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## Public Officials and Job Creation

Public officials often claim credit for creating jobs through the programs and policies they enact. It is not uncommon to hear, for example, a public official pledging to increase the number of jobs in a particular locality or nationally. Public officials can create jobs in two ways: The first is *directly*, by creating government jobs. The second is *indirectly*, by (i) enacting policies that create an economic environment that affects long-run private sector job growth or (ii) using countercyclical fiscal policy to affect short-run private sector job growth.<sup>1</sup> How effective have public officials been at creating jobs?

The accompanying chart shows the natural logarithm of payroll employment (measured by annual nonfarm payroll employment) from 1946 to 2003, along with the shares of total government, federal government, and state and local government employment. It gives no indication that public officials have created jobs directly. After increasing from 1946 to 1975, total government employment as a percent of payroll employment has trended down. Evidence that public officials create government jobs is even weaker if one considers federal employment. Federal employment as a percent of payroll employment has declined nearly monotonically over the 1946 to 2003 period, from 5.6 percent in 1946 to 2.1 percent in 2003.

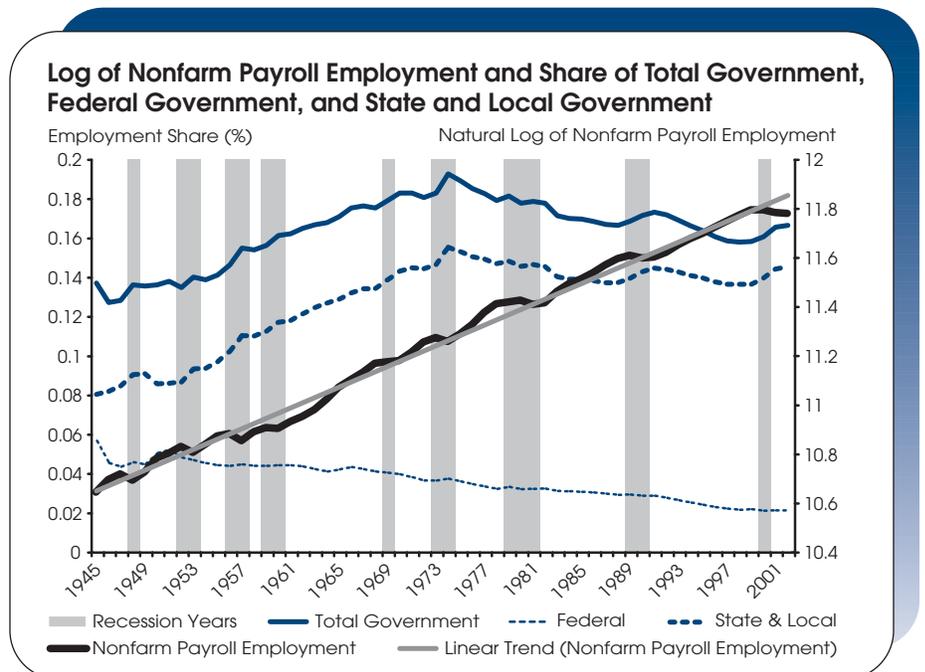
Have public officials created jobs indirectly? Again, the chart raises questions about claims they might make. First, consider cyclical variation in payroll employment, as measured relative to a trend line. With payroll employment expressed in natural logarithms, a constant growth rate is represented by a linear trend. The trend line indicates that payroll employment has grown at an average rate of about 2.1 percent during the post-World War II period. The shaded areas represent years when there was an official recession during at least part of the year.

This measure of cyclical variation indicates that the lengths of significant deviations of payroll employment from a 2.1 percent trend line roughly match the lengths of the business cycles, with the exception of the 1960s during the military buildup for the war in Vietnam (armed forces on active duty are excluded from payroll employment). Thus, when it comes to cyclical variation in payroll employment, it seems that the business cycle largely determines the ebb and flow, despite any claims by lawmakers and policymakers that they act to stem the tide.

Second, in terms of long-run jobs growth, have policies enacted by public officials affected the average growth rate of payroll employment? Again, the chart suggests that the answer is no. Importantly, there is no indication of a noteworthy break in payroll employment from the 2.1 percent growth path, which is what one would expect if public officials enacted policies that changed the average rate of job growth. The apparent lack of a break from the trend line is especially interesting given the array of national economic policies—changes in tax law, changes in the minimum wage, workplace safety, etc.—that have been enacted in the past 60 years.

—Thomas A. Garrett and Daniel L. Thornton

<sup>1</sup>Contract workers that are a result of a *new* government program are also considered in (i). Simply substituting contract workers for existing government employees does not change total employment.



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## Conventions used in this publication:

1. Shaded areas indicate recessions, as determined by the National Bureau of Economic Research.
2. *Percent change* refers to simple percent changes. *Percent change from year ago* refers to the percent change from the same month or quarter during the previous year. *Compounded annual rate of change* 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 compounded annual rate of change of  $x$  between the previous quarter  $t-1$  and the current quarter  $t$  is:  $[(x_t/x_{t-1})^4 - 1] \times 100$ . For monthly data replace 4 with 12.
3. All data with significant seasonal patterns are adjusted accordingly, unless labeled NSA.

We welcome your comments addressed to:

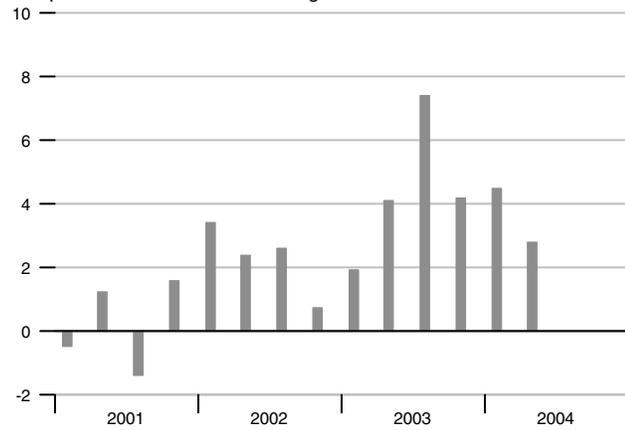
Editor, *National Economic Trends*  
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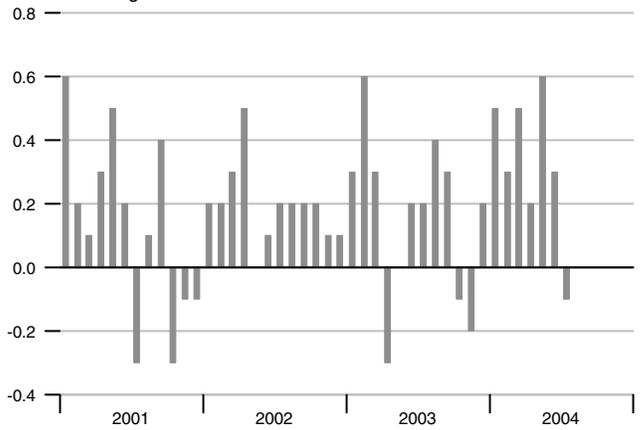
### Real GDP Growth

