August 1998

National Economic Trends

THE FEDERAL RESERVE BANK of ST. LOUIS

Old Wine at New Prices

The real change in business inventories (CBI) in the first quarter of 1998 was a whopping $91.4 billion chain-weighted 1992 dollars at a seasonally adjusted annual rate. The increase contributed 1.2 percentage points to the spectacular 5.5 percent growth in real gross domestic product (GDP) for the quarter (see chart at the bottom of Page 4). However, the monthly changes in manufacturing and trade inventories did not appear to be as large; the chart on Page 5 shows that the monthly inventory-to-sales ratio did not rise significantly. The monthly increases in manufacturing and trade inventories in current dollar terms are less than they were in 1994-95. But the CBI component of GDP is larger—both in nominal *and* real terms.

GDP is supposed to measure the value of current quarter production, but since some firms use accounting practices that report inventory withdrawals at historical (book) cost, an inventory valuation adjustment (IVA) is necessary to calculate CBI. The IVA uses producer price indexes to adjust the value of inventory withdrawals to reflect profits or losses from price changes that took place since the inventory was produced. When producer prices rise, IVA is negative and reduces the change in the CBI. When producer prices fall, IVA becomes positive.

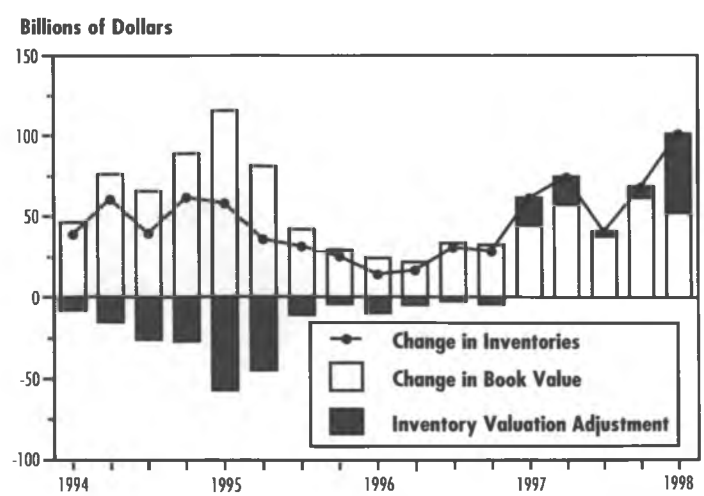
The accompanying chart shows the change in book value and the IVA for nonfarm inventories. During the 1994-95 inventory accumulation, producer prices were rising, and IVA deducted from the change in the book value of nonfarm inventories. In 1997 and the first quarter of 1998, however, falling producer prices made the inventory valuation adjustment positive and added to the increase in the book value of inventories. As a result, the CBI component of GDP was higher, even though the book value of inventories increased less during 1997 and the first quarter of 1998 than in 1994-95.

Both the real and nominal manufacturing and trade inventory-to-sales ratios have been low and steady for the past few quarters. This would lead us to conclude that inventory levels are not out of line. So, in one sense, we can argue that the IVA exaggerates the amount of the inventory buildup. But in a period of declining prices, there is an additional penalty for holding too much inventory. When prices are falling, firms want to minimize their stocks of inputs and finished goods, deferring purchases and production until needed. If producer prices continue to fall, firms might set lower-than-normal targets and reduce planned inventory levels.

Preliminary data indicate signs of a slowdown in inventory investment in the second quarter of 1998, but low inventory-to-sales ratios suggest that an inventory correction would be fairly mild, unless other forces combine to dampen consumption and investment.

—Donald S. Allen

Components of Nonfarm Business Inventory Investment



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

Table of Contents

Page

Consumer Debt Service Suspended

The Federal Reserve Board has suspended publication of the data series on consumer debt service previously used on page 12 of *N.E.T.* Until these series are resumed, the chart on page 12 will display total household debt outstanding from the Flow of Funds.

Conventions used in this publication:

1. Charts and tables contain data that were current on August 5, 1998.

2. Shaded areas indicate recessions, as determined by the National Bureau of Economic Research.

3. *Percent change* refers to simple percent changes. *Percent change from year ago* refers to the percent change from the same month or quarter in the previous year. The *percent change at annual rate* shows what the growth rate would be over an entire year if the same simple percent change continued for four quarters or twelve months. The percent change at annual rate of X between the previous quarter $t-1$ and the current quarter t is:

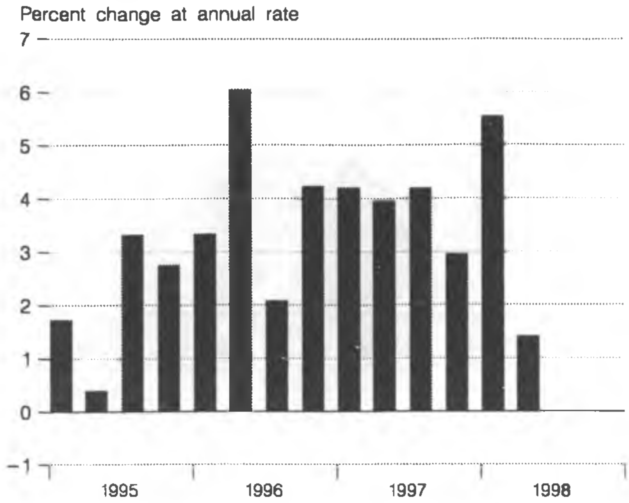
$$100 \times \left[\left(\frac{X_t}{X_{t-1}} \right)^4 - 1 \right]$$

   For monthly data replace 4 with 12.

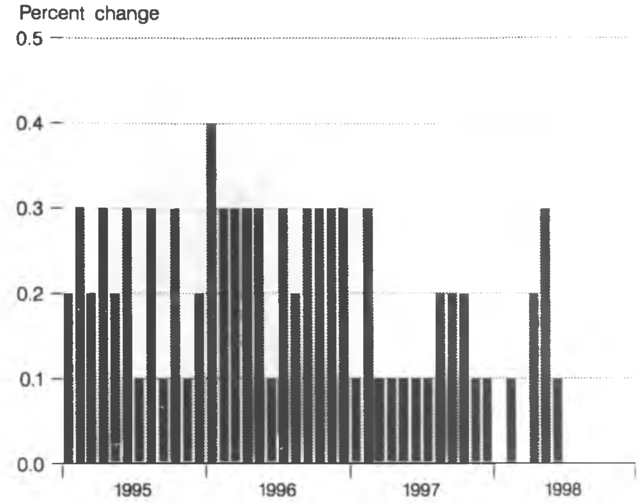
4. All data with significant seasonal patterns are seasonally adjusted, unless labeled NSA.

National Economic Trends is published monthly by the Research Division of the Federal Reserve Bank of St. Louis. For more information on data, please call (314) 444-8573. Single-copy subscriptions are available free of charge by writing to the Public Affairs Office, Federal Reserve Bank of St. Louis, Post Office Box 442, St. Louis, MO 63166-0442 or by calling (314) 444-8808 or (314) 444-8809. Information in this publication is also included on the Federal Reserve Economic Data (FRED) electronic bulletin board at (314) 621-1824 or Internet World Wide Web server at http://www.stls.frb.org/fred.

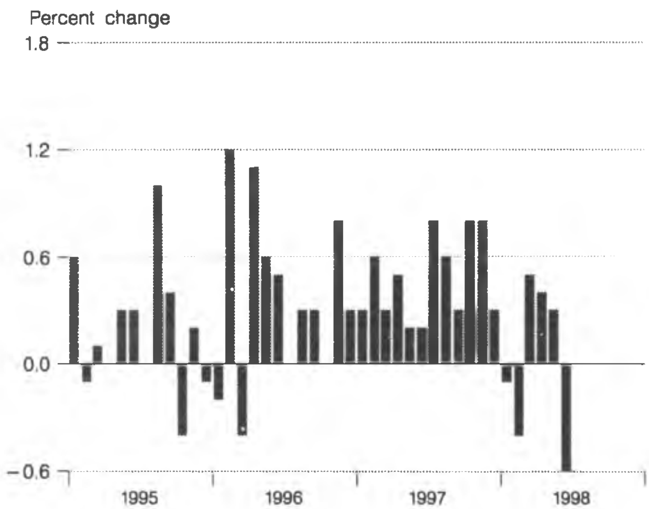
Real GDP Growth



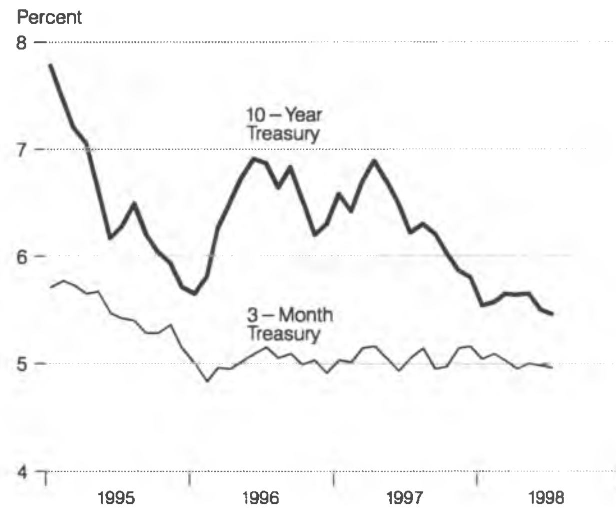
Consumer Price Index



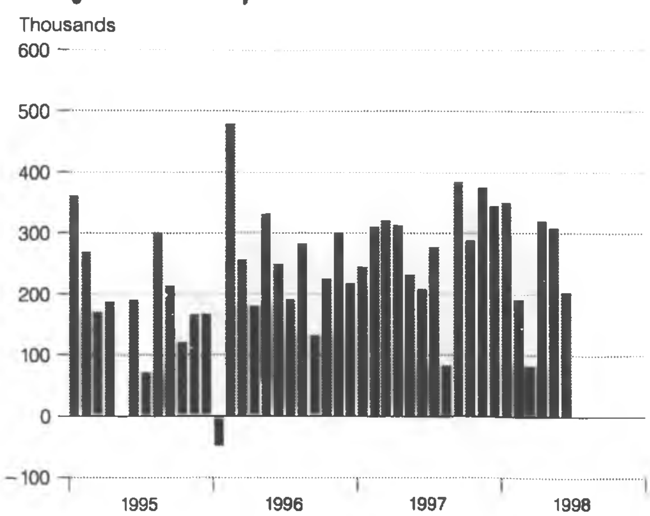
Industrial Production



Interest Rates



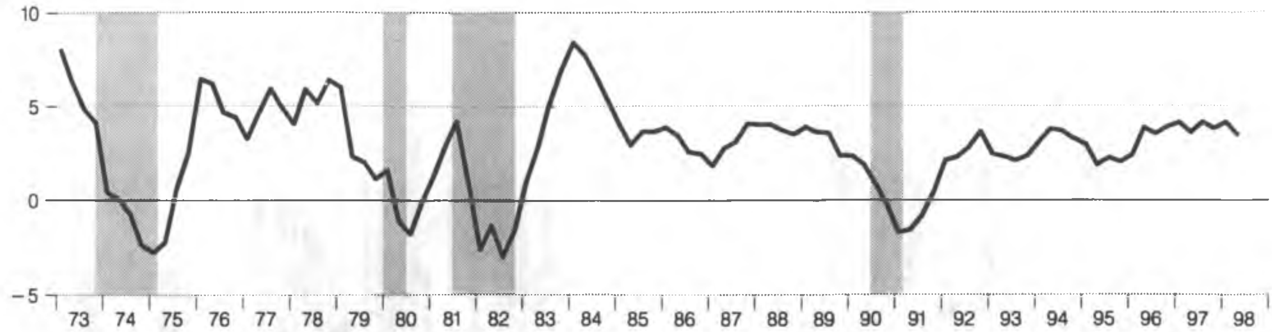
Change in Nonfarm Payrolls



Unemployment Rate

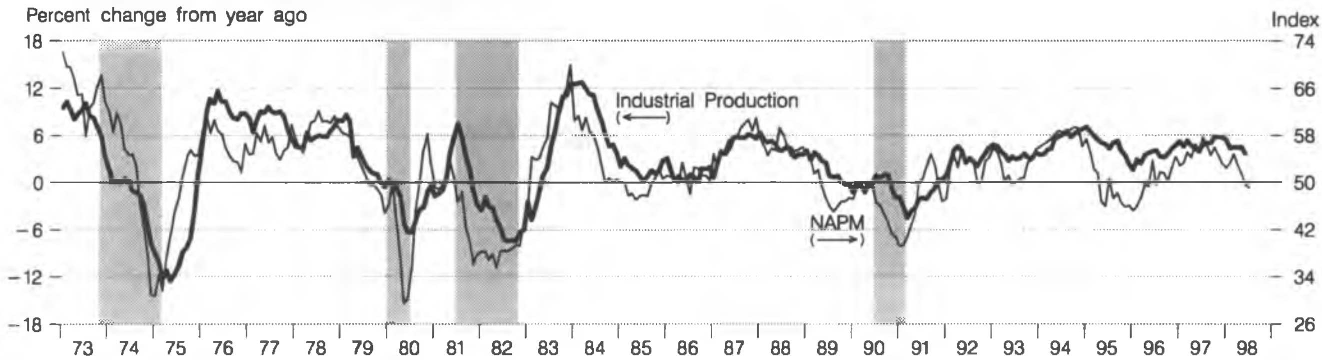
Real Gross Domestic Product

Percent change from year ago



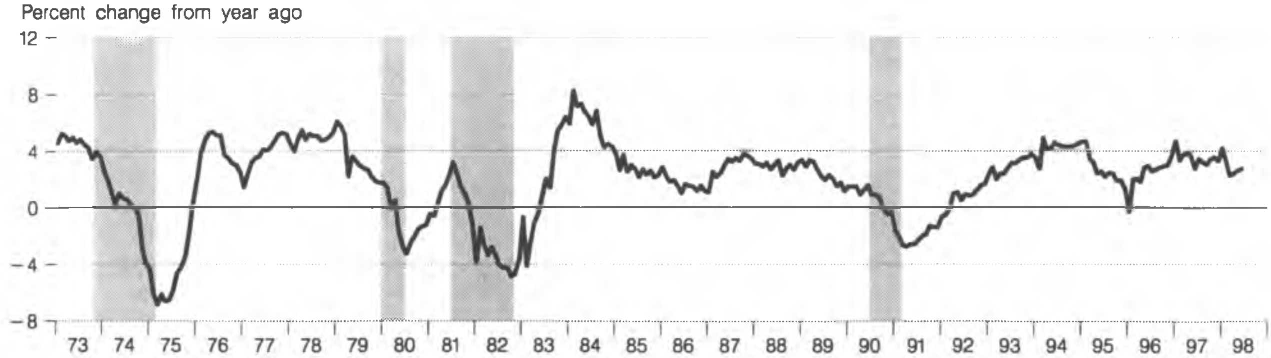
Industrial Production and Purchasing Managers' (NAPM) Indexes

