



## Are Two Employment Surveys Better than One?

Economic analysts and policymakers pay a great deal of attention to employment data. The Bureau of Labor Statistics' monthly employment report is often taken as a key early indicator of aggregate economic activity. Moreover, the National Bureau of Economic Research's business cycle dating committee uses employment to help determine business cycle peaks and troughs. Thus, changes in employment can reflect the economy's evolving strength or weakness over the near-term. (Over longer periods, the change in employment depends more on trend growth of labor productivity and labor force participation rates.)

When using employment to predict near-term economic growth, analysts must choose which employment survey to use. The Bureau of Labor Statistics presents two measures of employment: one from the Current Population Survey (CPS), with about 60,000 households; the other from the Current Employment Statistics (CES), with about 400,000 establishments, which cover about a third of all nonfarm payroll workers. Although the household and establishment measures of employment differ considerably, they tend to show similar growth trends over longer periods of time.<sup>1</sup>

The two series had been moving in two distinct patterns: From January 1994 to March 2001, the establishment survey averaged about 233,000 additional jobs per month, while the household survey averaged only about 184,000 per month. But, since the recession trough in November 2001, the opposite has occurred—household employment has increased more, by an average of about 148,000 per month, while payroll employment has increased by only 82,000 per month.

So, should analysts continue to rely more on the payroll survey or put more weight on the household survey? The table shows simple correlations between the growth of two measures of economic activity—industrial production and real GDP—and three measures of labor input: the CES, the CPS, and the average of the two surveys over three separate periods. The 1994 breakpoint is chosen because the CPS was changed in several important ways; the 2001 breakpoint was chosen because it is the peak of the 1991-2001 expansion.

The table shows that the correlation between employment growth and industrial production is generally stronger than between employment and real GDP. Second, from 1950 to 1993, the correlation between the growth of payroll employment and real output was larger than the correlation between the growth of household employment and output; this is consistent with the conventional wisdom noted earlier. Third, the correlation

between output growth and either measure of employment growth was much weaker during the 1990s, possibly due to the increase in the trend growth of labor productivity and the sharp rise in stock prices.

For the most recent period, the CPS is more highly correlated with industrial production growth (0.77) than is the CES (0.67). An interesting finding is that, since 2001, the correlation between the growth of the combined CES and CPS measure and real GDP is larger than the correlation between the establishment or household measures alone, which is consistent with recent results.<sup>2</sup> Thus, economic analysts may want to use the average of the payroll and household surveys to measure underlying employment trends and, hence, the trend in near-term real GDP growth.

The change in these correlations might have been caused by the relative growth of self-employment, which is counted in the CPS but not in the CES. From January 1994 to November 2001, self-employment fell 1.6 percent. However, since November 2001, self-employment has increased by 9.3 percent to about 9.5 million; meanwhile, total household employment has increased only 6.3 percent. If this trend continues, economic analysts may want to pay closer attention to the household survey.

—Kevin L. Kliesen

<sup>1</sup> Bowler, Mary and Morisi, Teresa L. "Understanding the Employment Measures from the CPS and CES Survey." *Monthly Labor Review*, February 2006, pp. 23-38; [www.bls.gov/opub/mlr](http://www.bls.gov/opub/mlr).

<sup>2</sup> Perry, George L. "Gauging Employment: Is the Professional Wisdom Wrong?" *Brookings Papers on Economic Activity*, 2005, 2, pp. 285-311.

### Correlation Between Various Measures of Employment and Output Growth

	CES	CPS	CES + CPS
<b>1950:Q1 to 1993:Q4</b>			
Industrial production	0.82	0.73	0.80
Real GDP	0.80	0.69	0.77
<b>1994:Q1 to 2000:Q4</b>			
Industrial production	0.65	0.44	0.62
Real GDP	0.34	0.41	0.45
<b>2001:Q1 to 2006:Q2</b>			
Industrial production	0.67	0.77	0.74
Real GDP	0.67	0.67	0.72

NOTE: Growth rates are four-quarter percent changes.

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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:

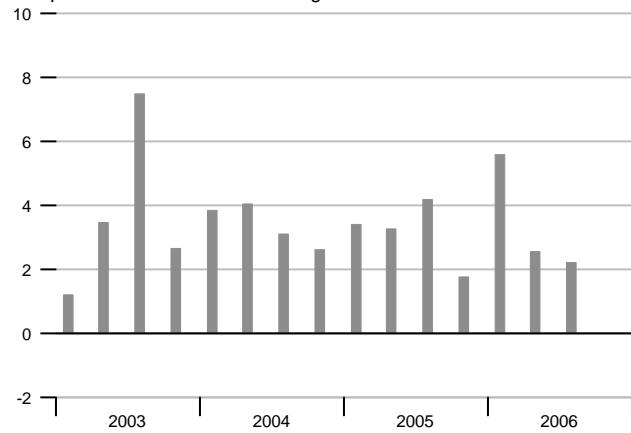
Editor, *National Economic Trends*  
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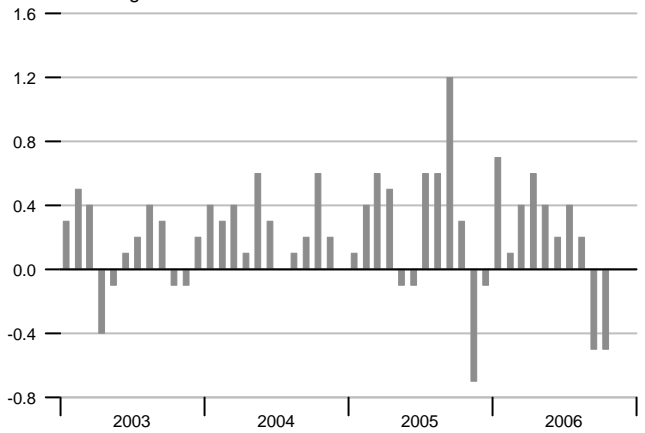
### Real GDP Growth