Compounded annual rates of change



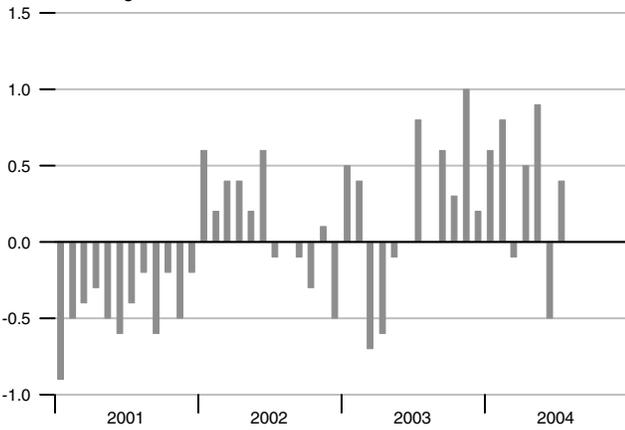
### Consumer Price Index

Percent change



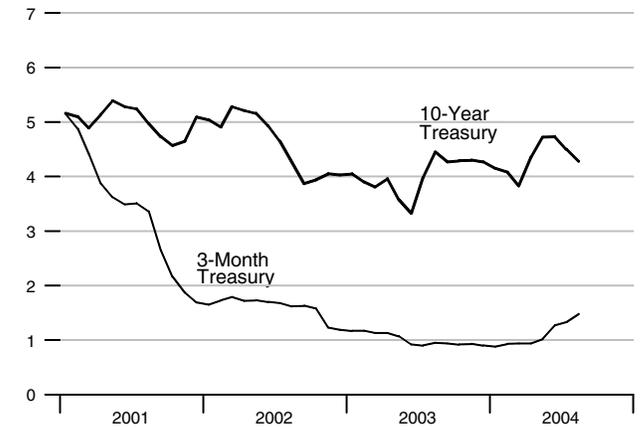
### Industrial Production

Percent change



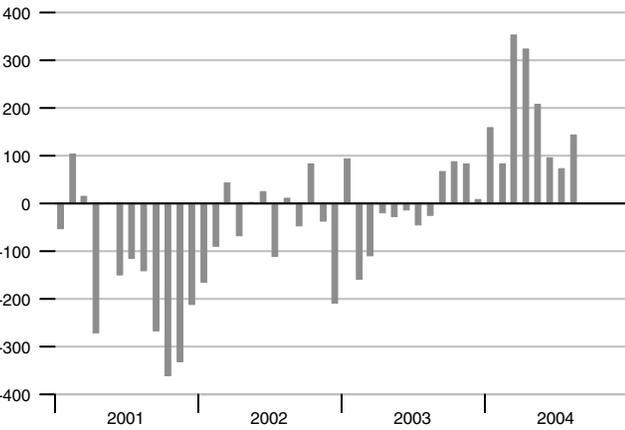
### Interest Rates

Percent



### Change in Nonfarm Payrolls

Thousands



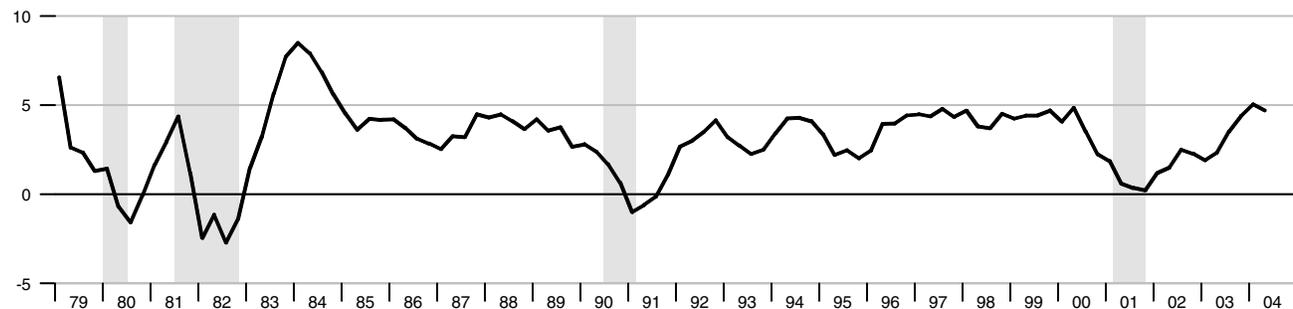
### Unemployment Rate

Percent of labor force



### Real Gross Domestic Product

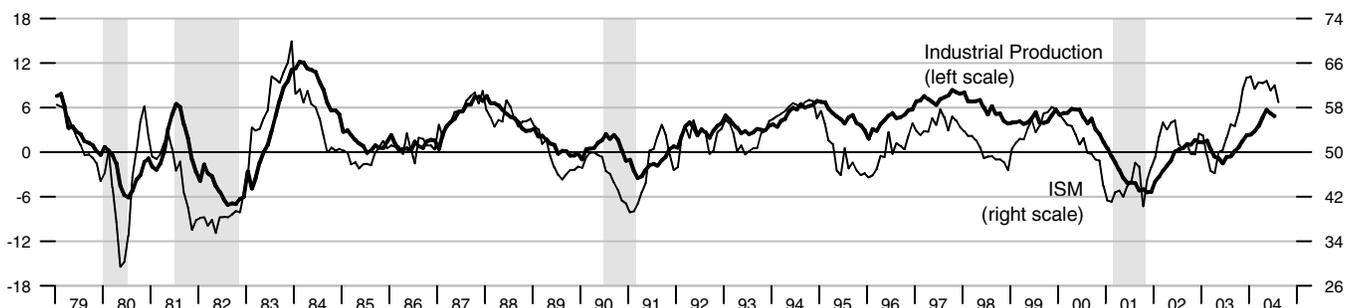
Percent change from year ago



### Industrial Production and Institute for Supply Management (ISM) Indexes

Percent change from year ago

Index



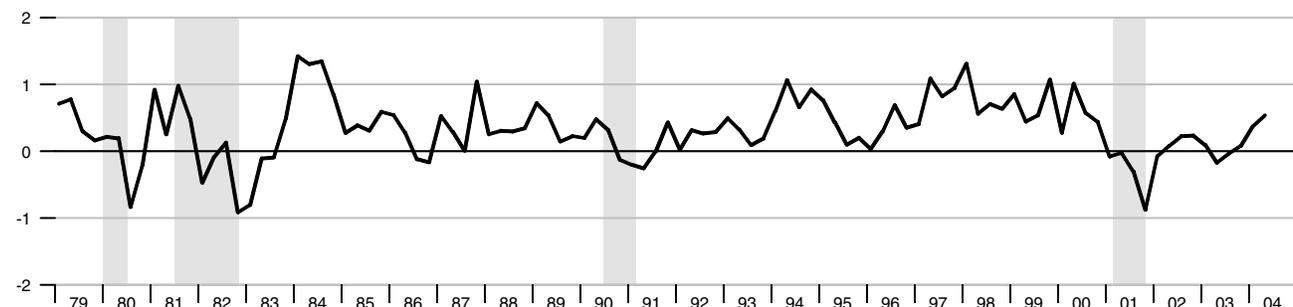
### Aggregate Private Nonfarm Hours

Percent change from year ago

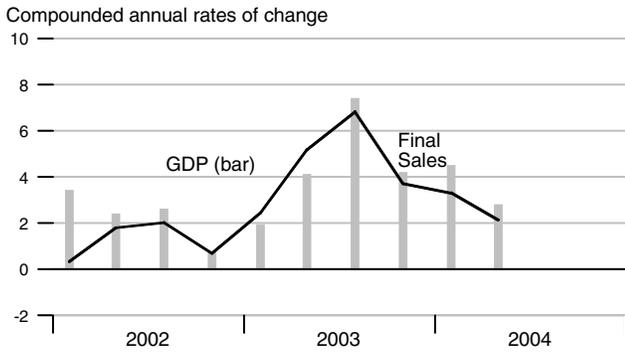


### Real Change in Private Inventories

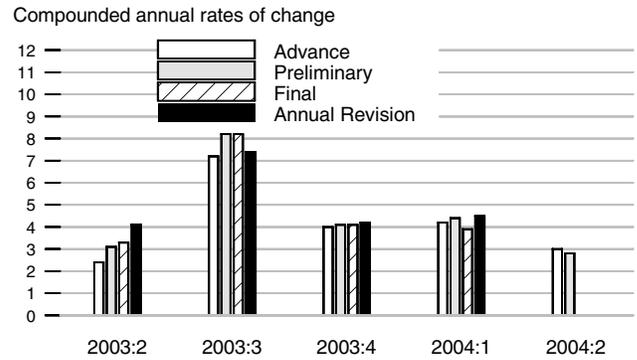
Percent of GDP



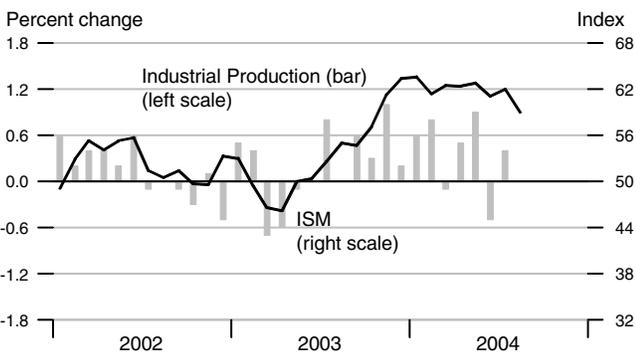
### Real Final Sales and GDP



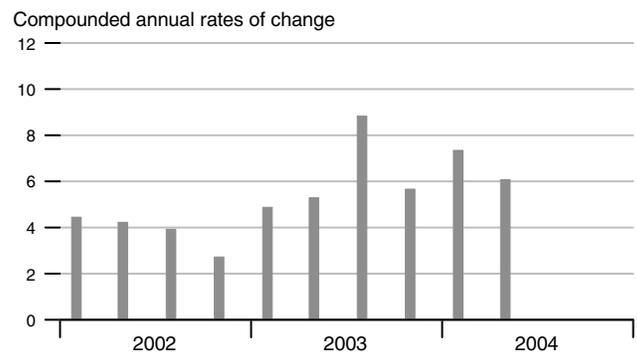
### Real GDP Revisions



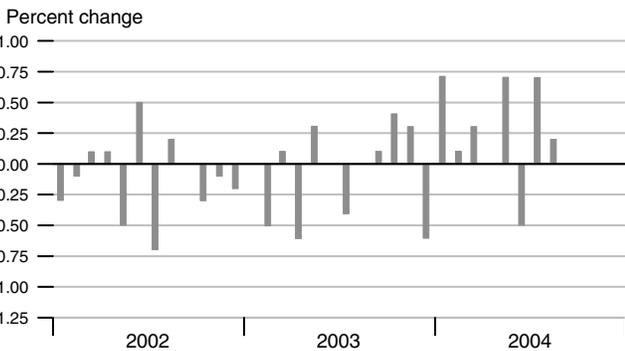
### Industrial Production and ISM Index



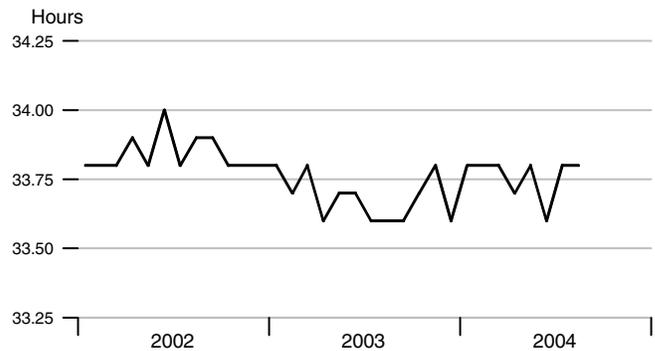
### Nominal Gross Domestic Product



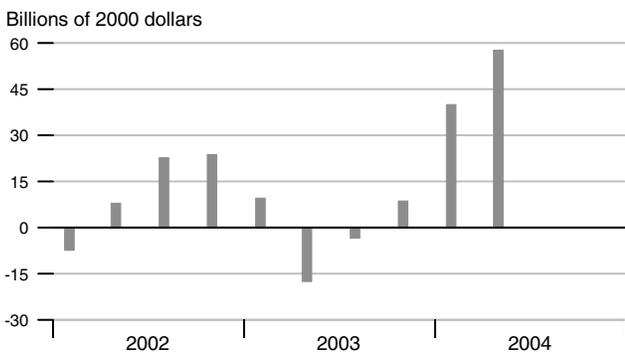
### Aggregate Private Nonfarm Hours



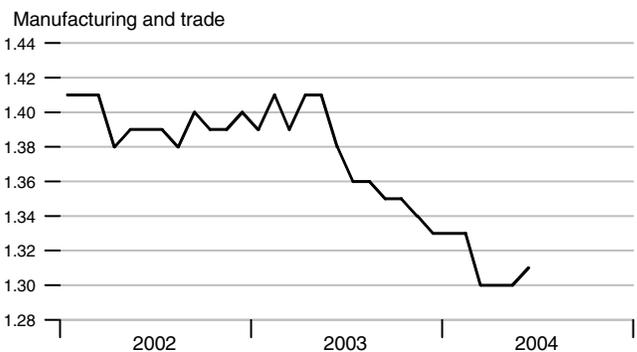
### Average Weekly Private Nonfarm Hours



### Real Change in Private Inventories

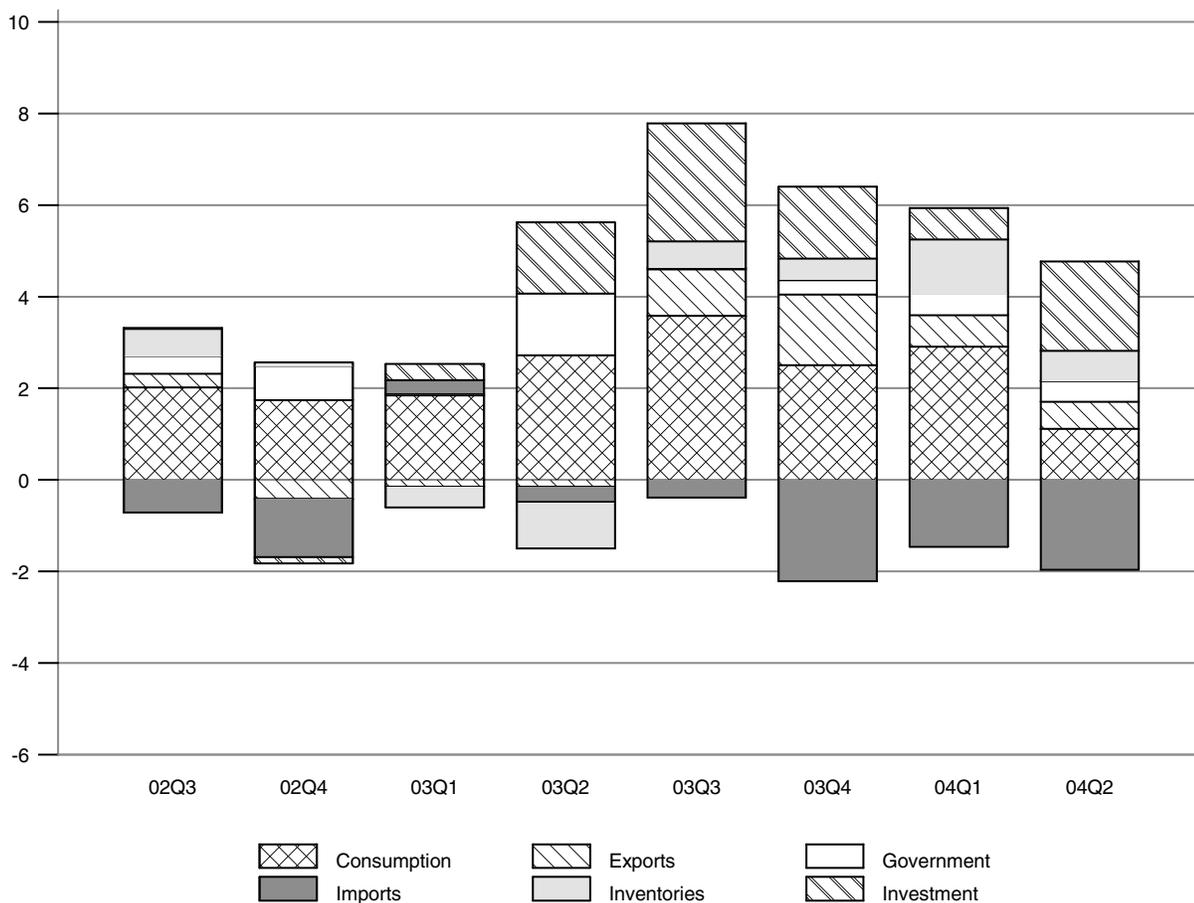


### Inventory-Sales Ratio



### Contribution of Components to Real GDP Growth

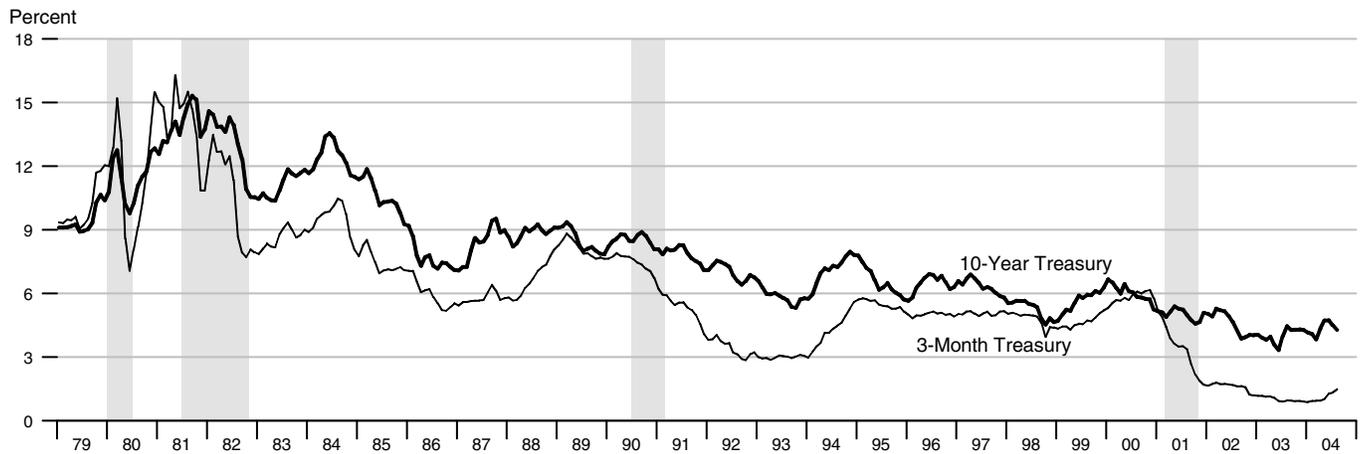
Percentage points at compounded annual rates



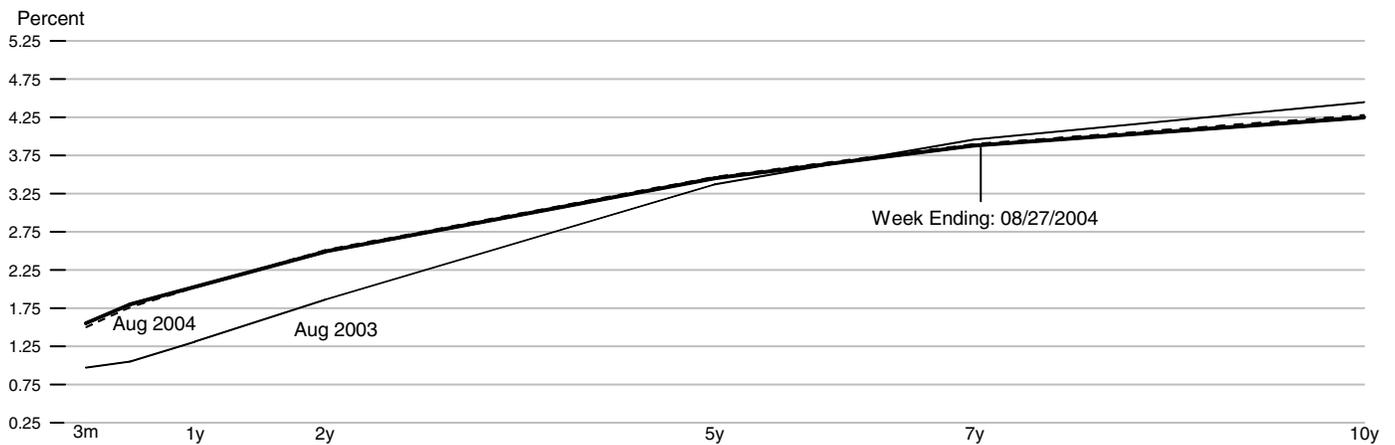
### Contributions to Real GDP Growth Rate

	2002		2003				2004	
	3rd	4th	1st	2nd	3rd	4th	1st	2nd
<b>Final Sales</b>	2.01	0.67	2.38	5.12	6.84	3.72	3.32	2.13
<b>Consumption</b>	2.02	1.74	1.84	2.72	3.58	2.50	2.90	1.11
<b>Fixed Investment</b>	0.02	-0.13	0.35	1.55	2.59	1.57	0.69	1.95
Nonresidential	-0.12	-0.33	-0.01	1.10	1.50	1.07	0.42	1.18
Residential	0.13	0.20	0.36	0.44	1.09	0.50	0.27	0.77
Federal	0.19	0.58	0.04	1.40	-0.23	0.33	0.48	0.19
<b>Government</b>	0.40	0.75	0.05	1.35	0.03	0.31	0.48	0.45
State and Local	0.21	0.17	0.02	-0.05	0.26	-0.02	0.00	0.26
Imports	-0.72	-1.27	0.29	-0.34	-0.39	-2.22	-1.46	-1.96
<b>Change in Inventory</b>	0.59	0.07	-0.45	-1.01	0.57	0.47	1.17	0.66
Exports	0.29	-0.42	-0.15	-0.15	1.02	1.55	0.70	0.60
<b>Net Exports</b>	-0.43	-1.69	0.14	-0.50	0.64	-0.66	-0.76	-1.37
<b>Residual</b>	0.03	0.13	0.09	0.05	-0.10	0.02	0.02	0.02
<b>Real GDP Growth</b>	2.60	0.74	1.93	4.11	7.41	4.19	4.49	2.79

