3-90	-1.6	-0.3	-0.5	2.9	4.9	-7.7	-35.0											367.5
4-90	-2.1	-1.0	-1.3	1.2	2.3	-6.8	-21.4	-5.0										362.8
1-91	-1.1	0.0	-0.1	2.2	3.3	-3.5	-12.8	1.0	7.4									369.3
2-91	-0.8	0.2	0.1	2.1	3.0	-2.5	-9.4	1.2	4.5	1.6								370.8
3-91	-1.9	-1.1	-1.3	0.2	0.7	-4.2	-10.0	-2.3	-1.4	-5.5	-12.1							359.0
4-91	0.0	0.9	1.0	2.6	3.4	-0.6	-5.0	2.5	4.4	3.4	4.4	24.0						378.8
1-92	2.5	3.5	3.8	5.6	6.7	3.5	0.1	7.6	10.3	11.0	14.3	30.4	37.1					409.9
2-92	2.4	3.4	3.6	5.3	6.2	3.3	0.3	6.7	8.8	9.1	11.0	20.0	18.1	1.8				411.7
3-92	-0.8	-0.1	-0.2	0.9	1.3	-1.6	-4.7	0.0	0.7	-0.3	-0.7	2.4	-4.0	-19.6	-36.5			367.5
4-92	3.8	4.7	5.0	6.6	7.4	5.2	2.9	8.3	10.1	10.5	12.0	17.6	16.0	9.7	14.0	104.6		439.5
1-93	3.2	4.0	4.2	5.6	6.3	4.1	2.0	6.7	8.1	8.2	9.1	13.2	11.1	5.4	6.7	38.2	-6.6	432.1
2-93	4.3	5.2	5.5	6.9	7.6	5.7	3.8	8.3	9.8	10.1	11.2	14.9	13.5	9.3	11.3	34.2	8.6	458.1
3-93	4.7	5.5	5.8	7.1	7.8	6.1	4.4	8.6	9.9	10.2	11.1	14.5	13.2	9.6	11.2	28.0	9.5	470.3