Percent change from year ago



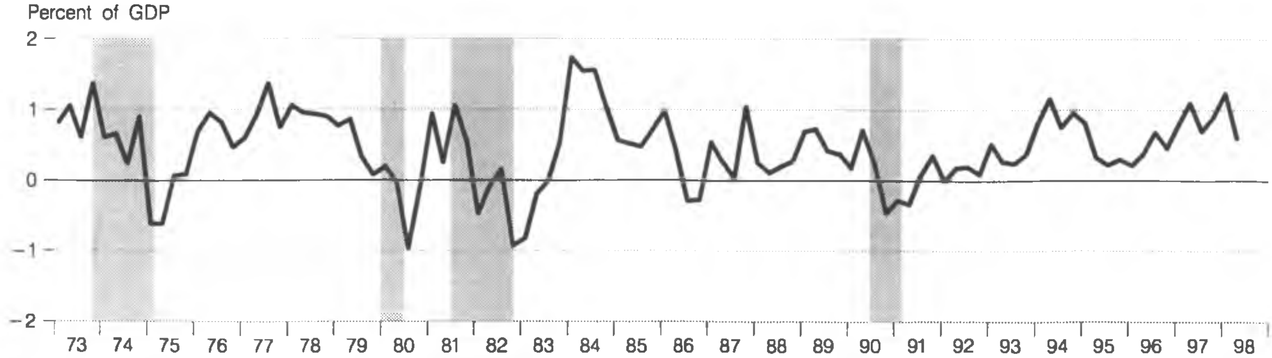
Aggregate Private Nonfarm Hours

Percent change from year ago

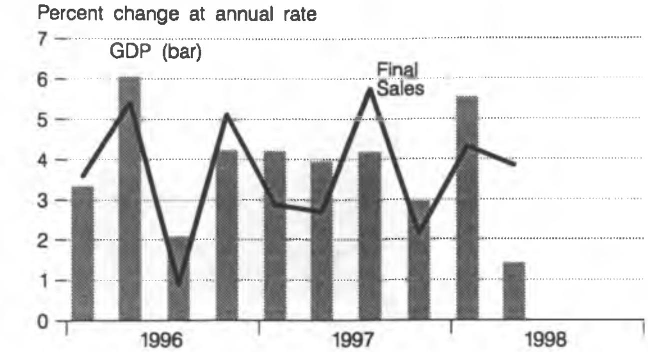


Real Change in Business Inventories

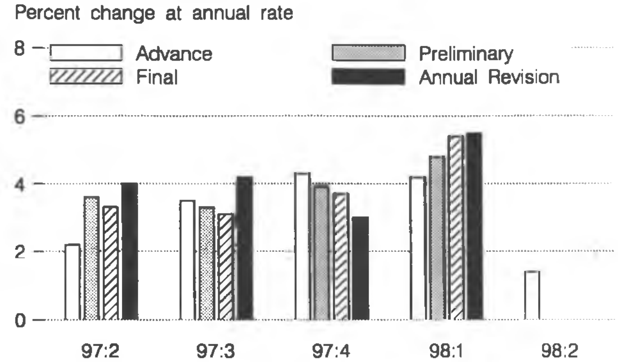
Percent of GDP



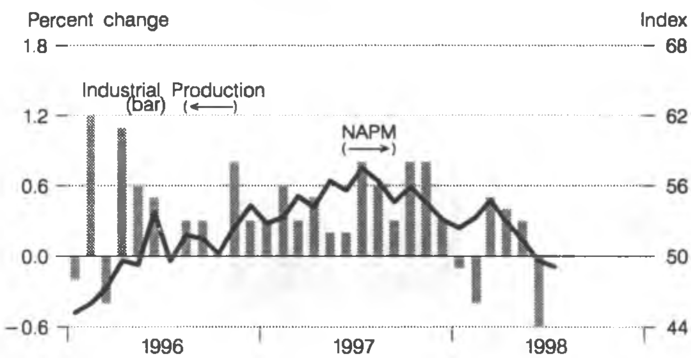
Real Final Sales and GDP



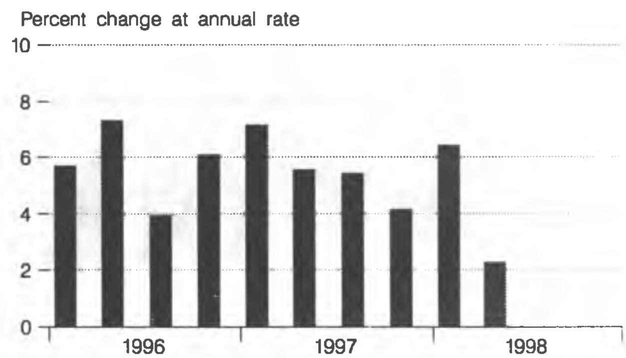
Real GDP Revisions



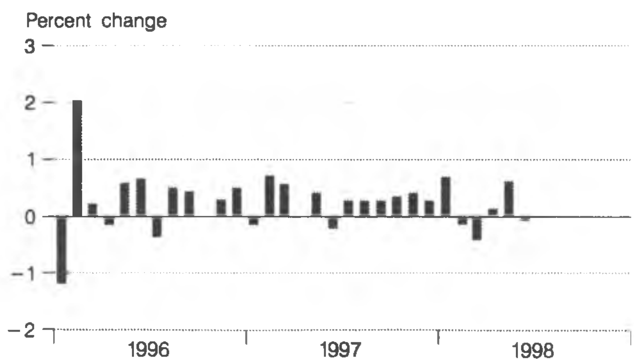
Industrial Production and NAPM Index



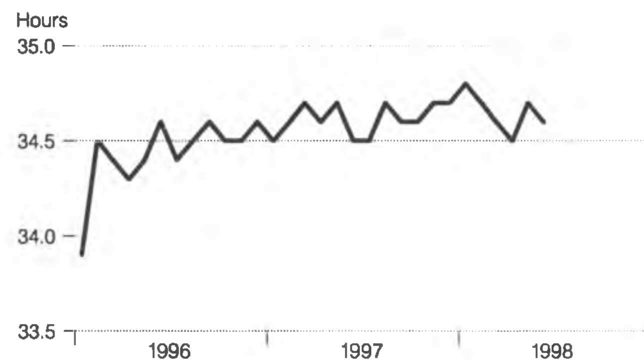
Nominal Gross Domestic Product



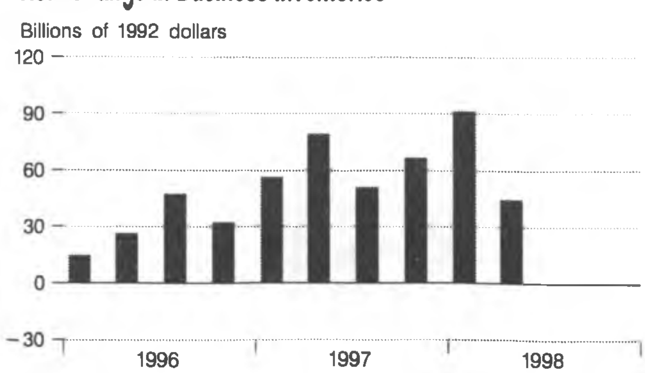
Aggregate Private Nonfarm Hours



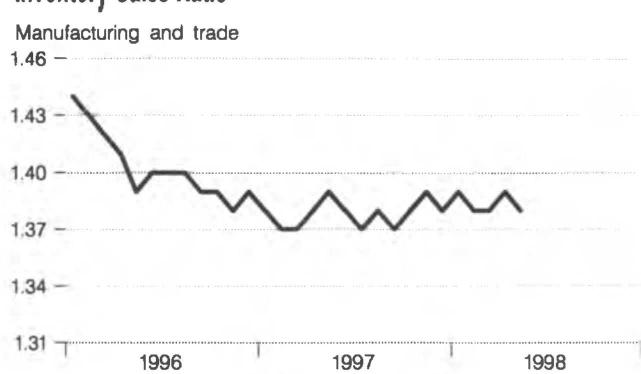
Average Weekly Private Nonfarm Hours



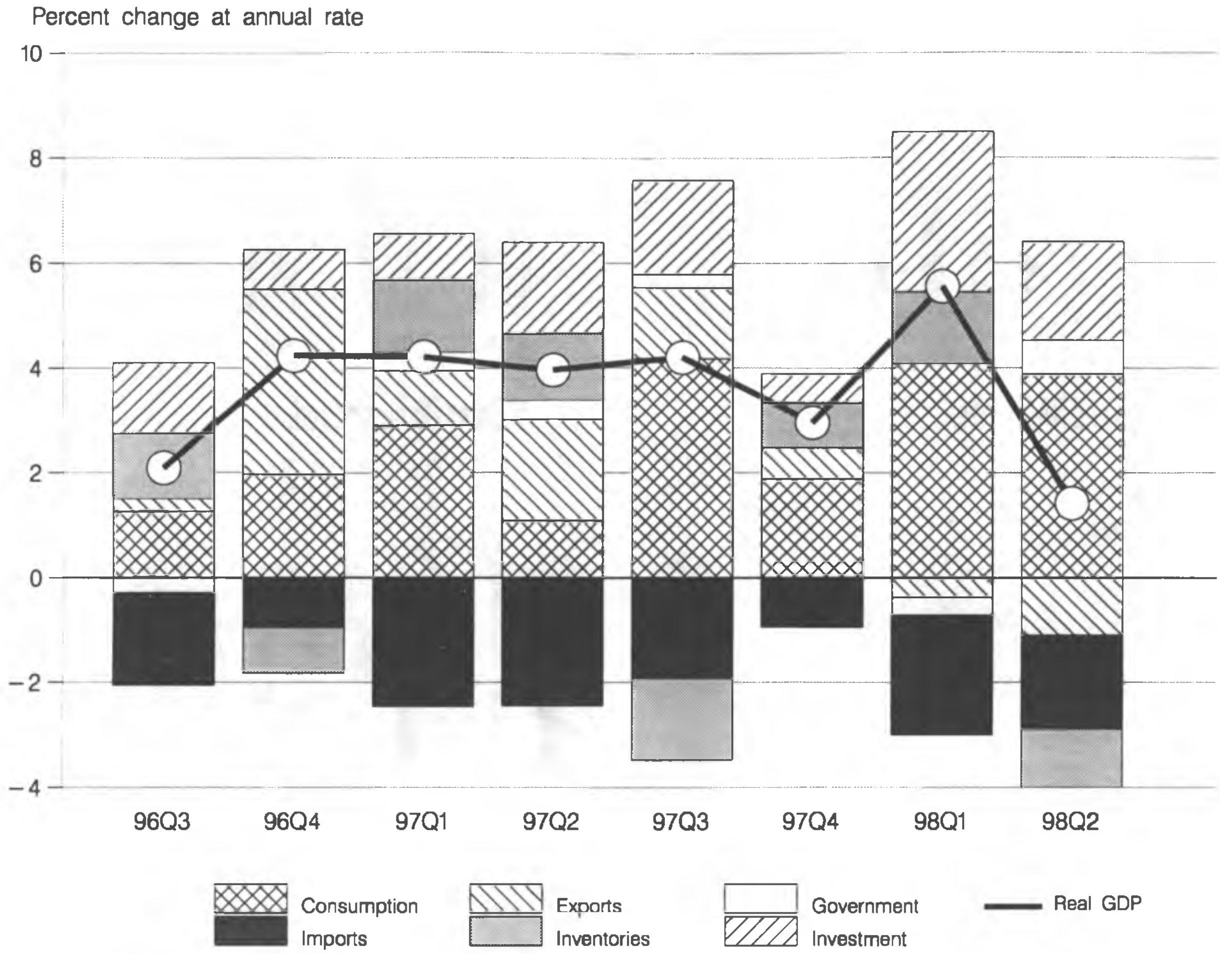
Real Change in Business Inventories



Inventory-Sales Ratio



Contribution of Components to Real GDP Growth

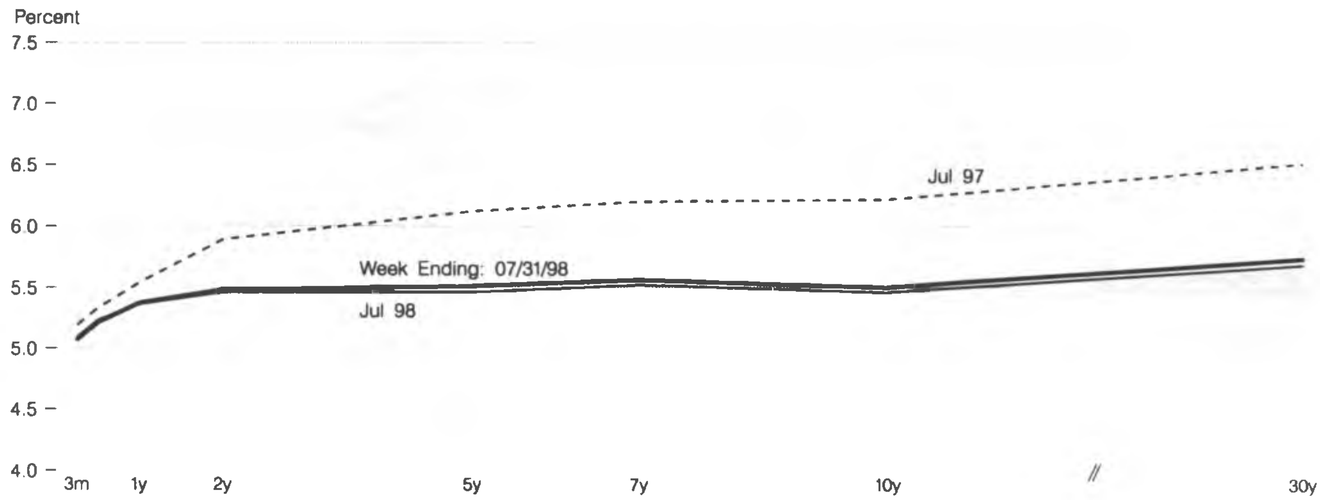


Contributions to Real GDP Growth Rate

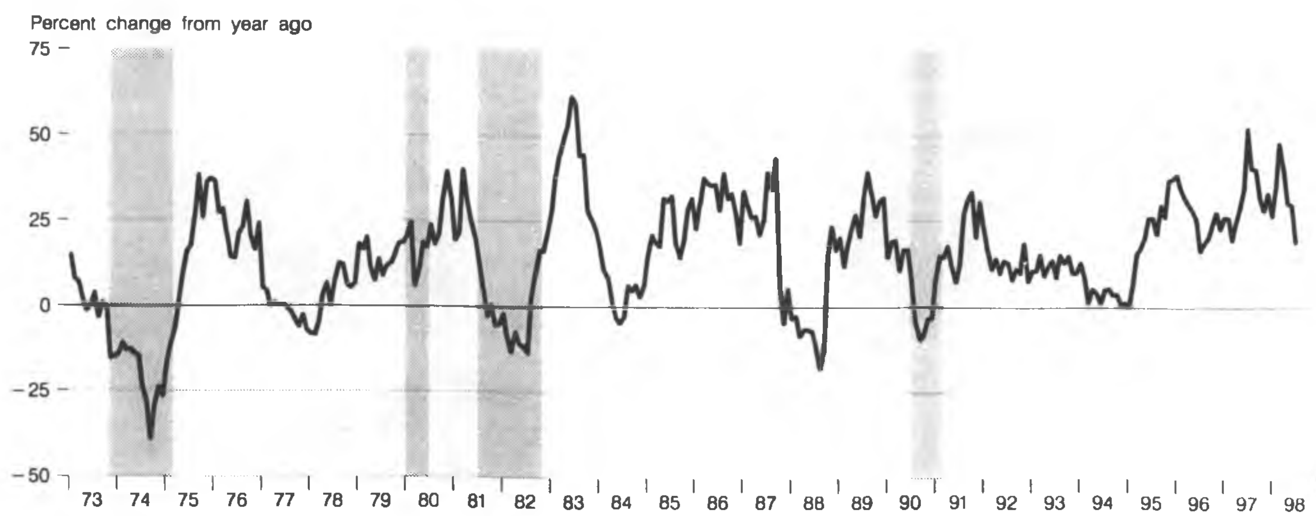
	1996		1997				1998	
	3rd	4th	1st	2nd	3rd	4th	1st	2nd
Real GDP	2.08	4.23	4.21	3.95	4.20	2.95	5.55	1.42
Final Sales	0.90	5.08	2.86	2.68	5.69	2.13	4.28	3.81
Change in Inventory	1.23	−0.87	1.37	1.28	−1.54	0.85	1.36	−2.48
Consumption	1.25	1.97	2.90	1.08	4.17	1.87	4.08	3.88
Fixed Investment	1.36	0.76	0.89	1.74	1.80	0.56	3.05	1.89
Nonresidential	1.48	0.97	0.78	1.53	1.89	0.22	2.50	1.38
Residential	−0.07	−0.16	0.12	0.23	−0.02	0.31	0.58	0.51
Government	−0.29	0.00	0.37	0.38	0.25	0.02	−0.33	0.63
Federal	−0.32	−0.43	−0.18	0.23	−0.08	−0.13	−0.56	0.41
State and Local	0.04	0.43	0.55	0.15	0.33	0.15	0.23	0.22
Net Exports	−1.52	2.54	−1.44	−0.56	−0.60	−0.36	−2.66	−2.88
Exports	0.25	3.53	1.04	1.92	1.36	0.59	−0.38	−1.10
Imports	−1.77	−0.96	−2.46	−2.45	−1.94	−0.94	−2.29	−1.80
Residual	0.00	−0.24	0.10	−0.02	0.06	0.02	0.03	0.50

Interest Rates

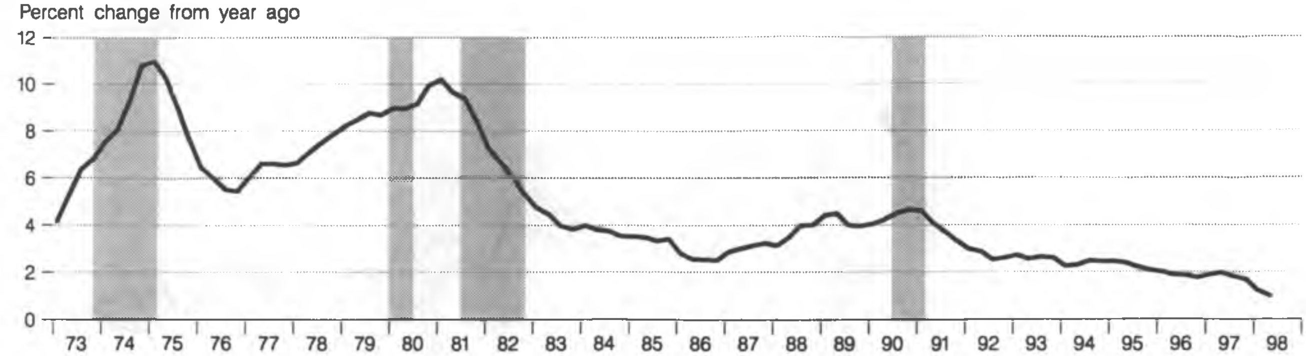
Treasury Yield Curve



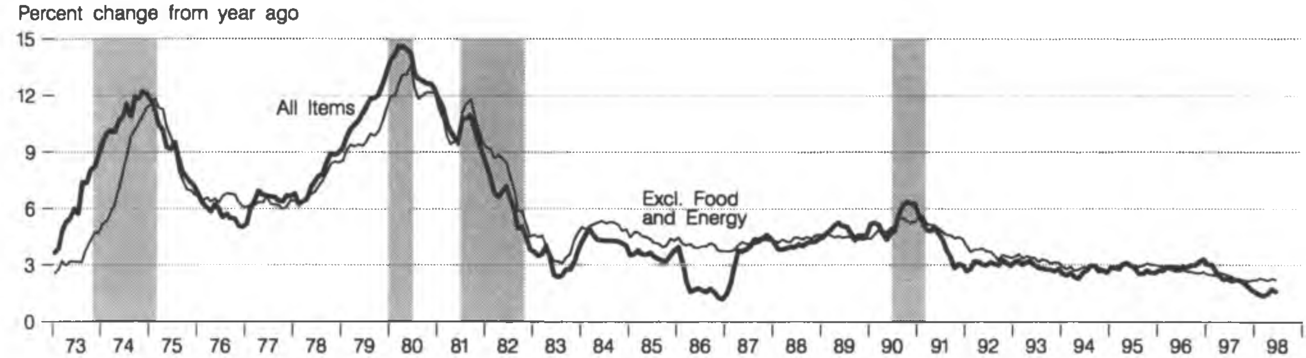
Standard and Poor's 500 Index with Reinvested Dividends