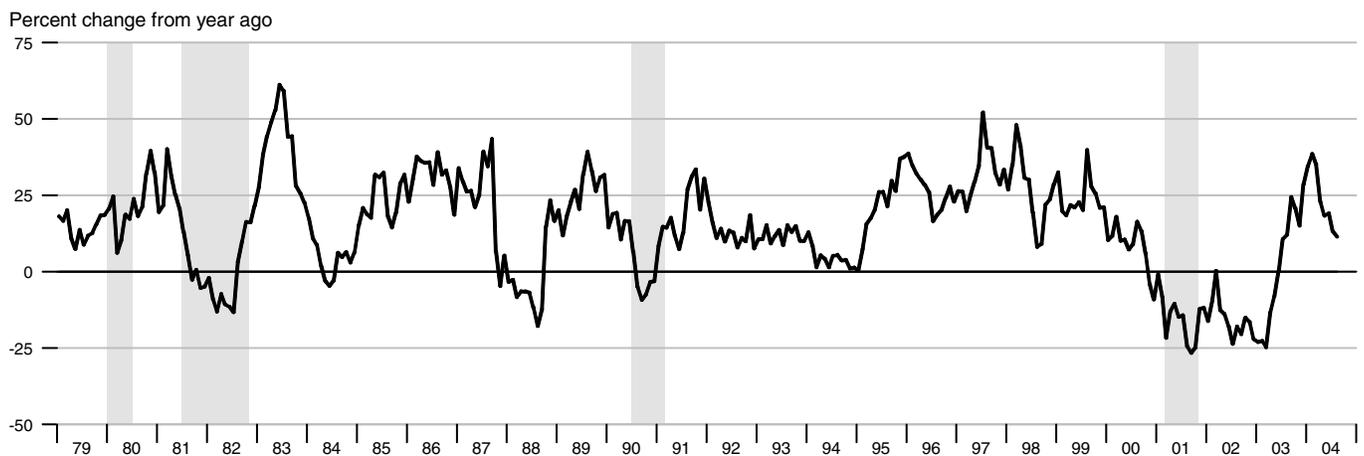
### Interest Rates



### Treasury Yield Curve

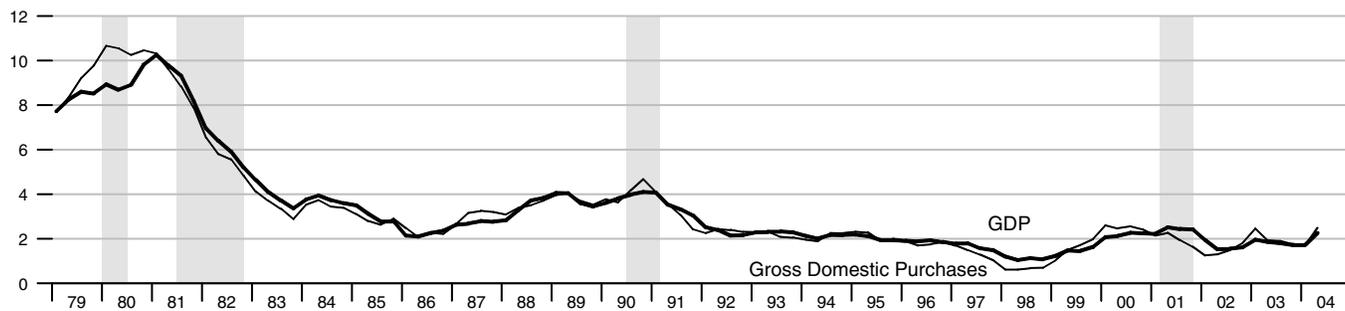


### Standard and Poor's 500 Index with Reinvested Dividends



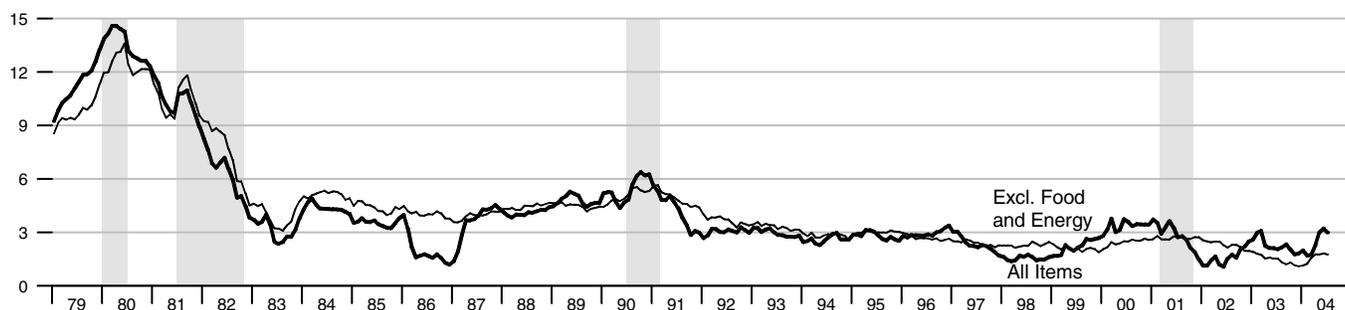
### NIPA Chain Price Indexes

Percent change from year ago



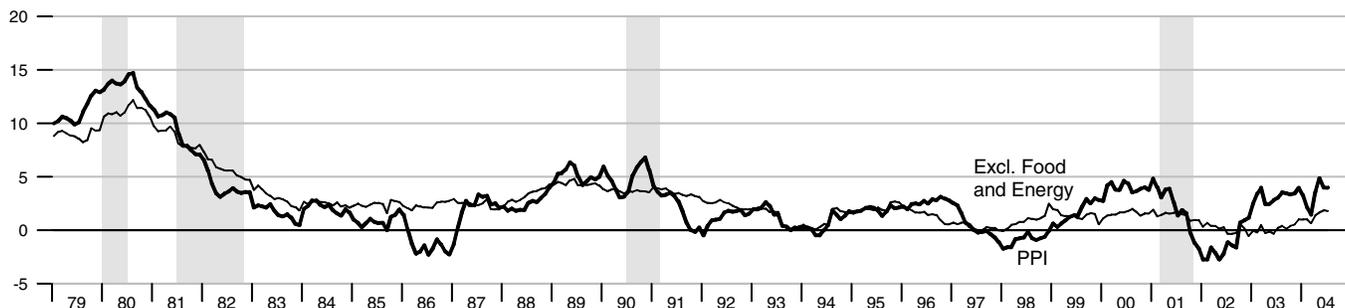
### Consumer Price Index

Percent change from year ago



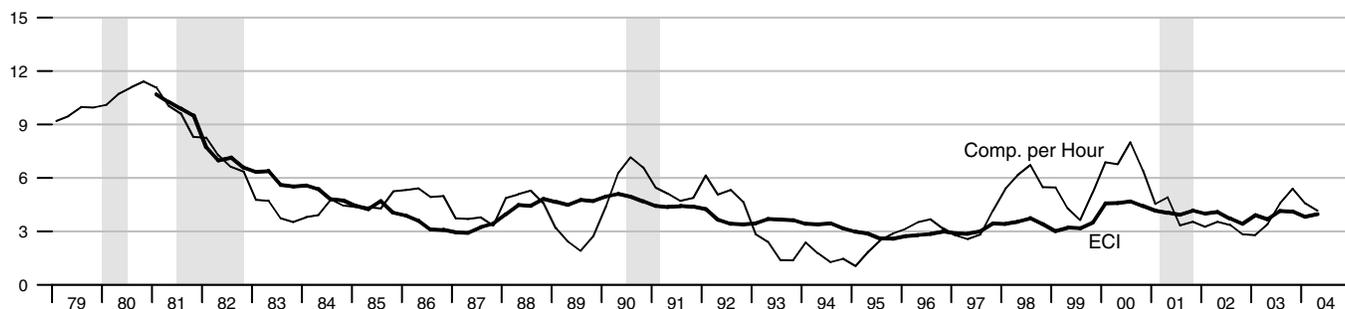
### Producer Price Index, Finished Goods

Percent change from year ago

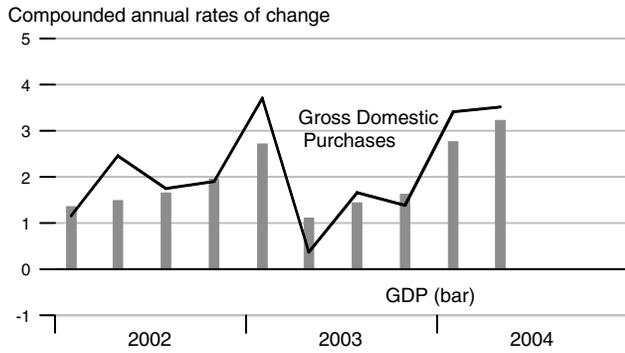


### Employment Cost Index and Compensation per Hour

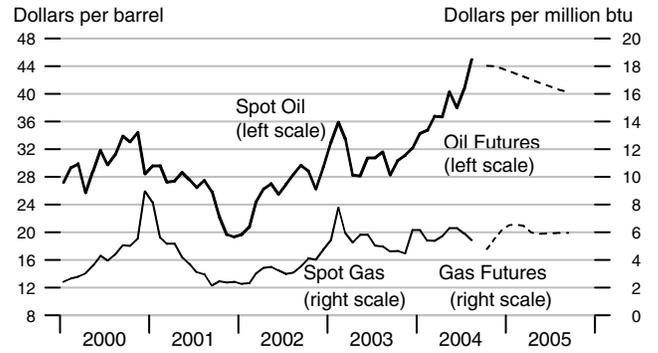
Percent change from year ago



### NIPA Chain Price Indexes

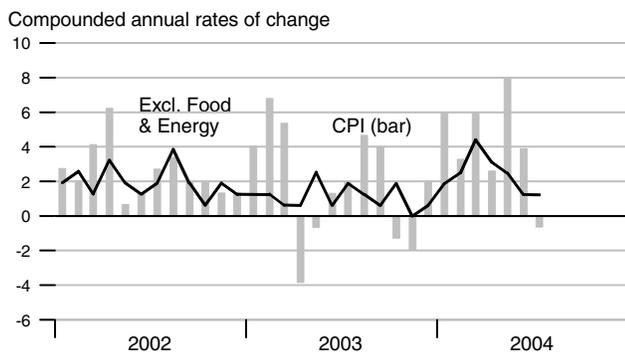


### Oil & Natural Gas Prices: Spot & Futures

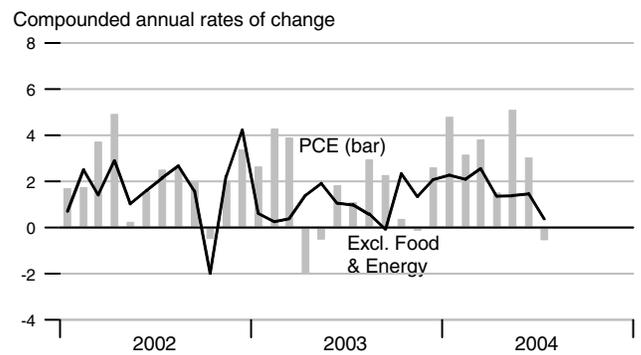


Note: Futures prices as of 09/02/2004.

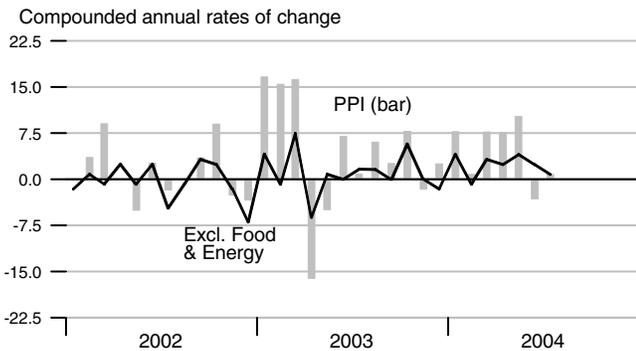
### Consumer Price Index



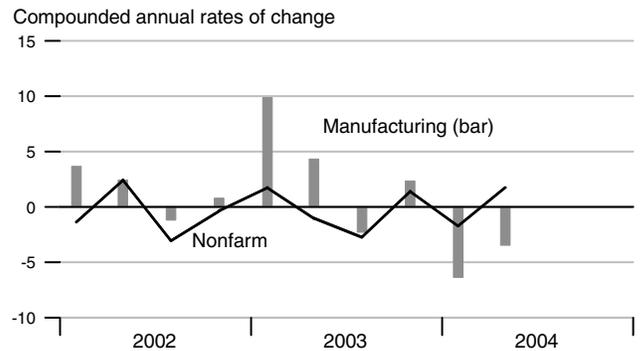
### Consumption Chain Price Index



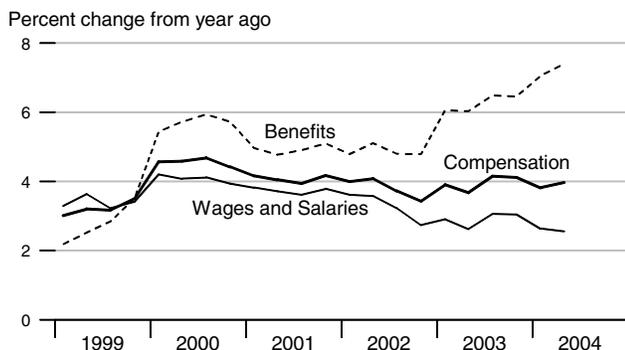
### Producer Price Index, Finished Goods



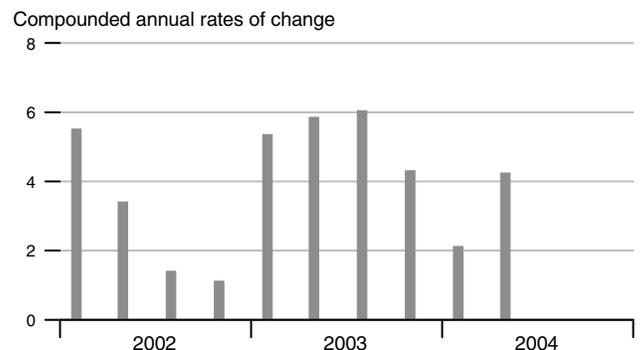
### Unit Labor Cost



### Employment Cost Index

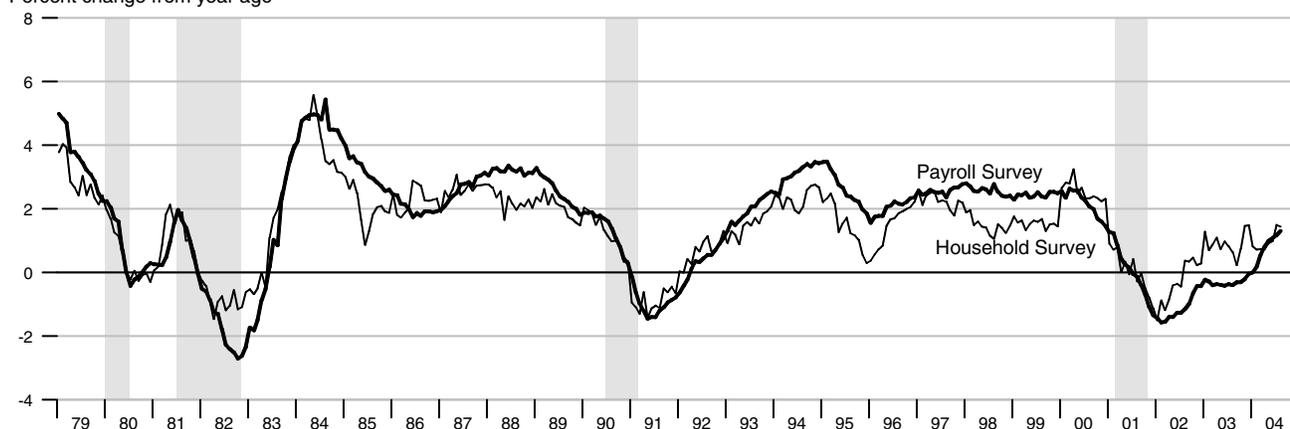


### Compensation per Hour



### Employment

Percent change from year ago

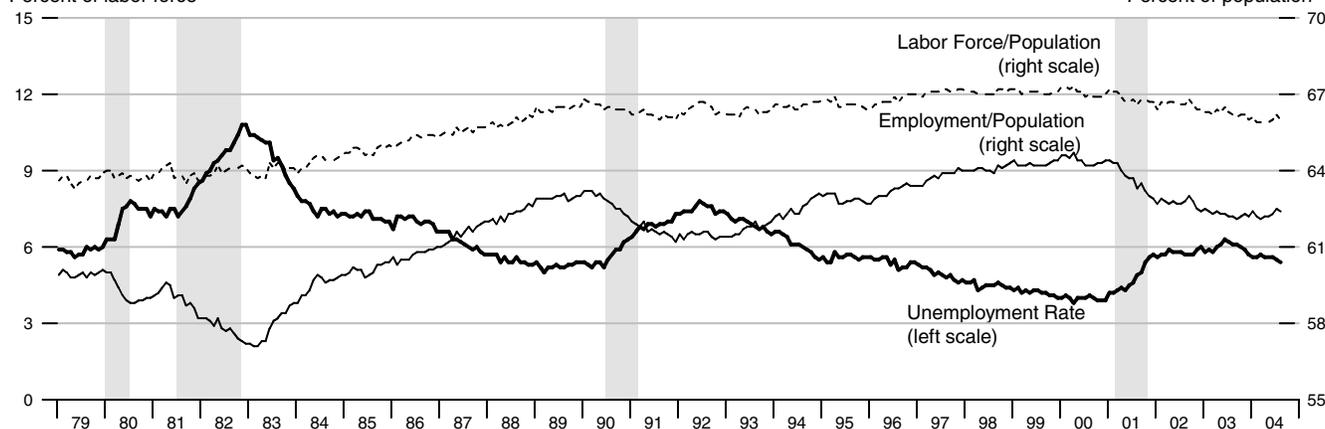


See the Notes section at the end of this publication for the Feb. 7, 2003, revisions to the Household Survey, and the June 6, 2003, revisions to the Establishment Survey.