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 4-92 1-93 2-93

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

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

**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)

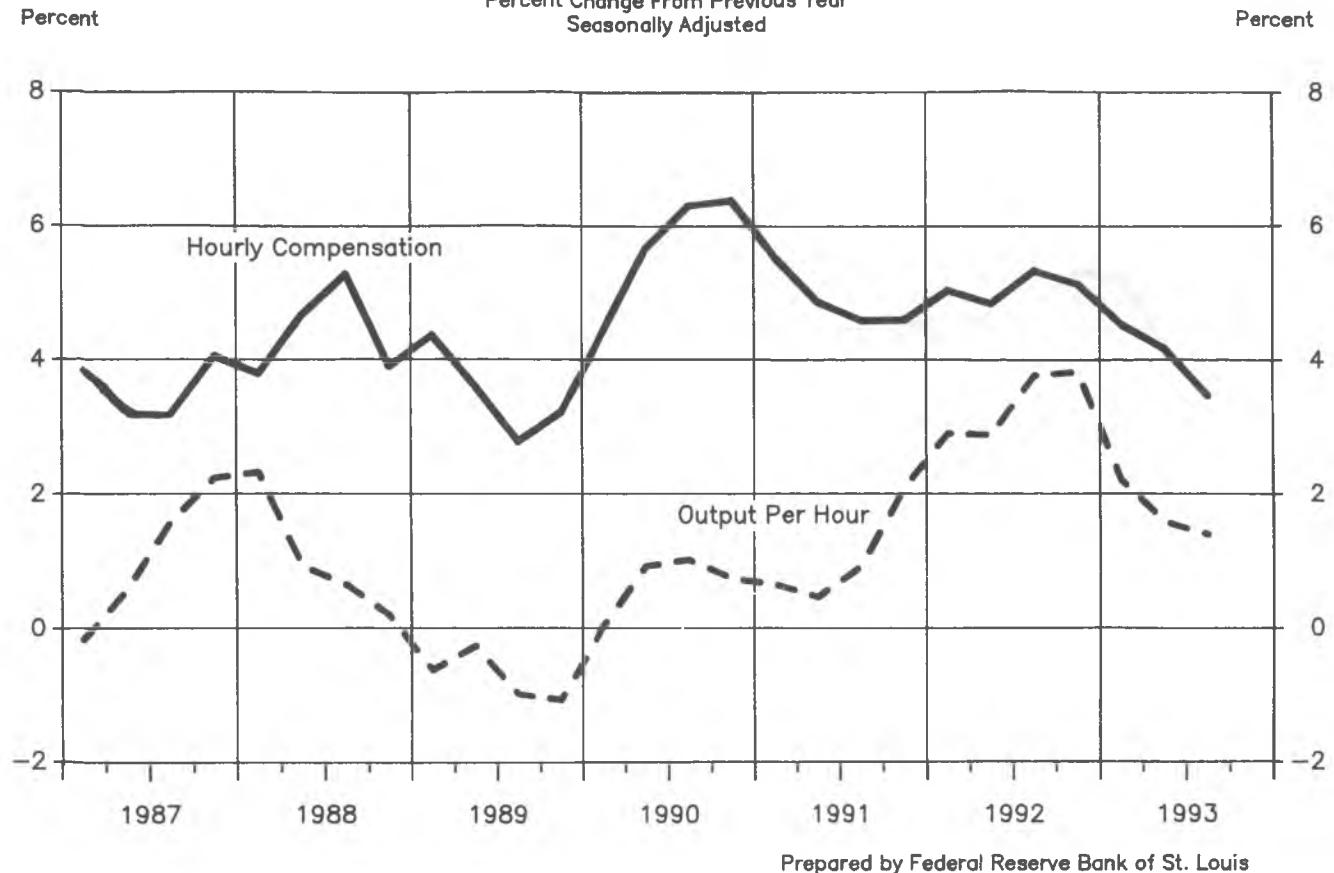
Terminal Quarter	Initial Quarter															Billions of Dollars Annual Rates		
	4-88	1-89	2-89	3-89	4-89	1-90	2-90	3-90	4-90	1-91	2-91	3-91	4-91	1-92	2-92	3-92	4-92	1-93
1-89	6.0																	826.7
2-89	-0.9	-7.4																811.0
3-89	-0.6	-3.7	0.1															811.2
4-89	1.7	0.3	4.4	8.9														828.6
1-90	5.1	4.9	9.4	14.3	20.1													867.4
2-90	5.9	5.9	9.6	12.9	15.0	10.1												888.5
3-90	0.7	-0.1	1.4	1.8	-0.5	-9.4	-25.5											825.5
4-90	2.9	2.5	4.2	5.1	4.2	-0.7	-5.6	19.5										863.1
1-91	5.5	5.5	7.4	8.7	8.7	6.0	4.7	24.0	28.8									919.4
2-91	5.7	5.6	7.4	8.5	8.4	6.2	5.2	18.1	17.4	7.0								935.0
3-91	4.0	3.8	5.1	5.7	5.3	3.0	1.6	9.8	6.8	-2.8	-11.6							906.6
4-91	5.6	5.5	6.9	7.7	7.6	5.9	5.2	12.7	11.1	5.7	5.1	25.0						958.7
1-92	5.6	5.6	6.9	7.6	7.5	6.0	5.4	11.7	10.2	5.9	5.6	15.4	6.6					974.1
2-92	5.7	5.6	6.8	7.4	7.3	5.9	5.4	10.8	9.4	5.9	5.6	12.1	6.1	5.7				987.7
3-92	6.1	6.1	7.2	7.8	7.7	6.6	6.2	11.0	9.8	6.9	6.9	12.1	8.1	8.9	12.2			1,016.5
4-92	4.4	4.3	5.2	5.6	5.4	4.1	3.5	7.4	6.0	3.1	2.4	5.5	1.1	-0.6	-3.7	-17.3		969.4
1-93	5.5	5.5	6.4	6.9	6.8	5.7	5.3	9.0	7.9	5.6	5.4	8.5	5.5	5.2	5.0	1.6	24.9	1,024.8
2-93	4.4	4.3	5.1	5.4	5.2	4.1	3.6	6.8	5.6	3.3	2.8	5.1	2.0	1.2	0.1	-3.7	3.9	-13.5
3-93	4.1	4.0	4.7	5.0	4.7	3.7	3.2	6.1	4.9	2.8	2.3	4.2	1.5	0.7	-0.3	-3.1	2.1	-7.7
																	988.3	
																	984.6	