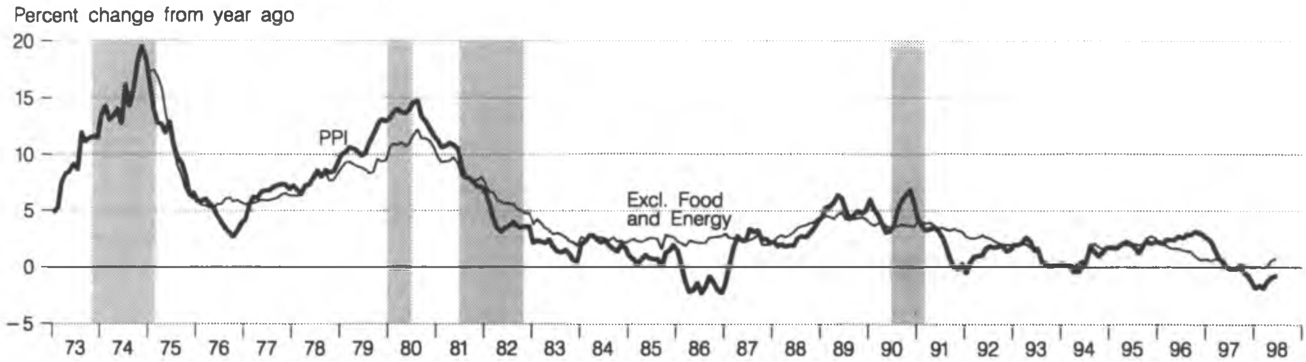
GDP Chain Price Index



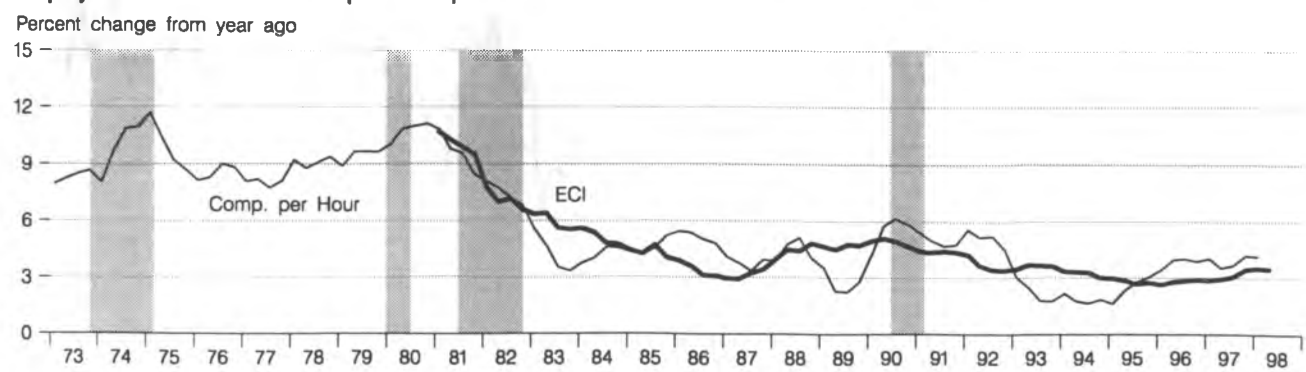
Consumer Price Index



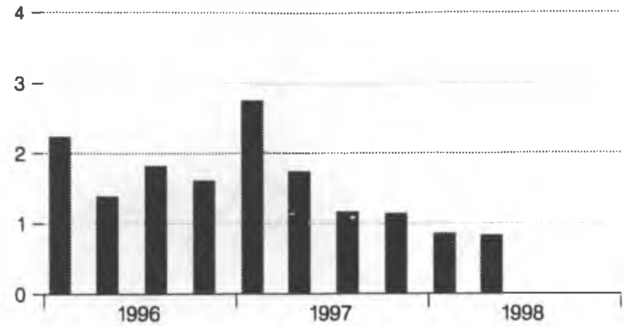
Producer Price Index, Finished Goods



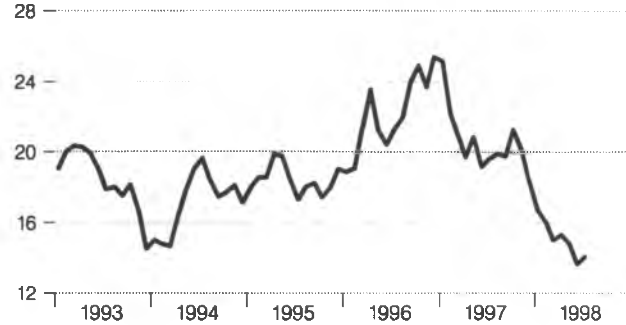
Employment Cost Index and Compensation per Hour



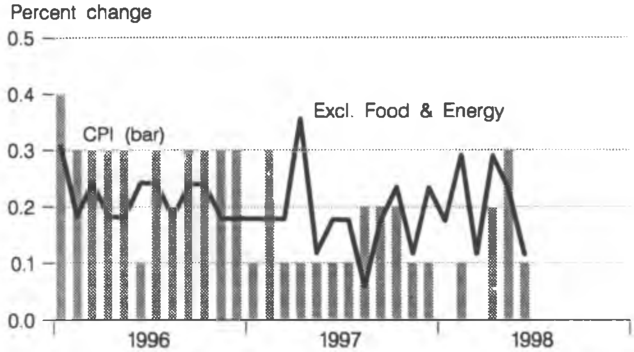
GDP Chain Price Index



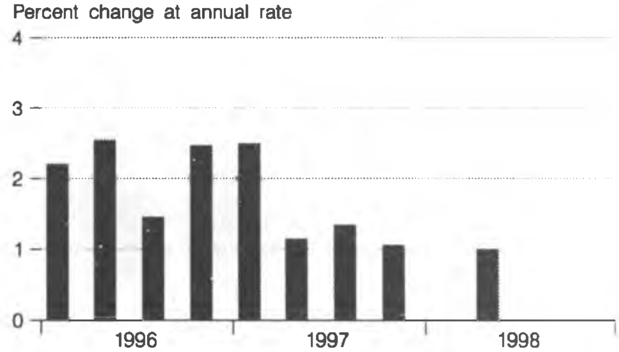
Crude Oil Price



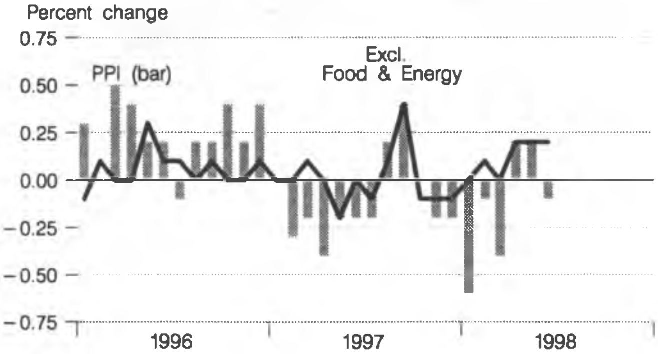
Consumer Price Index



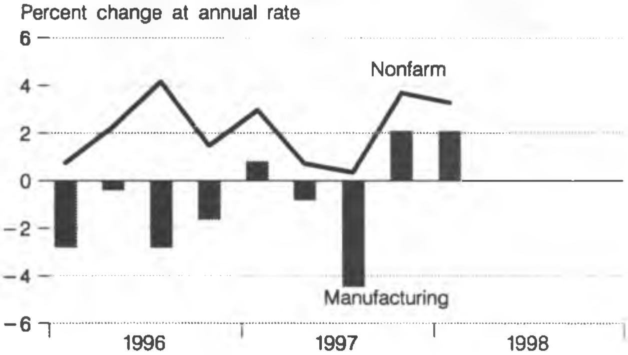
Consumption Chain Price Index



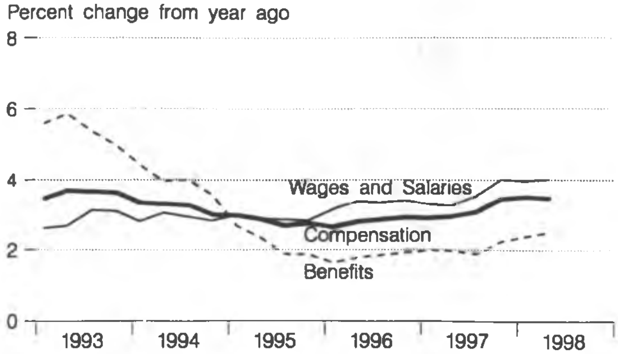
Producer Price Index, Finished Goods



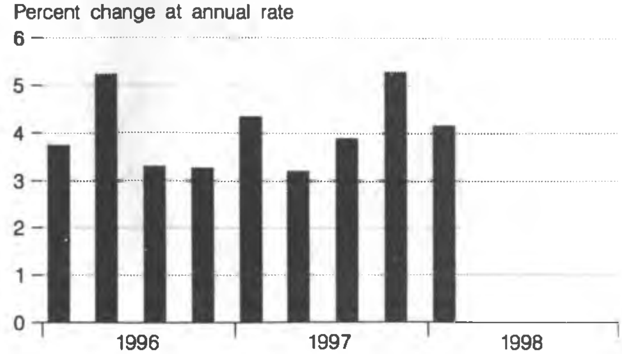
Unit Labor Cost



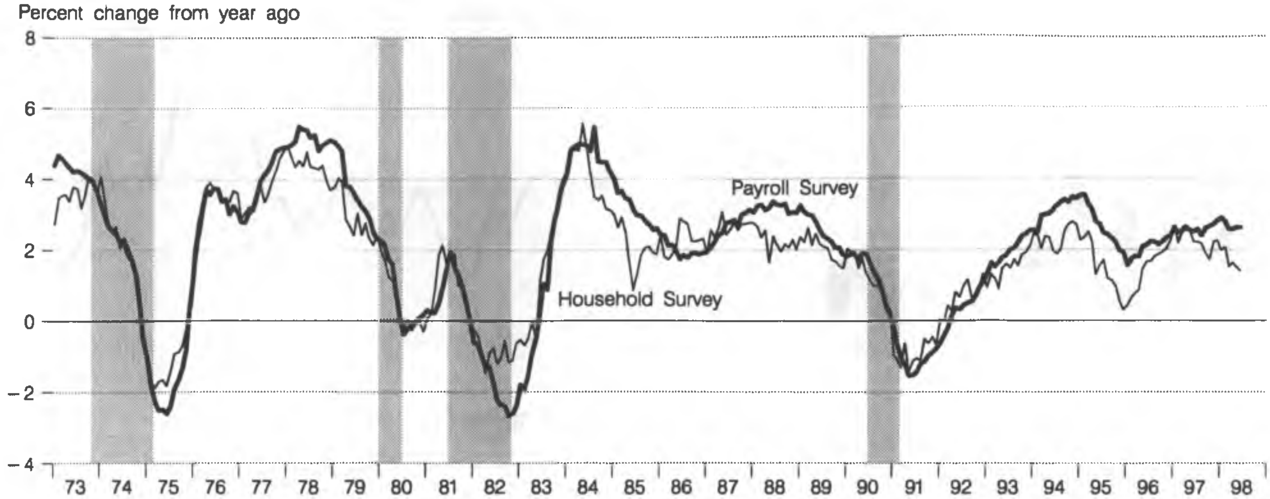
Employment Cost Index



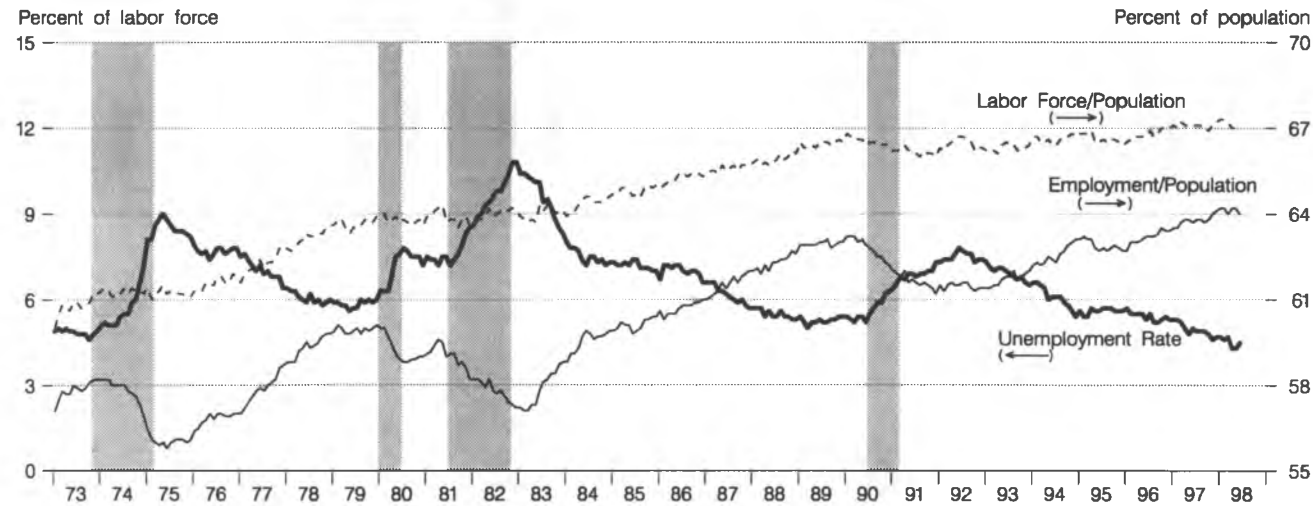
Compensation per Hour



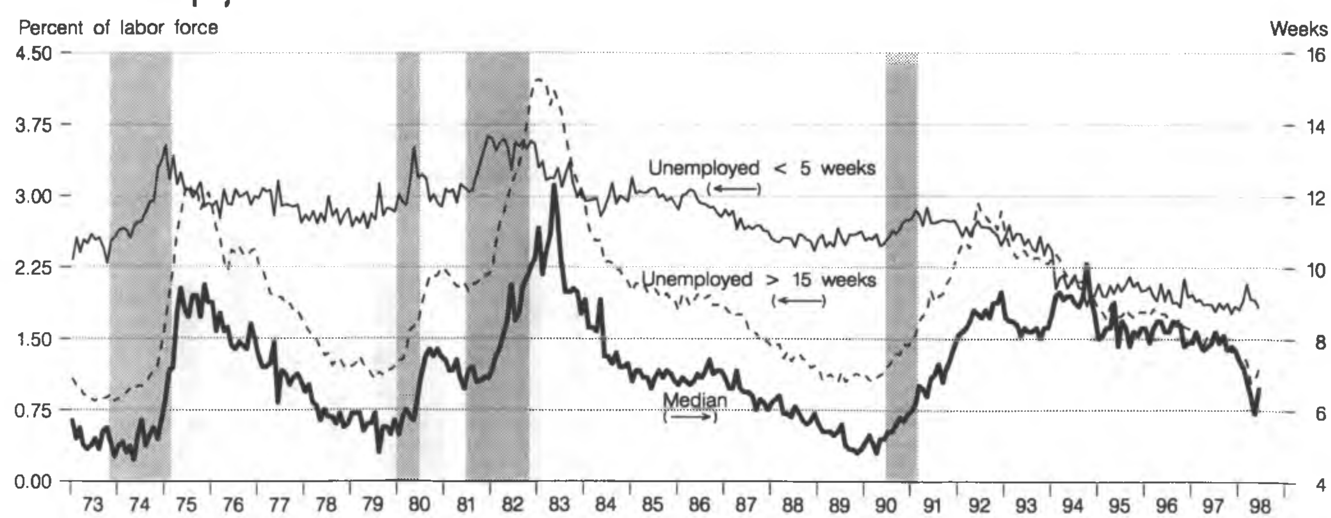
Employment



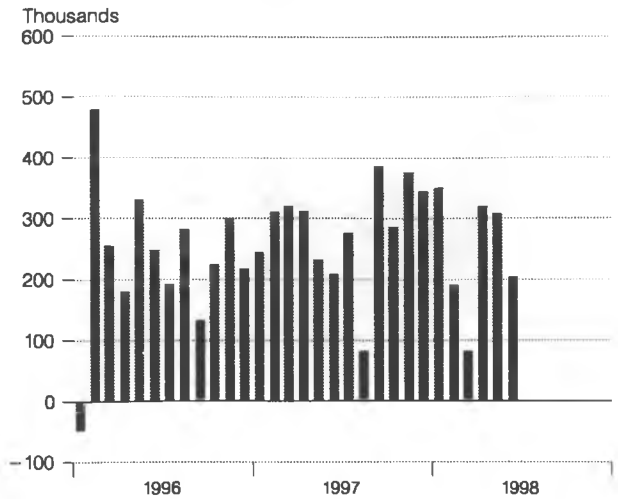
Unemployment, Labor Force Participation and Employment Rates