Compounded annual rates of change



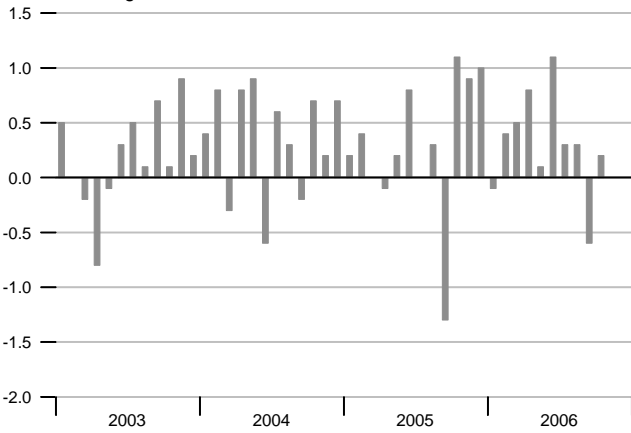
### Consumer Price Index

Percent change



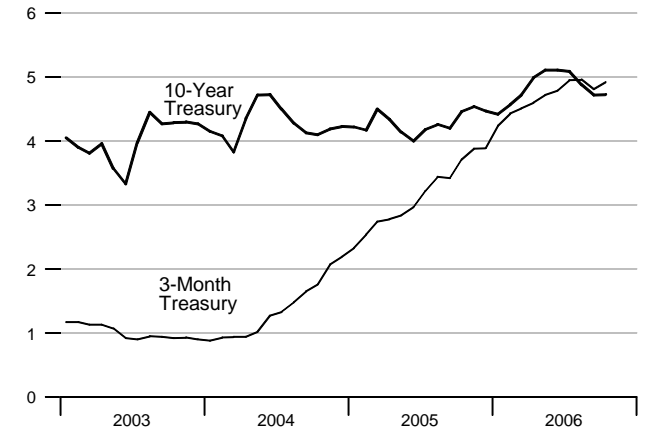
### Industrial Production

Percent change



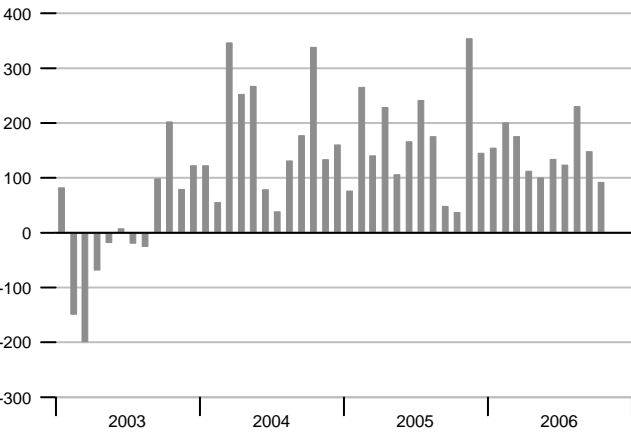
### Interest Rates

Percent



### Change in Nonfarm Payrolls

Thousands



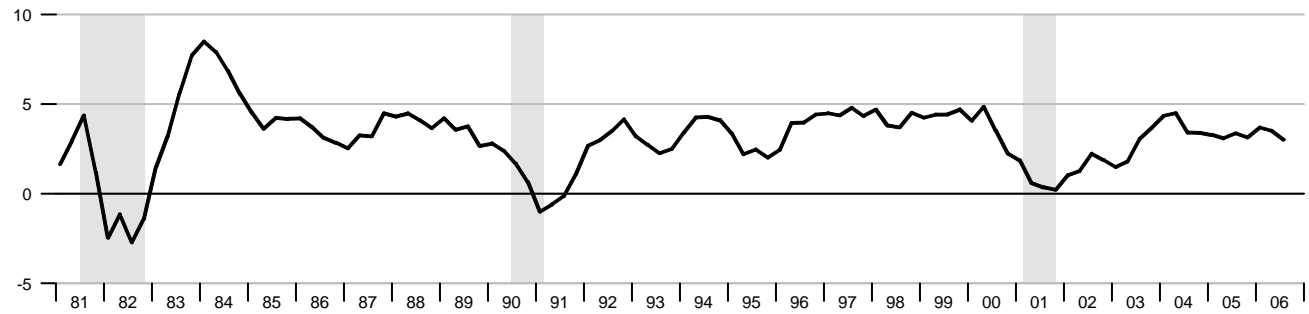
### Unemployment Rate

Percent of labor force



### Real Gross Domestic Product

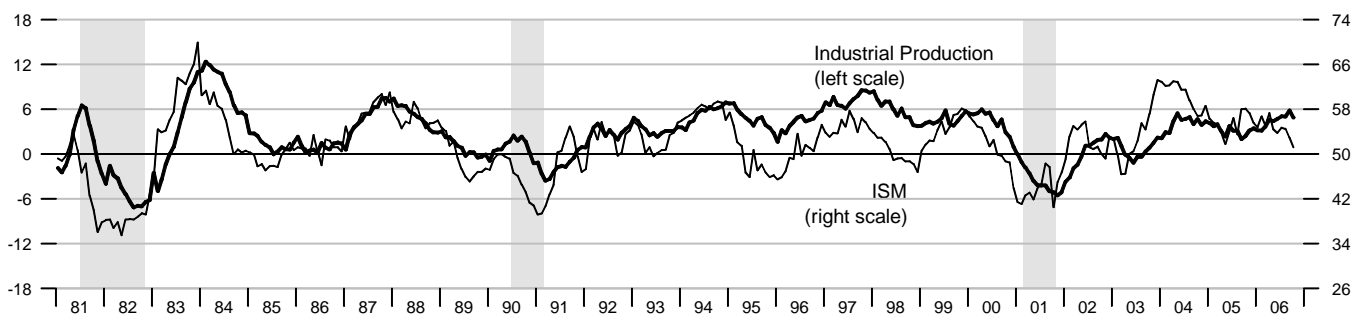
Percent change from year ago



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

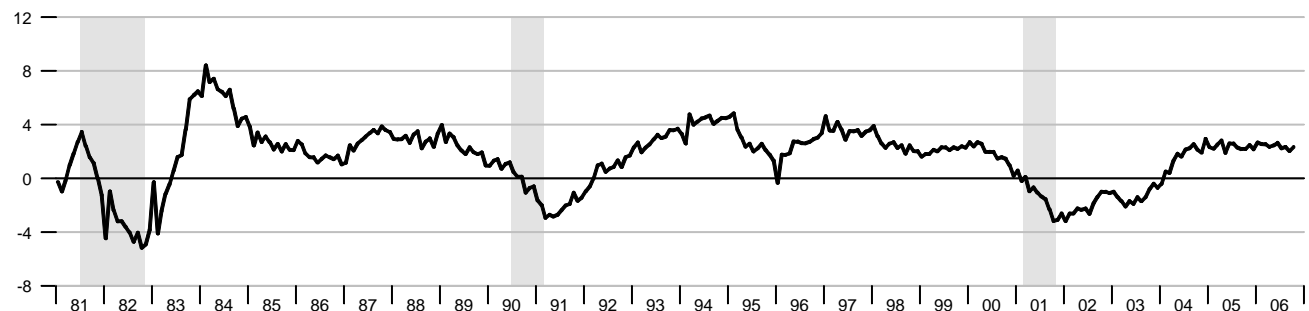
Percent change from year ago

Index



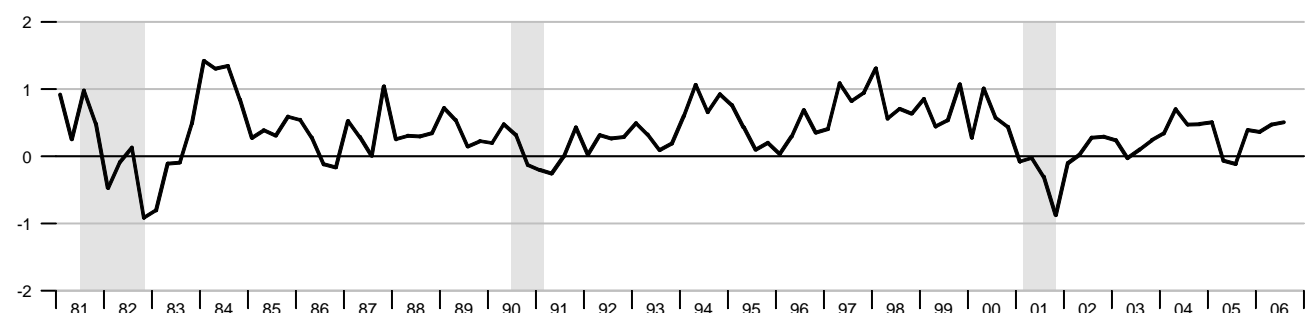
### Aggregate Private Nonfarm Hours

Percent change from year ago

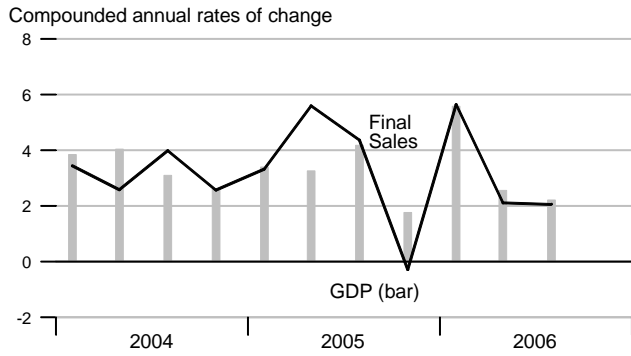


### Real Change in Private Inventories

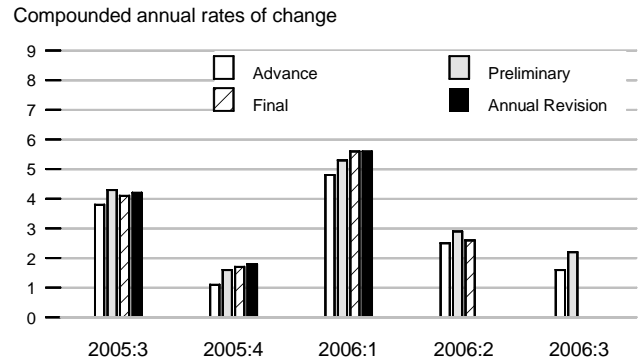
Percent of GDP



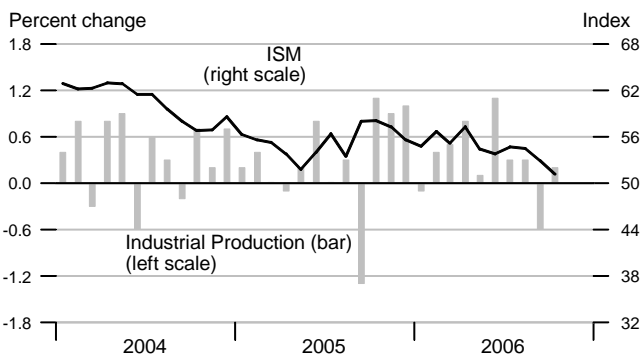
### Real Final Sales and GDP



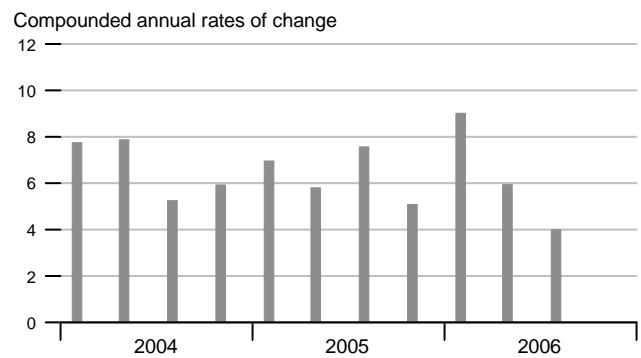
### Real GDP Revisions



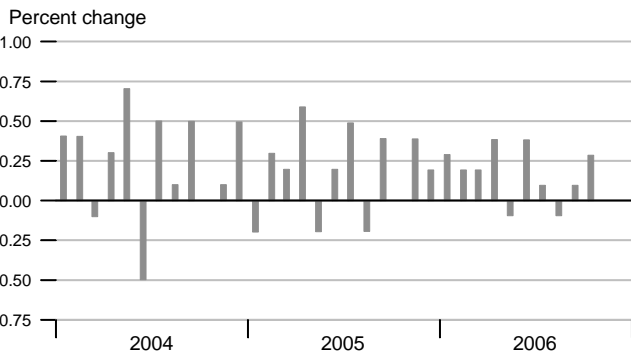
### Industrial Production and ISM Index



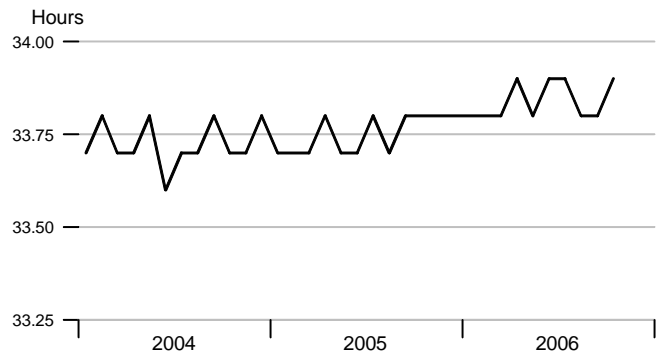
### Nominal Gross Domestic Product



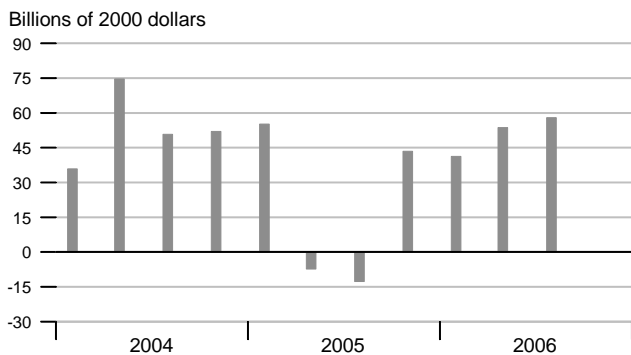
### Aggregate Private Nonfarm Hours



### Average Weekly Private Nonfarm Hours



### Real Change in Private Inventories

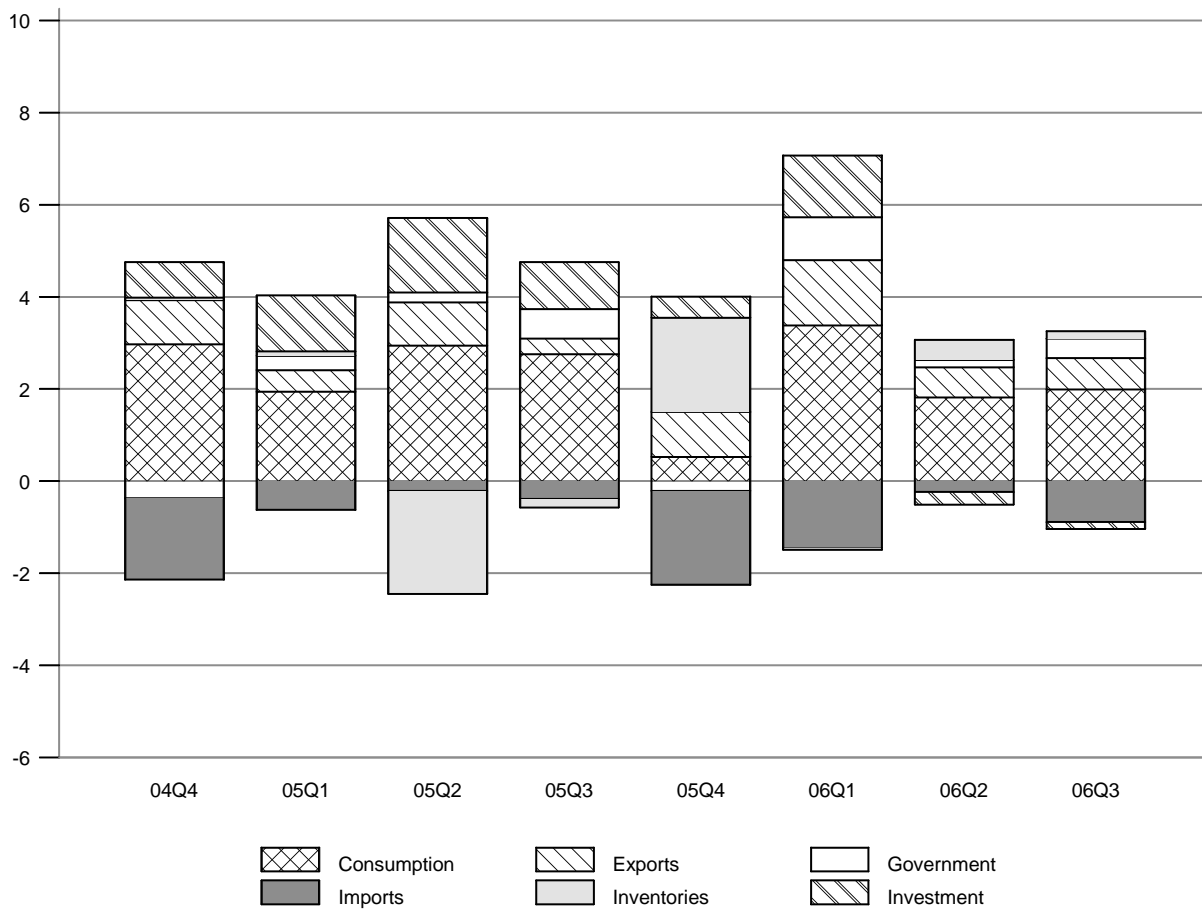


### Inventory-Sales Ratio



### Contribution of Components to Real GDP Growth

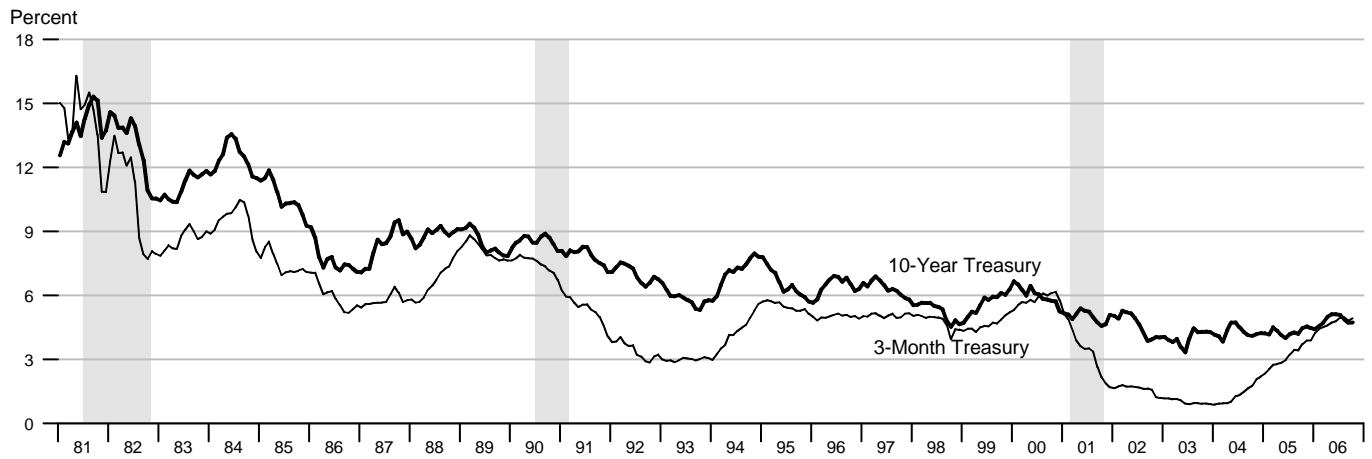
Percentage points at compounded annual rates



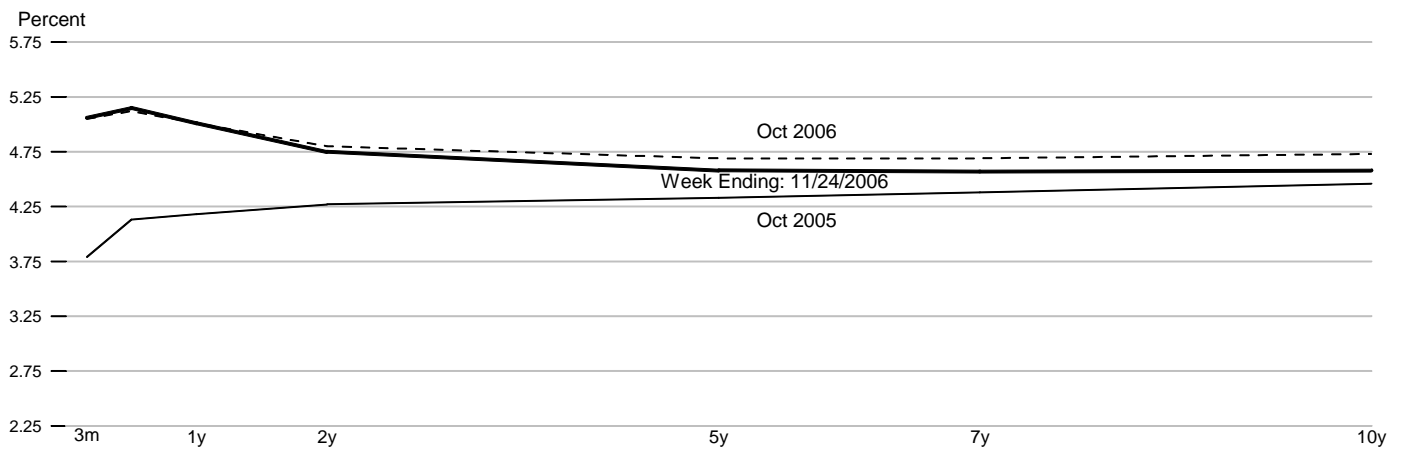
### Contributions to Real GDP Growth Rate

	2004	2005				2006		
	4th	1st	2nd	3rd	4th	1st	2nd	3rd
<b>Final Sales</b>	2.56	3.31	5.49	4.36	-0.29	5.61	2.12	2.05
<b>Consumption</b>	2.97	1.94	2.94	2.76	0.53	3.38	1.81	1.99
<b>Fixed Investment</b>	0.77	1.22	1.62	1.02	0.46	1.34	-0.27	-0.15
Nonresidential	0.81	0.59	0.51	0.59	0.52	1.36	0.45	1.01
Residential	-0.04	0.63	1.11	0.43	-0.06	-0.02	-0.72	-1.16
<b>Government</b>	-0.37	0.31	0.21	0.64	-0.21	0.94	0.16	0.42
Federal	-0.38	0.23	0.03	0.66	-0.33	0.61	-0.32	0.10
State and Local	0.01	0.08	0.18	-0.01	0.13	0.33	0.48	0.32
<b>Net Exports</b>	-0.81	-0.16	0.72	-0.06	-1.07	-0.04	0.42	-0.21
Exports	0.96	0.47	0.94	0.33	0.97	1.41	0.66	0.68
Imports	-1.77	-0.63	-0.22	-0.39	-2.04	-1.46	-0.24	-0.89
<b>Change in Inventory</b>	0.05	0.09	-2.23	-0.18	2.05	-0.03	0.44	0.16
<b>Residual</b>	-0.09	-0.01	0.08	0.01	-0.08	-0.10	-0.15	-0.24
<b>Real GDP Growth</b>	2.61	3.40	3.26	4.18	1.76	5.58	2.56	2.21

### Interest Rates



### Treasury Yield Curve

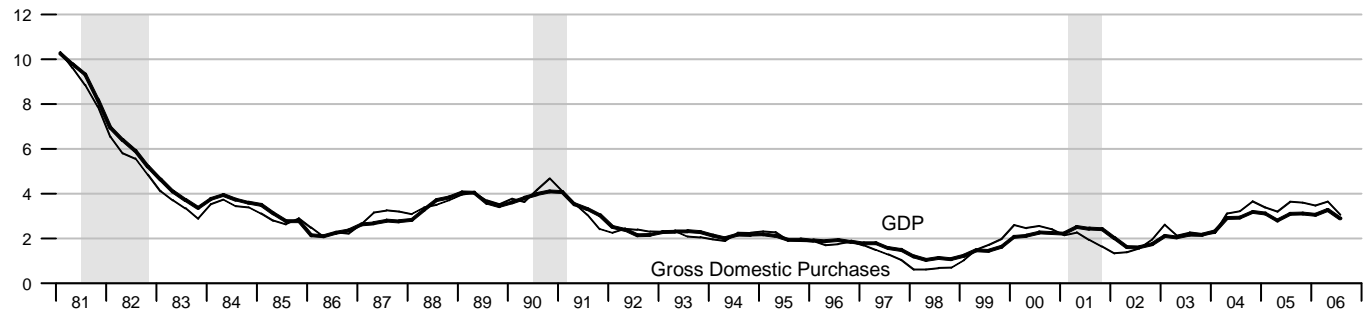


### Standard and Poor's 500 Index with Reinvested Dividends



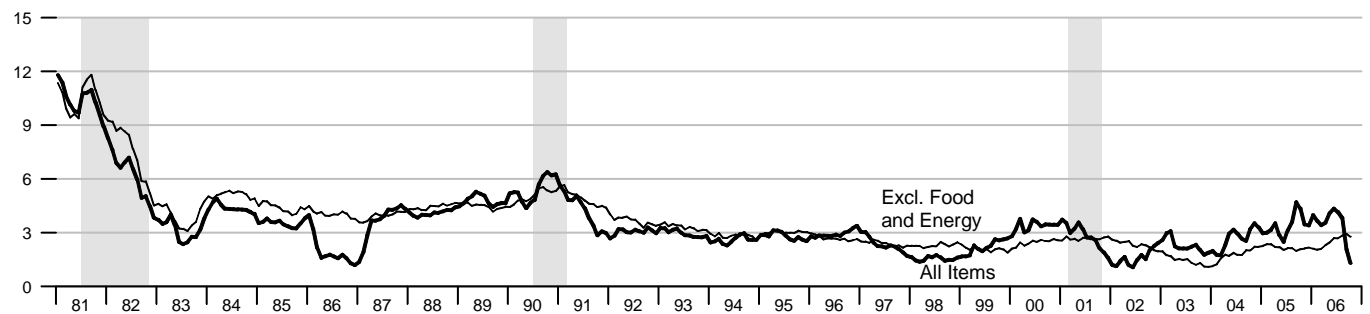
### NIPA Chain Price Indexes

Percent change from year ago



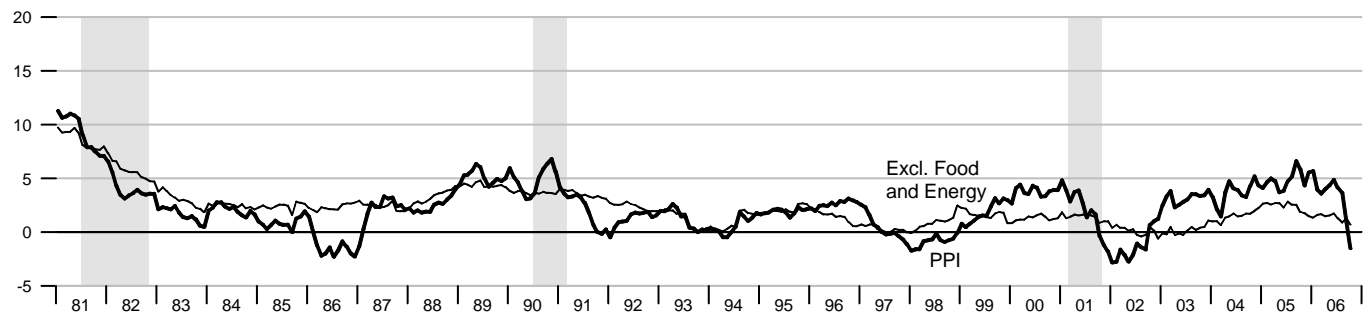
### Consumer Price Index

Percent change from year ago



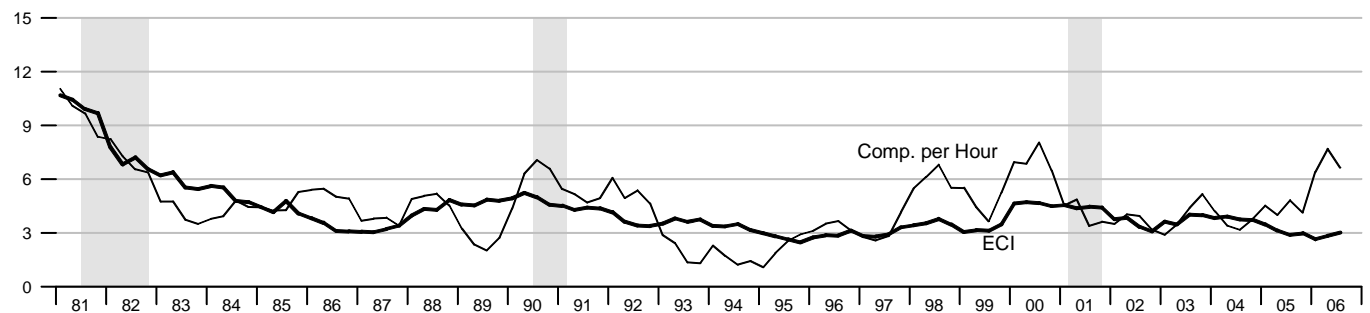
### Producer Price Index, Finished Goods