Third quarter data are preliminary estimates.

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

# Business Productivity and Compensation

Percent Change From Previous Year  
Seasonally Adjusted



## Business Sector Output per Hour

(Compounded Annual Rates of Change)

Terminal Quarter	Initial Quarter																		1982 = 100	
	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	4-92	1-93	2-93	
1-89	-2.5																		110.2	
2-89	-1.4	-0.4																	110.1	
3-89	-1.4	-0.9	-1.4																109.7	
4-89	-1.1	-0.6	-0.7	0.0															109.7	
1-90	-0.5	0.0	0.1	0.9	1.8														110.2	
2-90	0.1	0.7	0.9	1.7	2.6	3.3													111.1	
3-90	-0.1	0.4	0.5	1.0	1.3	1.1	-1.1												110.8	
4-90	-0.2	0.2	0.2	0.6	0.7	0.4	-1.1	-1.1											110.5	
1-91	0.0	0.3	0.4	0.7	0.9	0.6	-0.2	0.2	1.5										110.9	
2-91	0.3	0.6	0.7	1.0	1.2	1.0	0.5	1.0	2.0	2.5									111.6	
3-91	0.3	0.6	0.7	1.0	1.1	1.0	0.5	0.9	1.6	1.6	0.7								111.8	
4-91	0.6	0.9	1.0	1.2	1.4	1.3	1.0	1.4	2.1	2.3	2.2	3.6							112.8	
1-92	0.9	1.2	1.3	1.6	1.8	1.8	1.5	2.0	2.6	2.9	3.0	4.2	4.7						114.1	
2-92	1.0	1.3	1.4	1.7	1.8	1.8	1.7	2.0	2.6	2.8	2.9	3.6	3.6	2.5					114.8	
3-92	1.2	1.5	1.6	1.9	2.1	2.1	1.9	2.3	2.8	3.0	3.1	3.8	3.8	3.4	4.2				116.0	
4-92	1.4	1.6	1.8	2.0	2.2	2.2	2.1	2.5	2.9	3.2	3.3	3.8	3.8	3.5	4.0	3.8			117.1	
1-93	1.2	1.4	1.5	1.8	1.9	1.9	1.8	2.1	2.4	2.5	2.5	2.8	2.7	2.2	2.1	1.0	-1.7		116.6	
2-93	1.1	1.3	1.4	1.6	1.8	1.8	1.6	1.9	2.2	2.3	2.2	2.4	2.2	1.7	1.6	0.7	-0.9	0.0	116.6	
3-93	1.2	1.5	1.6	1.8	1.9	1.9	1.8	2.0	2.3	2.4	2.4	2.6	2.4	2.0	1.9	1.4	0.6	1.7	3.5	117.6

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 4-92 1-93 2-93

Revised from 1990.