### Unemployment, Labor Force Participation, and Employment Rates

Percent of labor force

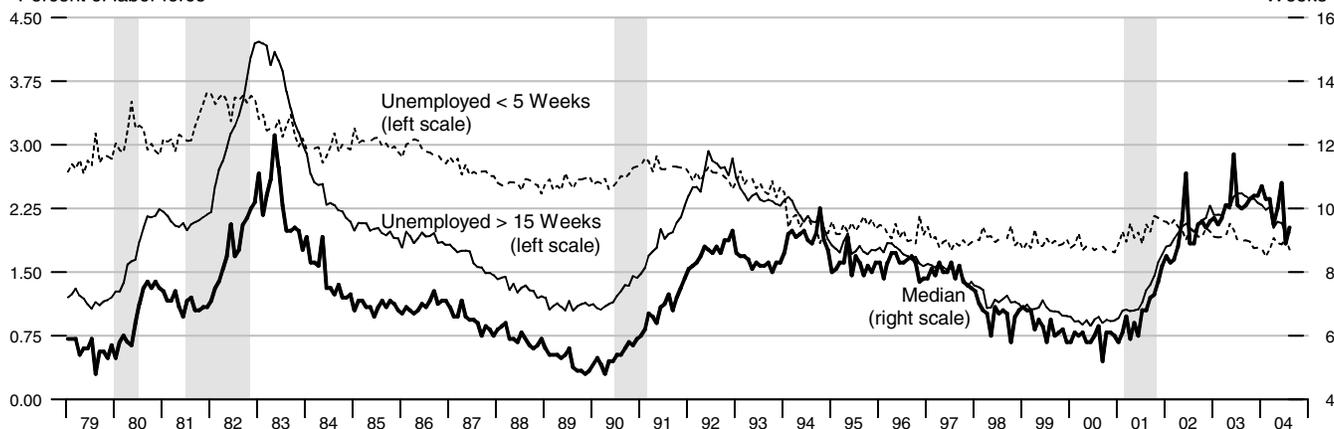
Percent of population



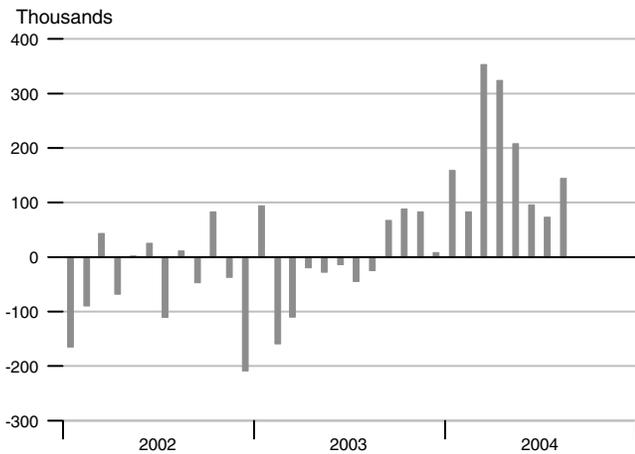
### Duration of Unemployment

Percent of labor force

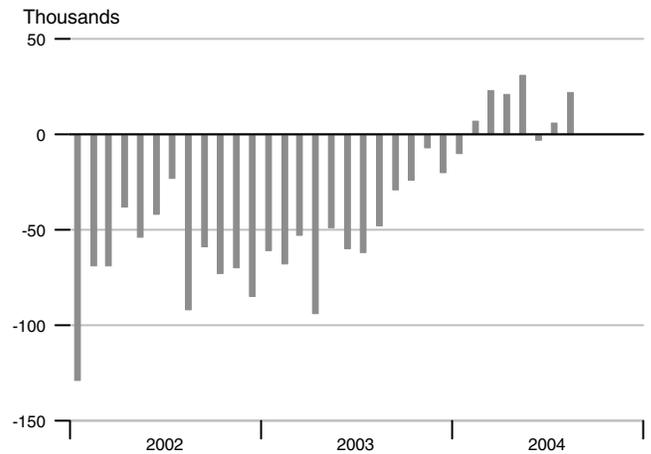
Weeks



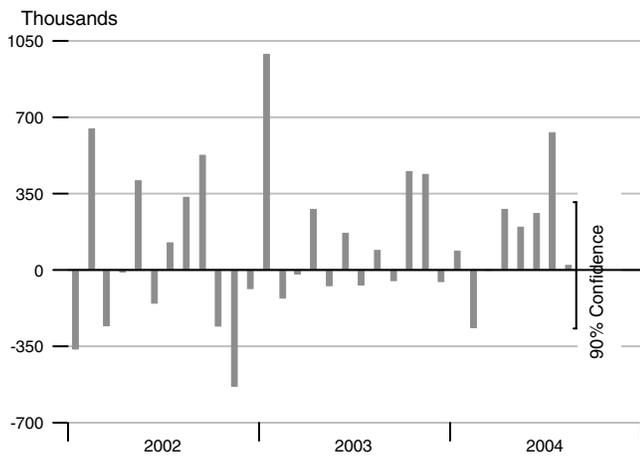
### Change in Nonfarm Payrolls



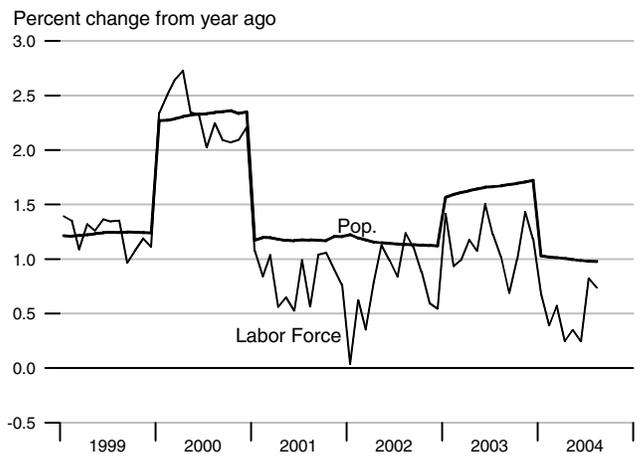
### Change in Manufacturing Payrolls



### Change in Household Employment



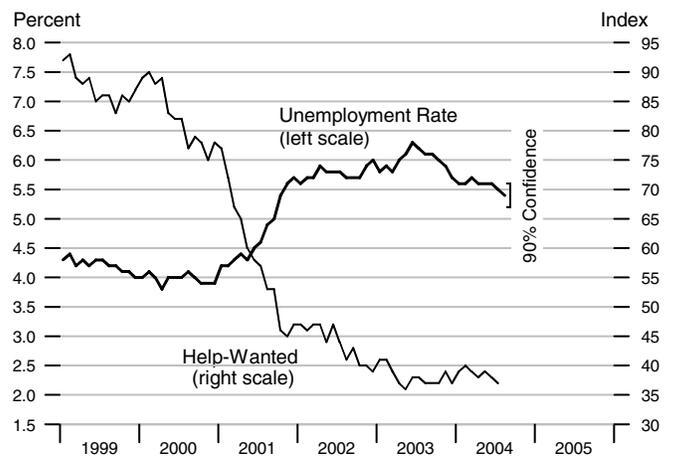
### Labor Force and Population



### Available Labor Supply and Components

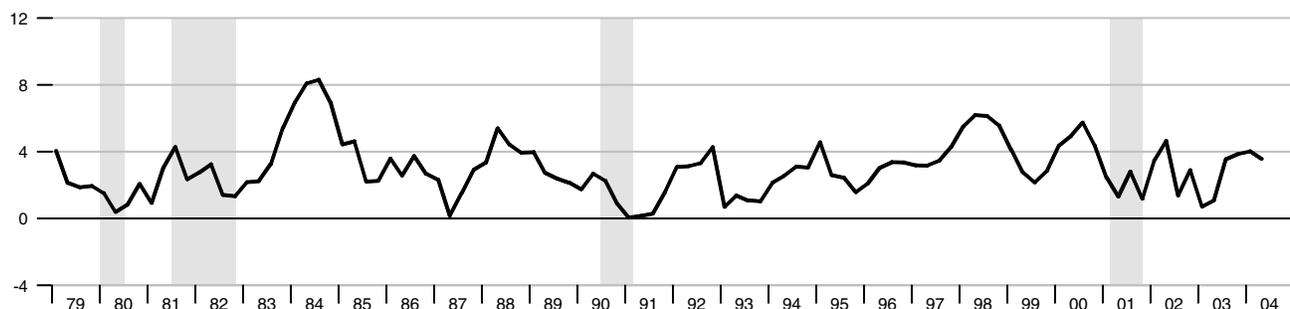


### Unemployment Rate & Help-Wanted Index



### Real Disposable Personal Income

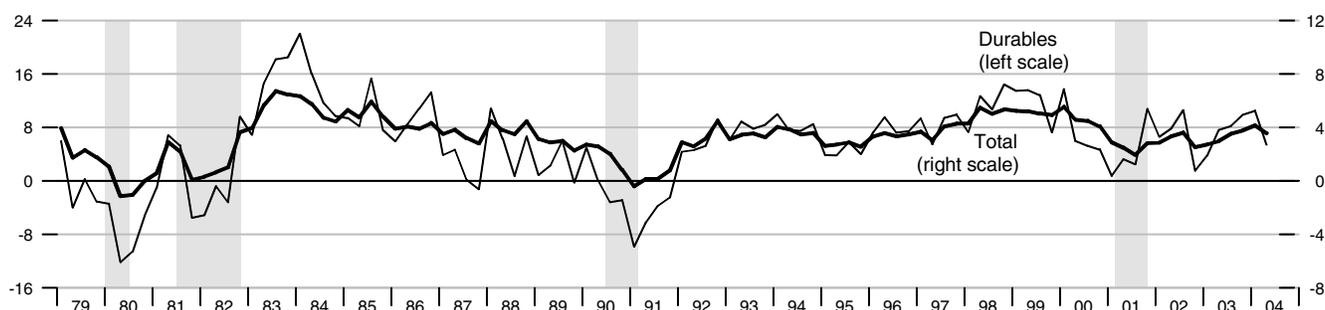
Percent change from year ago, quarterly data



### Real Consumption

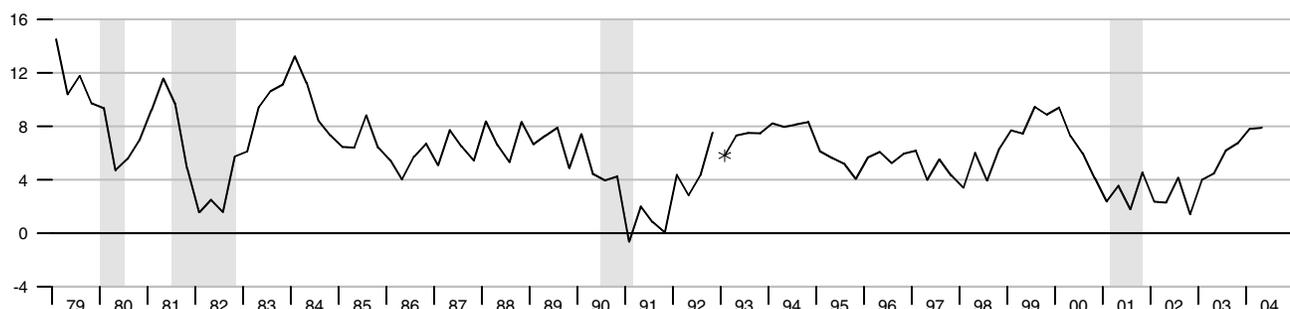
Percent change from year ago, quarterly data

Percent change from year ago, quarterly data



### Retail and Food Services Sales

Percent change from year ago, quarterly average

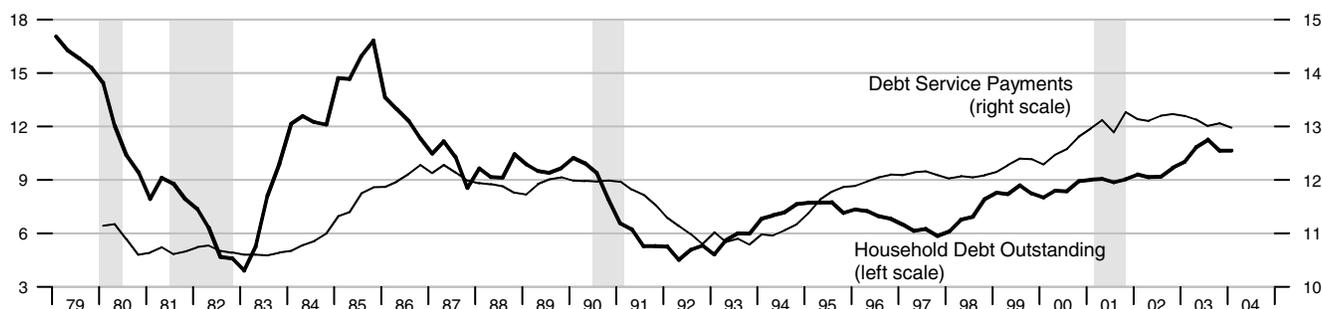


\*Data from Jan. 1992 to the present are on a NAICS basis; data prior to Jan. 1992 are on an SIC basis and are not strictly comparable (see End Note).

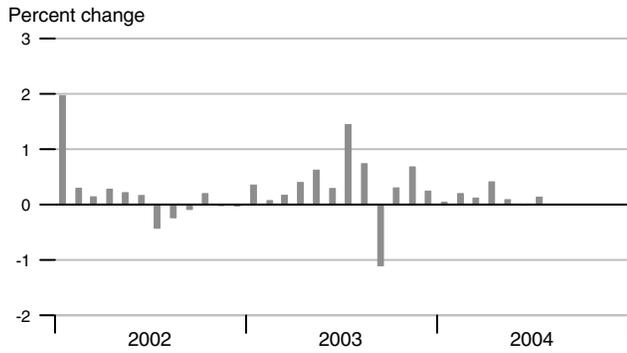
### Debt Service Payments and Household Debt Outstanding

Percent change from year ago, quarterly data

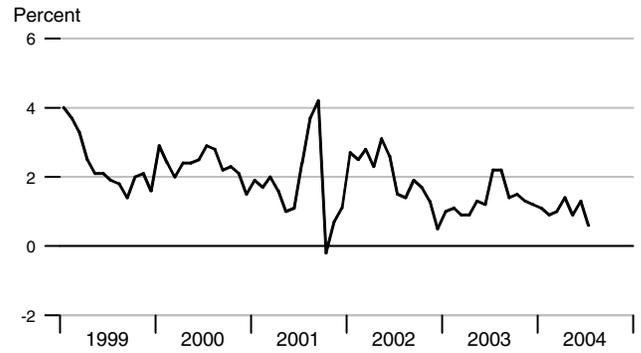
Percent of disposable personal income



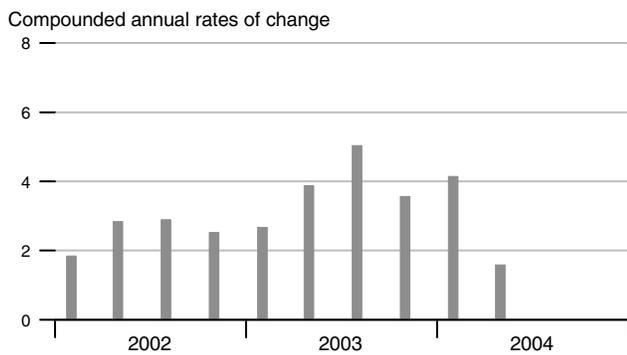
### Real Disposable Personal Income



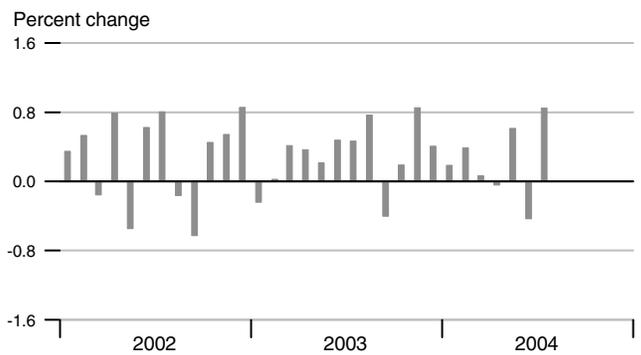
### Personal Saving Rate



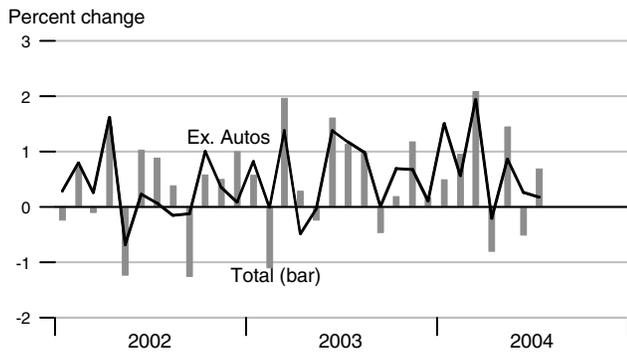
### Real Consumption



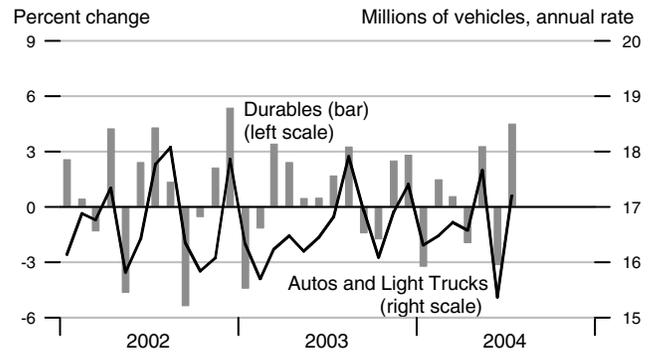
### Real Consumption



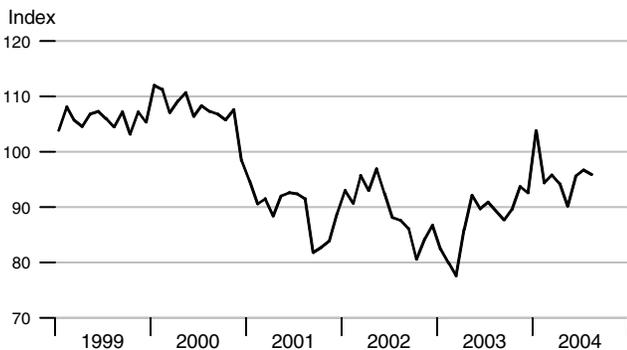
### Retail & Food Services



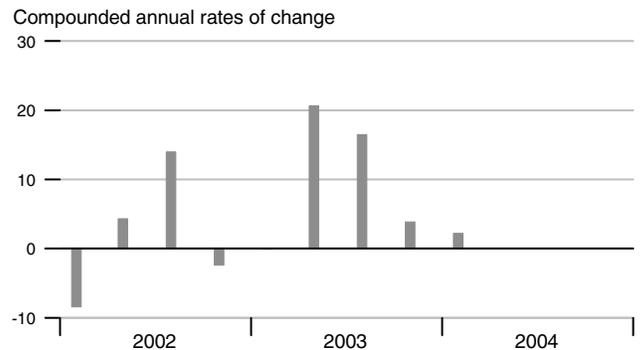
### Real Durables Consumption & Vehicle Sales