Percent change from year ago

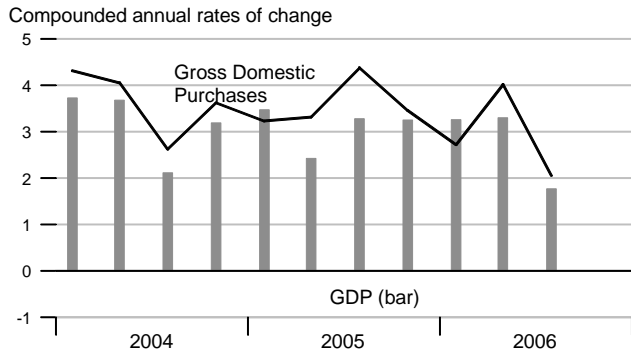


### Employment Cost Index and Compensation per Hour

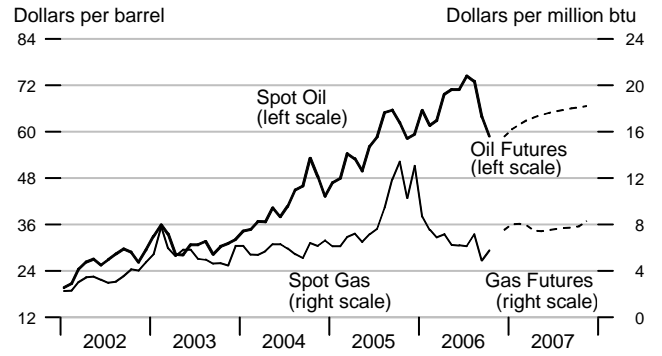
Percent change from year ago



### NIPA Chain Price Indexes

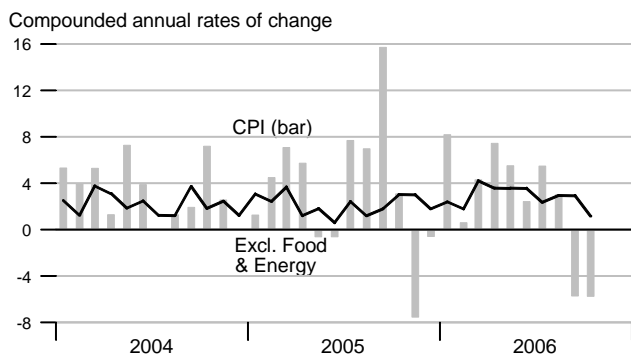


### Oil & Natural Gas Prices: Spot & Futures

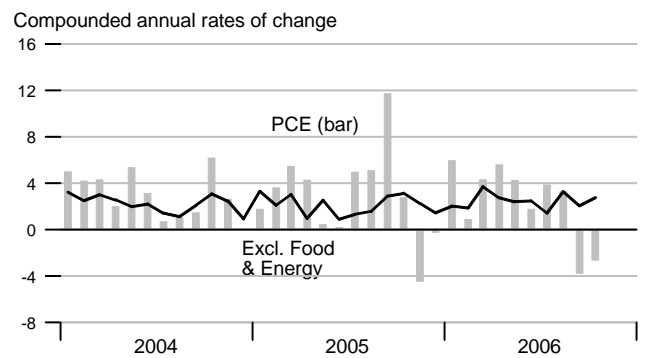


Note: Futures prices as of 10/31/2006.

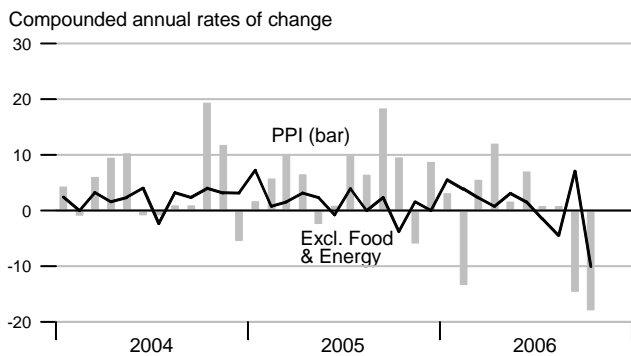
### Consumer Price Index



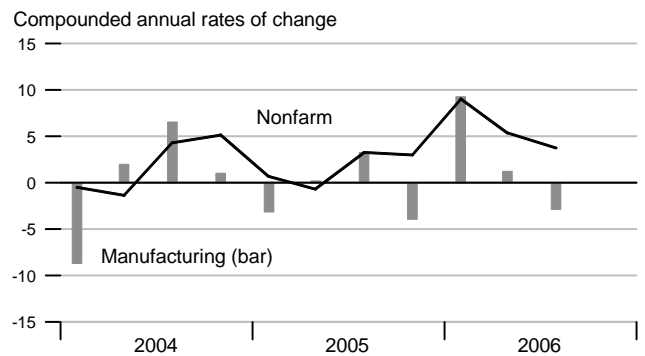
### Consumption Chain Price Index



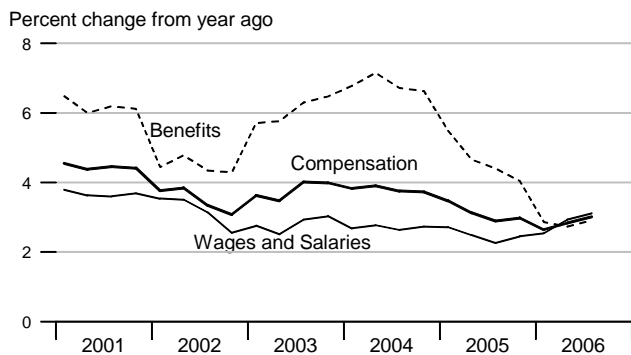
### Producer Price Index, Finished Goods