Prepared by Federal Reserve Bank of St. Louis  
November 4, 1993

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

Terminal Quarter	Initial Quarter																	Billions of Dollars			
	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	4-92	1-93		
4-88	4.9																		2,086.6		
1-89	6.0	7.1																	2,122.5		
2-89	5.8	6.3	5.6																2,151.7		
3-89	6.2	6.7	6.5	7.5															2,190.8		
4-89	6.7	7.2	7.3	8.1	8.7														2,236.9		
1-90	8.1	8.7	9.1	10.3	11.8	15.0													2,316.3		
2-90	8.6	9.2	9.6	10.6	11.7	13.2	11.5												2,380.4		
3-90	9.0	9.6	10.0	10.9	11.8	12.8	11.7	11.9											2,448.3		
4-90	9.5	10.1	10.5	11.3	12.1	13.0	12.3	12.7	13.6										2,527.5		
1-91	9.4	10.0	10.3	11.0	11.6	12.2	11.5	11.5	11.3	9.1									2,583.4		
2-91	9.7	10.1	10.5	11.1	11.6	12.1	11.6	11.6	11.5	10.5	11.8								2,656.6		
3-91	10.2	10.7	11.0	11.7	12.2	12.7	12.3	12.5	12.6	12.3	13.9	16.1							2,757.6		
4-91	10.1	10.6	10.9	11.5	11.9	12.3	12.0	12.0	12.0	11.7	12.5	12.9	9.7						2,822.2		
1-92	10.2	10.7	11.0	11.5	11.9	12.2	11.9	12.0	12.0	11.7	12.3	12.5	10.7	11.7					2,901.1		
2-92	10.4	10.9	11.1	11.6	12.0	12.3	12.1	12.1	12.2	11.9	12.5	12.6	11.5	12.4	13.2				2,992.5		
3-92	10.4	10.8	11.0	11.5	11.8	12.1	11.8	11.8	11.8	11.6	12.0	12.0	11.0	11.5	11.4	9.6			3,061.7		
4-92	10.2	10.5	10.8	11.2	11.5	11.7	11.4	11.4	11.3	11.0	11.3	11.2	10.3	10.4	10.0	8.5	7.4		3,116.5		
1-93	10.0	10.3	10.5	10.9	11.1	11.3	11.0	11.0	10.9	10.6	10.7	10.6	9.7	9.7	9.2	7.9	7.1	6.9		3,168.6	
2-93	10.2	10.5	10.7	11.0	11.3	11.4	11.2	11.1	11.1	10.8	11.0	10.9	10.2	10.3	10.0	9.2	9.1	10.0	13.2		3,268.6

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 4-92 1-93

Prepared by Federal Reserve Bank of St. Louis  
December 1, 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	2487.7	499.0	1988.5	220.9	1765.0	331.0
June	2548.8	528.4	2021.2	227.1	1796.5	343.3
September	2613.8	552.2	2062.0	232.3	1830.5	348.5
December	2673.0	584.4	2086.6	231.7	1855.1	363.1
1989 March	2738.8	617.4	2122.5	232.8	1886.9	375.1
June	2801.7	650.6	2151.7	231.4	1919.9	367.3
September	2869.3	679.0	2190.8	223.6	1967.3	398.5
December	2942.2	701.9	2236.9	221.4	2013.2	429.2
1990 March	3048.3	734.2	2316.3	223.9	2096.5	420.5
June	3146.3	766.9	2380.4	231.1	2153.8	426.0
September	3246.4	799.0	2448.3	235.5	2217.0	443.9
December	3353.0	820.6	2527.5	251.3	2286.0	456.6
1991 March	3460.5	880.5	2583.4	253.0	2339.8	463.8
June	3541.4	886.3	2656.6	255.0	2411.3	472.7
September	3680.1	923.9	2757.6	268.0	2500.1	480.7
December	3787.6	958.5	2822.2	272.1	2560.4	488.9
1992 March	3876.1	978.8	2901.1	274.0	2640.9	508.4
June	3988.9	998.6	2992.5	277.0	2727.5	529.1
September	4081.1	1021.1	3061.7	300.1	2777.5	538.9
December	4160.9	1036.0	3116.5	291.7	2836.6	545.9
1993 March	4226.4	1058.9	3168.6	312.7	2869.2	565.5
June	4356.4	1089.9	3268.6	328.5	2953.2	566.9

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.