### Consumer Sentiment (U. of Michigan)

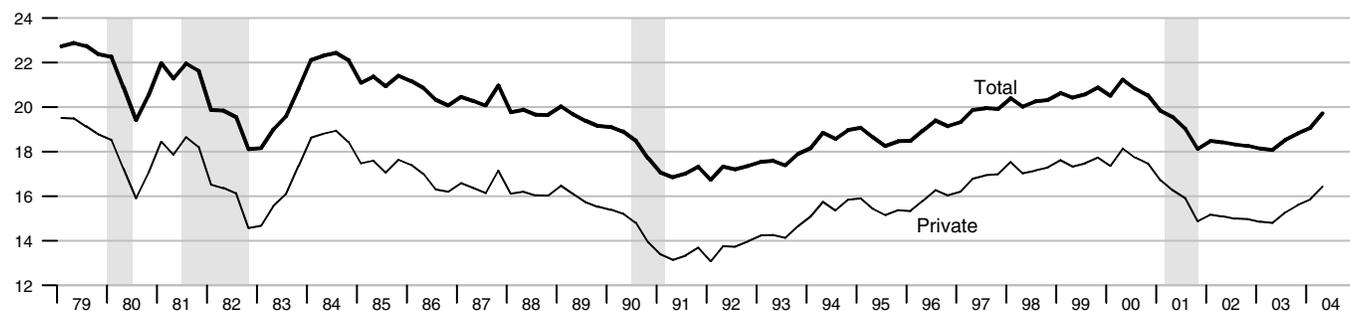


### Real Durables Consumption



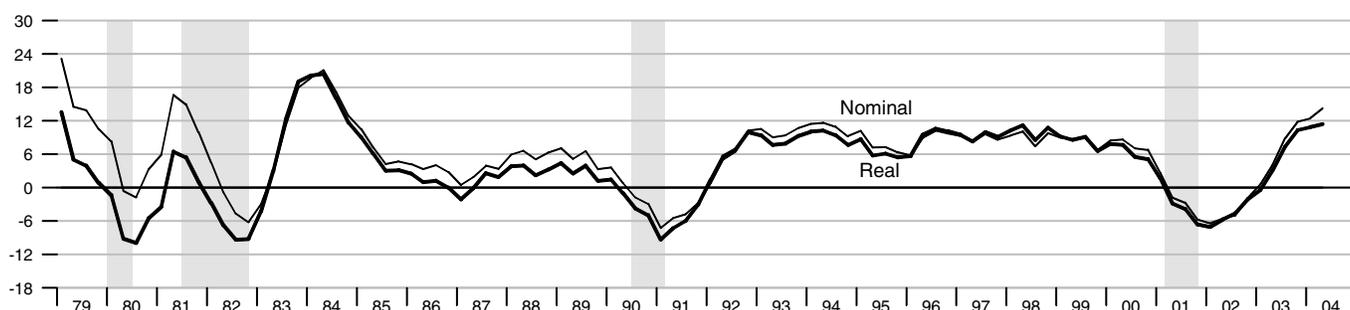
### Investment

Percent of nominal GDP



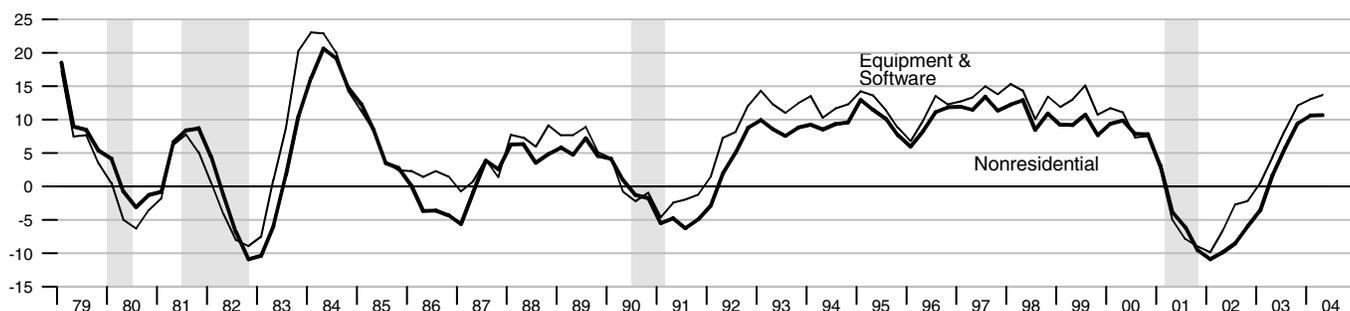
### Private Fixed Investment

Percent change from year ago



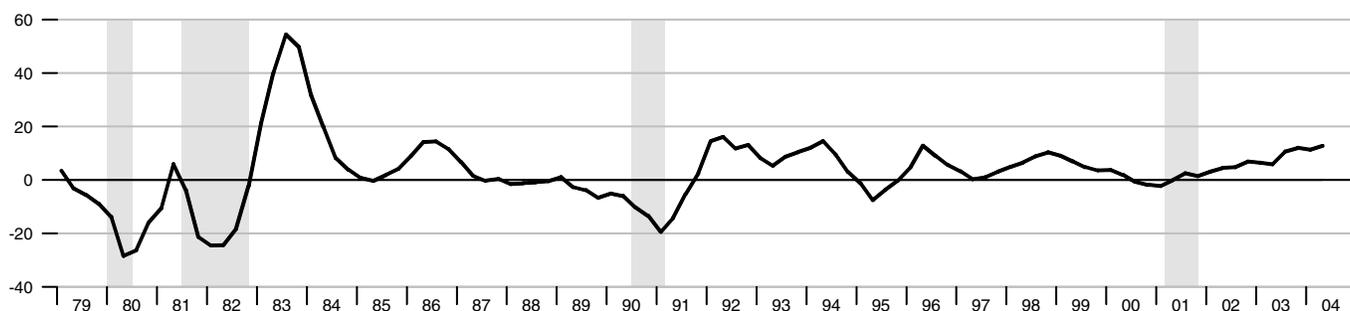
### Real Nonresidential Fixed and Equipment & Software Investment

Percent change from year ago

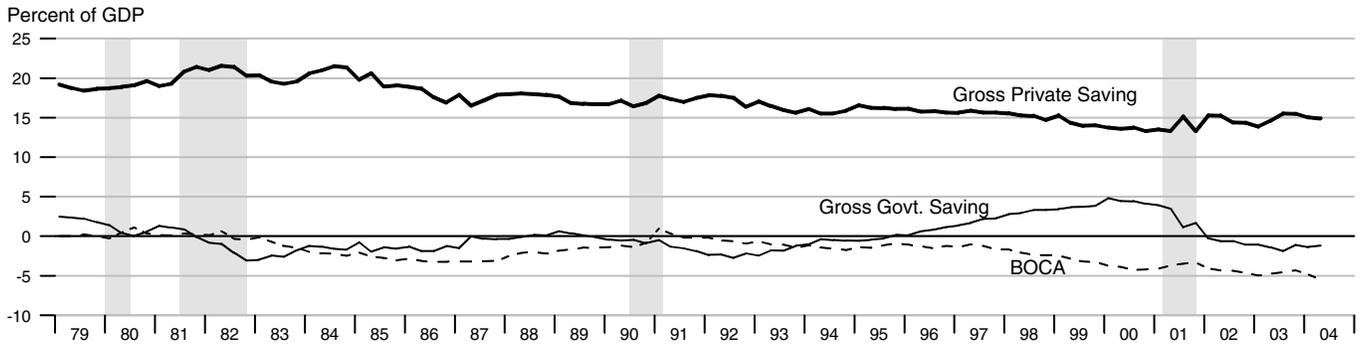


### Real Residential Fixed Investment

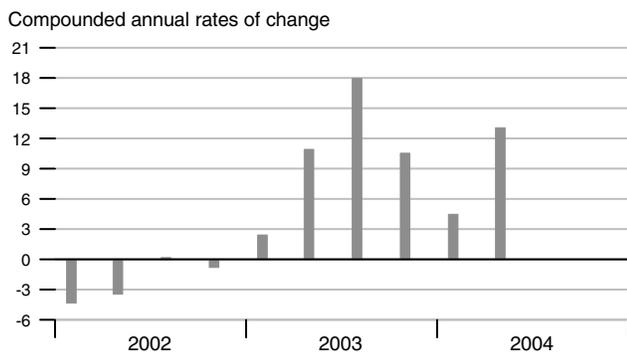
Percent change from year ago



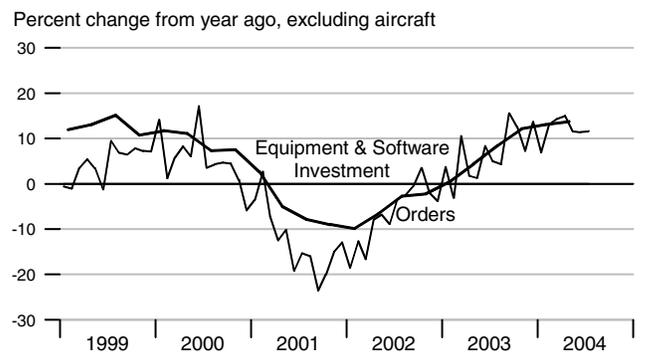
### Gross Saving Rates and Balance on Current Account (NIPA)



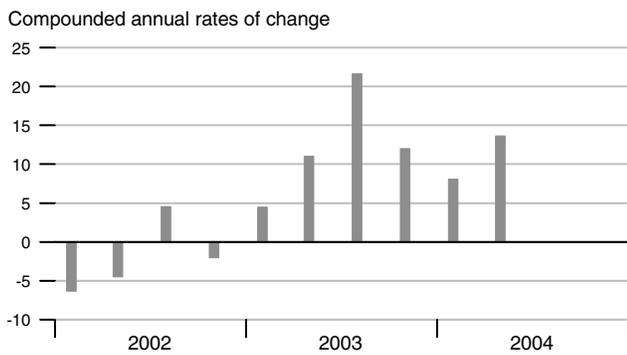
### Real Private Fixed Investment



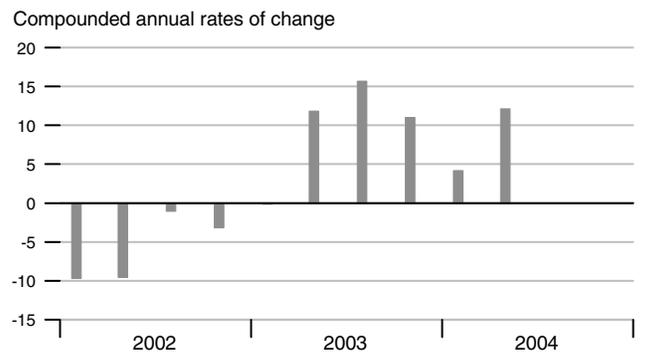
### Nondefense Capital Goods Orders



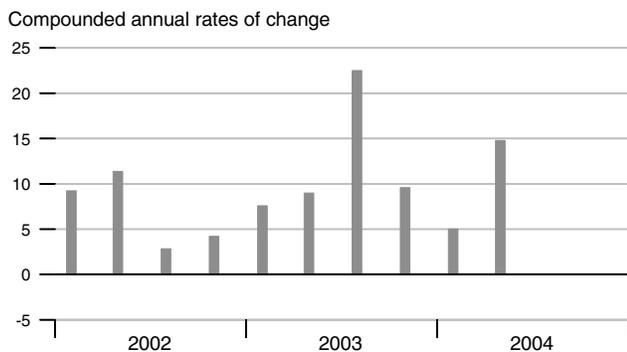
### Real Equipment & Software Investment



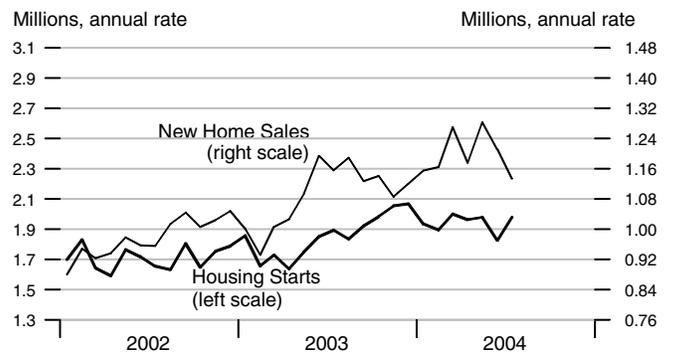
### Real Nonresidential Fixed Investment



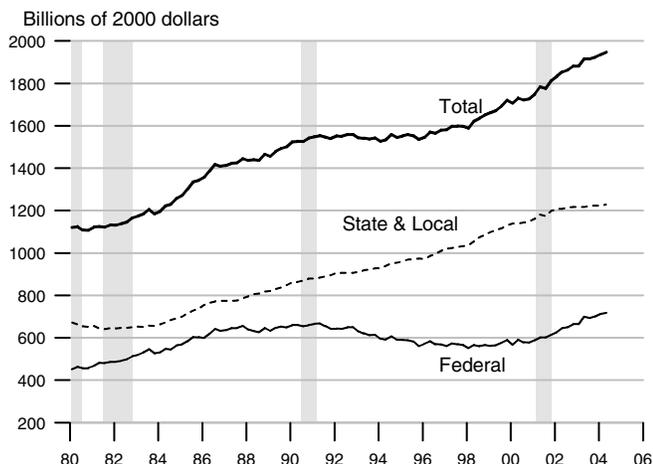
### Real Residential Fixed Investment



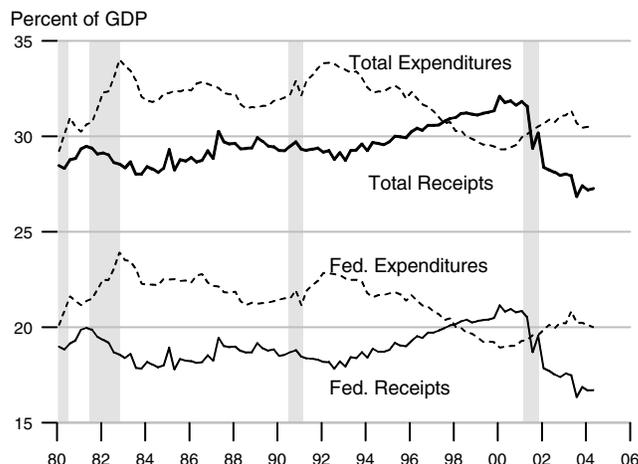
### Housing Starts and New Home Sales



Govt. Consumption and Investment



Govt. Current Receipts and Expenditures



Government Budgets

Billions of dollars

National Income Accounts

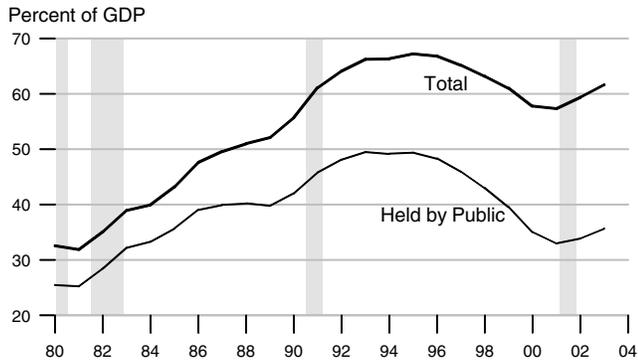
Calendar Years

Unified Budget

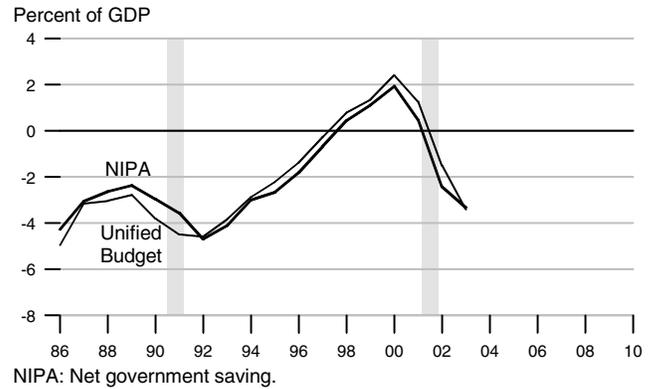
Fiscal Years

	State and Local			Federal			Federal		
	Receipts	Expenditures	Surplus or Deficit (-)	Receipts	Expenditures	Surplus or Deficit (-)	Receipts	Outlays	Surplus or Deficit (-)
1991	789.2	793.3	-4.1	1101.3	1315.0	-213.7	1055.0	1324.4	-269.3
1992	845.7	845.0	0.7	1147.2	1444.6	-297.4	1091.3	1381.7	-290.4
1993	886.9	886.0	0.9	1222.5	1496.0	-273.5	1154.4	1409.5	-255.1
1994	942.9	932.4	10.5	1320.8	1533.1	-212.3	1258.6	1461.9	-203.3
1995	990.2	978.2	12.0	1406.5	1603.5	-197.0	1351.8	1515.8	-164.0
1996	1043.3	1017.5	25.8	1524.0	1665.8	-141.8	1453.1	1560.5	-107.5
1997	1097.4	1058.3	39.1	1653.1	1708.9	-55.8	1579.3	1601.3	-22.0
1998	1163.2	1111.2	52.0	1773.8	1734.9	38.9	1721.8	1652.6	69.2
1999	1236.7	1186.3	50.4	1891.2	1787.6	103.6	1827.5	1701.9	125.6
2000	1319.5	1269.5	50.0	2053.8	1864.4	189.4	2025.2	1788.8	236.4
2001	1373.0	1368.2	4.8	2016.2	1969.5	46.7	1991.2	1863.8	127.4
2002	1411.9	1436.9	-25.0	1847.3	2101.8	-254.5	1853.2	2011.0	-157.8
2003	1494.9	1498.1	-3.2	1877.0	2241.6	-364.6	1782.3	2157.1	-374.8
2001Q3	1354.8	1363.4	-8.6	1895.4	1984.0	-88.6	409.0	450.7	-41.7
2001Q4	1372.5	1403.1	-30.6	1999.6	2004.3	-4.7	466.3	501.7	-35.4
2002Q1	1380.9	1409.8	-28.9	1844.6	2053.1	-208.5	412.6	509.2	-96.6
2002Q2	1404.1	1427.7	-23.6	1850.5	2102.1	-251.6	522.6	506.9	15.6
2002Q3	1423.9	1445.3	-21.4	1847.9	2103.1	-255.2	451.7	493.2	-41.5
2002Q4	1438.5	1464.8	-26.3	1846.2	2148.8	-302.6	427.3	535.6	-108.2
2003Q1	1437.7	1486.6	-48.9	1888.6	2170.2	-281.6	397.7	542.6	-144.9
2003Q2	1484.6	1490.2	-5.6	1902.5	2266.9	-364.4	527.6	544.2	-16.6
2003Q3	1511.4	1504.9	6.5	1816.4	2249.4	-433.0	429.4	534.0	-104.6
2003Q4	1545.8	1510.5	35.3	1900.6	2279.8	-379.2	440.8	570.9	-130.2
2004Q1	1550.6	1538.8	11.8	1915.3	2306.3	-391.0	409.6	580.4	-170.8
2004Q2	1581.9	1565.4	16.5	1945.4	2328.4	-383.0	549.9	575.6	-25.7