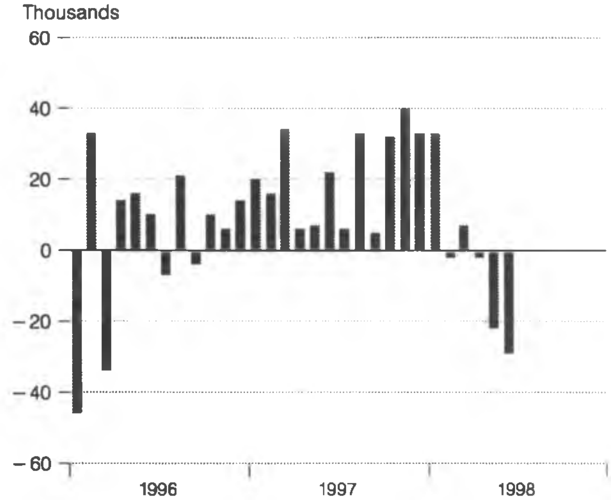
Duration of Unemployment



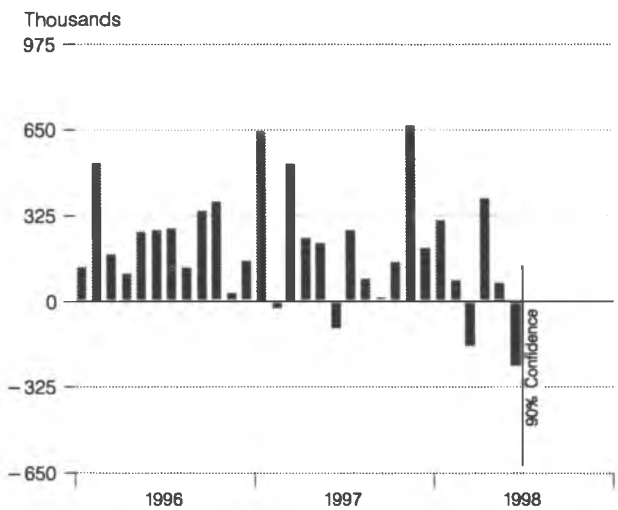
Change in Nonfarm Payrolls



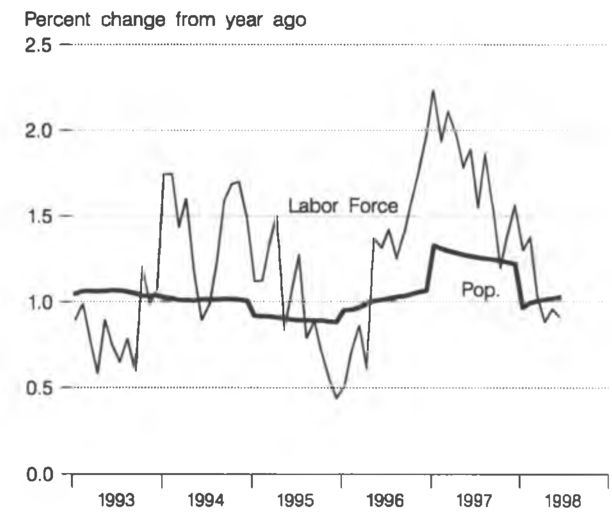
Change in Manufacturing Payrolls



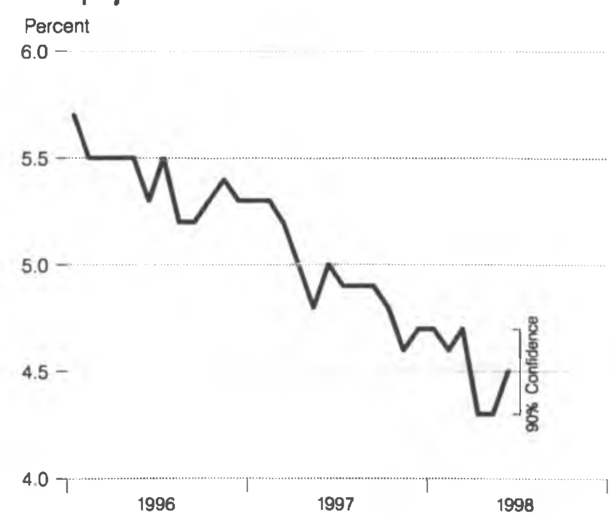
Change in Household Employment



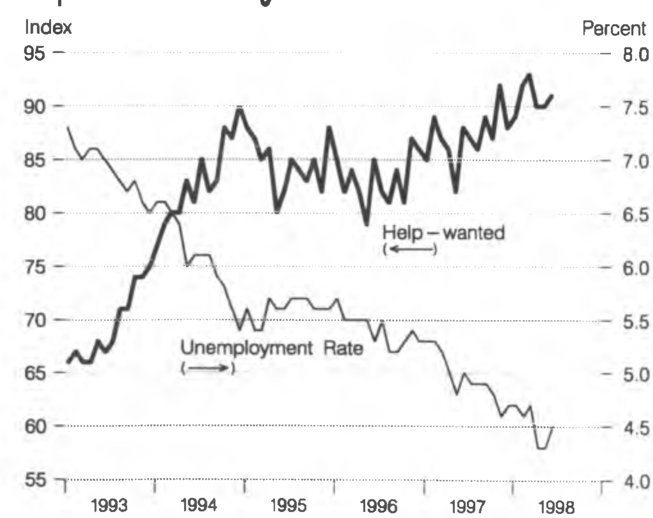
Labor Force and Population



Unemployment Rate

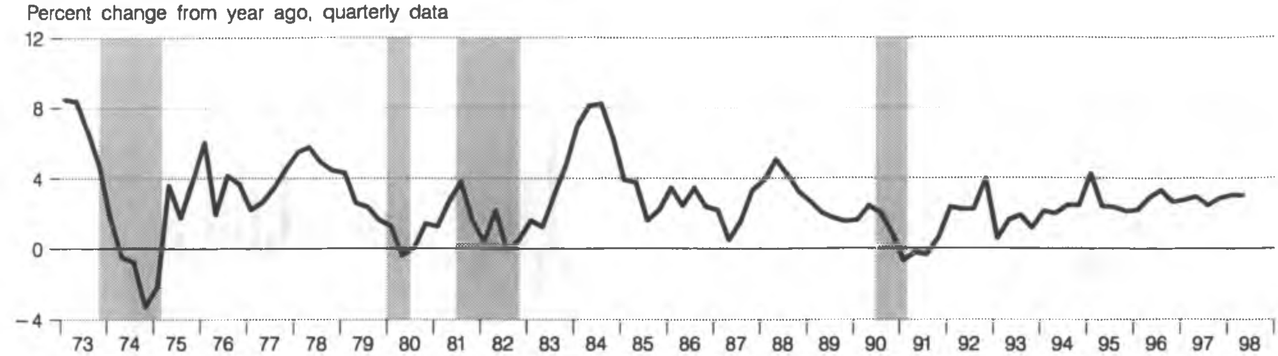


Help-Wanted Advertising



Real Disposable Income

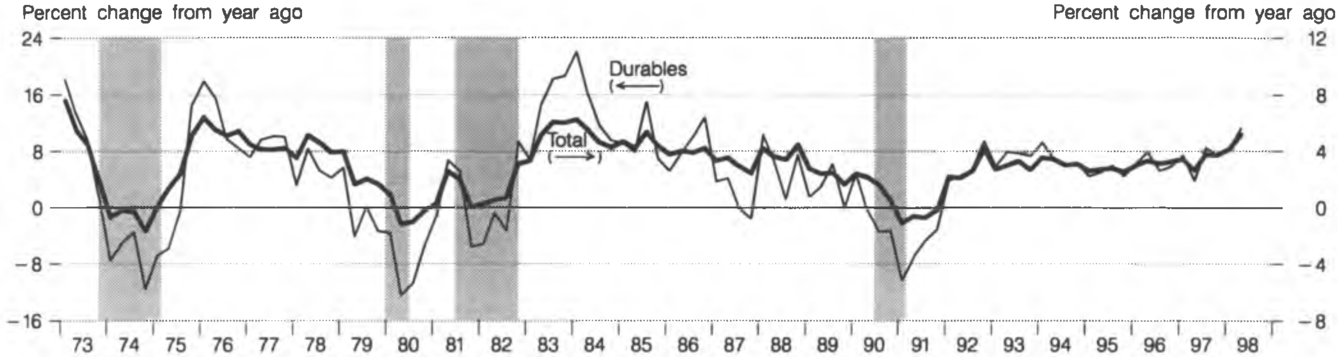
Percent change from year ago, quarterly data



Real Consumption

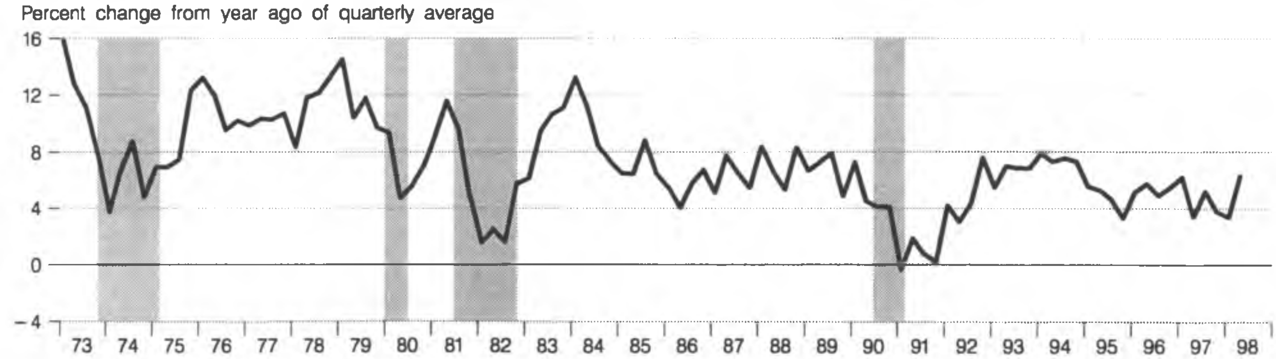
Percent change from year ago

Percent change from year ago



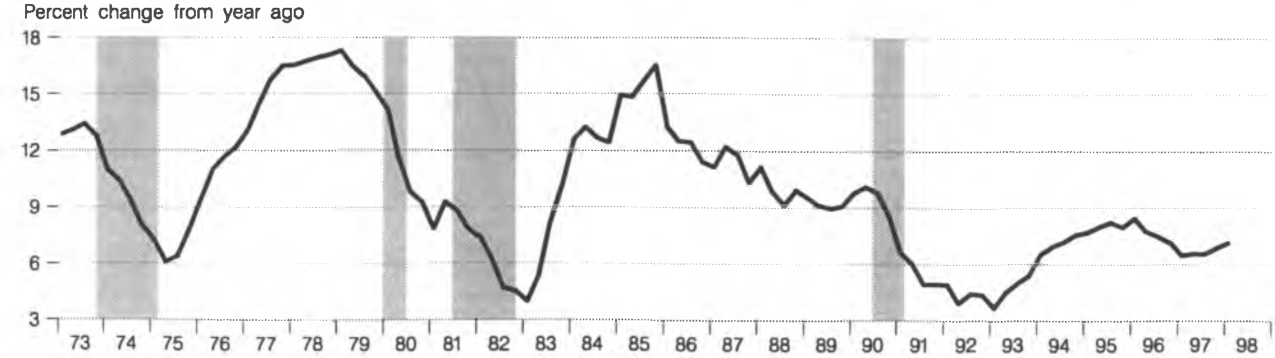
Retail Sales

Percent change from year ago of quarterly average

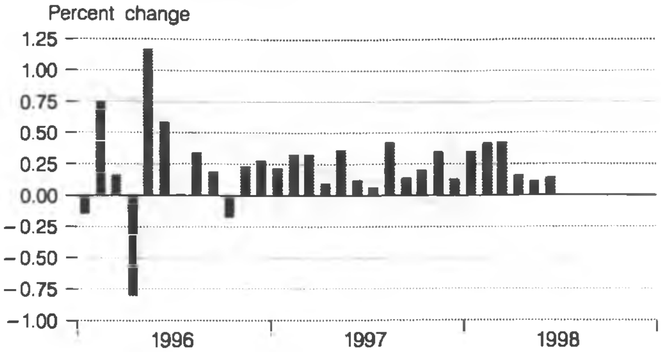


Household Debt Outstanding

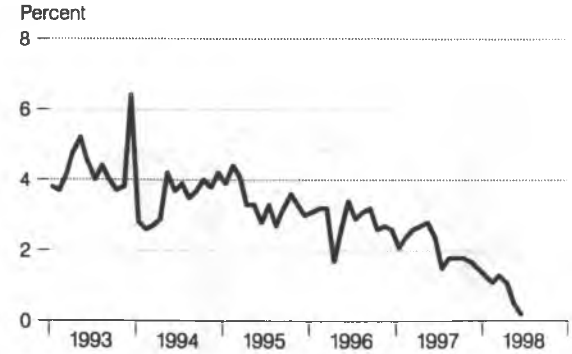
Percent change from year ago



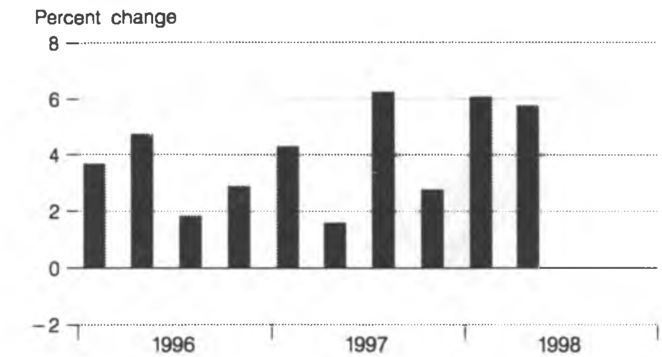
Real Disposable Income



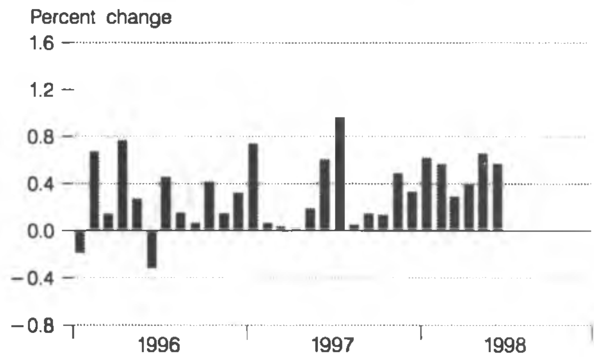
Personal Saving Rate



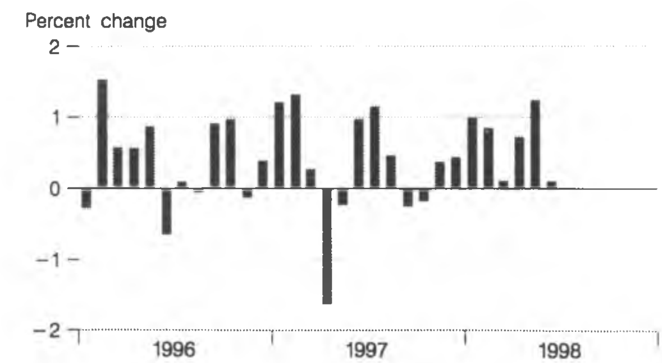
Real Consumption



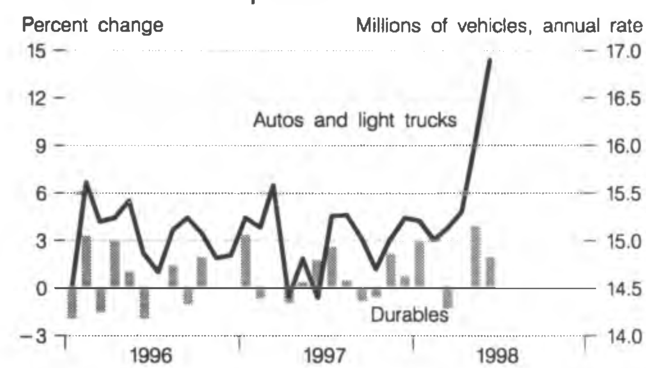
Real Consumption



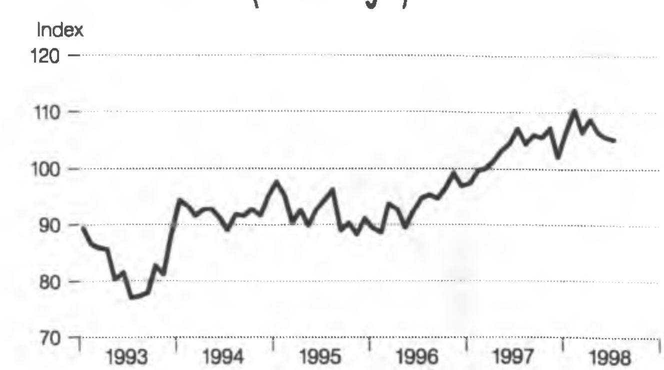
Retail Sales



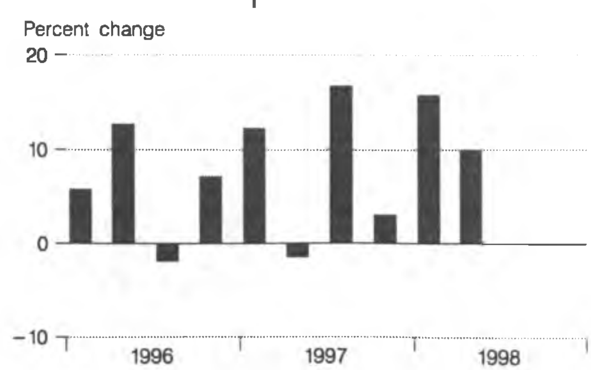
Real Durables Consumption and Vehicle Sales



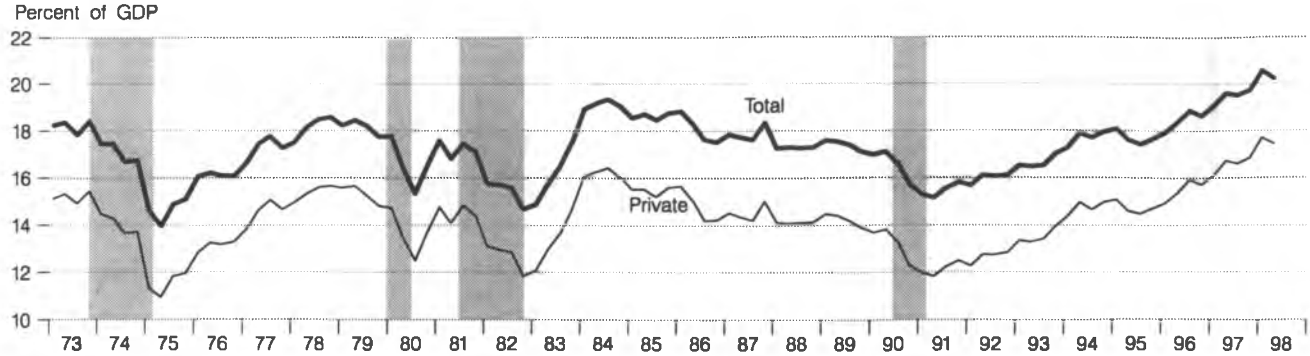
Consumer Sentiment (U. of Michigan)