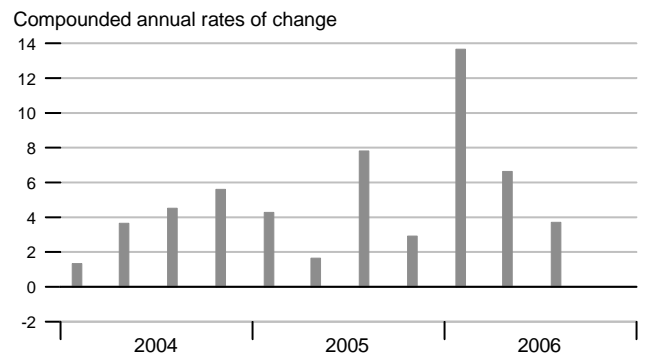
### Unit Labor Cost



### Employment Cost Index

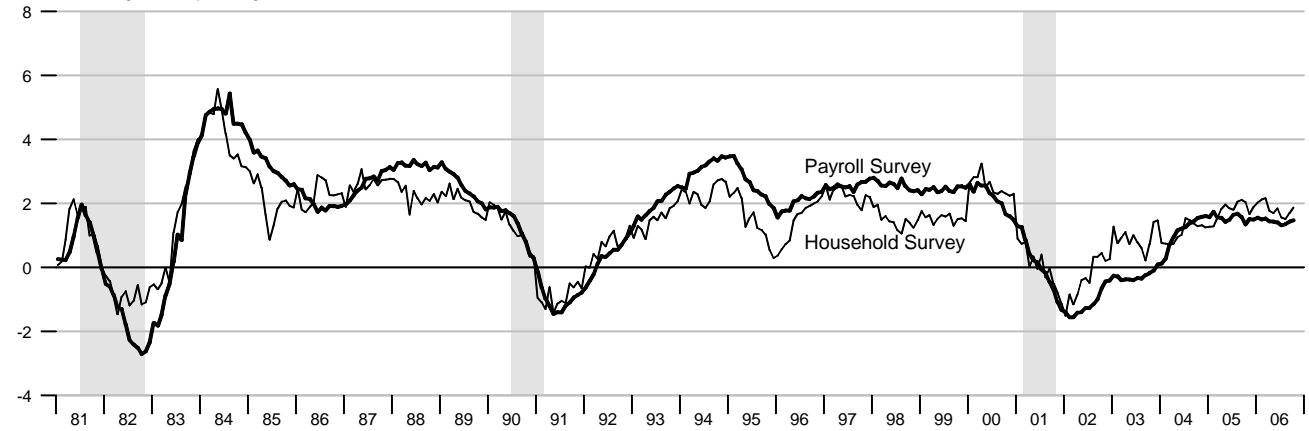


### Compensation per Hour



### Employment

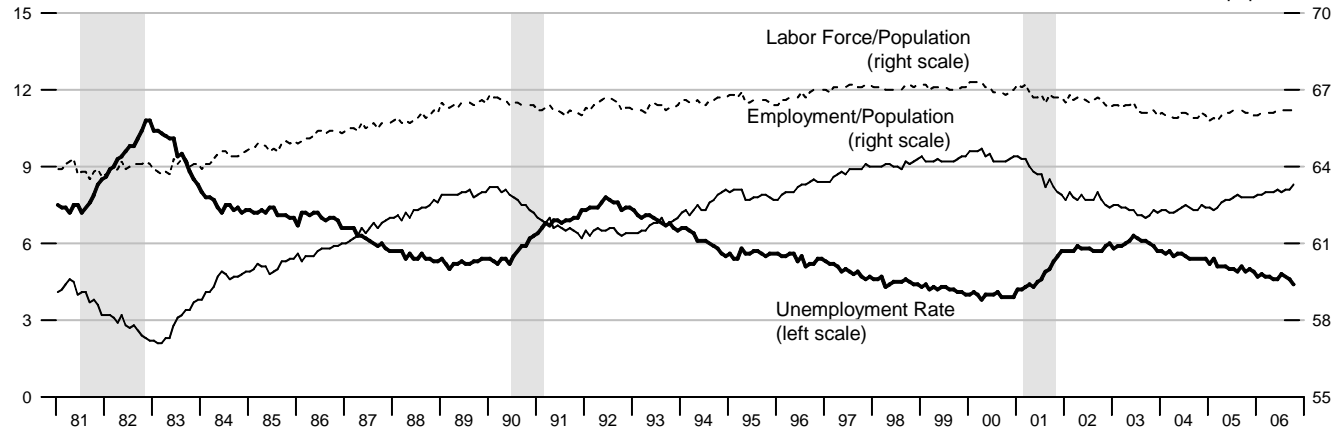
Percent change from year ago



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

Percent of labor force

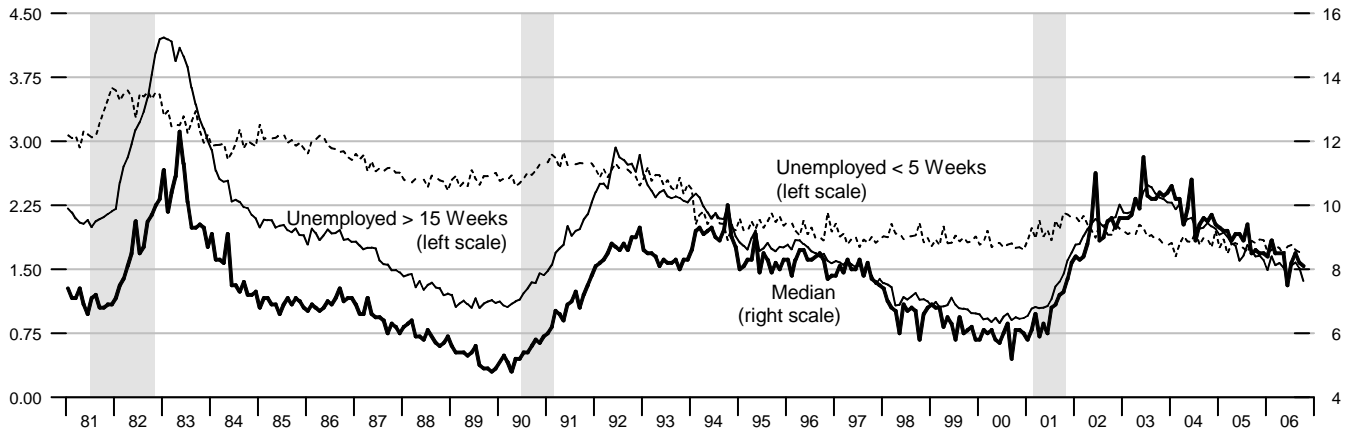
Percent of population



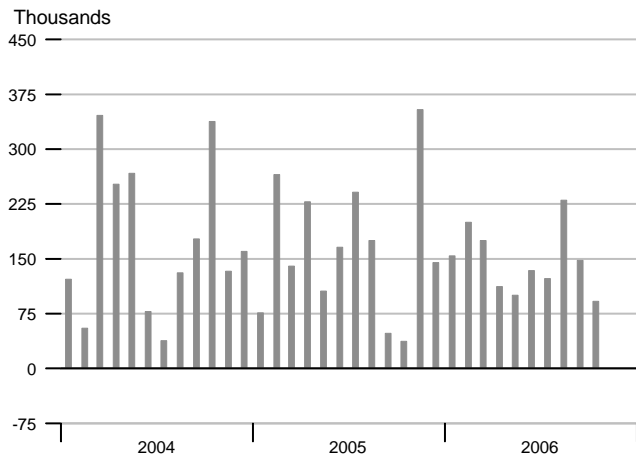
### Duration of Unemployment

Percent of labor force

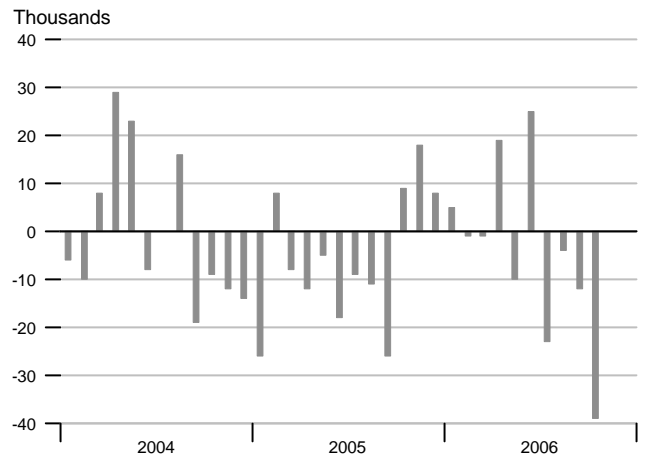
Weeks



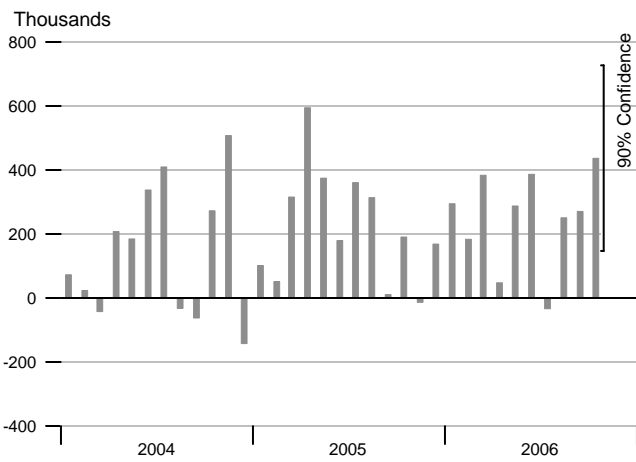
### Change in Nonfarm Payrolls



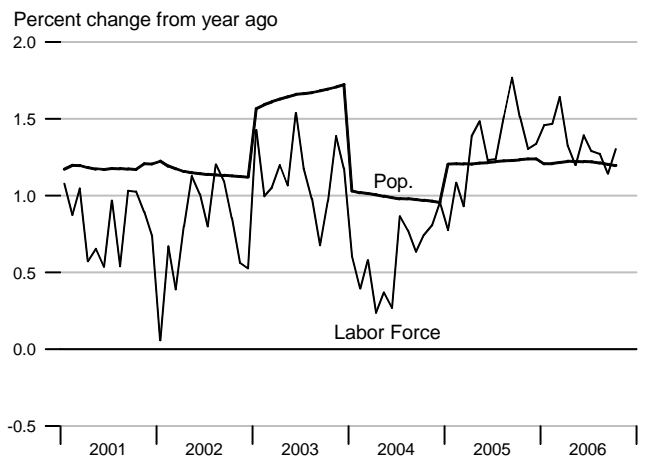
### Change in Manufacturing Payrolls



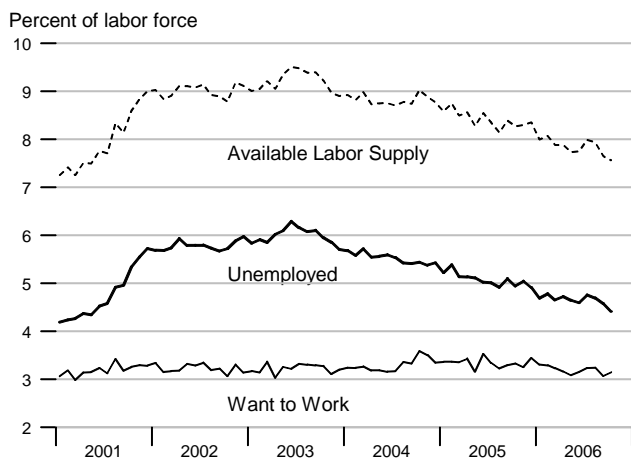
### Change in Household Employment



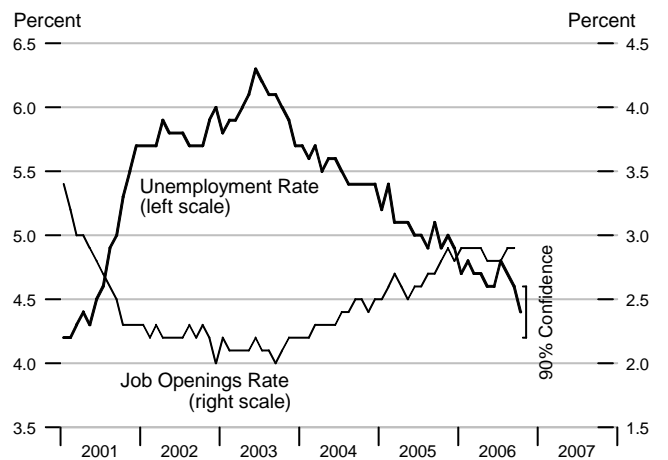
### Labor Force and Population



### Available Labor Supply and Components

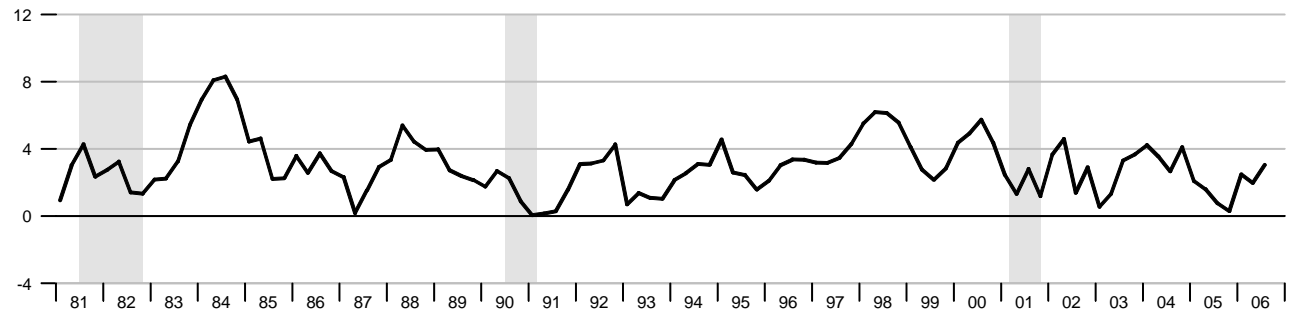


### Unemployment Rate & Job Openings Rate



### Real Disposable Personal Income

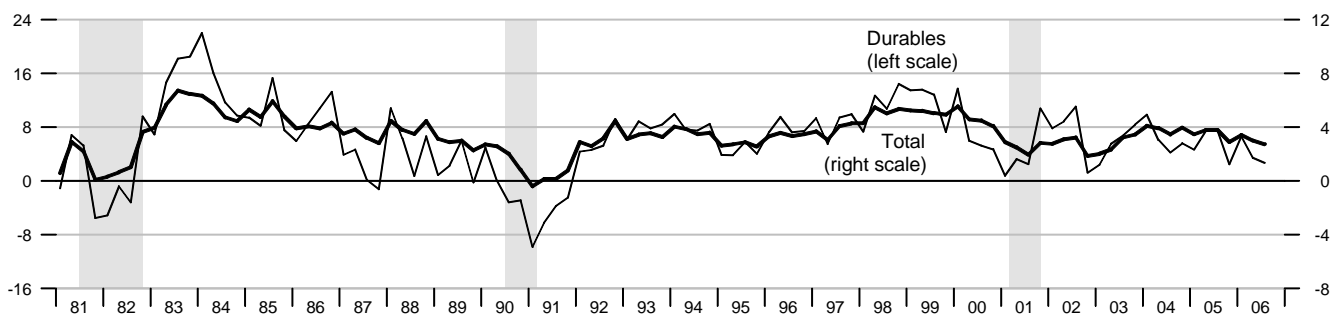
Percent change from year ago, quarterly data



### Real Consumption

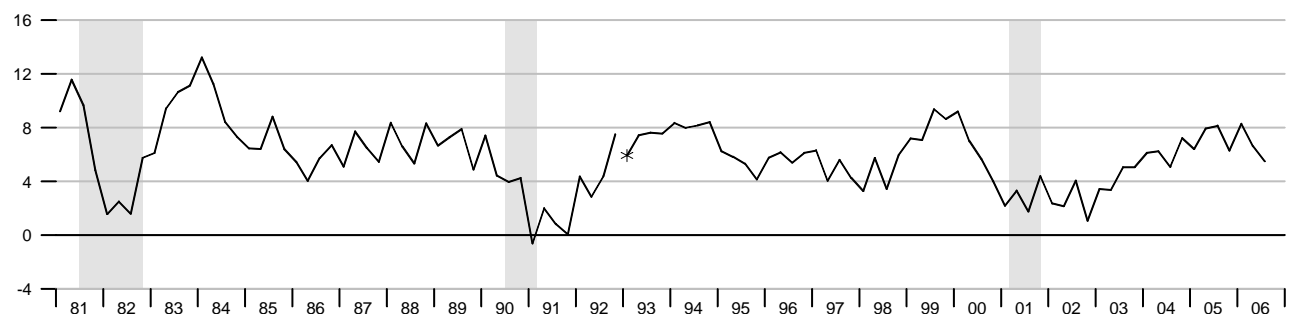
Percent change from year ago, quarterly data

Percent change from year ago, quarterly data



### Retail and Food Services Sales

Percent change from year ago, quarterly average

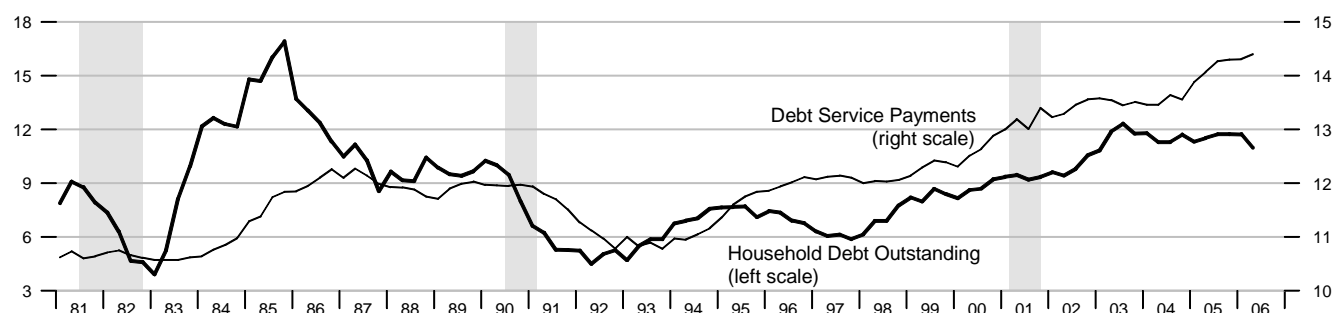


\*Data from Jan. 1992 to the present are on a NAICS basis; data prior to Jan. 1992 are on an SIC basis and are not strictly comparable (see End Note).

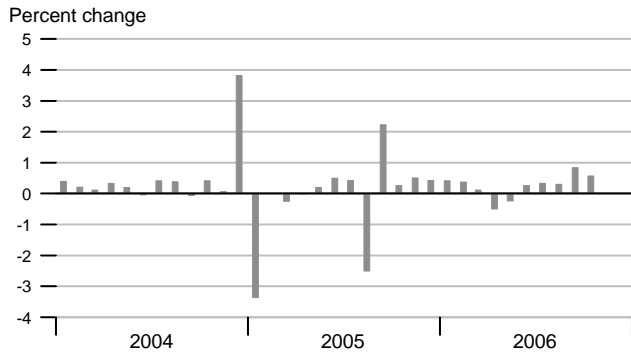
### Debt Service Payments and Household Debt Outstanding

Percent change from year ago, quarterly data

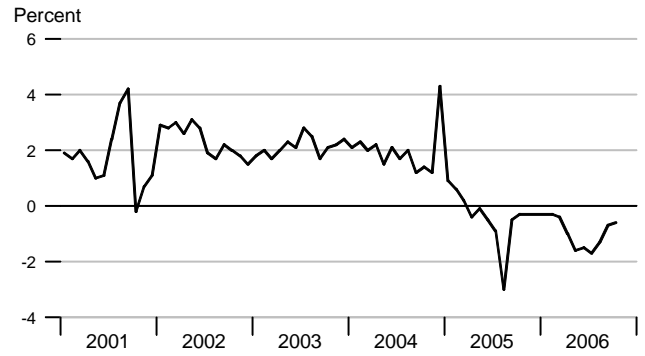
Percent of disposable personal income



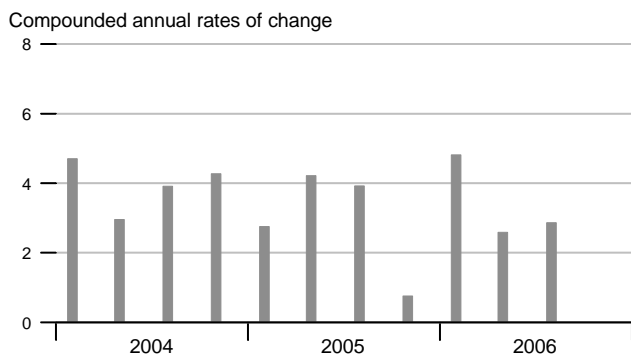
### Real Disposable Personal Income



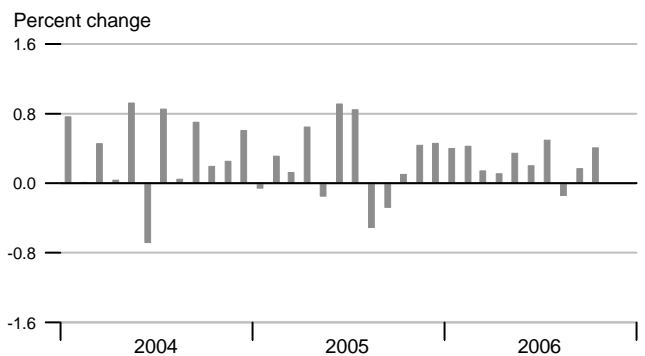
### Personal Saving Rate



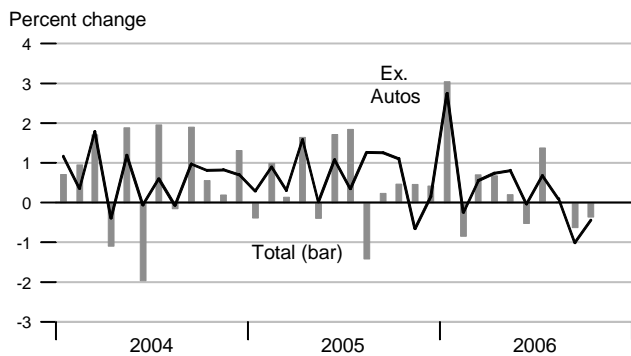
### Real Consumption



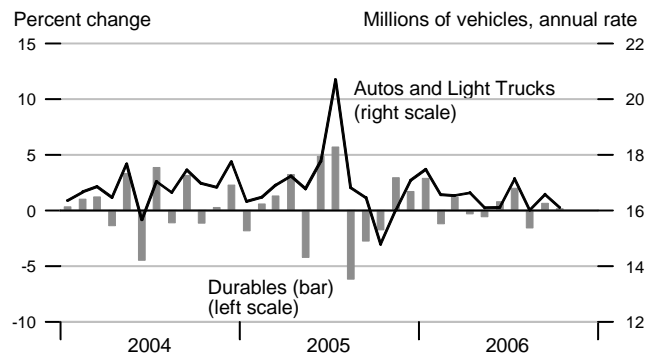
### Real Consumption



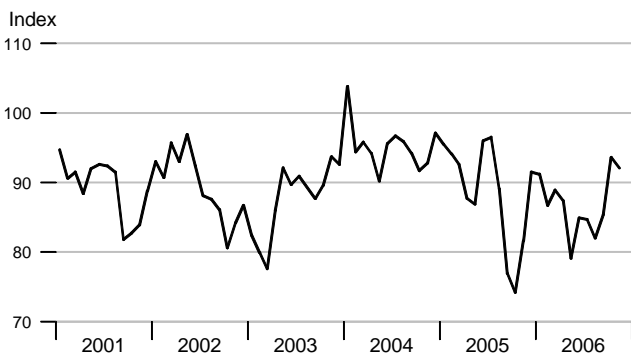
### Retail & Food Services



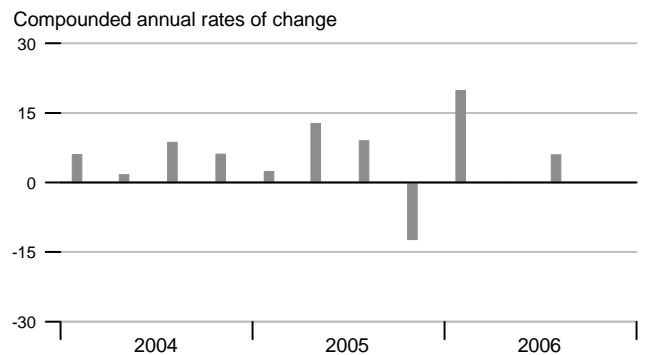
### Real Durables Consumption & Vehicle Sales