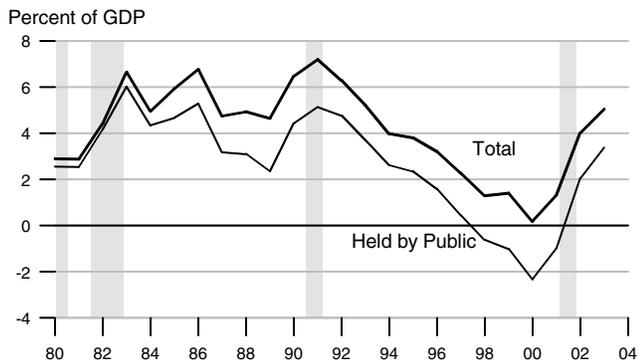
### Federal Debt



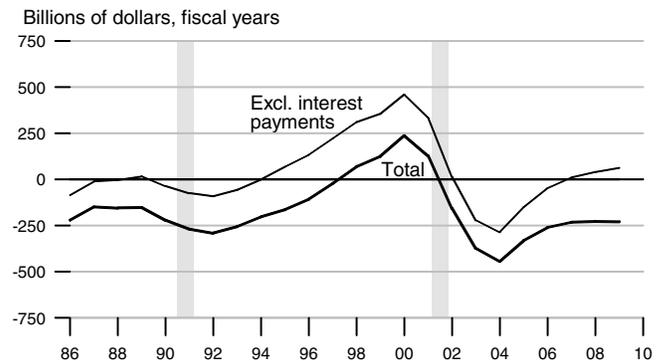
### Federal Surplus (+) / Deficit (-)



### Change in Federal Debt



### Federal Surplus (+) / Deficit (-), Unified Basis

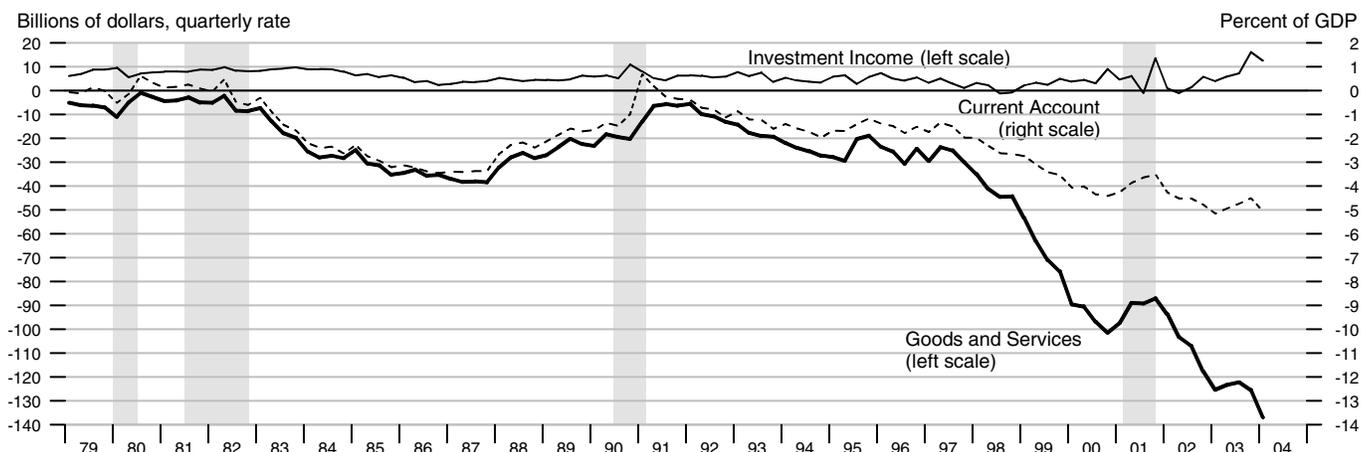


### Federal Government Debt

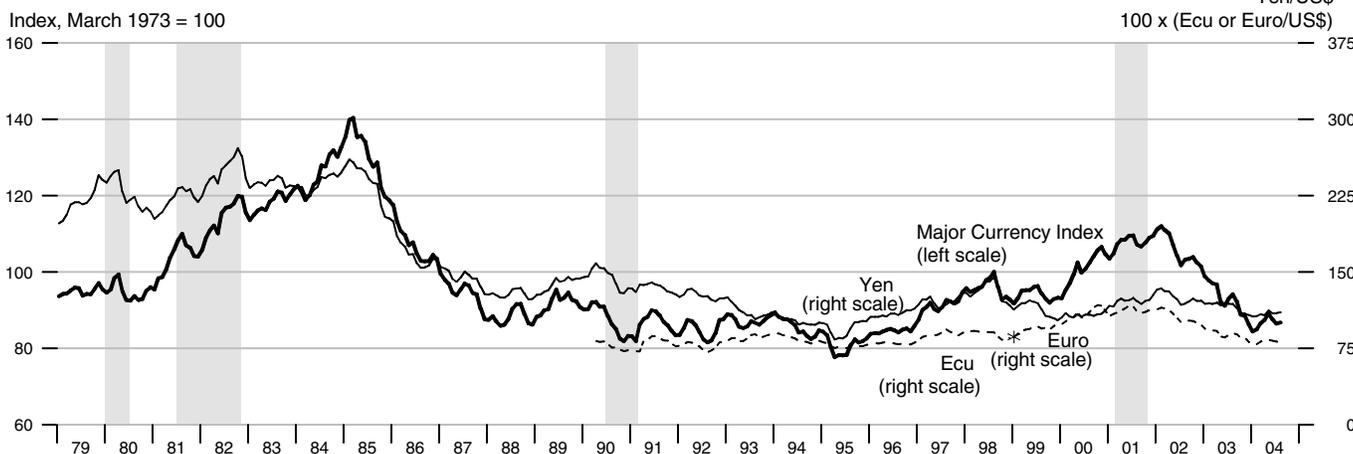
Billions of dollars, end of month or fiscal year  
Excludes Agency-issued debt

		Total Public Debt	Held by Agencies and Trusts	Held by Public		Held by Private Investors	
				Total	Federal Reserve Banks	Total	Foreign and International
2001		5807.5	2468.8	3338.7	534.1	2779.7	1005.5
2002		6228.2	2675.7	3552.6	604.2	2924.8	1200.8
2003		6783.2	2859.4	3923.9	656.1	3268.0	1459.3
2001	March	5773.7	2339.4	3434.4	523.9	2892.8	1029.9
	June	5726.8	2452.6	3274.2	535.1	2722.6	1000.5
	September	5807.5	2468.8	3338.7	534.1	2779.7	1005.5
	December	5943.4	2549.7	3393.8	551.7	2819.5	1051.2
2002	March	6006.0	2562.4	3443.7	575.4	2849.2	1067.1
	June	6126.5	2662.9	3463.5	590.7	2849.8	1135.4
	September	6228.2	2675.7	3552.6	604.2	2924.8	1200.8
	December	6405.7	2758.3	3647.4	629.4	3018.5	1246.8
2003	March	6460.8	2750.0	3710.8	641.5	3069.8	1288.5
	June	6670.1	2853.8	3816.3	652.1	3164.7	1385.3
	September	6783.2	2859.4	3923.9	656.1	3268.0	1459.3
	December	6998.0	2954.5	4043.5	666.7	3377.9	1538.1
2004	March	7131.1	2954.4	4176.7	674.1	3502.8	1708.0

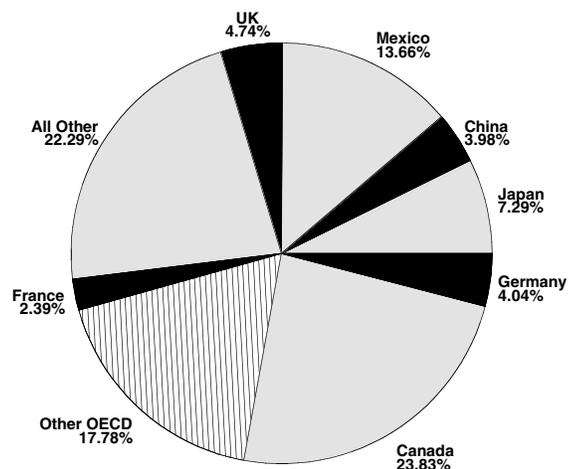
### Current Account, Trade and Investment Income Balances



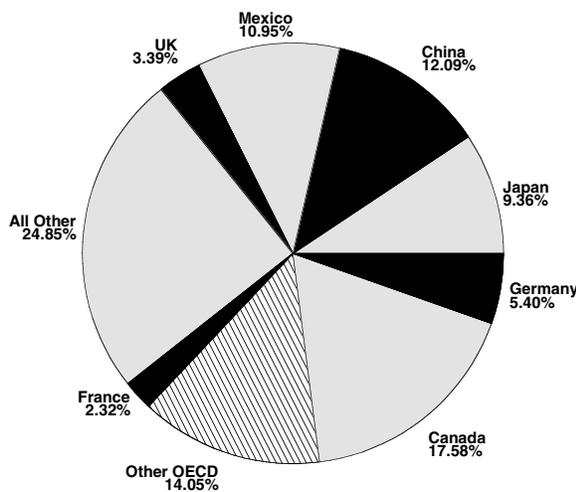
### Exchange Rates



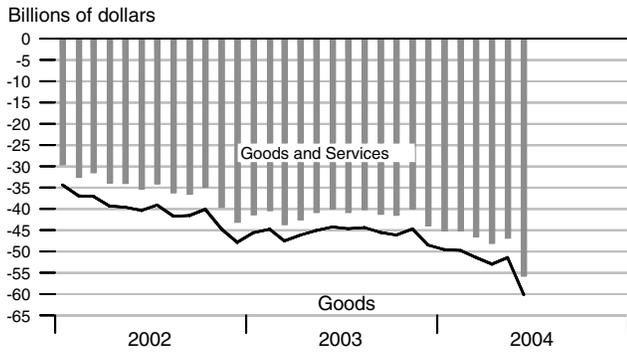
### Goods Export Shares, 2003



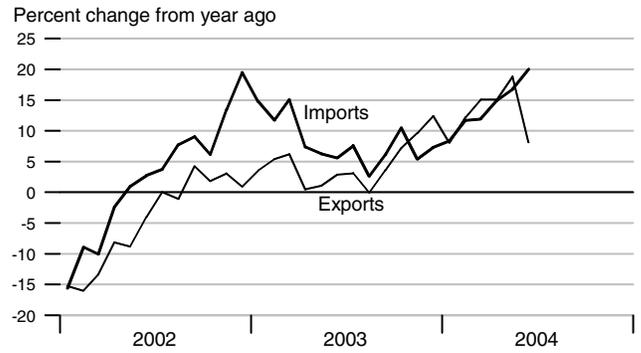
### Goods Import Shares, 2003



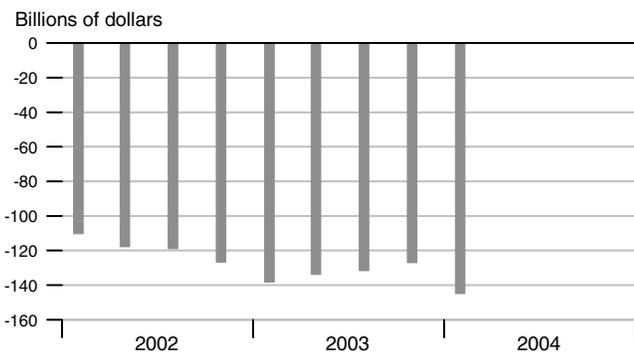
### Trade Balance



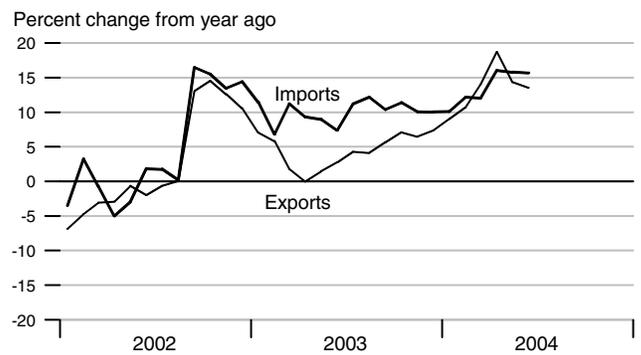
### Goods Trade



### Current Account Balance



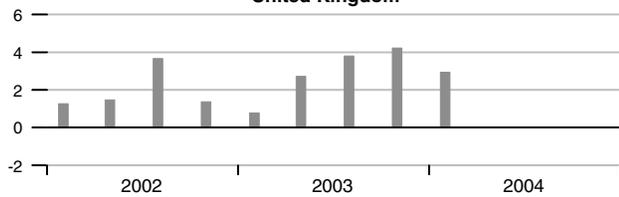
### Services Trade



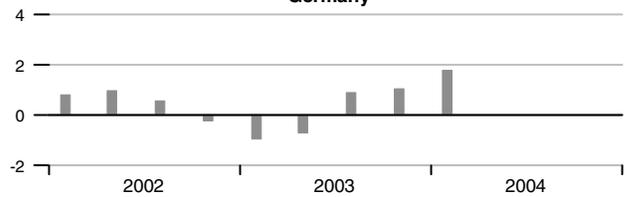
### Real GDP Growth of Major Trading Partners