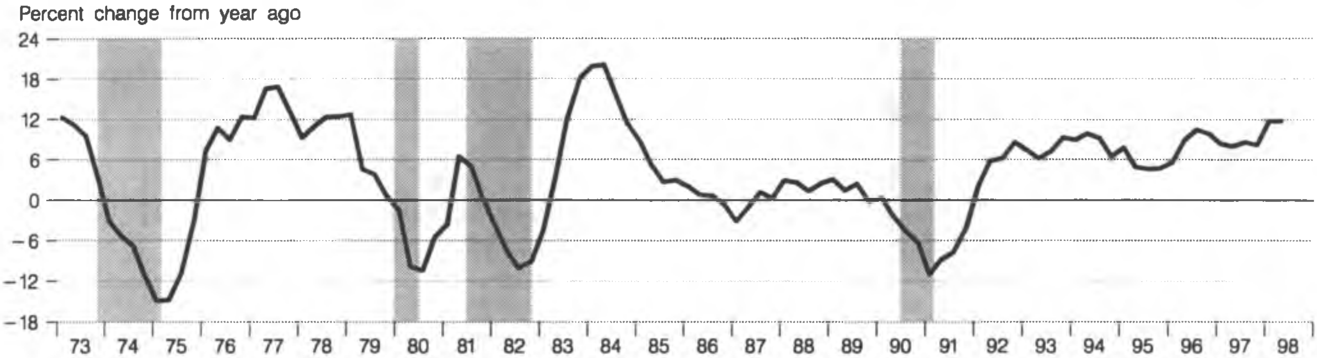
Real Durables Consumption



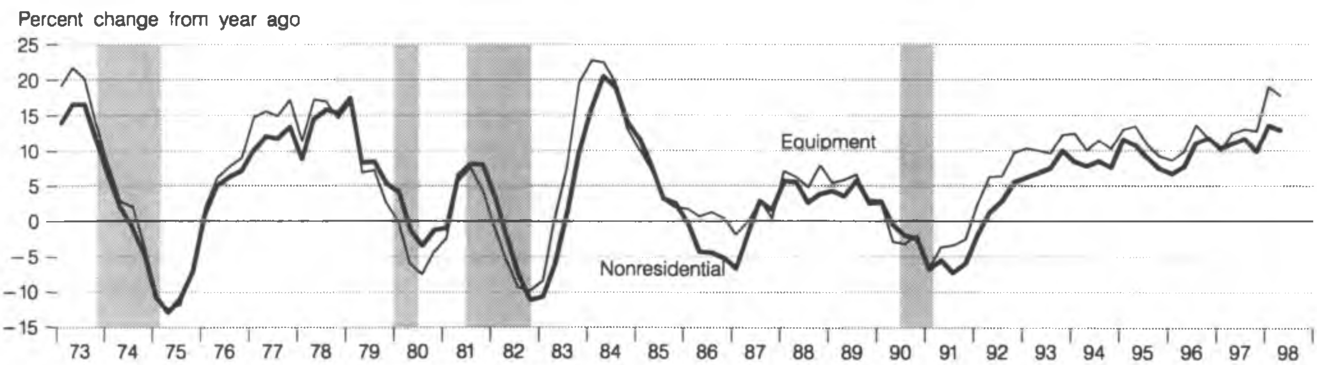
Real Investment



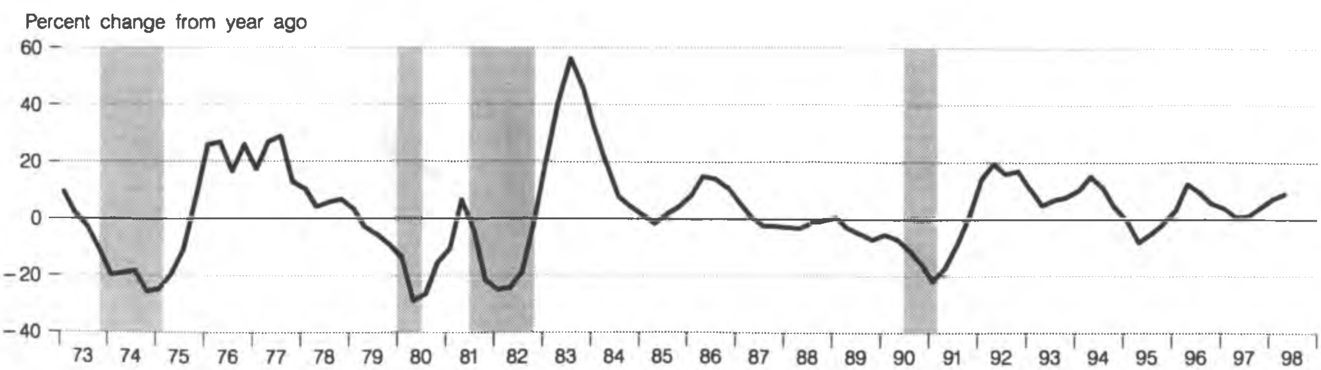
Real Private Fixed Investment



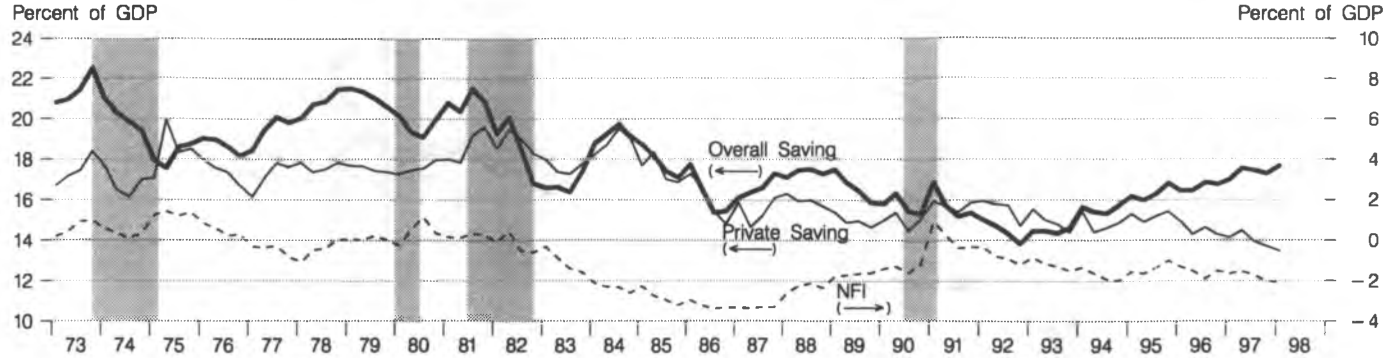
Real Nonresidential and Producers Durable Equipment Investment



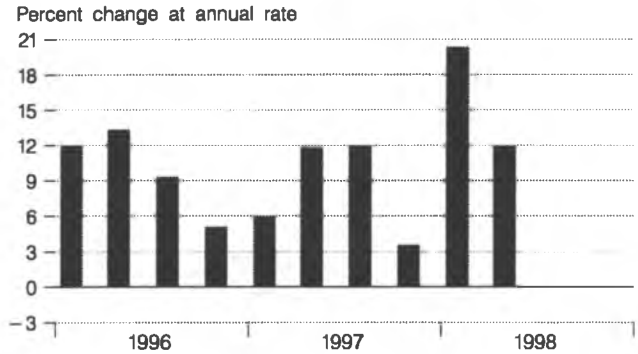
Real Residential Investment



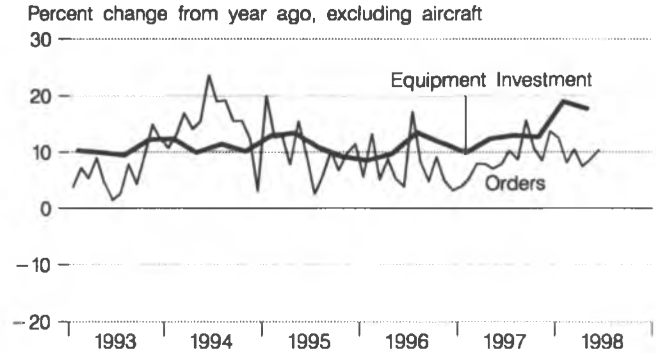
Gross Saving Rates and Net Foreign Investment



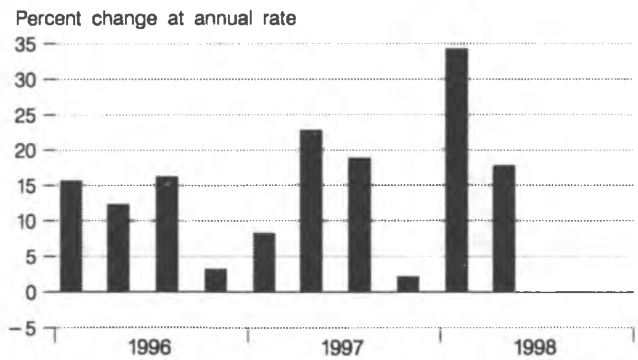
Real Private Fixed Investment



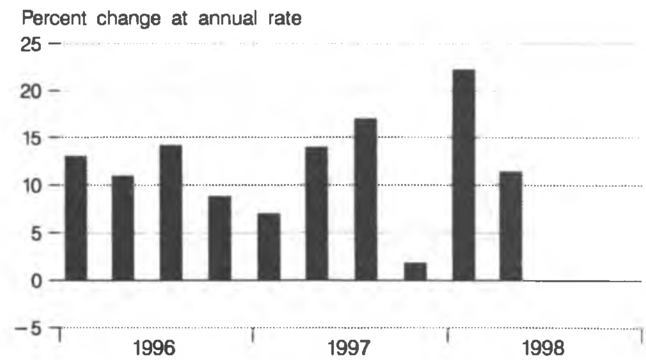
Nondefense Capital Goods Orders



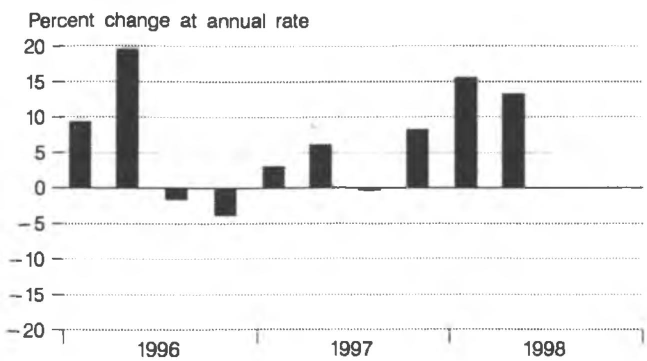
Real Equipment Investment



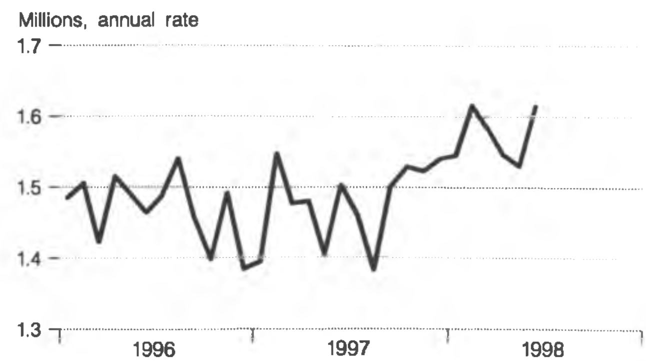
Real Nonresidential Investment



Real Residential Investment

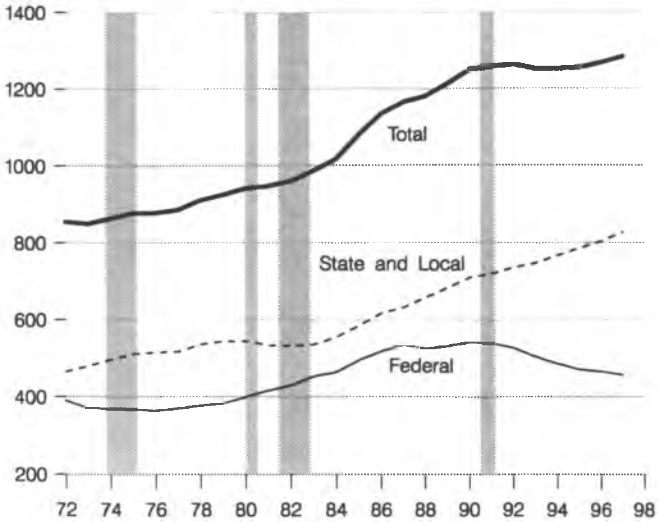


Housing Starts



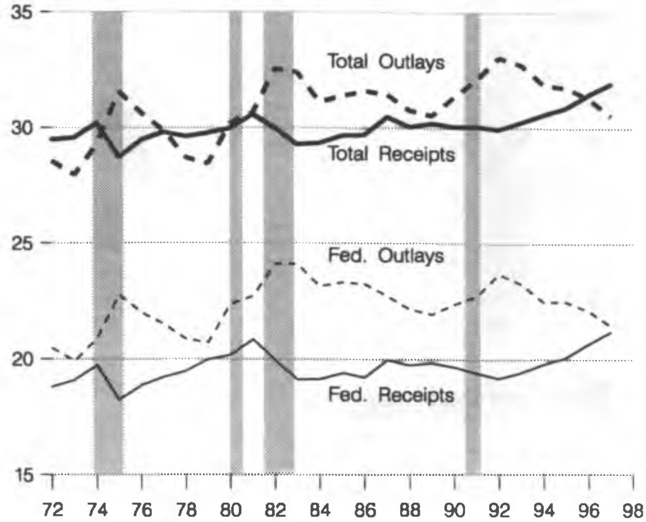
Govt. Consumption and Investment

Billions of 1992 dollars



Government Receipts and Outlays

Percent of GDP



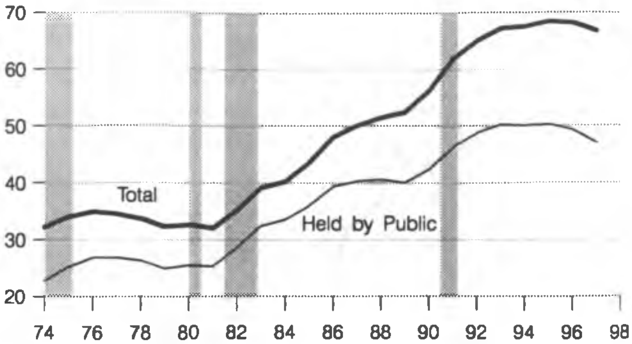
Government Budgets

Billions of dollars

	National Income Accounts, Calendar Years						Unified Budget, Fiscal Years		
	State and Local			Federal			Federal		
	Receipts	Expenditures	Surplus or Deficit(-)	Receipts	Expenditures	Surplus or Deficit(-)	Receipts	Outlays	Surplus or Deficit(-)
1975	225.6	198.0	27.6	297.4	371.3	−73.9	279.1	332.3	−53.2
1976	253.9	217.9	36.0	343.1	400.3	−57.2	298.1	371.8	−73.7
1977	281.9	237.1	44.8	389.6	435.9	−46.3	355.6	409.2	−53.7
1978	309.3	256.7	52.6	446.5	478.1	−31.6	399.6	458.7	−59.2
1979	330.6	278.3	52.3	511.1	529.5	−18.4	463.3	504.0	−40.7
1980	361.4	307.0	54.4	561.5	622.5	−61.0	517.1	590.9	−73.8
1981	390.8	335.4	55.4	649.3	707.1	−57.8	599.3	678.2	−79.0
1982	409.0	357.7	51.3	646.4	781.0	−134.6	617.8	745.8	−128.0
1983	443.6	378.8	64.8	671.9	846.3	−174.4	600.6	808.4	−207.8
1984	492.0	405.1	86.9	746.9	902.9	−156.0	666.5	851.9	−185.4
1985	528.7	437.8	90.9	811.3	974.2	−162.9	734.1	946.4	−212.3
1986	570.6	475.7	94.9	850.1	1027.6	−177.5	769.2	990.5	−221.2
1987	594.9	511.1	83.8	937.4	1066.3	−128.9	854.4	1004.1	−149.8
1988	631.4	545.5	85.9	997.2	1118.5	−121.3	909.3	1064.5	−155.2
1989	681.0	585.9	95.1	1079.3	1192.7	−113.4	991.2	1143.7	−152.5
1990	728.9	648.8	80.1	1129.8	1284.5	−154.7	1032.0	1253.2	−221.2
1991	784.2	708.4	75.8	1149.0	1345.0	−196.0	1055.0	1324.4	−269.4
1992	844.3	758.0	86.3	1198.5	1479.4	−280.9	1091.3	1381.7	−290.4
1993	894.4	807.0	87.4	1275.1	1525.7	−250.6	1154.4	1409.4	−255.0
1994	949.2	852.3	96.9	1374.8	1561.4	−186.6	1258.6	1461.7	−203.1
1995	997.7	886.0	111.7	1460.3	1634.7	−174.4	1351.8	1515.7	−163.9
1996	1045.2	922.6	122.6	1584.7	1695.0	−110.3	1453.1	1560.5	−107.5
1997	1094.3	960.1	134.2	1719.9	1741.0	−21.1	1579.3	1601.2	−21.9

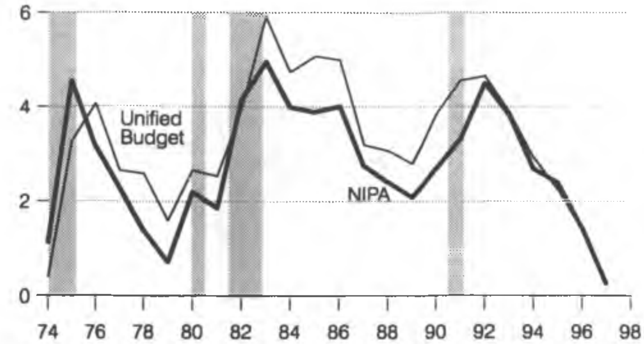
Federal Debt

Percent of GDP



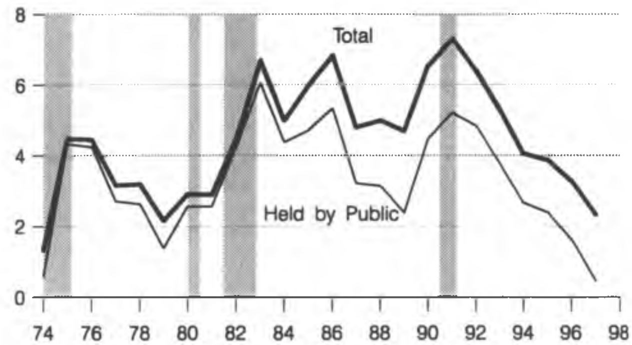
Federal Deficit

Percent of GDP



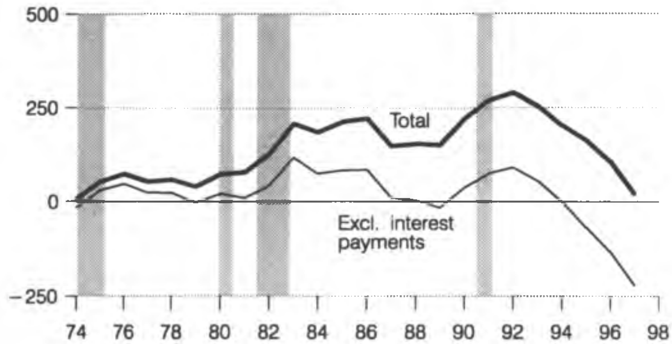
Change in Federal Debt

Percent of GDP



Federal Deficit, Unified Basis

Billions of dollars, fiscal years



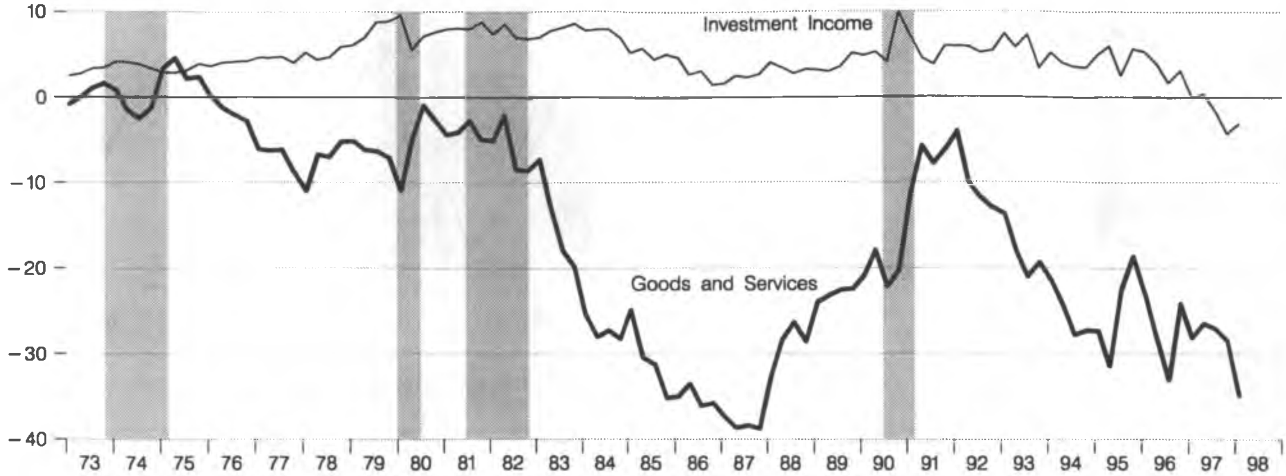
Federal Government Debt

Billions of dollars, end of month or fiscal year, excluding agency–issued debt

		Total Public Debt	Held by Agencies and Trusts	Held by Public: Total	Held by Public: Federal Reserve Banks	Held by Private Investors: Total	Held by Private Investors: Foreign and International
1994		4692.8	1213.1	3479.7	355.2	3127.8	655.8
1995		4974.0	1320.8	3653.2	374.1	3279.5	848.4
1996		5224.8	1447.0	3777.8	390.9	3386.2	1026.1
1997		5413.1	1598.5	3814.7	436.5	3388.9	1266.0
1995	March	4864.1	1254.7	3609.5	369.3	3239.2	729.2
	June	4951.4	1316.6	3634.8	389.0	3245.0	784.2
	September	4974.0	1320.8	3653.2	374.1	3279.5	848.4
	December	4988.7	1304.5	3684.2	391.0	3294.9	862.2
1996	March	5117.8	1353.8	3764.0	381.0	3382.8	936.6
	June	5161.1	1422.4	3738.6	391.0	3347.3	960.3
	September	5224.8	1447.0	3777.8	390.9	3386.2	1026.1
	December	5323.2	1497.2	3826.0	410.9	3411.2	1135.6
1997	March	5380.9	1506.8	3874.1	405.6	3451.7	1192.5
	June	5376.2	1571.6	3804.6	426.4	3361.7	1221.9
	September	5413.1	1598.5	3814.7	436.5	3388.9	1266.0
	December	5502.4	1655.7	3846.7	451.9	3393.4	1278.0
1998	March	5542.4	1670.4	3872.0	400.0	3430.7	1288.0
	June	5547.9	NA	NA	NA	NA	NA