### Consumer Sentiment (U. of Michigan)

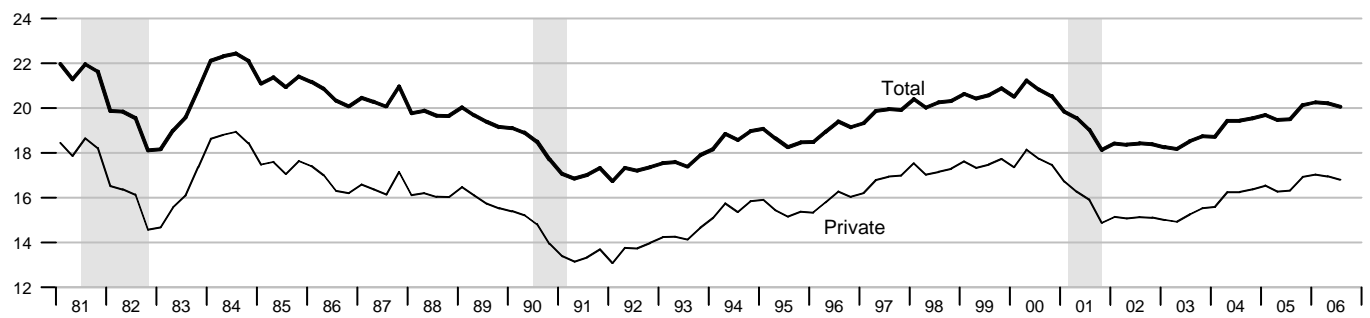


### Real Durables Consumption



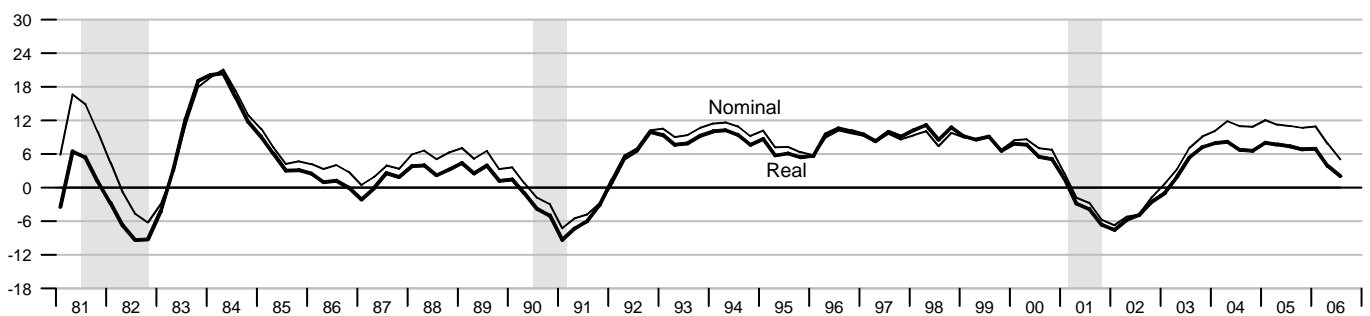
### Investment

Percent of nominal GDP



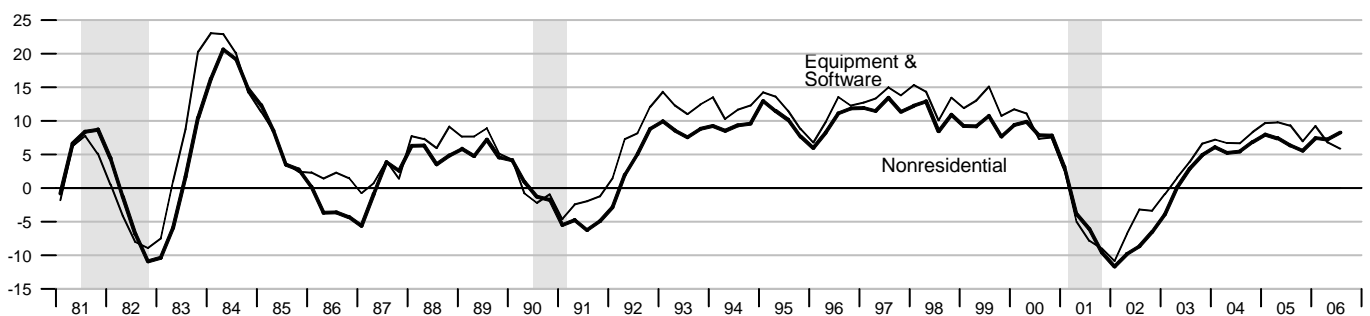
### Private Fixed Investment

Percent change from year ago



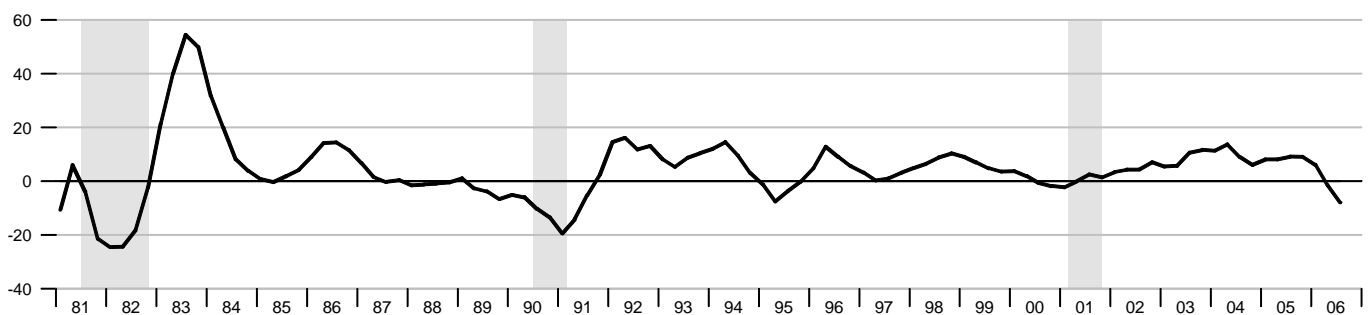
### Real Nonresidential Fixed and Equipment & Software Investment

Percent change from year ago

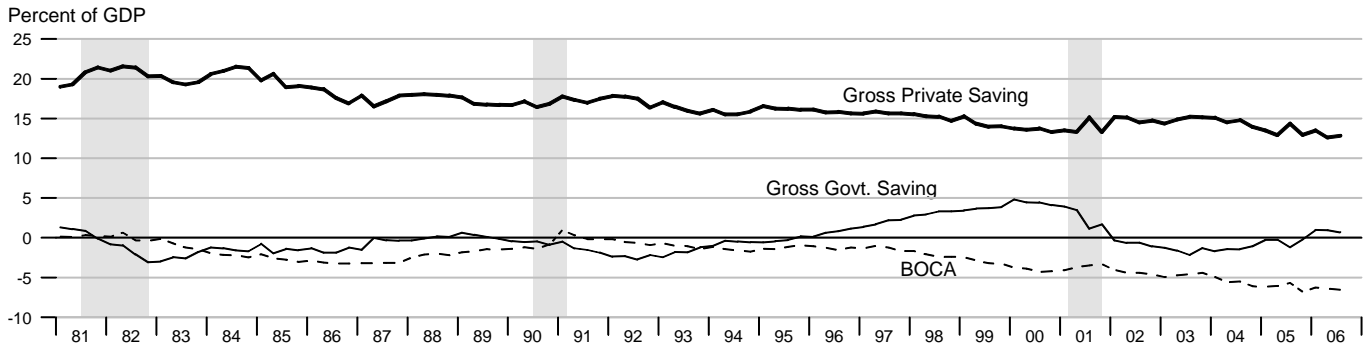


### Real Residential Fixed Investment

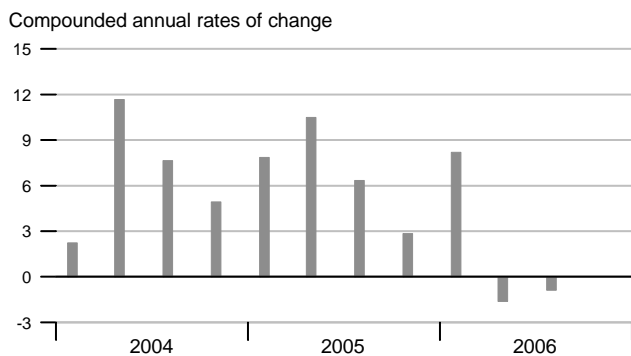
Percent change from year ago



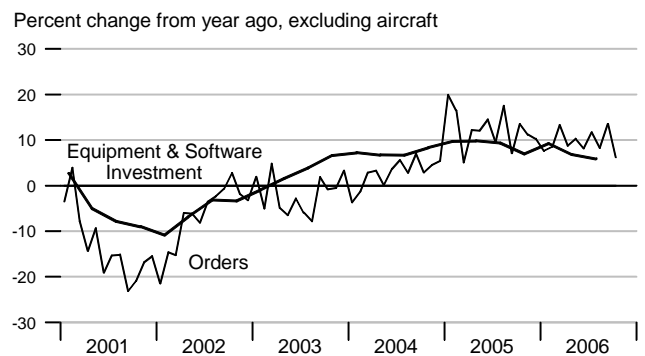
### Gross Saving Rates and Balance on Current Account (NIPA)



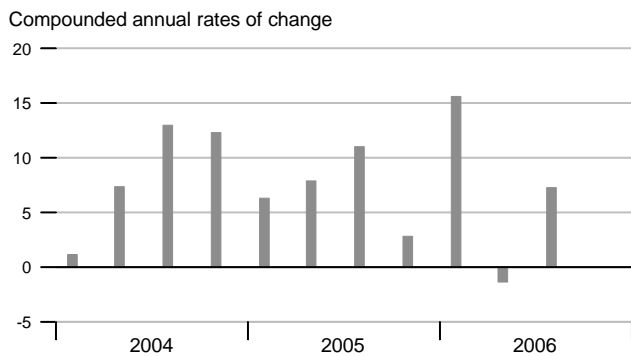
### Real Private Fixed Investment



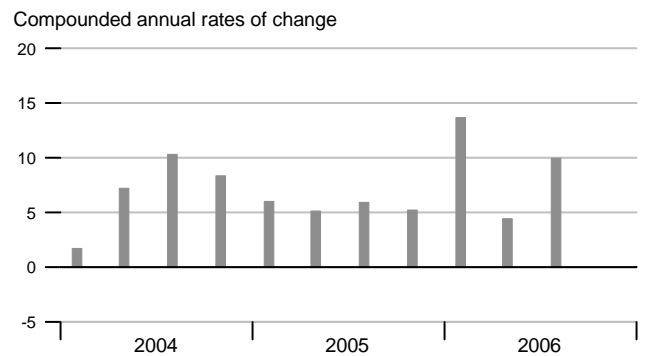
### Nondefense Capital Goods Orders



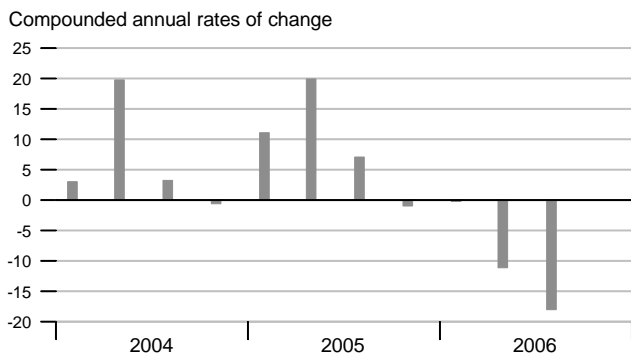
### Real Equipment & Software Investment



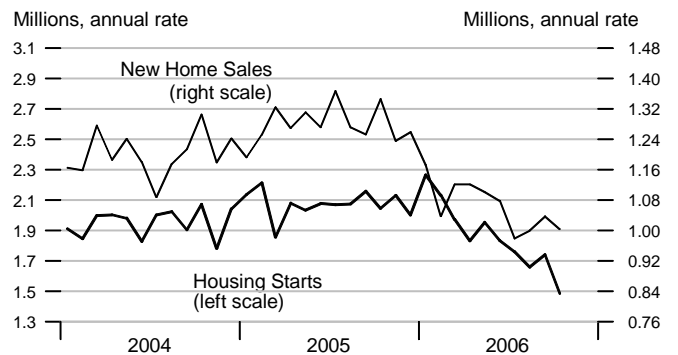
### Real Nonresidential Fixed Investment



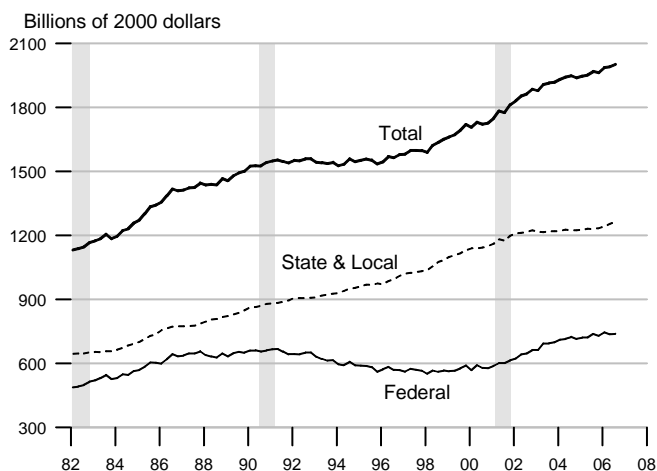
### Real Residential Fixed Investment



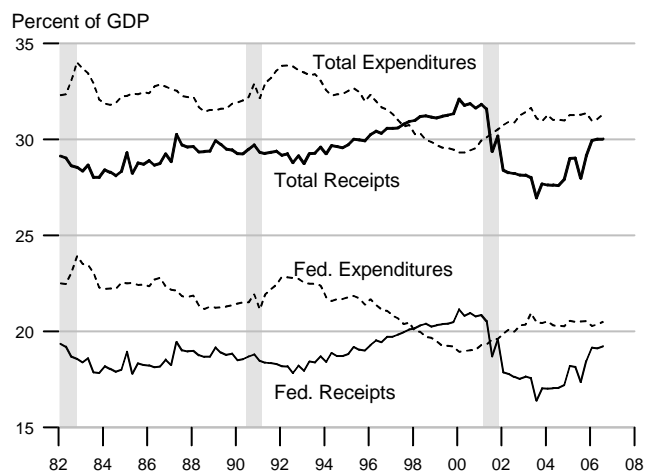
### Housing Starts and New Home Sales



**Govt. Consumption and Investment**



**Govt. Current Receipts and Expenditures**



**Government Budgets**

Billions of dollars

**National Income Accounts**

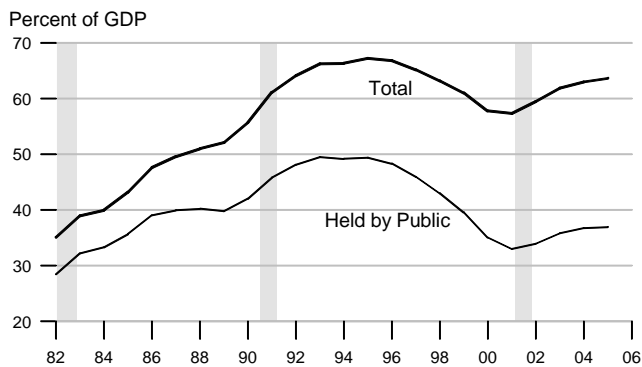
Calendar Years

**Unified Budget**

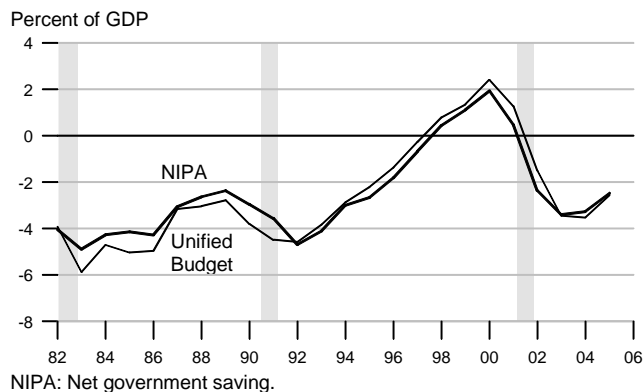
Fiscal Years

	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	1055.1	1324.3	-269.2
1992	845.7	845.0	0.7	1147.2	1444.6	-297.4	1091.3	1381.6	-290.3
1993	886.9	886.0	0.9	1222.5	1496.0	-273.5	1154.5	1409.5	-255.1
1994	942.9	932.4	10.5	1320.8	1533.1	-212.3	1258.7	1461.9	-203.2
1995	990.2	978.2	12.0	1406.5	1603.5	-197.0	1351.9	1515.9	-164.0
1996	1043.3	1017.5	25.8	1524.0	1665.8	-141.8	1453.2	1560.6	-107.4
1997	1097.4	1058.3	39.1	1653.1	1708.9	-55.8	1579.4	1601.3	-21.9
1998	1163.2	1111.2	52.0	1773.8	1734.9	38.9	1722.0	1652.7	69.3
1999	1236.7	1186.3	50.4	1891.2	1787.6	103.6	1827.6	1702.0	125.6
2000	1319.5	1269.5	50.0	2053.8	1864.4	189.4	2025.5	1789.2	236.2
2001	1373.0	1368.2	4.8	2016.2	1969.5	46.7	1991.4	1863.2	128.2
2002	1410.1	1444.3	-34.2	1853.2	2101.1	-247.9	1853.4	2011.2	-157.8
2003	1494.2	1514.5	-20.3	1879.9	2252.1	-372.2	1782.5	2160.1	-377.6
2004	1592.6	1605.5	-12.9	2001.0	2383.0	-382.0	1880.3	2293.0	-412.7
2005	1700.6	1703.9	-3.3	2246.8	2555.9	-309.1	2153.4	2472.1	-318.7
2004Q3	1590.9	1613.2	-22.3	2013.0	2393.6	-380.6	479.5	565.4	-85.9
2004Q4	1643.6	1644.5	-0.9	2059.9	2425.6	-365.7	487.2	603.5	-116.3
2005Q1	1672.2	1661.2	11.0	2214.5	2502.0	-287.5	451.8	629.3	-177.4
2005Q2	1702.9	1690.5	12.4	2240.3	2529.9	-289.6	665.2	620.9	44.2
2005Q3	1697.8	1717.2	-19.4	2182.4	2578.5	-396.1	549.2	618.4	-69.2
2005Q4	1729.6	1746.8	-17.2	2349.8	2613.3	-263.5	530.2	649.6	-119.4
2006Q1	1755.4	1742.7	12.7	2490.9	2637.9	-147.0	507.4	691.0	-183.6
2006Q2	1795.5	1769.4	26.1	2523.2	2686.2	-163.0	772.1	675.7	96.5
2006Q3	1805.0	1807.0	-2.0	2562.2	2731.9	-169.7	596.9	638.7	-41.7