Compounded annual rates of change

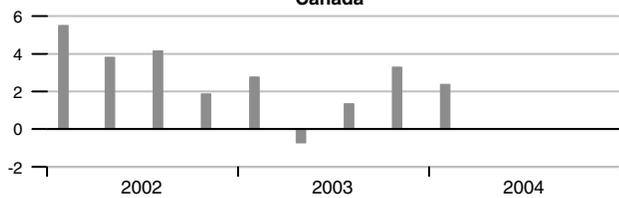
#### United Kingdom



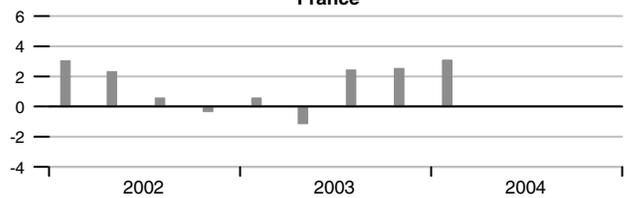
#### Germany



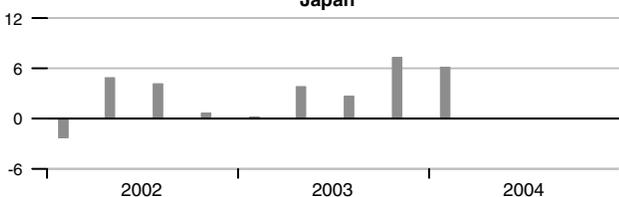
#### Canada



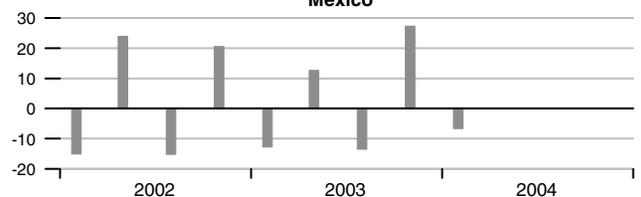
#### France



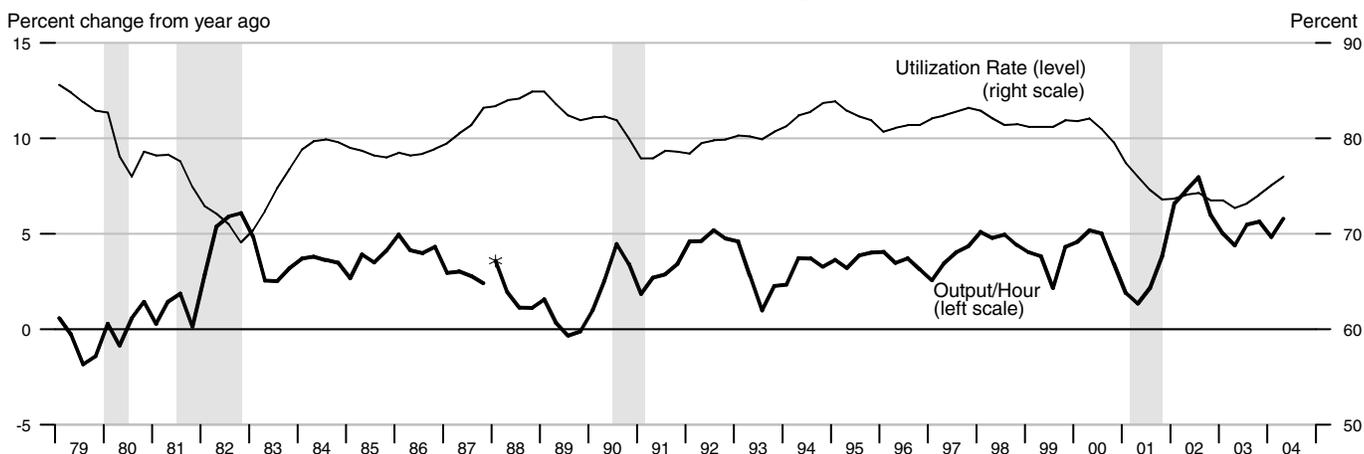
#### Japan



#### Mexico

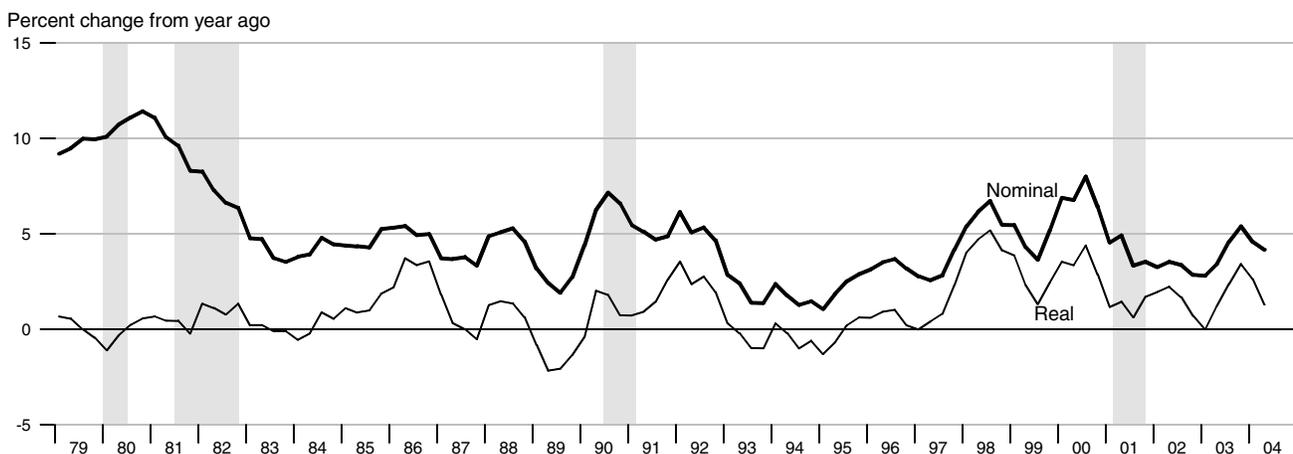


### Output per Hour and Capacity Utilization, Manufacturing

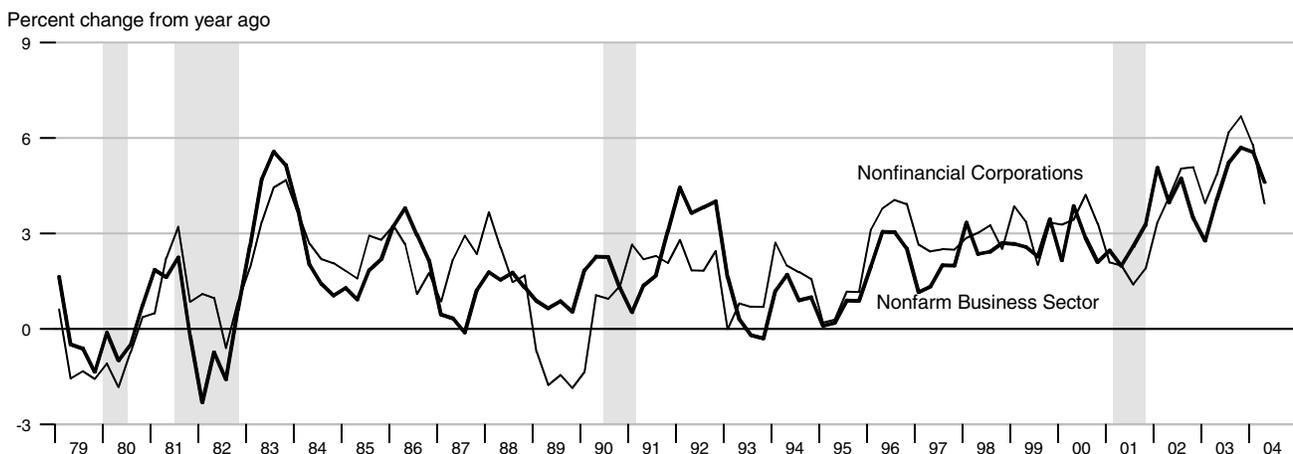


\*Data from 1987 to the present are on a NAICS basis; data prior to 1987 are on an SIC basis and are not strictly comparable (see End Note).

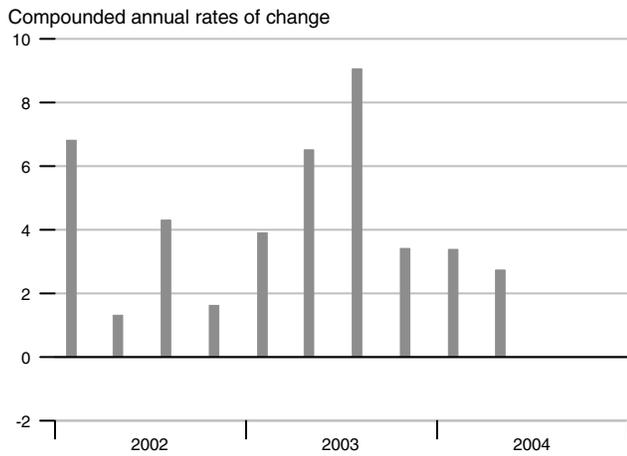
### Nonfarm Compensation per Hour



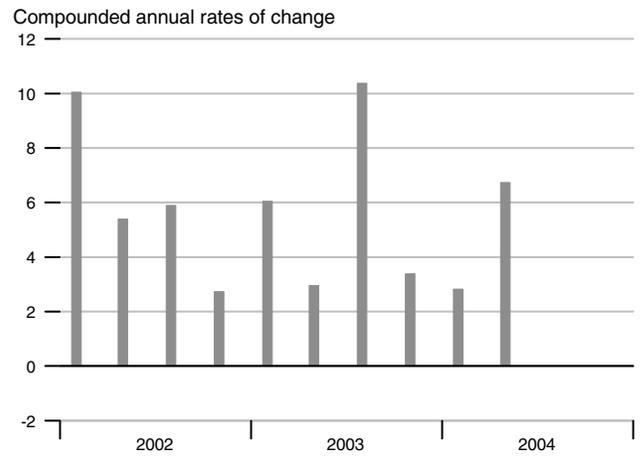
### Output per Hour, Nonfarm Business and Nonfinancial Corporations



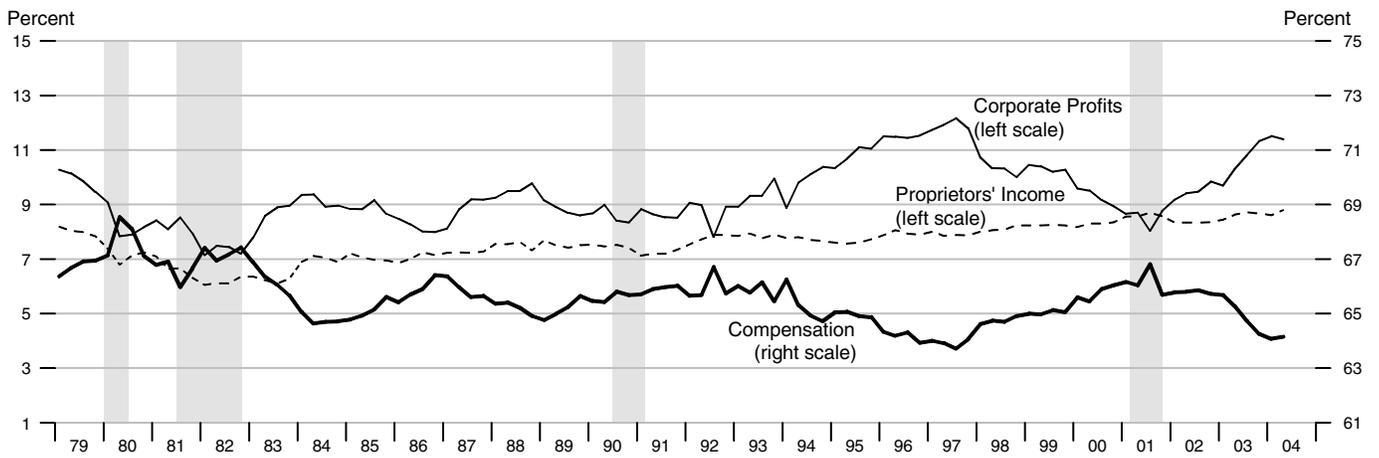
### Nonfarm Output per Hour



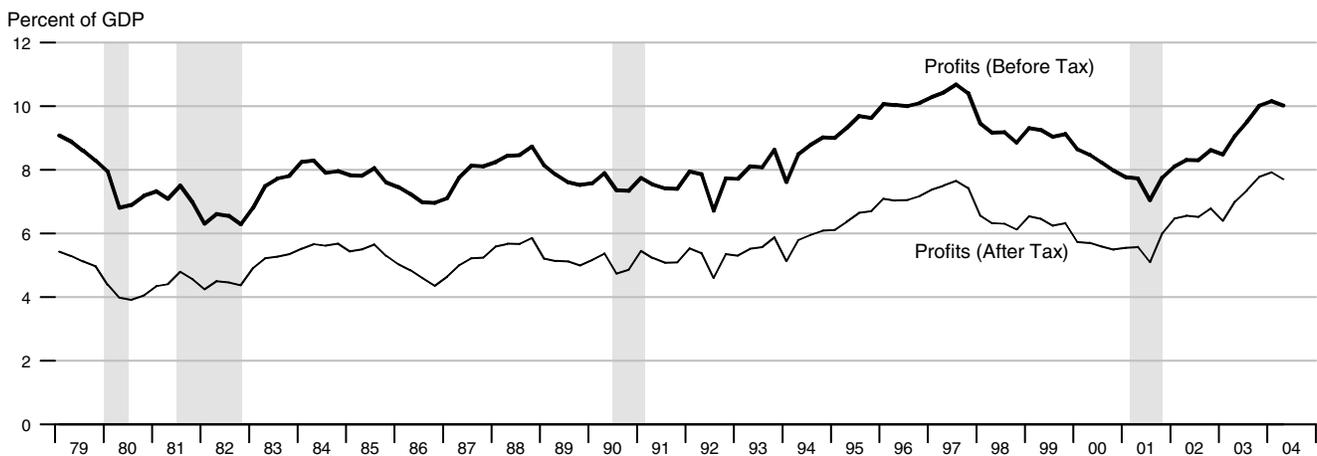
### Manufacturing Output per Hour



### Selected Component Shares of National Income



### Corporate Profits





	GDP Chain Price Index			Employment Cost Index			ECI: Wages			ECI: Benefits		
	Index	Percent change		Index	Percent change		Index	Percent change		Index	Percent change	
		Annual rate	Year ago		Annual rate	Year ago		Annual rate	Year ago		Annual rate	Year ago
2000	100.000		2.2	148.9		4.6	146.0		4.1	156.0		5.7
2001	102.376		2.4	155.0		4.1	151.4		3.7	163.7		4.9
2002	103.949		1.5	160.9		3.8	156.4		3.3	171.7		4.9
2003	105.686		1.7	167.3		4.0	161.0		2.9	182.5		6.3
2001 1	101.507	3.3	2.2	152.7	4.3	4.2	149.4	4.1	3.8	160.7	4.6	5.0
2	102.290	3.1	2.5	154.2	4.0	4.0	150.8	3.8	3.7	162.5	4.6	4.8
3	102.690	1.6	2.4	155.7	3.9	3.9	152.0	3.2	3.6	164.7	5.5	4.9
4	103.122	1.7	2.4	157.4	4.4	4.2	153.5	4.0	3.8	167.0	5.7	5.1
2002 1	103.470	1.4	1.9	158.8	3.6	4.0	154.8	3.4	3.6	168.4	3.4	4.8
2	103.853	1.5	1.5	160.5	4.4	4.1	156.2	3.7	3.6	170.8	5.8	5.1
3	104.280	1.7	1.5	161.5	2.5	3.7	156.9	1.8	3.2	172.6	4.3	4.8
4	104.786	2.0	1.6	162.8	3.3	3.4	157.7	2.1	2.7	175.0	5.7	4.8
2003 1	105.490	2.7	2.0	165.0	5.5	3.9	159.3	4.1	2.9	178.6	8.5	6.1
2	105.780	1.1	1.9	166.4	3.4	3.7	160.3	2.5	2.6	181.1	5.7	6.0
3	106.158	1.4	1.8	168.2	4.4	4.1	161.7	3.5	3.1	183.8	6.1	6.5
4	106.586	1.6	1.7	169.5	3.1	4.1	162.5	2.0	3.0	186.3	5.6	6.5
2004 1	107.314	2.8	1.7	171.3	4.3	3.8	163.5	2.5	2.6	191.2	10.9	7.1
2	108.169	3.2	2.3	173.0	4.0	4.0	164.4	2.2	2.6	194.5	7.1	7.4
	Exports			Imports			Nonfarm Output per Hour			Nonfarm Compensation per Hour		
	Billions of 2000 \$	Percent change		Billions of 2000 \$	Percent change		Index	Percent change		Index	Percent change	
		Annual rate	Year ago		Annual rate	Year ago		Annual rate	Year ago		Annual rate	Year ago
2000	1096.300		8.7	1475.800		13.1	115.3		2.8	133.7		7.0
2001	1039.000		-5.2	1437.100		-2.6	117.8		2.2	138.9		3.9
2002	1014.200		-2.4	1484.700		3.3	123.6		4.9	142.1		2.3
2003	1034.700		2.0	1543.800		4.0	129.1		4.4	147.1		3.5
2001 1	1097.200	-5.3	3.4	1495.400	-3.7	5.9	116.5	-0.3	2.5	138.1	6.6	4.5
2	1060.600	-12.7	-2.9	1445.800	-12.6	-1.4	118.1	5.6	2.0	138.9	2.3	4.9
3	1008.700	-18.2	-9.9	1407.100	-10.3	-7.2	118.5	1.4	2.6	139.6	2.0	3.3
4	980.300	-10.8	-11.9	1394.900	-3.4	-7.6	120.4	6.6	3.3	140.7	3.2	3.5
2002 1	991.600	4.7	-9.6	1436.500	12.5	-3.9	122.4	6.8	5.1	142.6	5.5	3.3
2	1017.800	11.0	-4.0	1475.900	11.4	2.1	122.8	1.3	4.0	143.8	3.4	3.5
3	1025.500	3.1	1.7	1495.300	5.4	6.3	124.1	4.3	4.7	144.3	1.4	3.4
4	1014.500	-4.2	3.5	1529.800	9.6	9.7	124.6	1.6	3.5	144.7	1.1	2.8
2003 1	1010.600	-1.5	1.9	1522.300	-1.9	6.0	125.8	3.9	2.8	146.6	5.4	2.8
2	1006.500	-1.6	-1.1	1531.700	2.5	3.8	127.8	6.5	4.1	148.7	5.9	3.4
3	1033.800	11.3	0.8	1542.500	2.9	3.2	130.6	9.1	5.2	150.9	6.1	4.6
4	1076.200	17.4	6.1	1604.500	17.1	4.9	131.7	3.4	5.7	152.5	4.3	5.4
2004 1	1095.400	7.3	8.4	1645.500	10.6	8.1	132.8	3.4	5.6	153.3	2.1	4.6
2	1111.900	6.2	10.5	1700.600	14.1	11.0	133.7	2.7	4.6	154.9	4.2	4.2