Data have been revised to reflect changed seasonal adjustment factors.

**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	1091.3	1061.7	1257.8	1252.2	-166.4	-190.5
2	1114.5	1093.4	1266.5	1275.4	-152.0	-182.0
3	1123.7	1116.0	1268.3	1273.6	-144.6	-157.6
4	1115.8	1132.1	1306.9	1311.2	-191.0	-179.1
1991 1	1115.8	1160.1	1261.0	1257.9	-145.2	-97.8
2	1120.3	1173.7	1326.5	1319.3	-206.2	-145.6
3	1132.6	N.A.	1350.2	N.A.	-217.7	N.A.
4	1142.5	N.A.	1387.2	N.A.	-244.7	N.A.
1992 1	1165.9	N.A.	1436.1	N.A.	-270.2	N.A.
2	1176.1	N.A.	1456.0	N.A.	-279.9	N.A.
3	1169.1	N.A.	1459.8	N.A.	-290.7	N.A.
4	1221.1	N.A.	1485.3	N.A.	-264.2	N.A.
1993 1	1218.4	N.A.	1481.9	N.A.	-263.5	N.A.
2	1268.0	N.A.	1490.6	N.A.	-222.6	N.A.
3	1278.7	N.A.	1490.3	N.A.	-211.7	N.A.

N.A. — Not Available

	Fiscal years								Estimates	
	Actual									
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
<b>Total budget</b>										
Receipts	\$ 734.1	\$ 769.1	\$ 854.1	\$ 909.0	\$ 990.7	\$ 1031.3	\$ 1054.3	\$ 1090.5	\$ 1144.1	\$ 1241.3
Outlays	946.4	990.3	1003.9	1064.1	1143.2	1252.7	1323.8	1380.9	1425.2	1500.1
Surplus or deficit( - )	\$ -212.3	\$ -221.2	\$ -149.8	\$ -155.2	\$ -152.5	\$ -221.4	\$ -269.5	\$ -290.4	\$ -281.1	\$ -258.7
<b>Calendar years</b>										
<b>National income accounts budget</b>										
Receipts	\$ 788.6	\$ 827.2	\$ 913.8	\$ 972.3	\$ 1059.3	\$ 1107.4	\$ 1127.8	\$ 1183.0		
Expenditures	969.9	1028.2	1065.6	1109.0	1181.6	1273.6	1331.2	1459.3		
Surplus or deficit( - )	\$ -181.4	\$ -201.0	\$ -151.8	\$ -136.6	\$ -122.3	\$ -166.2	\$ -203.4	\$ -276.3		
<b>Cyclically adjusted budget</b>										
Receipts	\$ 808.5	\$ 844.1	\$ 917.6	\$ 949.7	\$ 1025.5	\$ 1100.8				
Expenditures	980.3	1029.4	1071.6	1115.9	1189.6	1278.1				
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 Mid-Session Review of the 1994 Budget using CBO economic assumptions (September 1, 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.