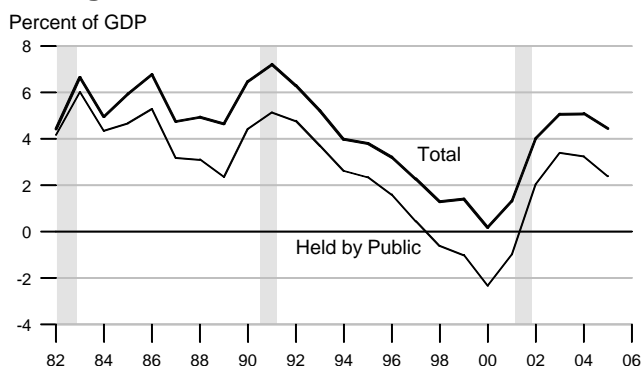
### Federal Debt



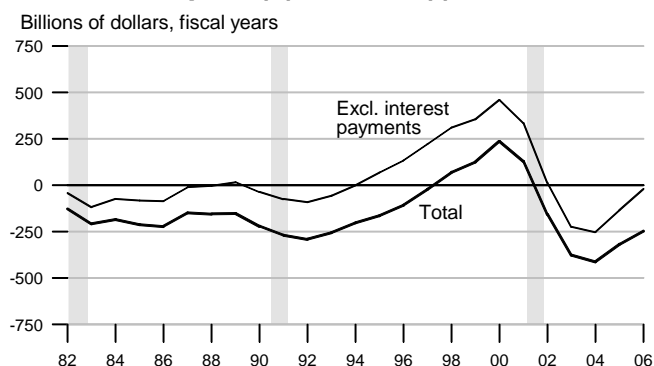
### Federal Surplus (+) / Deficit (-)



### Change in Federal Debt



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

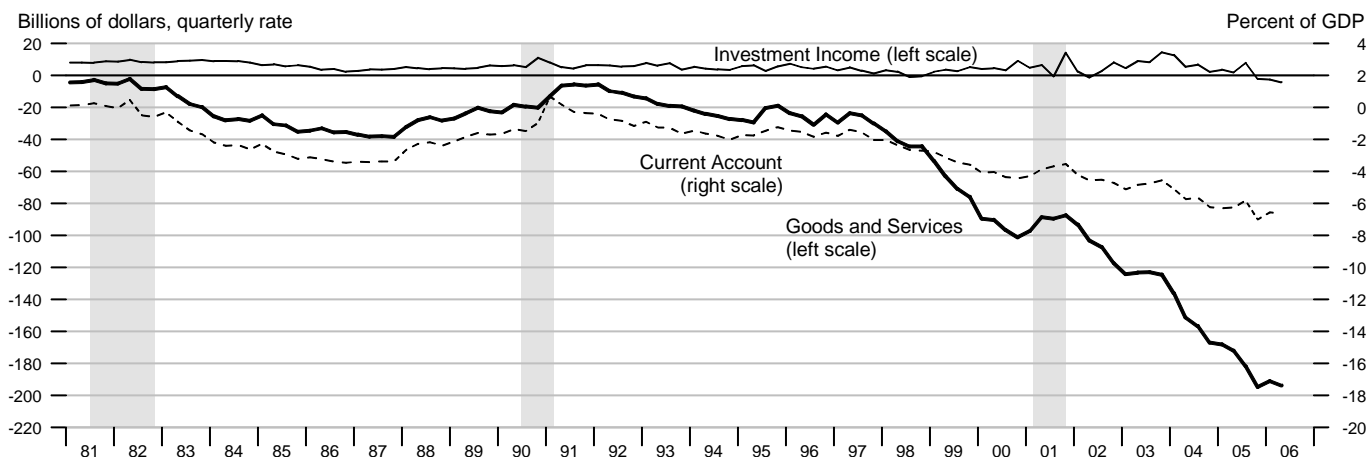


### Federal Government Debt

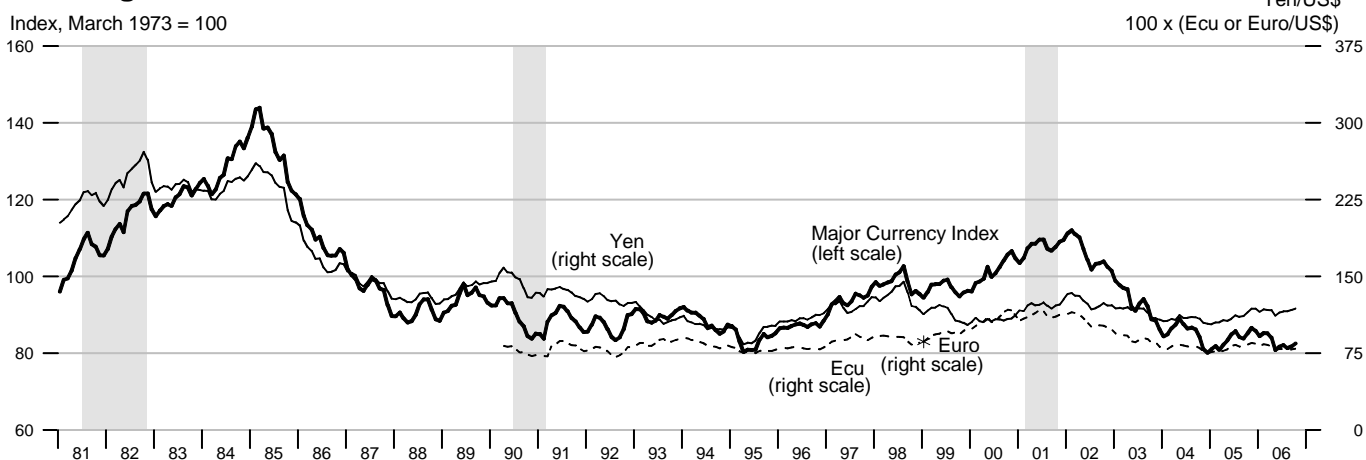
Billions of dollars, end of month or fiscal year  
Excludes Agency-issued debt

		Total Public Debt	Held by Agencies and Trusts	Held by Public		Held by Private Investors	
				Total	Federal Reserve Banks	Total	Foreign and International
2003		6783.2	2859.3	3923.9	656.1	3268.0	1454.2
2004		7379.1	3075.7	4303.4	700.3	3607.0	1798.7
2005		7932.7	3331.1	4601.6	733.4	3864.9	1933.4
2003	March	6460.8	2750.0	3710.8	641.5	3069.9	1286.3
	June	6670.1	2853.8	3816.3	652.1	3164.7	1382.8
	September	6783.2	2859.3	3923.9	656.1	3268.0	1454.2
	December	6998.0	2954.5	4044.1	666.7	3377.9	1533.0
2004	March	7131.1	2954.4	4176.7	674.1	3502.8	1677.1
	June	7274.3	3055.6	4218.7	687.4	3531.5	1739.6
	September	7379.1	3075.7	4303.4	700.3	3607.0	1798.7
	December	7596.1	3189.8	4406.4	717.8	3667.1	1853.4
2005	March	7776.9	3204.5	4572.4	717.3	3855.4	1956.9
	June	7836.5	3308.9	4527.6	721.9	3803.0	1879.6
	September	7932.7	3331.1	4601.6	733.4	3864.9	1933.4
	December	8170.4	3455.8	4714.6	732.9	3970.6	2041.1
2006	March	8371.2	3498.4	4872.8	755.2	4113.9	2082.3
	June	8420.0	3622.6	4797.5	762.6	4030.8	2091.7

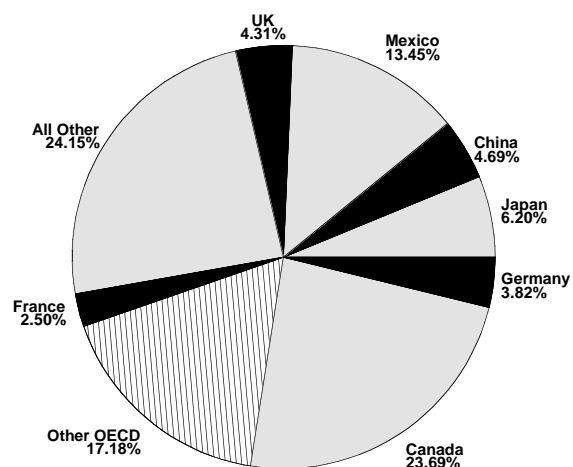
### Current Account, Trade and Investment Income Balances



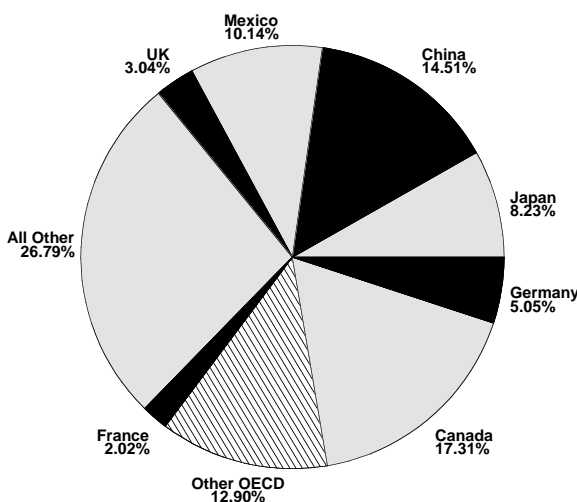
### Exchange Rates



### Goods Export Shares, 2005



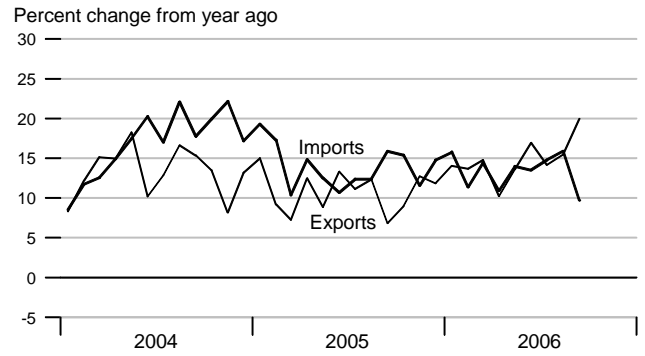
### Goods Import Shares, 2005



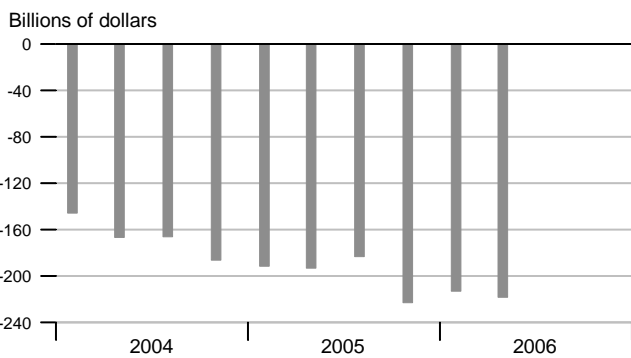
### Trade Balance



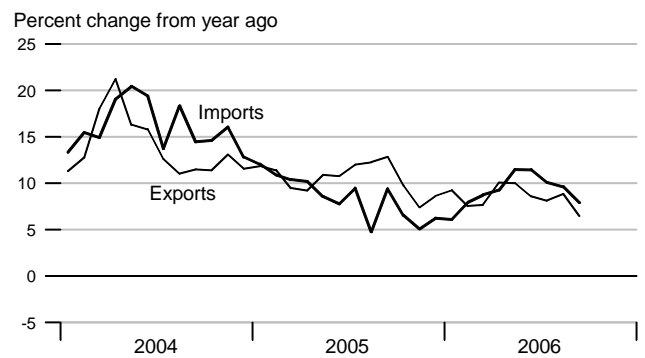
### Goods Trade



### Current Account Balance



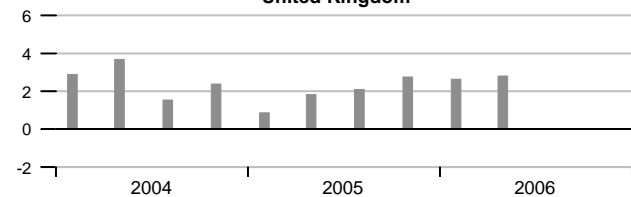
### Services Trade



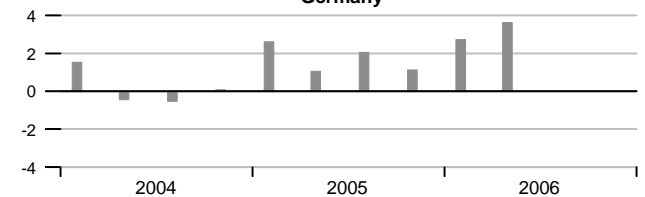
### Real GDP Growth of Major Trading Partners