Trade and Investment Income Balances

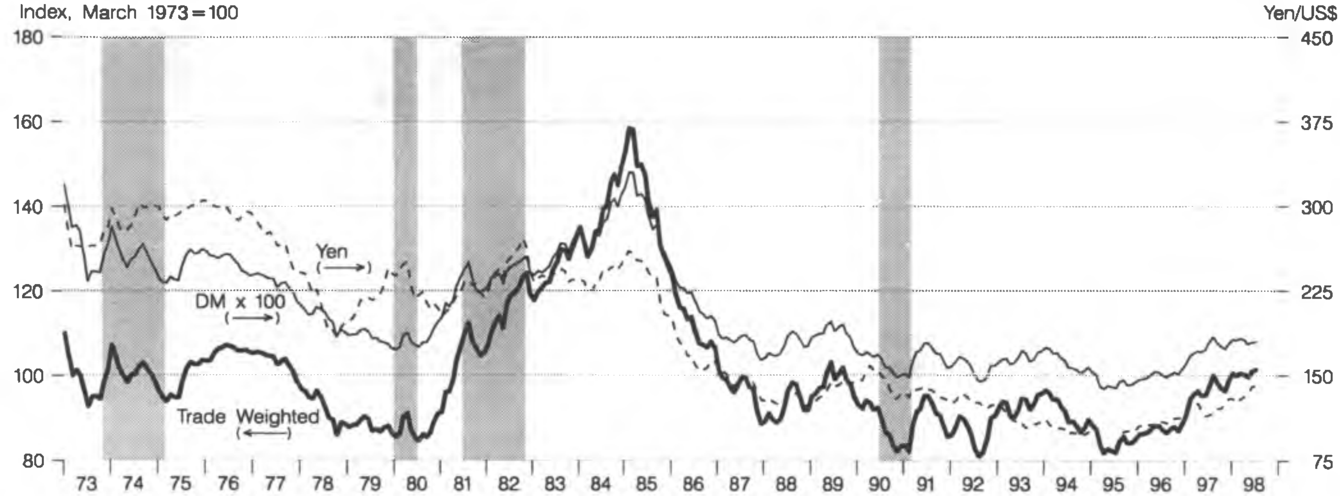
Billions of dollars, quarterly rate



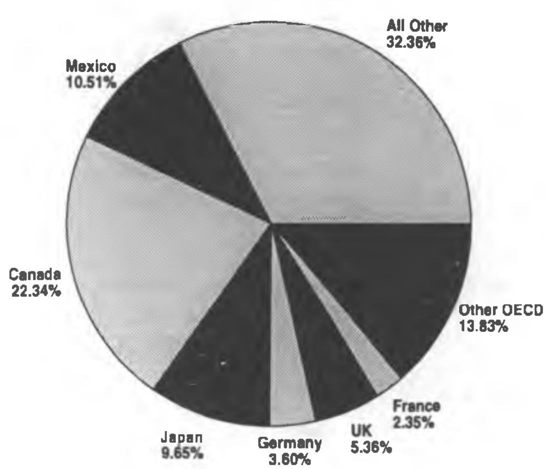
Exchange Rates

Index, March 1973=100

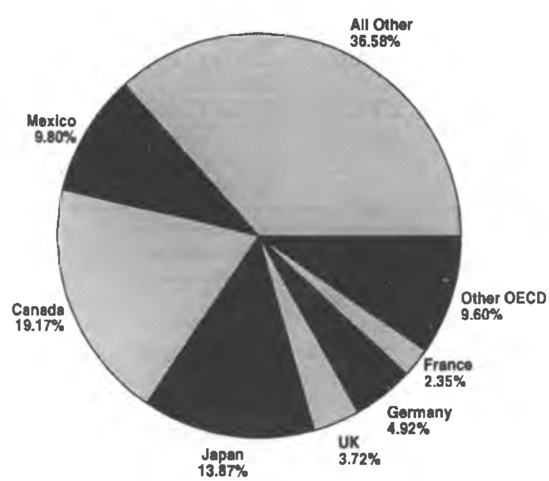
100 x (Deutsche mark/US$)
Yen/US$



Goods Export Shares, 1997

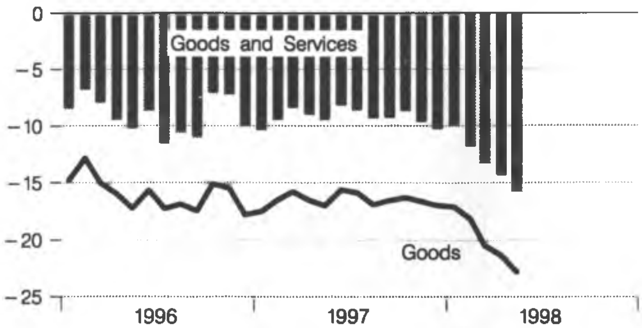


Goods Import Shares, 1997



Trade Balance

Billions of dollars

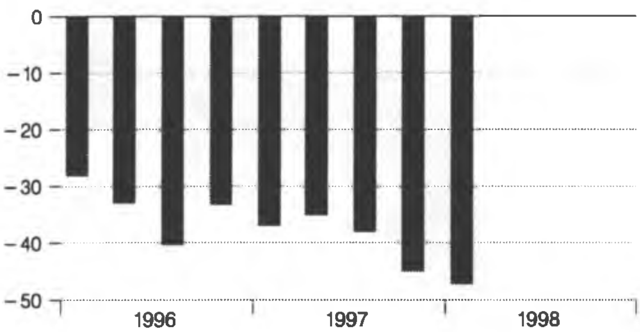


Goods Trade

Percent change from year ago

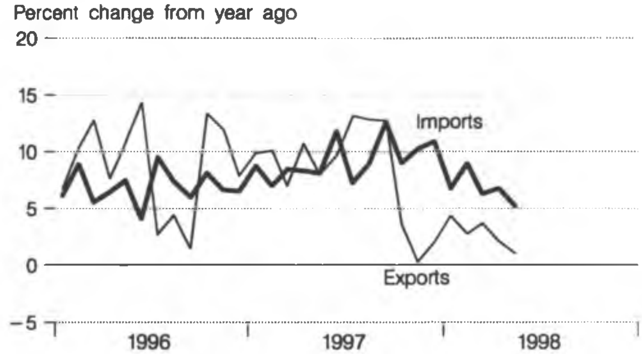
Current Account Balance

Billions of dollars



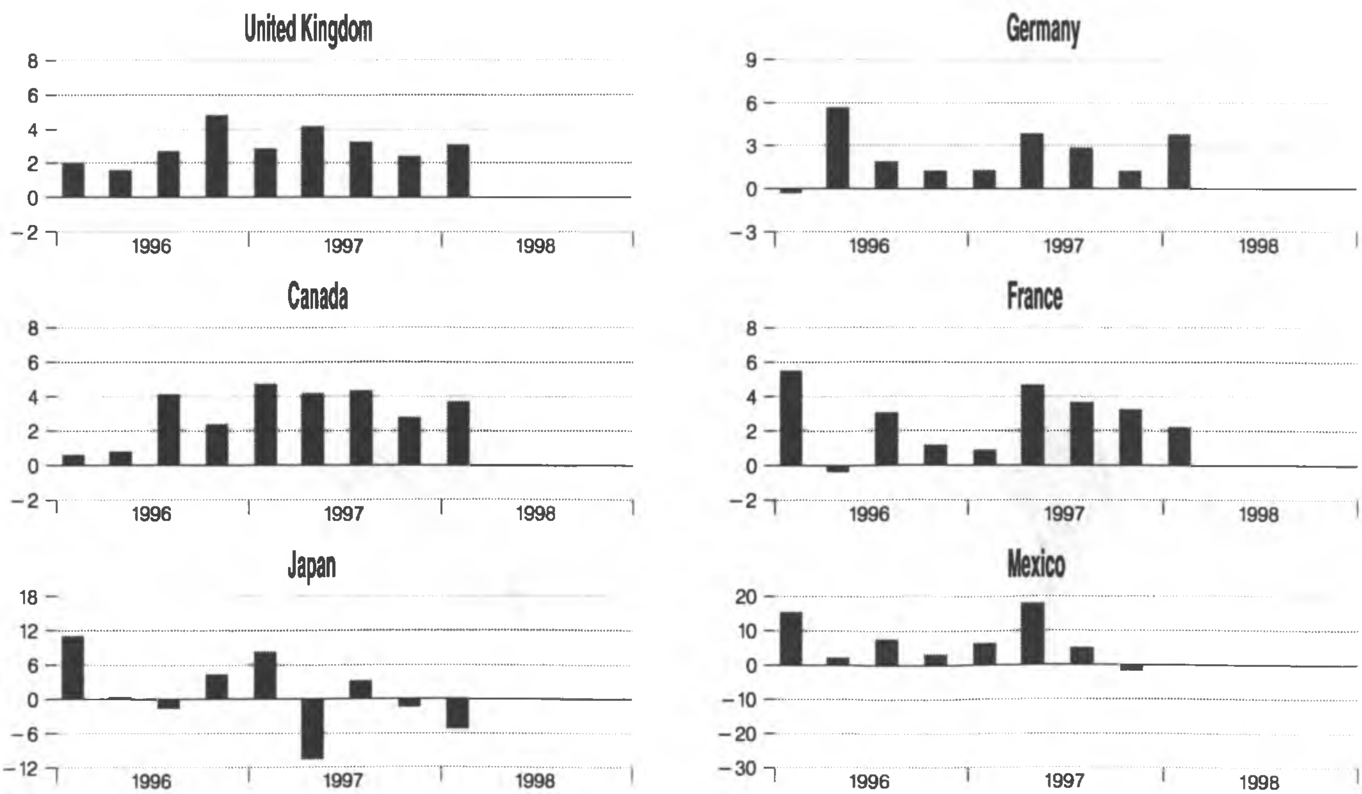
Services Trade

Percent change from year ago

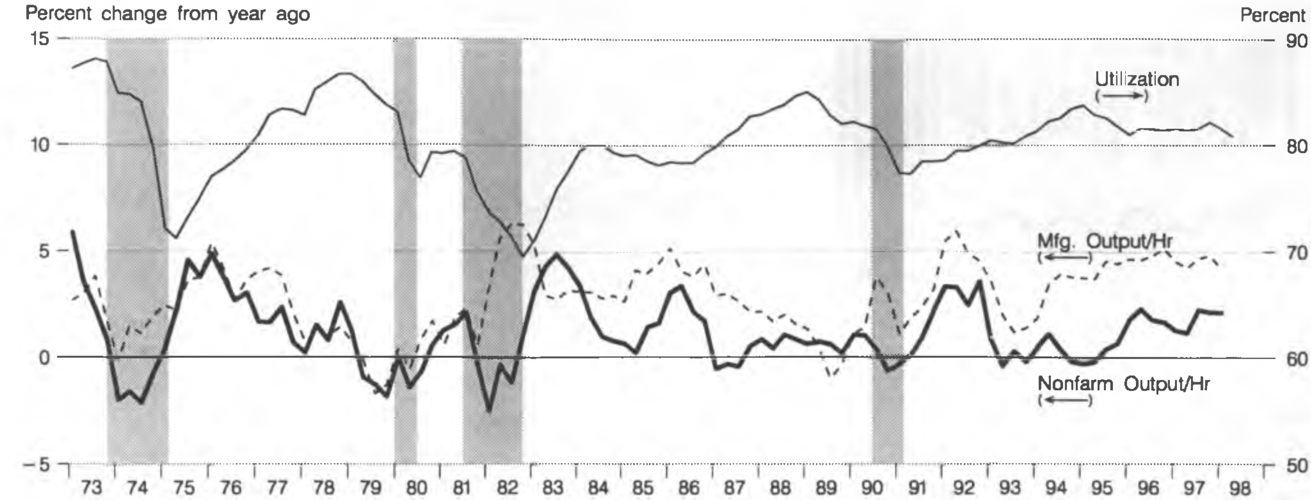


Real GDP Growth of Major Trading Partners

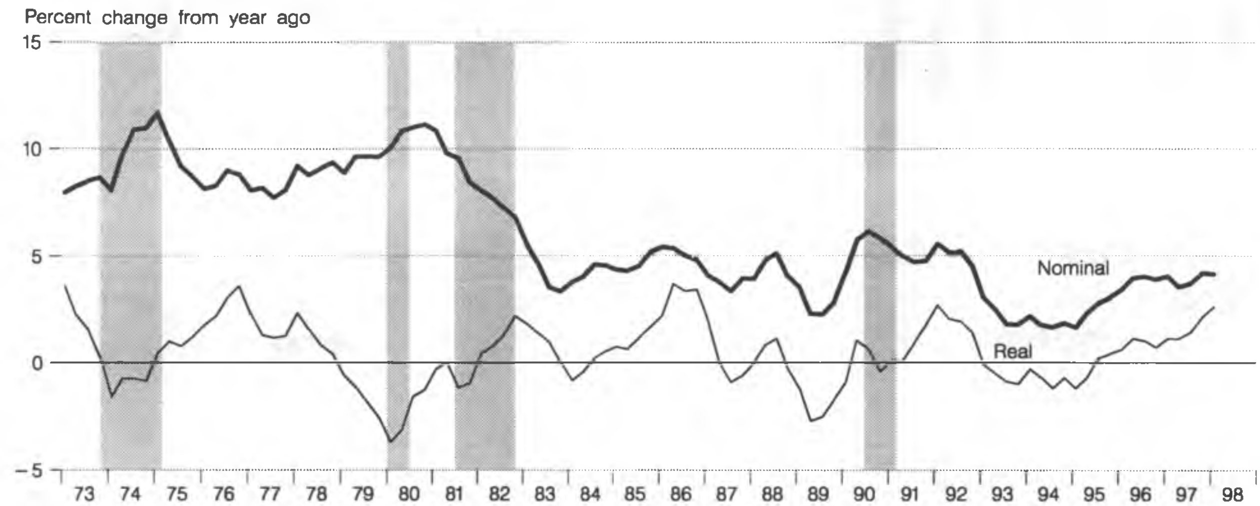
Percent change at annual rate



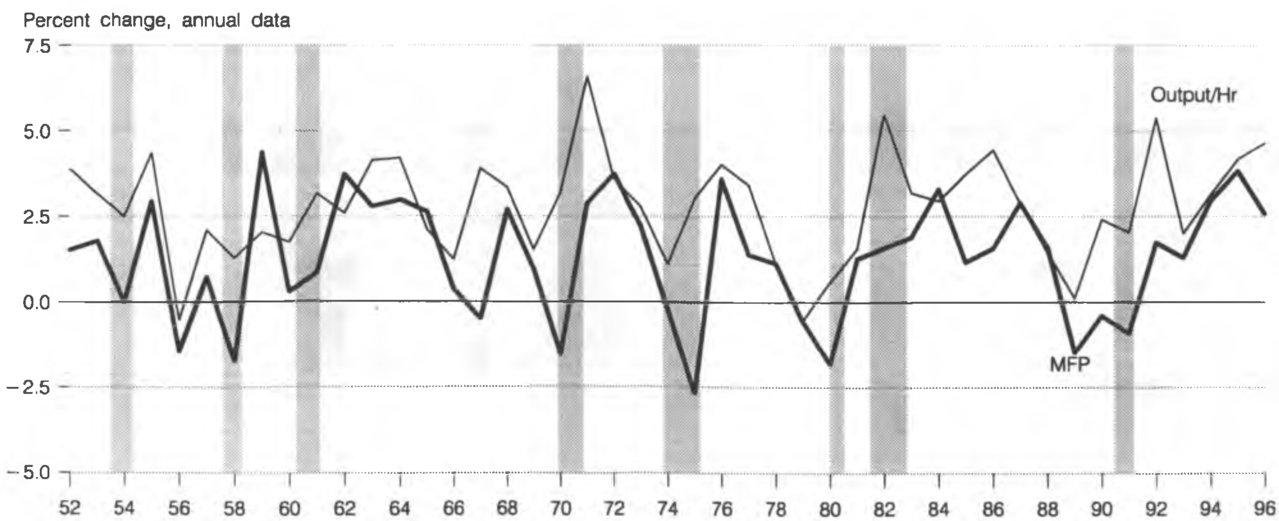
Output per Hour and Manufacturing Capacity Utilization