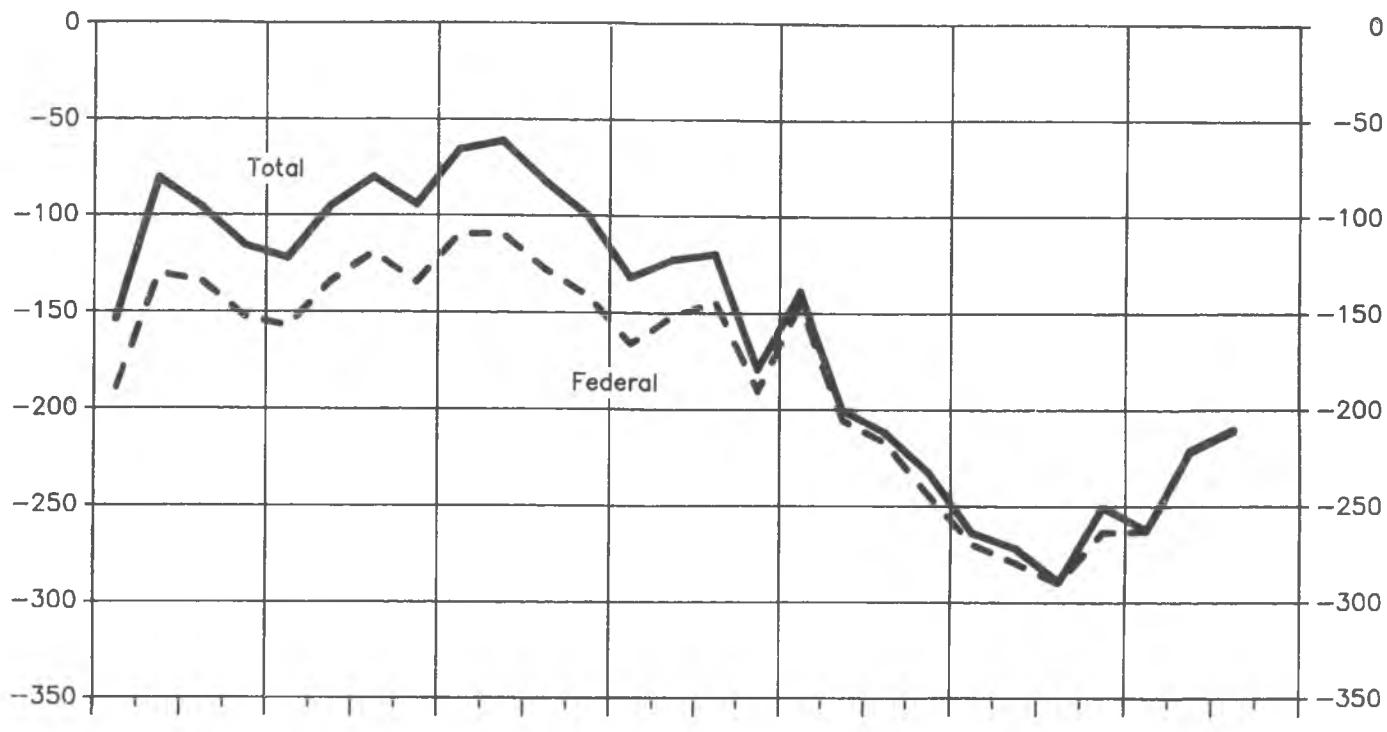
Prepared by Federal Reserve Bank of St. Louis

# 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		
	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	4-92	1-93	2-93	
1-89	-4.4																			293.5
2-89	0.9	6.6																		298.2
3-89	3.8	8.2	9.9																	305.3
4-89	1.9	4.1	2.9	-3.6																302.5
1-90	4.1	6.3	6.3	4.5	13.3															312.1
2-90	3.5	5.1	4.8	3.2	6.7	0.5														312.5
3-90	2.3	3.5	2.9	1.2	2.9	-1.9	-4.3													309.1
4-90	4.2	5.5	5.4	4.5	6.6	4.5	6.5	18.5												322.5
1-91	5.0	6.3	6.2	5.6	7.6	6.2	8.1	14.9	11.5											331.4
2-91	3.9	4.8	4.6	3.9	5.2	3.6	4.4	7.5	2.4	-6.0										326.3
3-91	2.9	3.7	3.4	2.6	3.5	1.9	2.2	3.9	-0.5	-6.1	-6.1									321.2
4-91	1.6	2.2	1.7	0.9	1.4	-0.2	-0.3	0.5	-3.5	-8.0	-9.0	-11.9								311.2
1-92	1.6	2.1	1.7	0.9	1.4	0.0	0.0	0.7	-2.5	-5.8	-5.7	-5.5	1.4							312.3
2-92	1.3	1.7	1.3	0.6	1.0	-0.2	-0.3	0.2	-2.5	-5.1	-4.9	-4.5	-0.5	-2.4						310.4
3-92	1.7	2.2	1.9	1.2	1.7	0.6	0.6	1.2	-1.0	-3.0	-2.4	-1.4	2.4	2.8	8.4					316.7
4-92	1.6	2.0	1.6	1.0	1.4	0.4	0.4	0.9	-1.1	-2.7	-2.2	-1.4	1.4	1.5	3.4	-1.3				315.7
1-93	0.6	0.9	0.6	0.0	0.2	-0.8	-0.9	-0.6	-2.5	-4.1	-3.8	-3.4	-1.6	-2.4	-2.4	-7.4	-13.1			304.8
2-93	0.8	1.1	0.8	0.2	0.5	-0.4	-0.5	-0.2	-1.9	-3.3	-2.9	-2.4	-0.8	-1.2	-0.9	-3.8	-5.1	3.7		307.6
3-93	0.5	0.8	0.4	-0.1	0.1	-0.8	-0.9	-0.6	-2.1	-3.4	-3.1	-2.7	-1.4	-1.8	-1.7	-4.1	-5.0	-0.7	-4.9	303.8