Compounded annual rates of change

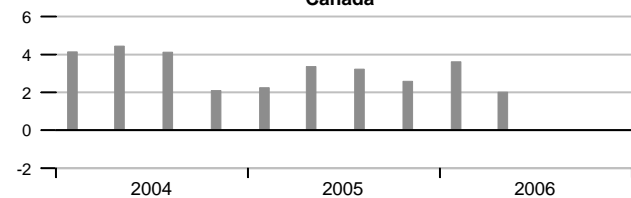
#### United Kingdom



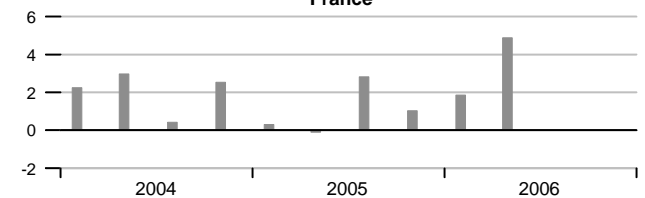
#### Germany



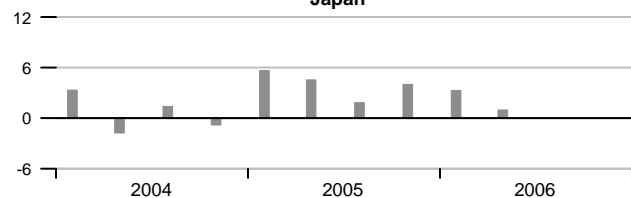
#### Canada



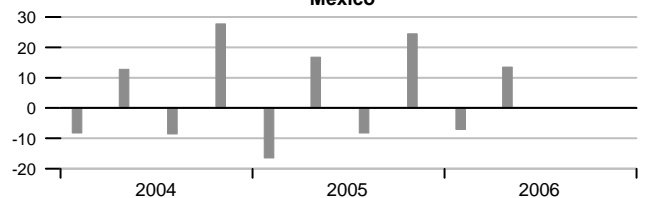
#### France



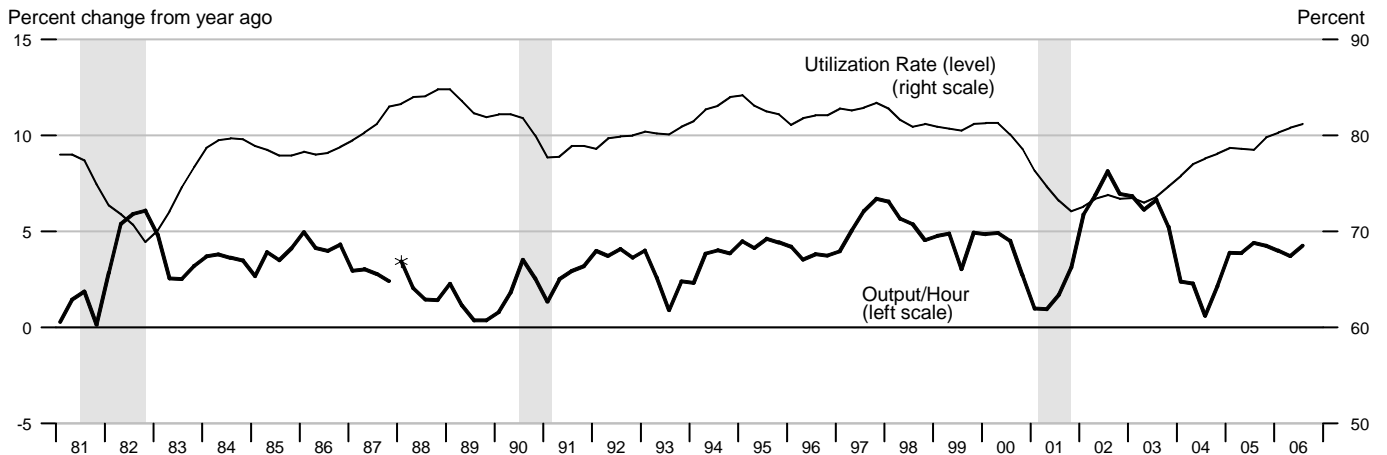
#### Japan



#### Mexico

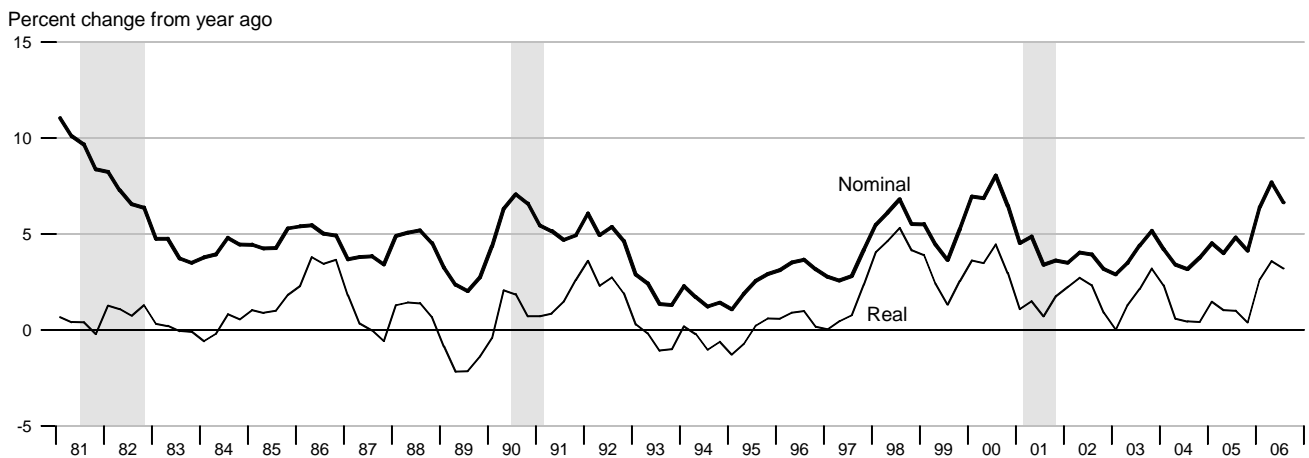


### Output per Hour and Capacity Utilization, Manufacturing

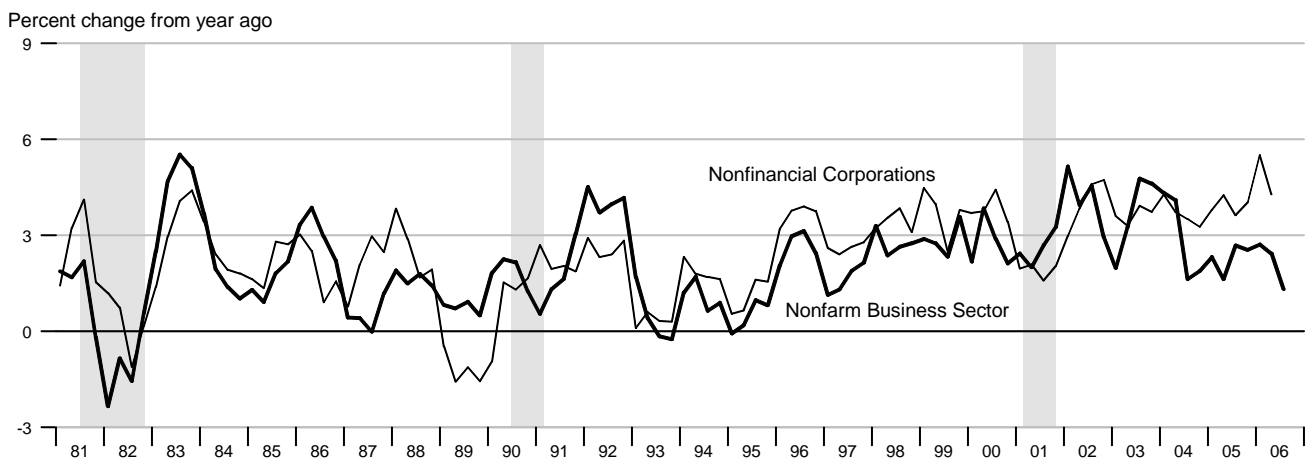


\*Data from 1987 to the present are on a NAICS basis; data prior to 1987 are on an SIC basis and are not strictly comparable (see End Note).

### Nonfarm Compensation per Hour

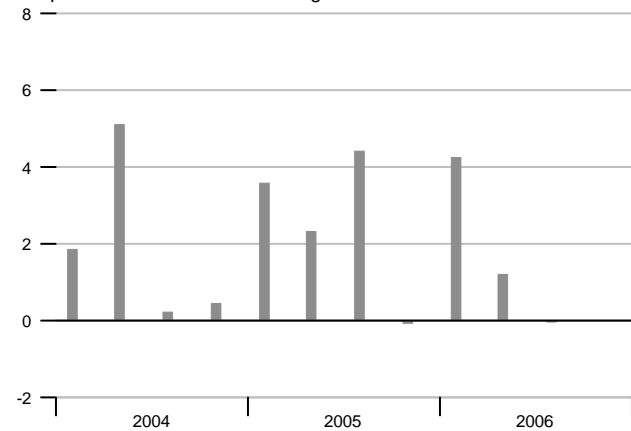


### Output per Hour, Nonfarm Business and Nonfinancial Corporations



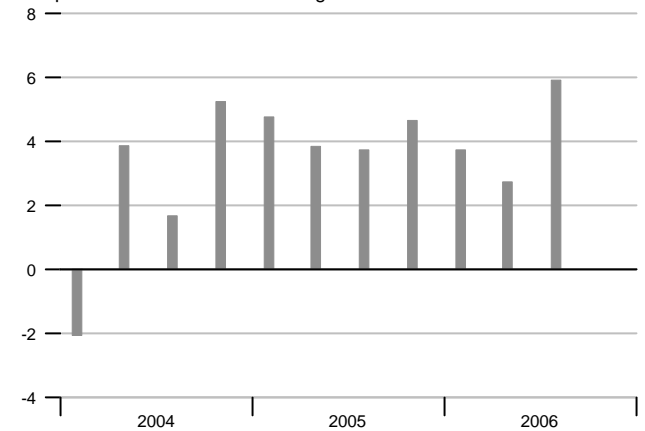
### Nonfarm Output per Hour

Compounded annual rates of change

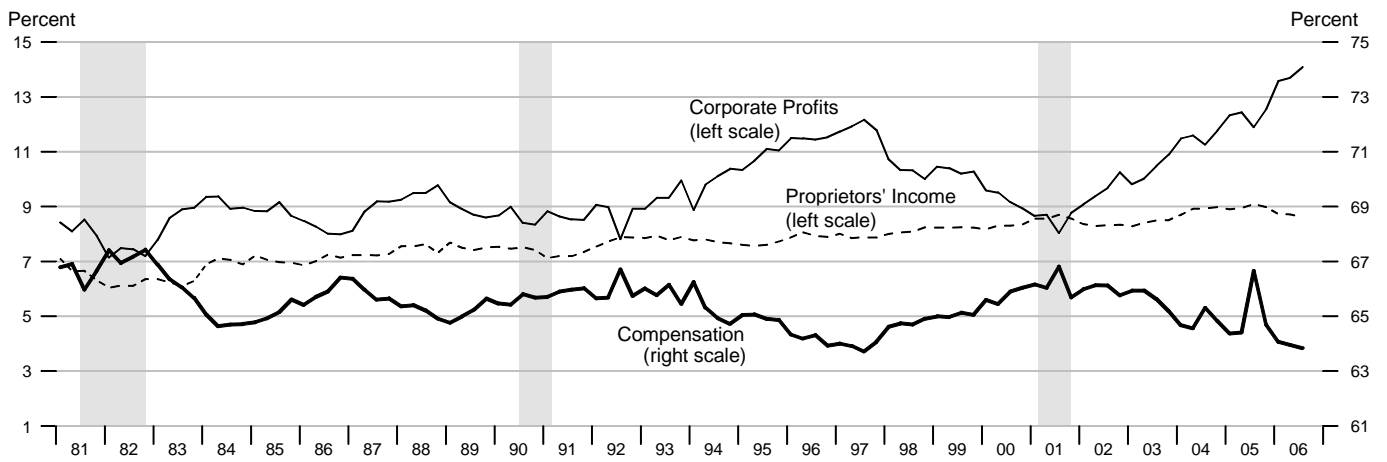


### Manufacturing Output per Hour

Compounded annual rates of change

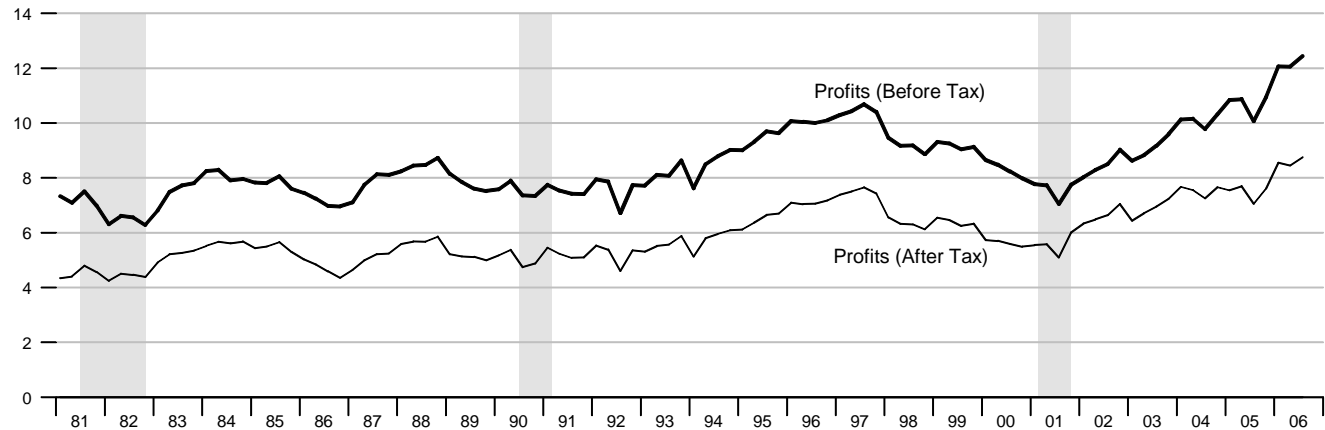


### Selected Component Shares of National Income



### Corporate Profits

Percent of GDP





	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
2002	104.193		1.7	89.3		3.5	91.6		3.2	83.7		4.5
2003	106.409		2.1	92.7		3.8	94.2		2.8	88.8		6.1
2004	109.429		2.8	96.2		3.8	96.8		2.7	94.8		6.8
2005	112.744		3.0	99.2		3.1	99.2		2.5	99.2		4.6
2003 1	105.742	3.1	2.1	91.4	5.4	3.6	93.2	4.0	2.8	87.0	9.7	5.7
2	106.076	1.3	2.1	92.2	3.5	3.5	93.8	2.6	2.5	88.1	5.2	5.8
3	106.616	2.1	2.2	93.2	4.4	4.0	94.7	3.9	2.9	89.4	6.0	6.3
4	107.204	2.2	2.2	93.8	2.6	4.0	95.1	1.7	3.0	90.5	5.0	6.5
2004 1	108.190	3.7	2.3	94.9	4.8	3.8	95.7	2.5	2.7	92.9	11.0	6.8
2	109.172	3.7	2.9	95.8	3.8	3.9	96.4	3.0	2.8	94.4	6.6	7.2
3	109.744	2.1	2.9	96.7	3.8	3.8	97.2	3.4	2.6	95.4	4.3	6.7
4	110.610	3.2	3.2	97.3	2.5	3.7	97.7	2.1	2.7	96.5	4.7	6.6
2005 1	111.558	3.5	3.1	98.2	3.8	3.5	98.3	2.5	2.7	98.0	6.4	5.5
2	112.229	2.4	2.8	98.8	2.5	3.1	98.8	2.1	2.5	98.8	3.3	4.7
3	113.139	3.3	3.1	99.5	2.9	2.9	99.4	2.5	2.3	99.6	3.3	4.4
4	114.048	3.3	3.1	100.2	2.8	3.0	100.1	2.8	2.5	100.4	3.3	4.0
2006 1	114.967	3.3	3.1	100.8	2.4	2.6	100.8	2.8	2.5	100.8	1.6	2.9
2	115.905	3.3	3.3	101.6	3.2	2.8	101.7	3.6	2.9	101.5	2.8	2.7
3	116.414	1.8	2.9	102.5	3.6	3.0	102.5	3.2	3.1	102.5	4.0	2.9
	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
2002	1013.293		-2.3	1484.629		3.4	123.504		4.1	144.639		3.7
2003	1026.109		1.3	1545.017		4.1	128.028		3.7	150.417		4.0
2004	1120.411		9.2	1711.321		10.8	131.828		3.0	155.891		3.6
2005	1196.098		6.8	1815.288		6.1	134.852		2.3	162.701		4.4
2003 1	1003.295	-5.3	1.1	1510.514	-5.0	5.3	125.112	3.0	2.0	147.265	5.1	2.9
2	999.020	-1.7	-1.9	1525.906	4.1	3.3	126.955	6.0	3.3	149.738	6.9	3.5
3	1026.252	11.4	0.1	1540.015	3.8	2.8	130.111	10.3	4.8	151.728	5.4	4.4
4	1075.847	20.8	5.8	1603.649	17.6	4.8	129.927	-0.6	4.6	152.938	3.2	5.2
2004 1	1094.769	7.2	9.1	1643.229	10.2	8.8	130.525	1.9	4.3	153.444	1.3	4.2
2	1111.279	6.2	11.2	1705.196	16.0	11.7	132.161	5.1	4.1	154.829	3.7	3.4
3	1124.314	4.8	9.6	1723.688	4.4	11.9	132.234	0.2	1.6	156.552	4.5	3.2
4	1151.282	9.9	7.0	1773.140	12.0	10.6	132.380	0.4	1.9	158.702	5.6	3.8
2005 1	1164.537	4.7	6.4	1790.938	4.1	9.0	133.549	3.6	2.3	160.376	4.3	4.5
2	1190.968	9.4	7.2	1797.107	1.4	5.4	134.318	2.3	1.6	161.030	1.6	4.0
3	1200.462	3.2	6.8	1808.101	2.5	4.9	135.776	4.4	2.7	164.085	7.8	4.8
4	1228.428	9.6	6.7	1865.021	13.2	5.2	135.750	-0.1	2.5	165.269	2.9	4.1
2006 1	1269.308	14.0	9.0	1905.885	9.1	6.4	137.170	4.3	2.7	170.647	13.7	6.4
2	1288.526	6.2	8.2	1912.703	1.4	6.4	137.582	1.2	2.4	173.410	6.6	7.7
3	1308.270	6.3	9.0	1937.673	5.3	7.2	137.568	-0.0	1.3	174.997	3.7	6.7