Nonfarm Compensation per Hour

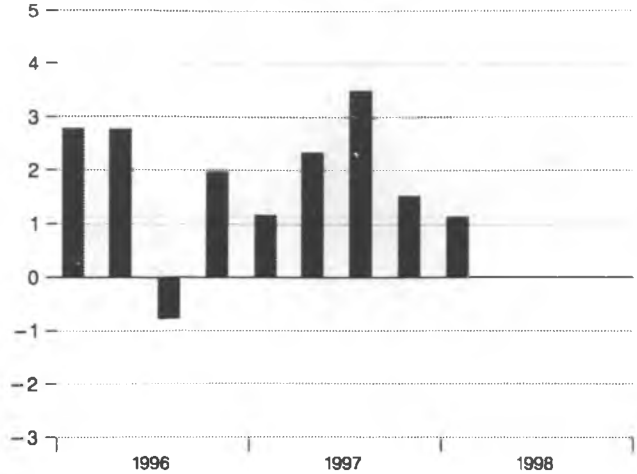


Output per Hour and Multifactor Productivity, Manufacturing



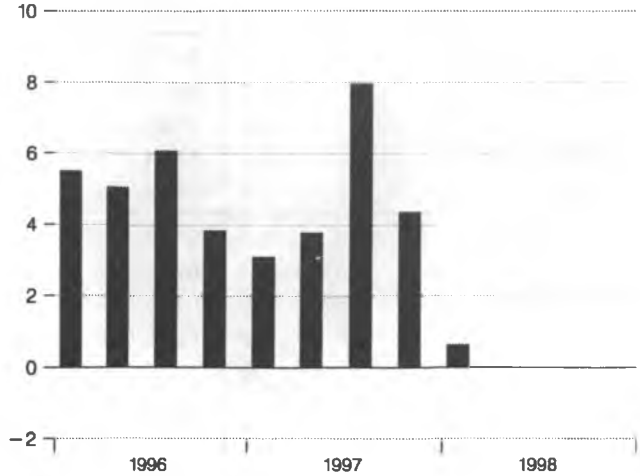
Nonfarm Output per Hour

Percent change at annual rate

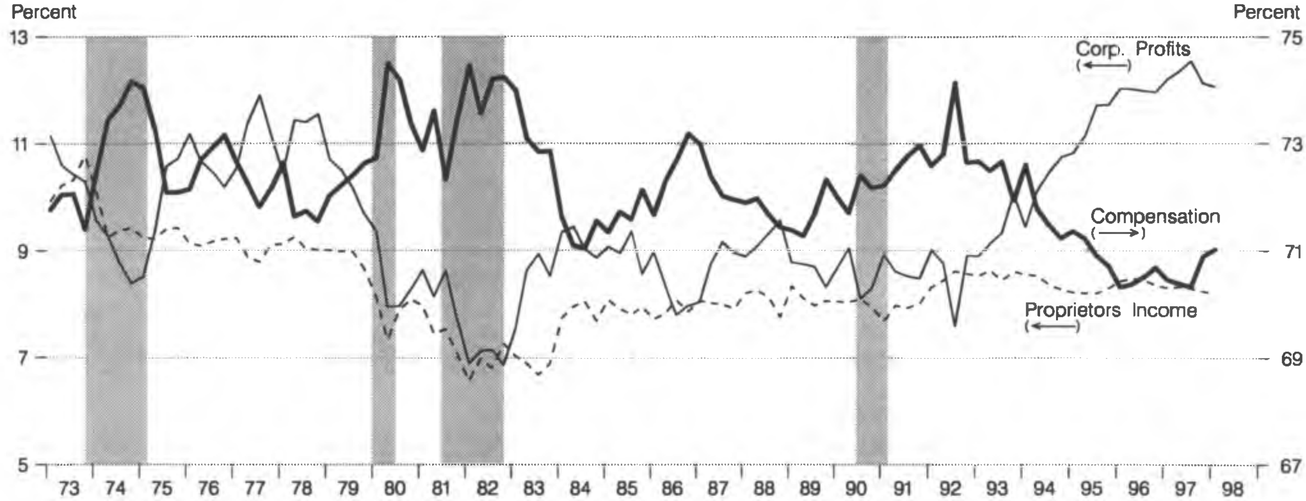


Manufacturing Output per Hour

Percent change at annual rate

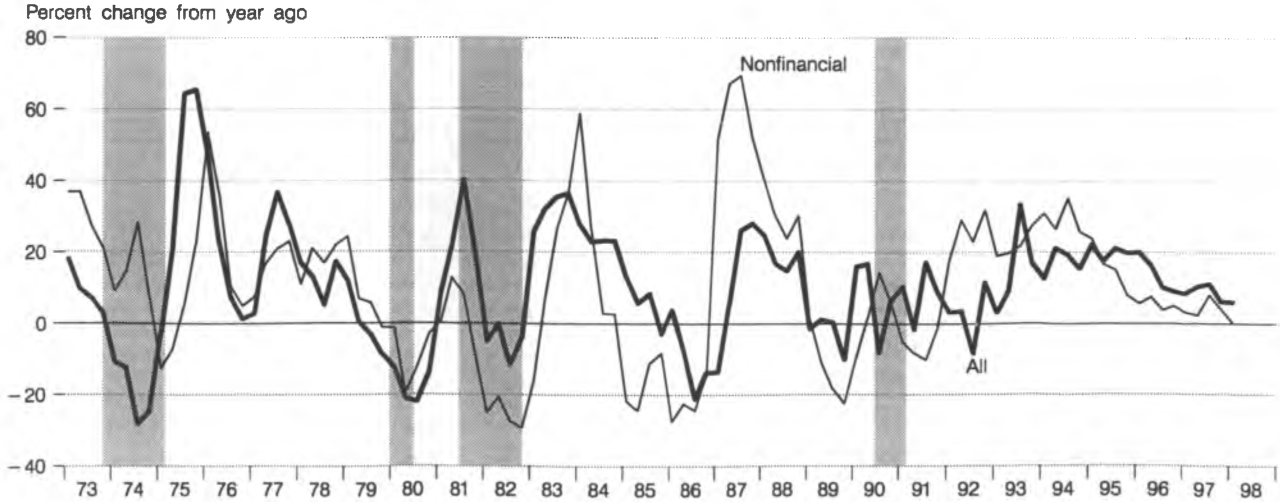


Selected Component Shares of National Income



Corporate Profits after Tax (with IVA and CCAdj)

Percent change from year ago



	Nominal GDP			Real GDP			Final Sales			Change in Business Inventories	
		Percent change			Percent change			Percent change		Billions of 1992 $	
	Billions of $	Annual rate	Year ago	Billions of 1992 $	Annual rate	Year ago	Billions of 1992 $	Annual rate	Year ago	Last qtr	Year/Year ago
1993	6558.1		5.0	6389.563		2.3	6368.864		2.1		22.102
1994	6947.0		5.9	6610.741		3.5	6551.247		2.9		60.552
1995	7269.6		4.6	6761.732		2.3	6731.696		2.8		27.678
1996	7661.6		5.4	6994.774		3.4	6961.608		3.4		30.024
1997	8110.9		5.9	7269.779		3.9	7203.683		3.5		63.210
1995 1	7170.8	4.3	5.5	6717.458	1.7	3.0	6661.774	2.2	2.9	54.278	60.857
2	7210.9	2.3	4.3	6724.202	0.4	1.9	6700.010	2.3	2.7	21.668	47.300
3	7304.8	5.3	4.6	6779.528	3.3	2.3	6761.698	3.7	2.8	14.705	38.560
4	7391.9	4.9	4.2	6825.800	2.8	2.1	6803.302	2.5	2.7	20.061	27.678
1996 1	7495.3	5.7	4.5	6882.000	3.3	2.4	6863.618	3.6	3.0	14.385	17.705
2	7629.2	7.3	5.8	6983.909	6.1	3.9	6954.684	5.4	3.8	26.064	18.804
3	7703.4	3.9	5.5	7020.002	2.1	3.5	6970.278	0.9	3.1	47.507	27.004
4	7818.4	6.1	5.8	7093.124	4.2	3.9	7057.852	5.1	3.7	32.142	30.025
1997 1	7955.0	7.2	6.1	7166.684	4.2	4.1	7108.063	2.9	3.6	56.310	40.506
2	8063.4	5.6	5.7	7236.497	4.0	3.6	7155.530	2.7	2.9	79.048	53.752
3	8170.8	5.4	6.1	7311.242	4.2	4.1	7256.265	5.8	4.1	50.988	54.622
4	8254.5	4.2	5.6	7364.632	3.0	3.8	7294.812	2.1	3.4	66.496	63.211
1998 1	8384.2	6.4	5.4	7464.668	5.5	4.2	7372.468	4.3	3.7	91.401	71.983
2	8431.7	2.3	4.6	7490.958	1.4	3.5	7442.515	3.9	4.0	44.721	63.402

	Consumption			Durables Consumption			Private Fixed investment			Nonresidential Investment		
		Percent change			Percent change			Percent change			Percent change	
	Billions of 1992 $	Annual rate	Year ago	Billions of 1992 $	Annual rate	Year ago	Billions of 1992 $	Annual rate	Year ago	Billions of 1992 $	Annual rate	Year ago
1993	4343.563		2.9	523.841		7.2	842.772		7.6	600.167		7.6
1994	4485.981		3.3	561.189		7.1	915.536		8.6	648.361		8.0
1995	4605.570		2.7	589.094		5.0	965.965		5.5	710.636		9.6
1996	4752.376		3.2	626.120		6.3	1050.583		8.8	776.587		9.3
1997	4913.530		3.4	668.602		6.8	1137.951		8.3	859.364		10.7
1995 1	4555.270	1.9	2.6	575.185	−1.0	4.5	957.113	8.2	7.8	698.402	16.1	11.5
2	4593.628	3.4	2.7	583.520	5.9	5.0	957.826	0.3	4.9	710.167	6.9	10.8
3	4623.419	2.6	2.8	595.323	8.3	6.0	965.832	3.4	4.7	711.713	0.9	9.0
4	4649.962	2.3	2.6	602.357	4.8	4.5	983.091	7.3	4.8	722.273	6.1	7.3
1996 1	4692.076	3.7	3.0	610.970	5.8	6.2	1011.365	12.0	5.7	744.777	13.1	6.6
2	4746.553	4.7	3.3	629.505	12.7	7.9	1043.517	13.3	8.9	764.403	11.0	7.6
3	4768.285	1.8	3.1	626.486	−1.9	5.2	1067.067	9.3	10.5	790.138	14.2	11.0
4	4802.550	2.9	3.3	637.507	7.2	5.8	1080.385	5.1	9.9	807.036	8.8	11.7
1997 1	4853.398	4.3	3.4	656.277	12.3	7.4	1096.046	5.9	8.4	820.860	7.0	10.2
2	4872.683	1.6	2.7	653.766	−1.5	3.9	1126.991	11.8	8.0	848.184	14.0	11.0
3	4946.993	6.2	3.7	679.619	16.8	8.5	1159.292	12.0	8.6	882.181	17.0	11.6
4	4981.005	2.8	3.7	684.753	3.1	7.4	1169.492	3.6	8.2	886.231	1.8	9.8
1998 1	5055.062	6.1	4.2	710.259	15.8	8.2	1224.943	20.4	11.8	931.864	22.2	13.5
2	5126.461	5.8	5.2	727.397	10.0	11.3	1259.970	11.9	11.8	957.454	11.4	12.9

	GDP Chain Price Index			Employment Cost Index			ECI: Wages			ECI: Benefits		
		Percent change			Percent change			Percent change			Percent change	
	Index	Annual rate	Year ago	Index	Annual rate	Year ago	Index	Annual rate	Year ago	Index	Annual rate	Year ago
1993	102.643		2.6	118.4		3.6	115.2		2.9	127.0		5.4
1994	105.088		2.4	122.2		3.2	118.5		2.9	132.1		4.0
1995	107.513		2.3	125.7		2.8	121.9		2.9	135.0		2.2
1996	109.541		1.9	129.2		2.8	126.0		3.3	137.4		1.8
1997	111.569		1.9	133.2		3.1	130.4		3.5	140.2		2.0
1995 1	106.735	2.5	2.5	124.4	2.9	3.0	120.6	2.7	3.0	133.9	1.2	2.7
2	107.259	2.0	2.4	125.3	2.9	2.9	121.5	3.0	2.9	134.6	2.1	2.4
3	107.758	1.9	2.2	126.1	2.6	2.7	122.4	3.0	2.9	135.3	2.1	1.9
4	108.299	2.0	2.1	126.9	2.6	2.8	123.2	2.6	2.8	136.0	2.1	1.9
1996 1	108.900	2.2	2.0	127.7	2.5	2.7	124.4	4.0	3.2	136.1	0.3	1.6
2	109.277	1.4	1.9	128.8	3.5	2.8	125.6	3.9	3.4	137.0	2.7	1.8
3	109.772	1.8	1.9	129.7	2.8	2.9	126.5	2.9	3.3	137.8	2.4	1.8
4	110.214	1.6	1.8	130.6	2.8	2.9	127.4	2.9	3.4	138.6	2.3	1.9
1997 1	110.966	2.8	1.9	131.4	2.5	2.9	128.5	3.5	3.3	138.8	0.6	2.0
2	111.447	1.7	2.0	132.6	3.7	3.0	129.7	3.8	3.3	139.7	2.6	2.0
3	111.772	1.2	1.8	133.7	3.4	3.1	131.0	4.1	3.6	140.4	2.0	1.9
4	112.091	1.1	1.7	135.1	4.3	3.4	132.5	4.7	4.0	141.7	3.8	2.2
1998 1	112.332	0.9	1.2	136.0	2.7	3.5	133.6	3.4	4.0	142.1	1.1	2.4
2	112.566	0.8	1.0	137.2	3.6	3.5	134.9	3.9	4.0	143.2	3.1	2.5

	Exports			Imports			Nonfarm Output per Hour			Nonfarm Compensation/Hr		
		Percent change			Percent change			Percent change			Percent change	
	Billions of 1992 $	Annual rate	Year ago	Billions of 1992 $	Annual rate	Year ago	Index	Annual rate	Year ago	Index	Annual rate	Year ago
1993	658.183		2.9	728.409		8.9	100.1		0.1	102.3		2.3
1994	712.399		8.2	817.026		12.2	100.5		0.4	104.1		1.8
1995	792.575		11.3	889.040		8.8	100.7		0.2	106.7		2.5
1996	860.008		8.5	971.248		9.2	102.6		1.9	110.8		3.8
1997	969.988		12.8	1106.124		13.9	104.3		1.7	115.0		3.8
1995 1	763.885	9.2	13.0	873.433	9.8	12.9	100.3	−1.6	−0.3	105.5	2.3	1.6
2	774.000	5.4	9.9	888.705	7.2	10.0	100.5	0.8	−0.2	106.3	3.1	2.3
3	806.291	17.8	11.7	893.127	2.0	7.2	100.8	1.2	0.4	107.1	3.0	2.8
4	826.119	10.2	10.5	900.900	3.5	5.6	101.4	2.4	0.7	108.1	3.8	3.1
1996 1	833.607	3.7	9.1	929.064	13.1	6.4	102.1	2.8	1.8	109.1	3.8	3.4
2	845.474	5.8	9.2	958.939	13.5	7.9	102.8	2.8	2.3	110.5	5.2	4.0
3	849.893	2.1	5.4	990.012	13.6	10.8	102.6	−0.8	1.8	111.4	3.3	4.0
4	911.053	32.0	10.3	1006.971	7.0	11.8	103.1	2.0	1.7	112.3	3.3	3.9
1997 1	929.410	8.3	11.5	1050.935	18.6	13.1	103.4	1.2	1.3	113.5	4.3	4.0
2	963.594	15.5	14.0	1095.206	17.9	14.2	104.0	2.3	1.2	114.4	3.2	3.5
3	988.109	10.6	16.3	1130.521	13.5	14.2	104.9	3.5	2.2	115.5	3.9	3.7
4	998.838	4.4	9.6	1147.840	6.3	14.0	105.3	1.5	2.1	117.0	5.3	4.2
1998 1	991.875	−2.8	6.7	1190.406	15.7	13.3	105.6	1.1	2.1	118.2	4.2	4.1
2	971.305	−8.0	0.8	1224.222	11.9	11.8						

	Household Survey Employment				Nonfarm Payroll Employment				Nonfarm Aggregate Hours			
			Percent change				Percent change			Percent change		
	Thousands	Change	Annual rate	Year ago	Thousands	Change	Annual rate	Year ago	Index	Monthly rate	Annual rate	Year ago
1993	120259	1771		1.5	110692	2101		1.9	124.6			2.9
1994	123069	2810		2.3	114131	3440		3.1	129.9			4.2
1995	124903	1834		1.5	117187	3055		2.7	133.4			2.7
1996	126708	1805		1.4	119590	2403		2.1	136.6			2.4
1997	129557	2849		2.2	122677	3086		2.6	141.4			3.5
1996 1	125656	449	1.4	0.6	118459	524	1.8	1.7	134.5	0.2	1.0	1.2
2	126323	667	2.1	1.3	119273	814	2.8	2.0	136.2	1.3	5.3	2.5
3	127067	744	2.4	1.8	119974	701	2.4	2.2	137.3	0.8	3.1	2.7
4	127787	720	2.3	2.1	120655	681	2.3	2.3	138.4	0.8	3.3	3.2
1997 1	128697	910	2.9	2.4	121461	805	2.7	2.5	139.7	1.0	3.9	3.9
2	129387	690	2.2	2.4	122317	856	2.9	2.6	140.9	0.8	3.4	3.4
3	129723	336	1.0	2.1	122995	678	2.2	2.5	141.7	0.6	2.3	3.2
4	130421	698	2.2	2.1	123934	939	3.1	2.7	143.1	1.0	4.1	3.4
1998 1	131080	659	2.0	1.9	124795	862	2.8	2.7	144.3	0.8	3.2	3.2
2	131348	268	0.8	1.5	125508	713	2.3	2.6	144.6	0.2	0.8	2.6
1996 Jun	126591	270	2.6	1.7	119549	249	2.5	2.1	137.1	0.7	8.2	2.9
Jul	126867	276	2.6	1.7	119741	192	1.9	2.2	136.6	−0.4	−4.3	2.6
Aug	126995	128	1.2	1.8	120024	283	2.9	2.2	137.3	0.5	6.3	2.7
Sep	127338	343	3.3	1.9	120157	133	1.3	2.1	137.9	0.4	5.4	2.8
Oct	127715	377	3.6	1.9	120382	225	2.3	2.2	137.9	0.0	0.0	2.9
Nov	127746	31	0.3	2.0	120683	301	3.0	2.3	138.3	0.3	3.5	3.0
Dec	127899	153	1.4	2.2	120901	218	2.2	2.4	139.0	0.5	6.2	3.6
1997 Jan	128541	642	6.2	2.6	121146	245	2.5	2.6	138.8	−0.1	−1.7	4.7
Feb	128515	−26	−0.2	2.2	121457	311	3.1	2.5	139.8	0.7	9.0	3.3
Mar	129035	520	5.0	2.4	121779	322	3.2	2.5	140.6	0.6	7.1	3.7
Apr	129275	240	2.3	2.6	122092	313	3.1	2.6	140.6	0.0	0.0	3.8
May	129494	219	2.1	2.5	122325	233	2.3	2.5	141.2	0.4	5.2	3.7
Jun	129392	−102	−0.9	2.2	122534	209	2.1	2.5	140.9	−0.2	−2.5	2.8
Jul	129661	269	2.5	2.2	122811	277	2.7	2.6	141.3	0.3	3.5	3.4
Aug	129747	86	0.8	2.2	122894	83	0.8	2.4	141.7	0.3	3.5	3.2
Sep	129761	14	0.1	1.9	123280	386	3.8	2.6	142.1	0.3	3.4	3.0
Oct	129910	149	1.4	1.7	123568	288	2.8	2.6	142.6	0.4	4.3	3.4
Nov	130575	665	6.3	2.2	123944	376	3.7	2.7	143.2	0.4	5.2	3.5
Dec	130777	202	1.9	2.3	124289	345	3.4	2.8	143.6	0.3	3.4	3.3
1998 Jan	131083	306	2.8	2.0	124640	351	3.4	2.9	144.6	0.7	8.7	4.2
Feb	131163	80	0.7	2.1	124832	192	1.9	2.8	144.4	−0.1	−1.6	3.3
Mar	130994	−169	−1.5	1.5	124914	82	0.8	2.6	143.8	−0.4	−4.9	2.3
Apr	131383	389	3.6	1.6	125234	320	3.1	2.6	144.0	0.1	1.7	2.4
May	131453	70	0.6	1.5	125543	309	3.0	2.6	144.9	0.6	7.8	2.6
Jun	131209	−244	−2.2	1.4	125748	205	2.0	2.6	144.8	−0.1	−0.8	2.8