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 4-92 1-93 2-93

Third quarter data are preliminary estimates.

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

Federal Reserve Bank of St. Louis  
 Post Office Box 442  
 St. Louis, Missouri 63166

**Subscriber:**

Please include address label with  
 subscription inquiries or address changes.

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

Terminal Quarter	Initial Quarter															Billions of Dollars		Annual Rates		
	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	4-92	1-93	2-93	
1-89	14.4																			867.3
2-89	9.1	4.1																		876.0
3-89	6.0	2.1	0.1																	876.2
4-89	8.2	6.2	7.3	15.0																907.3
1-90	10.1	9.0	10.7	16.5	18.0															945.7
2-90	9.0	7.9	8.9	12.0	10.6	3.6														954.0
3-90	8.0	6.9	7.5	9.5	7.7	2.9	2.2													959.2
4-90	8.3	7.5	8.1	9.8	8.5	5.5	6.5	10.9												984.4
1-91	4.7	3.5	3.5	4.0	2.0	-1.7	-3.4	-6.1	-20.5											929.6
2-91	7.3	6.5	6.9	7.9	6.7	4.6	4.8	5.7	3.2	34.0										1,000.2
3-91	7.7	7.1	7.6	8.4	7.5	5.8	6.2	7.3	6.1	22.5	12.0									1,029.0
4-91	8.7	8.2	8.6	9.6	8.9	7.7	8.4	9.6	9.3	21.5	15.7	19.6								1,076.0
1-92	9.4	9.0	9.5	10.5	10.0	9.0	9.8	11.1	11.2	20.9	16.8	19.3	19.0							1,123.8
2-92	9.3	8.9	9.4	10.2	9.8	8.9	9.6	10.7	10.6	18.2	14.5	15.4	13.4	8.0						1,145.6
3-92	8.6	8.2	8.5	9.3	8.8	7.9	8.4	9.2	8.9	14.8	11.3	11.1	8.4	3.5	-0.9					1,143.1
4-92	8.7	8.3	8.6	9.3	8.8	8.0	8.5	9.2	9.0	14.0	11.0	10.8	8.7	5.5	4.2	9.6				1,169.6
1-93	8.3	7.9	8.2	8.8	8.3	7.6	7.9	8.5	8.3	12.5	9.8	9.4	7.4	4.7	3.7	6.0	2.6			1,177.1
2-93	7.9	7.6	7.8	8.3	7.9	7.1	7.4	7.9	7.6	11.3	8.8	8.3	6.5	4.2	3.3	4.7	2.3	2.0		1,183.0
3-93	7.6	7.2	7.4	7.9	7.4	6.7	6.9	7.3	7.0	10.3	7.9	7.4	5.7	3.7	2.8	3.8	1.9	1.6	1.2	1,186.5
	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	4-92	1-93	2-93	

Third quarter data are preliminary estimates.

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