		Household Survey Employment				Nonfarm Payroll Employment				Nonfarm Aggregate Hours			
		Thousands	Change	Percent change		Thousands	Change	Percent change		Index	Percent change		
				Annual rate	Year ago			Annual rate	Year ago		Monthly rate	Annual rate	Year ago
	1999	133501	2025		1.5	128992	3068		2.4	101.6			2.1
	2000	136902	3401		2.5	131791	2800		2.2	103.5			1.8
	2001	136944	42		0.0	131837	46		0.0	102.1			-1.3
	2002	136487	-456		-0.3	130343	-1494		-1.1	100.0			-2.1
	2003	137739	1252		0.9	129937	-406		-0.3	98.6			-1.3
2002	1	136061	-192	-0.6	-1.2	130448	-463	-1.4	-1.5	100.3	-0.3	-1.2	-3.0
	2	136318	257	0.8	-0.5	130389	-60	-0.2	-1.4	100.2	-0.0	-0.1	-2.3
	3	136875	557	1.6	0.1	130287	-102	-0.3	-1.1	99.8	-0.4	-1.6	-2.0
	4	136694	-181	-0.5	0.3	130248	-39	-0.1	-0.5	99.5	-0.4	-1.5	-1.1
2003	1	137355	661	1.9	1.0	130047	-200	-0.6	-0.3	99.0	-0.5	-1.9	-1.3
	2	137585	230	0.7	0.9	129878	-170	-0.5	-0.4	98.5	-0.5	-2.0	-1.7
	3	137647	62	0.2	0.6	129820	-58	-0.2	-0.4	98.2	-0.3	-1.1	-1.6
	4	138369	722	2.1	1.2	130002	182	0.6	-0.2	98.7	0.5	1.9	-0.8
2004	1	138388	19	0.1	0.8	130367	365	1.1	0.2	99.3	0.6	2.3	0.3
	2	138793	405	1.2	0.9	131125	758	2.3	1.0	99.8	0.5	2.2	1.3
2002	Aug	136811	333	3.0	0.4	130306	11	0.1	-1.2	99.9	0.2	2.4	-2.0
	Sep	137337	526	4.7	0.3	130259	-47	-0.4	-1.0	99.9	0.0	0.0	-1.4
	Oct	137079	-258	-2.2	0.5	130342	83	0.8	-0.7	99.6	-0.3	-3.5	-1.0
	Nov	136545	-534	-4.6	0.2	130305	-37	-0.3	-0.4	99.5	-0.1	-1.2	-1.0
	Dec	136459	-86	-0.8	0.3	130096	-209	-1.9	-0.4	99.3	-0.2	-2.4	-1.3
2003	Jan	137447	988	9.0	1.3	130190	94	0.9	-0.2	99.3	0.0	0.0	-1.0
	Feb	137318	-129	-1.1	0.7	130031	-159	-1.5	-0.3	98.8	-0.5	-5.9	-1.4
	Mar	137300	-18	-0.2	0.9	129921	-110	-1.0	-0.4	98.9	0.1	1.2	-1.4
	Apr	137578	278	2.5	1.1	129901	-20	-0.2	-0.4	98.3	-0.6	-7.0	-2.1
	May	137505	-73	-0.6	0.7	129873	-28	-0.3	-0.4	98.6	0.3	3.7	-1.3
	Jun	137673	168	1.5	1.0	129859	-14	-0.1	-0.4	98.6	0.0	0.0	-1.8
	Jul	137604	-69	-0.6	0.8	129814	-45	-0.4	-0.4	98.2	-0.4	-4.8	-1.5
	Aug	137693	89	0.8	0.6	129789	-25	-0.2	-0.4	98.2	0.0	0.0	-1.7
	Sep	137644	-49	-0.4	0.2	129856	67	0.6	-0.3	98.3	0.1	1.2	-1.6
	Oct	138095	451	4.0	0.7	129944	88	0.8	-0.3	98.7	0.4	5.0	-0.9
	Nov	138533	438	3.9	1.5	130027	83	0.8	-0.2	99.0	0.3	3.7	-0.5
	Dec	138479	-54	-0.5	1.5	130035	8	0.1	-0.0	98.4	-0.6	-7.0	-0.9
2004	Jan	138566	87	0.8	0.8	130194	159	1.5	0.0	99.1	0.7	8.9	-0.2
	Feb	138301	-265	-2.3	0.7	130277	83	0.8	0.2	99.2	0.1	1.2	0.4
	Mar	138298	-3	-0.0	0.7	130630	353	3.3	0.5	99.5	0.3	3.7	0.6
	Apr	138576	278	2.4	0.7	130954	324	3.0	0.8	99.5	0.0	0.0	1.2
	May	138772	196	1.7	0.9	131162	208	1.9	1.0	100.2	0.7	8.8	1.6
	Jun	139031	259	2.3	1.0	131258	96	0.9	1.1	99.7	-0.5	-5.8	1.1
	Jul	139660	629	5.6	1.5	131331	73	0.7	1.2	100.4	0.7	8.8	2.2
	Aug	139681	21	0.2	1.4	131475	144	1.3	1.3	100.6	0.2	2.4	2.4

		Unempl. Rate	Retail and Food Services Sales				Industrial Production				Treasury Yields	
			Billions of dollars	Percent change			Index	Percent change			(Percent)	
				Monthly/ quarterly	Annual rate	Year ago			Monthly/ quarterly	Annual rate	Year ago	3-mo
1999		4.2	3162.430			8.4	110.577			4.4	4.64	5.64
2000		4.0	3372.438			6.6	115.429			4.4	5.82	6.03
2001		4.8	3475.898			3.1	111.516			-3.4	3.39	5.02
2002		5.8	3564.420			2.5	110.876			-0.6	1.60	4.61
2003		6.0	3755.651			5.4	111.213			0.3	1.01	4.02
2002	1	5.7	878.111	-1.2	-4.7	2.4	109.985	0.5	1.9	-3.2	1.72	5.08
	2	5.8	888.077	1.1	4.6	2.3	111.132	1.0	4.2	-1.0	1.72	5.10
	3	5.7	896.786	1.0	4.0	4.1	111.455	0.3	1.2	0.7	1.64	4.26
	4	5.9	901.446	0.5	2.1	1.4	110.933	-0.5	-1.9	1.3	1.33	4.01
2003	1	5.8	913.320	1.3	5.4	4.0	111.172	0.2	0.9	1.1	1.16	3.92
	2	6.1	927.858	1.6	6.5	4.5	110.033	-1.0	-4.0	-1.0	1.04	3.62
	3	6.1	952.269	2.6	10.9	6.2	111.059	0.9	3.8	-0.4	0.93	4.23
	4	5.9	962.204	1.0	4.2	6.7	112.586	1.4	5.6	1.5	0.92	4.29
2004	1	5.6	984.732	2.3	9.7	7.8	114.400	1.6	6.6	2.9	0.92	4.02
	2	5.6	1001.255	1.7	6.9	7.9	115.770	1.2	4.9	5.2	1.08	4.60
2002	Aug	5.7	300.572	0.4	4.7	4.0	111.493	-0.0	-0.5	0.6	1.62	4.26
	Sep	5.7	296.786	-1.3	-14.1	4.4	111.330	-0.1	-1.7	1.1	1.63	3.87
	Oct	5.7	298.500	0.6	7.2	-1.5	111.031	-0.3	-3.2	1.0	1.58	3.94
	Nov	5.9	299.976	0.5	6.1	2.1	111.156	0.1	1.4	1.6	1.23	4.05
	Dec	6.0	302.970	1.0	12.7	3.7	110.612	-0.5	-5.7	1.4	1.19	4.03
2003	Jan	5.8	304.711	0.6	7.1	4.6	111.164	0.5	6.2	1.3	1.17	4.05
	Feb	5.9	301.347	-1.1	-12.5	2.7	111.581	0.4	4.6	1.5	1.17	3.90
	Mar	5.8	307.262	2.0	26.3	4.8	110.771	-0.7	-8.4	0.4	1.13	3.81
	Apr	6.0	308.132	0.3	3.5	3.6	110.094	-0.6	-7.1	-0.6	1.13	3.96
	May	6.1	307.397	-0.2	-2.8	4.6	110.019	-0.1	-0.8	-0.8	1.07	3.57
	Jun	6.3	312.329	1.6	21.0	5.2	109.986	-0.0	-0.4	-1.5	0.92	3.33
	Jul	6.2	315.863	1.1	14.5	5.5	110.829	0.8	9.6	-0.6	0.90	3.98
	Aug	6.1	318.942	1.0	12.3	6.1	110.857	0.0	0.3	-0.6	0.95	4.45
	Sep	6.1	317.464	-0.5	-5.4	7.0	111.492	0.6	7.1	0.1	0.94	4.27
	Oct	6.0	318.064	0.2	2.3	6.6	111.776	0.3	3.1	0.7	0.92	4.29
	Nov	5.9	321.798	1.2	15.0	7.3	112.859	1.0	12.3	1.5	0.93	4.30
	Dec	5.7	322.342	0.2	2.0	6.4	113.124	0.2	2.9	2.3	0.90	4.27
2004	Jan	5.6	323.918	0.5	6.0	6.3	113.791	0.6	7.3	2.4	0.88	4.15
	Feb	5.6	326.996	1.0	12.0	8.5	114.755	0.8	10.7	2.8	0.93	4.08
	Mar	5.7	333.818	2.1	28.1	8.6	114.653	-0.1	-1.1	3.5	0.94	3.83
	Apr	5.6	331.131	-0.8	-9.2	7.5	115.267	0.5	6.6	4.7	0.94	4.35
	May	5.6	335.920	1.4	18.8	9.3	116.290	0.9	11.2	5.7	1.02	4.72
	Jun	5.6	334.204	-0.5	-6.0	7.0	115.752	-0.5	-5.4	5.2	1.27	4.73
	Jul	5.5	336.495	0.7	8.5	6.5	116.213	0.4	4.9	4.9	1.33	4.50
	Aug	5.4									1.48	4.28

		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
1999		166.6			2.2		177.0			2.1		132.8			1.7
2000		172.2			3.4		181.3			2.4		138.0			3.9
2001		177.0			2.8		186.1			2.7		140.7			2.0
2002		179.9			1.6		190.4			2.3		138.9			-1.3
2003		184.0			2.3		193.2			1.5		143.3			3.2
2002	1	178.0	0.3	1.3	1.2	1.3	188.9	0.5	2.1	2.5	2.1	138.3	-0.0	-0.2	-2.4
	2	179.5	0.9	3.5	1.3	2.4	190.0	0.5	2.2	2.4	2.2	138.8	0.4	1.5	-2.3
	3	180.5	0.6	2.2	1.6	2.3	191.0	0.5	2.2	2.2	2.2	138.7	-0.0	-0.2	-1.4
	4	181.4	0.5	1.9	2.2	2.2	191.8	0.4	1.6	2.0	2.0	139.7	0.7	2.7	0.9
2003	1	183.1	1.0	3.9	2.9	3.9	192.4	0.3	1.3	1.8	1.3	142.8	2.3	9.4	3.3
	2	183.4	0.1	0.6	2.2	2.2	192.9	0.3	1.1	1.5	1.2	142.4	-0.3	-1.3	2.6
	3	184.5	0.6	2.3	2.2	2.3	193.6	0.3	1.4	1.3	1.3	143.4	0.7	2.8	3.3
	4	184.8	0.2	0.7	1.9	1.9	194.0	0.2	1.0	1.2	1.2	144.7	0.9	3.7	3.6
2004	1	186.4	0.9	3.6	1.8	3.6	194.9	0.4	1.8	1.3	1.8	146.1	1.0	3.9	2.3
	2	188.6	1.2	4.7	2.8	4.2	196.3	0.7	3.0	1.8	2.4	148.3	1.5	6.2	4.1
2002	Jul	180.1	0.2	2.7	1.5	2.8	190.5	0.2	1.9	2.1	2.0	138.6	-0.1	-1.7	-1.1
	Aug	180.6	0.3	3.4	1.7	2.9	191.1	0.3	3.8	2.3	2.2	138.6	0.0	0.0	-1.4
	Sep	180.9	0.2	2.0	1.6	2.8	191.4	0.2	1.9	2.3	2.2	139.0	0.3	3.5	-1.6
	Oct	181.2	0.2	2.0	2.0	2.7	191.5	0.1	0.6	2.2	2.0	140.0	0.7	9.0	0.7
	Nov	181.4	0.1	1.3	2.2	2.6	191.8	0.2	1.9	2.0	2.0	139.7	-0.2	-2.5	0.9
	Dec	181.6	0.1	1.3	2.5	2.5	192.0	0.1	1.3	2.0	2.0	139.3	-0.3	-3.4	1.2
2003	Jan	182.2	0.3	4.0	2.6	4.0	192.2	0.1	1.3	1.9	1.3	141.1	1.3	16.7	2.5
	Feb	183.2	0.5	6.8	3.0	5.4	192.4	0.1	1.3	1.8	1.3	142.8	1.2	15.5	3.4
	Mar	184.0	0.4	5.4	3.1	5.4	192.5	0.1	0.6	1.7	1.0	144.6	1.3	16.2	4.0
	Apr	183.4	-0.3	-3.8	2.2	3.0	192.6	0.1	0.6	1.5	0.9	142.5	-1.5	-16.1	2.4
	May	183.3	-0.1	-0.7	2.1	2.3	193.0	0.2	2.5	1.6	1.3	141.9	-0.4	-4.9	2.5
	Jun	183.5	0.1	1.3	2.1	2.1	193.1	0.1	0.6	1.5	1.1	142.7	0.6	7.0	2.8
	Jul	183.8	0.2	2.0	2.1	2.1	193.4	0.2	1.9	1.5	1.3	142.8	0.1	0.8	3.0
	Aug	184.5	0.4	4.7	2.2	2.4	193.6	0.1	1.2	1.3	1.3	143.5	0.5	6.0	3.5
	Sep	185.1	0.3	4.0	2.3	2.6	193.7	0.1	0.6	1.2	1.2	143.8	0.2	2.5	3.5
	Oct	184.9	-0.1	-1.3	2.0	2.2	194.0	0.2	1.9	1.3	1.3	144.7	0.6	7.8	3.4
	Nov	184.6	-0.2	-1.9	1.8	1.8	194.0	0.0	0.0	1.1	1.1	144.5	-0.1	-1.6	3.4
	Dec	184.9	0.2	2.0	1.8	1.8	194.1	0.1	0.6	1.1	1.1	144.8	0.2	2.5	3.9
2004	Jan	185.8	0.5	6.0	2.0	6.0	194.4	0.2	1.9	1.1	1.9	145.7	0.6	7.7	3.3
	Feb	186.3	0.3	3.3	1.7	4.6	194.8	0.2	2.5	1.2	2.2	145.8	0.1	0.8	2.1
	Mar	187.2	0.5	6.0	1.7	5.1	195.5	0.4	4.4	1.6	2.9	146.7	0.6	7.7	1.5
	Apr	187.6	0.2	2.6	2.3	4.4	196.0	0.3	3.1	1.8	3.0	147.6	0.6	7.6	3.6
	May	188.8	0.6	8.0	3.0	5.1	196.4	0.2	2.5	1.8	2.9	148.8	0.8	10.2	4.9
	Jun	189.4	0.3	3.9	3.2	4.9	196.6	0.1	1.2	1.8	2.6	148.4	-0.3	-3.2	4.0
	Jul	189.3	-0.1	-0.6	3.0	4.1	196.8	0.1	1.2	1.8	2.4	148.5	0.1	0.8	4.0

## Notes

*Pages 4, 5:* **Final Sales** is gross domestic product (GDP) minus change in private 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. Real GDP is measured in 2000 dollars. The **ISM** (formerly Purchasing Managers') **Index** is a weighted average of diffusion indexes for new orders, production, supplier deliveries, inventories, and employment. **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:* For information on how to calculate the **Contribution** of a component to the overall GDP growth rate, see the October 1999 issue of the Survey of Current Business, p. 16. The sign is changed for **Imports**.

*Page 7:* Ten-year **Treasury Yields** are adjusted to constant maturity; three-month yields are secondary market averages. All rates used in the yield curves are adjusted to constant maturity. The 30-year constant maturity series was discontinued by the Treasury Department as of Feb. 18, 2002. **Standard and Poor's 500 Index with Reinvested Dividends** shows the total return: capital gains plus dividends.

*Pages 8, 9:* **Oil** (West Texas intermediate) and **Natural Gas** (Henry Hub) spot and futures **prices** are listed in the *Wall Street Journal*. Spot prices are monthly averages of daily prices; futures prices are usually taken from the last trading day of the month. **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:* Effective with the May 2003 **Employment Situation**, the establishment survey data for employment, hours, and earnings have been converted from the 1987 SIC system to the 2002 NAICS system. All published NAICS-based labor series have been revised back to at least 1990. For more information see <http://www.bls.gov/ces/>. **Nonfarm Payroll Employment** is counted in a survey of about 400,000 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 60,000 households provides estimates of civilian employment, unemployment rate, labor force participation rate, and employment-population ratio. **Population** is civilian, noninstitutional, 16 years and over. The 90 percent confidence intervals for the unemployment rate ( $\pm 0.2$  percentage points) and change in household survey employment ( $\pm 290,000$ ) measure uncertainty due to sample size. Because the household survey was changed in January 1994, data prior to this date are not strictly comparable. The Bureau of Labor Statistics announced several revisions to the Household Survey on Feb. 7, 2003, with the release of the January 2003 data. For more information, see [www.bls.gov/cps/](http://www.bls.gov/cps/).

*Page 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.

*Page 15:* **Gross Private Saving** is the sum of personal saving, undistributed corporate profits with IVA and CCAdj (see notes for pp. 18-19), and private wage accruals less disbursements. **Gross Government Saving** is net government saving (surplus/deficit) plus consumption of fixed capital. **Balance on Current Account (NIPA)** is net capital transfer payments to the rest of the world plus net lending or net borrowing (international trade and income flows).

*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 NIPAs. The **Unified Federal Budget Surplus/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. Nonfarm business accounted for about 76 percent of the value of GDP in 1996, while nonfinancial corporations accounted for about 54 percent. **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.

**NOTE:** Most measures of economic activity are now based on the 2002 North American Industry Classification System (NAICS), which replaces the 1987 Standard Industry Classification (SIC) system.

## 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, multifactor 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).