		Unempl. Rate	Retail Sales Billions of dollars	Retail Sales Percent change Monthly/ quarterly	Retail Sales Percent change Annual rate	Retail Sales Percent change Year ago	Industrial Production Index	Industrial Production Percent change Monthly/ quarterly	Industrial Production Percent change Annual rate	Industrial Production Percent change Year ago	Treasury Yields 3–mo	Treasury Yields 10–yr
1993		6.9	2072.434			6.5	103.554			3.6	3.00	5.86
1994		6.1	2227.838			7.5	109.171			5.4	4.25	7.08
1995		5.6	2331.617			4.7	114.543			4.9	5.49	6.58
1996		5.4	2455.234			5.3	118.499			3.5	5.01	6.44
1997		5.0	2568.193			4.6	124.423			5.0	5.06	6.35
1996	1	5.6	602.441	1.7	7.1	5.2	116.105	0.5	2.0	2.3	4.93	5.91
	2	5.4	613.436	1.8	7.5	5.7	118.228	1.8	7.5	3.8	5.02	6.72
	3	5.3	614.749	0.2	0.9	4.9	119.270	0.9	3.6	3.5	5.10	6.78
	4	5.3	624.608	1.6	6.6	5.5	120.393	0.9	3.8	4.2	4.98	6.34
1997	1	5.3	639.631	2.4	10.0	6.2	121.940	1.3	5.2	5.0	5.06	6.56
	2	4.9	634.127	−0.9	−3.4	3.4	123.312	1.1	4.6	4.3	5.05	6.70
	3	4.9	646.541	2.0	8.1	5.2	125.119	1.5	6.0	4.9	5.05	6.24
	4	4.7	647.894	0.2	0.8	3.7	127.321	1.8	7.2	5.8	5.09	5.90
1998	1	4.7	660.975	2.0	8.3	3.3	127.702	0.3	1.2	4.7	5.05	5.59
	2	4.4	673.862	1.9	8.0	6.3	128.489	0.6	2.5	4.2	4.98	5.60
1996	Jul	5.5	204.374	0.1	1.1	5.1	118.943	0.0	0.5	4.1	5.15	6.87
	Aug	5.2	204.256	−0.1	−0.7	4.3	119.253	0.3	3.2	3.3	5.05	6.64
	Sep	5.2	206.119	0.9	11.5	5.2	119.613	0.3	3.7	3.2	5.09	6.83
	Oct	5.3	208.113	1.0	12.2	6.4	119.650	0.0	0.4	3.7	4.99	6.53
	Nov	5.4	207.844	−0.1	−1.5	5.2	120.587	0.8	9.8	4.3	5.03	6.20
	Dec	5.3	208.651	0.4	4.8	4.9	120.943	0.3	3.6	4.7	4.91	6.30
1997	Jan	5.3	211.170	1.2	15.5	6.4	121.288	0.3	3.5	5.2	5.03	6.58
	Feb	5.3	213.945	1.3	17.0	6.2	122.064	0.6	8.0	4.6	5.01	6.42
	Mar	5.2	214.516	0.3	3.3	5.9	122.468	0.3	4.0	5.3	5.14	6.69
	Apr	5.0	211.018	−1.6	−17.9	3.6	123.073	0.5	6.1	4.7	5.16	6.89
	May	4.8	210.532	−0.2	−2.7	2.4	123.316	0.2	2.4	4.3	5.05	6.71
	Jun	5.0	212.577	1.0	12.3	4.1	123.546	0.2	2.3	3.9	4.93	6.49
	Jul	4.9	215.031	1.2	14.8	5.2	124.527	0.8	10.0	4.7	5.05	6.22
	Aug	4.9	216.022	0.5	5.7	5.8	125.246	0.6	7.2	5.0	5.14	6.30
	Sep	4.9	215.488	−0.2	−2.9	4.5	125.585	0.3	3.3	5.0	4.95	6.21
	Oct	4.8	215.113	−0.2	−2.1	3.4	126.550	0.8	9.6	5.8	4.97	6.03
	Nov	4.6	215.914	0.4	4.6	3.9	127.528	0.8	9.7	5.8	5.14	5.87
	Dec	4.7	216.867	0.4	5.4	3.9	127.884	0.3	3.4	5.7	5.16	5.81
1998	Jan	4.7	219.004	1.0	12.5	3.7	127.813	−0.1	−0.7	5.4	5.04	5.54
	Feb	4.6	220.866	0.9	10.7	3.2	127.327	−0.4	−4.5	4.3	5.09	5.57
	Mar	4.7	221.105	0.1	1.3	3.1	127.966	0.5	6.2	4.5	5.03	5.65
	Apr	4.3	222.707	0.7	9.0	5.5	128.528	0.4	5.4	4.4	4.95	5.64
	May	4.3	225.464	1.2	15.9	7.1	128.868	0.3	3.2	4.5	5.00	5.65
	Jun	4.5	225.691	0.1	1.2	6.2	128.072	−0.6	−7.2	3.7	4.98	5.50
	Jul										4.96	5.46

	Consumer Price Index					Consumer Price Index less Food and Energy					Producer Price Index Finished Goods			
		Percent change					Percent change					Percent change		
	Index	Monthly/ quarterly	Annual rate	Year ago	Year to date	Index	Monthly/ quarterly	Annual rate	Year ago	Year to date	Index	Monthly/ quarterly	Annual rate	Year ago
1993	144.6			3.0		152.4			3.3		124.7			1.2
1994	148.3			2.6		156.7			2.8		125.5			0.6
1995	152.5			2.8		161.4			3.0		127.9			1.9
1996	157.0			2.9		165.8			2.7		131.3			2.6
1997	160.6			2.3		169.7			2.4		131.8			0.4
1996 1	155.1	0.8	3.2	2.8	3.2	164.2	0.7	2.6	2.9	2.6	129.9	0.9	3.8	2.2
2	156.5	0.9	3.7	2.9	3.5	165.2	0.6	2.5	2.7	2.5	131.1	0.9	3.7	2.5
3	157.5	0.6	2.4	2.9	3.1	166.3	0.7	2.7	2.7	2.6	131.5	0.3	1.2	2.8
4	158.8	0.8	3.3	3.2	3.2	167.4	0.6	2.6	2.6	2.6	132.6	0.8	3.3	3.0
1997 1	159.6	0.5	2.2	2.9	2.2	168.3	0.5	2.2	2.5	2.2	132.7	0.1	0.2	2.1
2	160.2	0.3	1.3	2.3	1.8	169.4	0.7	2.7	2.5	2.4	131.7	−0.8	−3.0	0.4
3	160.9	0.5	1.9	2.2	1.8	170.2	0.4	1.7	2.3	2.2	131.4	−0.2	−0.8	−0.1
4	161.8	0.5	2.1	1.9	1.9	171.1	0.5	2.1	2.2	2.2	131.6	0.2	0.6	−0.8
1998 1	162.0	0.1	0.5	1.5	0.5	172.1	0.6	2.4	2.3	2.4	130.4	−0.9	−3.7	−1.7
2	162.8	0.5	2.0	1.6	1.2	173.2	0.7	2.7	2.2	2.5	130.4	0.0	0.1	−1.0
1996 Jun	156.8	0.1	1.5	2.8	3.5	165.6	0.2	2.9	2.7	2.7	131.4	0.2	2.8	2.7
Jul	157.2	0.3	3.1	2.9	3.5	166.0	0.2	2.9	2.7	2.7	131.3	−0.1	−0.9	2.6
Aug	157.4	0.1	1.5	2.9	3.2	166.3	0.2	2.2	2.7	2.7	131.5	0.2	1.8	2.9
Sep	157.8	0.3	3.1	3.0	3.2	166.7	0.2	2.9	2.6	2.7	131.8	0.2	2.8	2.9
Oct	158.3	0.3	3.9	3.0	3.3	167.1	0.2	2.9	2.6	2.7	132.3	0.4	4.6	3.1
Nov	158.8	0.3	3.9	3.2	3.3	167.4	0.2	2.2	2.6	2.7	132.5	0.2	1.8	3.0
Dec	159.2	0.3	3.1	3.3	3.3	167.7	0.2	2.2	2.6	2.6	133.0	0.4	4.6	2.9
1997 Jan	159.4	0.1	1.5	3.0	1.5	168.0	0.2	2.2	2.5	2.2	133.0	0.0	0.0	2.5
Feb	159.7	0.2	2.3	3.0	1.9	168.3	0.2	2.2	2.5	2.2	132.6	−0.3	−3.5	2.2
Mar	159.8	0.1	0.8	2.7	1.5	168.6	0.2	2.2	2.4	2.2	132.4	−0.2	−1.8	1.5
Apr	160.0	0.1	1.5	2.4	1.5	169.2	0.4	4.4	2.6	2.7	131.9	−0.4	−4.4	0.8
May	160.1	0.1	0.8	2.2	1.4	169.4	0.1	1.4	2.5	2.5	131.7	−0.2	−1.8	0.5
Jun	160.4	0.2	2.3	2.3	1.5	169.7	0.2	2.1	2.5	2.4	131.4	−0.2	−2.7	0.0
Jul	160.6	0.1	1.5	2.2	1.5	170.0	0.2	2.1	2.4	2.4	131.1	−0.2	−2.7	−0.2
Aug	160.9	0.2	2.3	2.2	1.6	170.1	0.1	0.7	2.3	2.2	131.3	0.2	1.8	−0.2
Sep	161.3	0.2	3.0	2.2	1.8	170.4	0.2	2.1	2.2	2.2	131.8	0.4	4.7	0.0
Oct	161.6	0.2	2.3	2.1	1.8	170.8	0.2	2.9	2.2	2.2	131.8	0.0	0.0	−0.4
Nov	161.8	0.1	1.5	1.9	1.8	171.0	0.1	1.4	2.2	2.1	131.6	−0.2	−1.8	−0.7
Dec	161.9	0.1	0.7	1.7	1.7	171.4	0.2	2.8	2.2	2.2	131.4	−0.2	−1.8	−1.2
1998 Jan	161.9	0.0	0.0	1.6	0.0	171.7	0.2	2.1	2.2	2.1	130.6	−0.6	−7.1	−1.8
Feb	162.0	0.1	0.7	1.4	0.4	172.2	0.3	3.6	2.3	2.8	130.5	−0.1	−0.9	−1.6
Mar	162.0	0.0	0.0	1.4	0.2	172.4	0.1	1.4	2.3	2.4	130.0	−0.4	−4.5	−1.8
Apr	162.4	0.2	3.0	1.5	0.9	172.9	0.3	3.5	2.2	2.6	130.3	0.2	2.8	−1.2
May	162.9	0.3	3.8	1.7	1.5	173.3	0.2	2.8	2.3	2.7	130.5	0.2	1.9	−0.9
Jun	163.0	0.1	0.7	1.6	1.4	173.5	0.1	1.4	2.2	2.5	130.4	−0.1	−0.9	−0.8

Notes

Pages 4, 5: **Final sales** is gross domestic product (GDP) minus change in business inventories. **Advance, preliminary, and final GDP growth rates** are released during the first, second, and third months of the following quarter. Changes result from incorporation of more complete information. The **Purchasing Managers' Index** is a weighted average of diffusion indexes for new orders, production, supplier deliveries, inventories, and employment. The National Association of Purchasing Management (NAPM) surveys over 300 firms in 20 manufacturing industries, weighting responses by industry share of GDP. **Aggregate and average weekly hours** are paid hours of production and nonsupervisory employees. The inventory-sales ratio uses nominal (current-dollar) inventory and sales data.

Page 6: The **contribution** of a component X_t to the overall GDP growth rate in quarter t is $100 \times [(1 + (X_t - X_{t-1})/GDP_{t-1})^4 - 1]$. The sign is changed for **imports**. This calculation forces components to add up to the GDP growth rate before compounding and does not exactly match *Survey of Current Business*, Table 8.2. The **residual** line is calculated using the finest level of detail in the table.

Page 7: Ten-year **Treasury yields** are adjusted to constant maturity. Three-month yields are secondary market averages, but all rates used in the yield curves are adjusted to constant maturity. **Standard and Poor's 500 Index with Reinvested Dividends** shows the total return: capital gains plus dividends.

Pages 8,9: **Oil prices** are monthly averages of daily spot prices for West Texas intermediate crude (*Wall Street Journal)*. **Consumer price index** is for all urban consumers. The **consumption chain price index** is the index associated with the personal consumption expenditures component of GDP. The **Employment Cost Index (ECI)** covers private nonfarm employers. **ECI compensation** refers to a fixed sample of jobs, while **compensation per hour** covers all workers in the nonfarm business sector in a given quarter. In both cases, **compensation** is wages and salaries plus benefits.

Pages 10,11: **Nonfarm payroll employment** is counted in a survey of about 390,000 establishments (Current Employment Survey). It excludes self-employed individuals and workers in private households, but double-counts individuals with more than one job. The **household survey** (Current Population Survey) of about 50,000 households provides estimates of civilian employment, unemployment rate, labor force participation rate, and employment-population ratio. **Population** is civilian, noninstitutional, 16 years and over. New population controls introduced in January 1997 affect levels and growth rates of household survey employment, labor force and population. The unemployment rate and other ratios are minimally affected. 90 percent confidence intervals for the unemployment rate (± 0.2 percentage points) and change in household survey employment (± 376,000) measure uncertainty due to sample size. The household survey was changed in January 1994, so care should be exercised in making short-term comparisons around this date, particularly with the duration data shown on page 10. Other changes in the survey are detailed in Bureau of Labor Statistics, *Employment and Earnings*, Appendix A.

Pages 13: The **Michigan consumer sentiment index** shows changes in a summary measure of consumers' answers to five questions about their current and expected financial situation, expectations about future economic conditions, and attitudes about making large purchases. The survey is based on a representative sample of U.S. households.

Pages 14, 15: Overall **gross saving** includes government saving, which is the sum of the government surplus and capital consumption (see notes for pages 16 and 17). **Net foreign investment (NFI)** is U.S. investment abroad minus foreign investment in the U.S. Aside from a statistical discrepancy, NFI also equals the difference between gross domestic investment and saving.

Pages 16, 17: **Government consumption and investment** is current expenditures on goods and services, including capital consumption (depreciation) and gross investment, as reported in the National Income and Product Accounts (NIPA). The **unified federal budget deficit** differs from **NIPA basis** in four main ways: (1) NIPA excludes transactions involving existing assets; (2) NIPA outlays exclude government investment and include consumption of government capital, while unified budget outlays do the reverse; (3) NIPA accounts exclude Puerto Rico and U.S. territories; and (4) various timing issues are handled differently. **Outlays and receipts** are from the NIPAs, except as noted. Since 1977, the federal **fiscal year** starts on October 1. Excluded agency debt was 0.6 percent of federal debt at the end of fiscal 1997. **Federal debt held by the public** includes holdings of the Federal Reserve System and excludes holdings of the social security and other federal trust funds. Federal grants in aid to state and local governments appear in both state and local receipts and federal outlays.

Pages 18, 19: The **trade balance** (shown on a balance of payments basis) is the difference between exports and imports of goods (merchandise) and services. It is nearly identical in concept to the **net exports** component of GDP, but differs slightly in accounting details. The **investment income balance** equals income received from U.S.-owned assets in other countries minus income paid on foreign-owned assets in the U.S. The investment income balance is nearly identical in concept to the difference between gross national product and gross domestic product, but differs in accounting details. The **current account balance** is the trade balance plus the balance on investment income plus net unilateral transfers to the U.S. from other countries.

Pages 20, 21: **Output per hour** (Y/H), **unit labor cost** (C/Y), and **compensation per hour** (C/H) are indexes which approximately obey the following relationship: %(Y/H) + %(C/Y) = %(C/H) with %() meaning percent changes. Unit labor cost is shown on page 9. **Real compensation per hour** uses the CPI to adjust for the effects of inflation. **Multifactor productivity** estimates changes in output that do not correspond to changes in quantities of labor, capital, or intermediate inputs. **Inventory valuation adjustments (IVA)** remove the effect of changes in the value of existing inventories from corporate profits and proprietors' income. (This change in value does not correspond to current production and therefore is not part of GDP). **Capital consumption adjustments (CCAdj)** increase profits and proprietors' income by the difference between estimates of economic depreciation and depreciation allowed by the tax code. Components of national income not shown are rental income of persons and net interest.

Sources

Bureau of Economic Analysis (BEA), U.S. Dept. of Commerce
National income and product accounts, international trade and investment data (except by country), auto and light truck sales

Census Bureau, U.S. Dept. of Commerce
Inventory-sales ratios, retail sales, capital goods orders, housing starts, exports and imports by country

Bureau of Labor Statistics (BLS), U.S. Dept. of Labor
All employment-related data, employment cost index, consumer and producer price indexes, unit labor cost, output per hour, compensation per hour, total factor productivity

United States Department of Treasury
Unified budget receipts, outlays, deficit, debt

Federal Reserve Board
Index of industrial production, treasury yields, exchange rates, capacity utilization, household debt

The Survey Research Center, The University of Michigan
Consumer sentiment index

The Conference Board
Help-wanted advertising index

Organization for Economic Cooperation and Development (OECD)
GDP for major trading partners (not available on FRED)

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.