	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	
2001	136939	39		0.0	131832	40		0.0	102.0			-1.4	
2002	136480	-459		-0.3	130342	-1490		-1.1	100.0			-2.0	
2003	137731	1251		0.9	129993	-349		-0.3	98.6			-1.4	
2004	139244	1513		1.1	131424	1431		1.1	100.2			1.6	
2005	141719	2475		1.8	133459	2035		1.5	102.6			2.4	
2004	1	138473	193	0.6	0.7	130572	382	1.2	0.4	99.2	0.4	1.6	0.2
	2	138894	421	1.2	0.9	131277	705	2.2	1.1	99.9	0.7	2.7	1.6
	3	139548	654	1.9	1.5	131602	325	1.0	1.4	100.5	0.6	2.6	2.3
	4	140059	511	1.5	1.3	132244	642	2.0	1.6	101.1	0.6	2.4	2.3
2005	1	140373	314	0.9	1.4	132694	450	1.4	1.6	101.6	0.4	1.7	2.4
	2	141506	1132	3.3	1.9	133230	536	1.6	1.5	102.3	0.8	3.1	2.4
	3	142324	818	2.3	2.0	133750	520	1.6	1.6	102.9	0.6	2.2	2.4
	4	142672	348	1.0	1.9	134161	412	1.2	1.4	103.4	0.5	2.1	2.3
2006	1	143324	652	1.8	2.1	134722	560	1.7	1.5	104.2	0.7	3.0	2.6
	2	144009	685	1.9	1.8	135128	407	1.2	1.4	104.9	0.6	2.6	2.5
	3	144586	577	1.6	1.6	135577	448	1.3	1.4	105.2	0.3	1.1	2.2
2004	Oct	139768	273	2.4	1.3	132102	338	3.1	1.5	100.9	0.0	0.0	2.1
	Nov	140276	508	4.4	1.3	132235	133	1.2	1.6	101.0	0.1	1.2	1.9
	Dec	140133	-143	-1.2	1.3	132395	160	1.5	1.6	101.5	0.5	6.1	2.9
2005	Jan	140234	101	0.9	1.3	132471	76	0.7	1.6	101.3	-0.2	-2.3	2.3
	Feb	140285	51	0.4	1.3	132736	265	2.4	1.7	101.6	0.3	3.6	2.2
	Mar	140601	316	2.7	1.6	132876	140	1.3	1.6	101.8	0.2	2.4	2.5
	Apr	141196	595	5.2	1.8	133104	228	2.1	1.5	102.4	0.6	7.3	2.8
	May	141571	375	3.2	2.0	133210	106	1.0	1.4	102.2	-0.2	-2.3	1.9
	Jun	141750	179	1.5	1.8	133376	166	1.5	1.5	102.4	0.2	2.4	2.6
	Jul	142111	361	3.1	1.8	133617	241	2.2	1.6	102.9	0.5	6.0	2.6
	Aug	142425	314	2.7	2.1	133792	175	1.6	1.7	102.7	-0.2	-2.3	2.3
	Sep	142435	10	0.1	2.1	133840	48	0.4	1.6	103.1	0.4	4.8	2.2
	Oct	142625	190	1.6	2.0	133877	37	0.3	1.3	103.1	0.0	0.0	2.2
	Nov	142611	-14	-0.1	1.7	134231	354	3.2	1.5	103.5	0.4	4.8	2.5
	Dec	142779	168	1.4	1.9	134376	145	1.3	1.5	103.7	0.2	2.3	2.2
2006	Jan	143074	295	2.5	2.0	134530	154	1.4	1.6	104.0	0.3	3.5	2.7
	Feb	143257	183	1.5	2.1	134730	200	1.8	1.5	104.2	0.2	2.3	2.6
	Mar	143641	384	3.3	2.2	134905	175	1.6	1.5	104.4	0.2	2.3	2.6
	Apr	143688	47	0.4	1.8	135017	112	1.0	1.4	104.8	0.4	4.7	2.3
	May	143976	288	2.4	1.7	135117	100	0.9	1.4	104.7	-0.1	-1.1	2.4
	Jun	144363	387	3.3	1.8	135251	134	1.2	1.4	105.1	0.4	4.7	2.6
	Jul	144329	-34	-0.3	1.6	135374	123	1.1	1.3	105.2	0.1	1.1	2.2
	Aug	144579	250	2.1	1.5	135604	230	2.1	1.4	105.1	-0.1	-1.1	2.3
	Sep	144850	271	2.3	1.7	135752	148	1.3	1.4	105.2	0.1	1.1	2.0
	Oct	145287	437	3.7	1.9	135844	92	0.8	1.5	105.5	0.3	3.5	2.3

		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
2001		4.7	3385.830			2.9	99.8784			-3.5	3.39	5.02
2002		5.8	3467.083			2.4	100.0000			0.1	1.60	4.61
2003		6.0	3614.287			4.2	100.6244			0.6	1.01	4.02
2004		5.5	3836.987			6.2	104.7252			4.1	1.37	4.27
2005		5.1	4112.995			7.2	108.0621			3.2	3.15	4.29
2004	1	5.7	938.788	2.0	8.3	6.1	103.1294	1.3	5.3	2.6	0.92	4.02
	2	5.6	947.407	0.9	3.7	6.2	104.4460	1.3	5.2	4.8	1.08	4.60
	3	5.4	964.134	1.8	7.3	5.1	105.1248	0.6	2.6	4.6	1.49	4.30
	4	5.4	986.658	2.3	9.7	7.2	106.2005	1.0	4.2	4.3	2.01	4.17
2005	1	5.2	998.909	1.2	5.1	6.4	107.2067	0.9	3.8	4.0	2.54	4.30
	2	5.1	1022.622	2.4	9.8	7.9	107.6359	0.4	1.6	3.1	2.86	4.16
	3	5.0	1042.720	2.0	8.1	8.2	108.0066	0.3	1.4	2.7	3.36	4.21
	4	4.9	1048.744	0.6	2.3	6.3	109.3991	1.3	5.3	3.0	3.83	4.49
2006	1	4.7	1081.608	3.1	13.1	8.3	110.7750	1.3	5.1	3.3	4.39	4.57
	2	4.6	1090.393	0.8	3.3	6.6	112.5592	1.6	6.6	4.6	4.70	5.07
	3	4.7	1100.083	0.9	3.6	5.5	113.7210	1.0	4.2	5.3	4.91	4.90
2004	Oct	5.4	327.054	0.6	6.9	7.4	105.8234	0.7	9.0	4.7	1.76	4.10
	Nov	5.4	327.663	0.2	2.3	6.2	106.0348	0.2	2.4	3.9	2.07	4.19
	Dec	5.4	331.941	1.3	16.8	8.1	106.7432	0.7	8.3	4.4	2.19	4.23
2005	Jan	5.2	330.643	-0.4	-4.6	6.9	106.9478	0.2	2.3	4.2	2.33	4.22
	Feb	5.4	333.908	1.0	12.5	7.0	107.3608	0.4	4.7	3.7	2.54	4.17
	Mar	5.1	334.358	0.1	1.6	5.3	107.3115	-0.0	-0.5	4.0	2.74	4.50
	Apr	5.1	339.841	1.6	21.6	8.2	107.1838	-0.1	-1.4	3.1	2.78	4.34
	May	5.1	338.488	-0.4	-4.7	5.8	107.4337	0.2	2.8	2.4	2.84	4.14
	Jun	5.0	344.293	1.7	22.6	9.8	108.2903	0.8	10.0	3.7	2.97	4.00
	Jul	5.0	350.635	1.8	24.5	9.7	108.2725	-0.0	-0.2	3.1	3.22	4.18
	Aug	4.9	345.648	-1.4	-15.8	8.3	108.5868	0.3	3.5	3.1	3.44	4.26
	Sep	5.1	346.437	0.2	2.8	6.5	107.1604	-1.3	-14.7	2.0	3.42	4.20
	Oct	4.9	348.044	0.5	5.7	6.4	108.3814	1.1	14.6	2.4	3.71	4.46
	Nov	5.0	349.630	0.5	5.6	6.7	109.3877	0.9	11.7	3.2	3.88	4.54
	Dec	4.9	351.070	0.4	5.1	5.8	110.4282	1.0	12.0	3.5	3.89	4.47
2006	Jan	4.7	361.743	3.0	43.2	9.4	110.3486	-0.1	-0.9	3.2	4.24	4.42
	Feb	4.8	358.675	-0.8	-9.7	7.4	110.7354	0.4	4.3	3.1	4.43	4.57
	Mar	4.7	361.190	0.7	8.7	8.0	111.2410	0.5	5.6	3.7	4.51	4.72
	Apr	4.7	363.611	0.7	8.3	7.0	112.1048	0.8	9.7	4.6	4.60	4.99
	May	4.6	364.343	0.2	2.4	7.6	112.1737	0.1	0.7	4.4	4.72	5.11
	Jun	4.6	362.439	-0.5	-6.1	5.3	113.3990	1.1	13.9	4.7	4.79	5.11
	Jul	4.8	367.415	1.4	17.8	4.8	113.7313	0.3	3.6	5.0	4.95	5.09
	Aug	4.7	367.491	0.0	0.2	6.3	114.0392	0.3	3.3	5.0	4.96	4.88
	Sep	4.6	365.177	-0.6	-7.3	5.4	113.3925	-0.6	-6.6	5.8	4.81	4.72
	Oct	4.4	363.844	-0.4	-4.3	4.5	113.6615	0.2	2.9	4.9	4.92	4.73

		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
2001		177.0			2.8		186.1			2.7		140.7			1.9
2002		179.9			1.6		190.5			2.3		138.9			-1.3
2003		184.0			2.3		193.2			1.4		143.3			3.2
2004		188.9			2.7		196.6			1.8		148.5			3.6
2005		195.3			3.4		200.9			2.2		155.7			4.9
2004	1	186.6	0.9	3.7	1.8	3.7	194.9	0.4	1.8	1.3	1.8	145.9	0.7	2.9	2.3
	2	188.4	1.0	4.1	2.8	3.9	196.2	0.7	2.7	1.8	2.2	148.2	1.6	6.5	4.1
	3	189.4	0.5	2.1	2.7	3.3	197.1	0.5	1.8	1.8	2.1	148.5	0.2	0.9	3.5
	4	191.1	0.9	3.5	3.3	3.3	198.2	0.6	2.3	2.1	2.1	151.5	2.0	8.3	4.6
2005	1	192.2	0.6	2.5	3.0	2.5	199.5	0.6	2.5	2.3	2.5	152.6	0.7	2.8	4.6
	2	194.0	0.9	3.7	3.0	3.1	200.4	0.5	2.0	2.1	2.2	154.2	1.1	4.4	4.1
	3	196.6	1.4	5.5	3.8	3.9	201.2	0.4	1.6	2.1	2.0	156.7	1.6	6.5	5.5
	4	198.2	0.8	3.2	3.7	3.7	202.4	0.6	2.4	2.1	2.1	159.4	1.8	7.3	5.2
2006	1	199.3	0.6	2.2	3.7	2.2	203.6	0.6	2.4	2.1	2.4	159.3	-0.1	-0.4	4.4
	2	201.7	1.2	5.0	4.0	3.6	205.4	0.9	3.5	2.5	3.0	161.0	1.1	4.5	4.4
	3	203.2	0.7	2.9	3.3	3.4	206.9	0.7	3.0	2.8	3.0	161.2	0.1	0.3	2.9
2004	Oct	190.8	0.6	7.2	3.2	3.7	197.9	0.2	1.8	2.0	2.3	150.8	1.5	19.3	4.3
	Nov	191.2	0.2	2.5	3.5	3.6	198.3	0.2	2.5	2.2	2.3	152.2	0.9	11.7	5.2
	Dec	191.2	0.0	0.0	3.3	3.3	198.5	0.1	1.2	2.2	2.2	151.5	-0.5	-5.4	4.3
2005	Jan	191.4	0.1	1.3	3.0	1.3	199.0	0.3	3.1	2.3	3.1	151.7	0.1	1.6	4.1
	Feb	192.1	0.4	4.5	3.0	2.9	199.4	0.2	2.4	2.4	2.8	152.4	0.5	5.7	4.7
	Mar	193.2	0.6	7.1	3.2	4.3	200.0	0.3	3.7	2.4	3.1	153.6	0.8	9.9	5.0
	Apr	194.1	0.5	5.7	3.5	4.6	200.2	0.1	1.2	2.2	2.6	154.4	0.5	6.4	4.7
	May	194.0	-0.1	-0.6	2.9	3.6	200.5	0.1	1.8	2.2	2.4	154.1	-0.2	-2.3	3.7
	Jun	193.9	-0.1	-0.6	2.5	2.8	200.6	0.0	0.6	2.0	2.1	154.2	0.1	0.8	3.8
	Jul	195.1	0.6	7.7	3.1	3.5	201.0	0.2	2.4	2.1	2.2	155.4	0.8	9.7	4.7
	Aug	196.2	0.6	7.0	3.6	3.9	201.2	0.1	1.2	2.1	2.0	156.2	0.5	6.4	5.2
	Sep	198.6	1.2	15.7	4.7	5.2	201.5	0.1	1.8	2.0	2.0	158.4	1.4	18.3	6.6
	Oct	199.1	0.3	3.1	4.4	5.0	202.0	0.2	3.0	2.1	2.1	159.6	0.8	9.5	5.8
	Nov	197.8	-0.7	-7.6	3.5	3.8	202.5	0.2	3.0	2.1	2.2	158.8	-0.5	-5.9	4.3
	Dec	197.7	-0.1	-0.6	3.4	3.4	202.8	0.1	1.8	2.2	2.2	159.9	0.7	8.6	5.5
2006	Jan	199.0	0.7	8.2	4.0	8.2	203.2	0.2	2.4	2.1	2.4	160.3	0.3	3.0	5.7
	Feb	199.1	0.1	0.6	3.6	4.3	203.5	0.1	1.8	2.1	2.1	158.4	-1.2	-13.3	3.9
	Mar	199.8	0.4	4.3	3.4	4.3	204.2	0.3	4.2	2.1	2.8	159.1	0.4	5.4	3.6
	Apr	201.0	0.6	7.5	3.6	5.1	204.8	0.3	3.6	2.3	3.0	160.6	0.9	11.9	4.0
	May	201.9	0.4	5.5	4.1	5.2	205.4	0.3	3.6	2.4	3.1	160.8	0.1	1.5	4.3
	Jun	202.3	0.2	2.4	4.3	4.7	206.0	0.3	3.6	2.7	3.2	161.7	0.6	6.9	4.9
	Jul	203.2	0.4	5.5	4.2	4.8	206.4	0.2	2.4	2.7	3.1	161.8	0.1	0.7	4.1
	Aug	203.7	0.2	3.0	3.8	4.6	206.9	0.2	2.9	2.8	3.0	161.9	0.1	0.7	3.6
	Sep	202.7	-0.5	-5.7	2.1	3.4	207.4	0.2	2.9	2.9	3.0	159.8	-1.3	-14.5	0.9
	Oct	201.7	-0.5	-5.8	1.3	2.4	207.6	0.1	1.2	2.8	2.8	157.2	-1.6	-17.9	-1.5

## 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. For more information see <http://www.bls.gov/ces/>. **Nonfarm Payroll Employment** is counted in a survey of about 400,000 establishments (Current Employment Statistics). 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/). The **Job Openings rate** is the number of job openings on the last business day of the month as a percent of total employment plus job openings.

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 CCAAdj (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.

*Organization for Economic Cooperation and Development (OECD)*

GDP for major trading partners (not available on FRED).