National Economic Trends

January 2007

China's Strategic Petroleum Reserve: A Drop in the Bucket

China's very strong economic growth over the past 25 years has fueled a thirst for oil. Although China was a net oil exporter as recently as 1992, by 2002 it was importing 33 percent of the oil it was consuming. In 2005, China imported about 40 percent of its total oil needs, which was more than 7 million barrels per day (bpd); this level of consumption is second only to that of the United States, which consumed 20.7 million bpd in the same year.[1]

China's rapidly rising dependence on foreign oil supplies has created anxiety among its leaders about the security of those imports, more than half of which come from the Middle East or West Africa. China's apparently very modest commercial storage capacity probably has contributed to this concern.

In view of these facts, China has followed other nations in establishing strategic oil reserves. China's long-run goal is to store 90 days of net imports, about 400 million barrels at projected future import rates. This would bring them into compliance with the International Energy Agency's (IEA) recommendation for strategic reserves. China's decision to build a strategic reserve has some concerned that these purchases will affect the price of oil, which I discuss here.

Three years ago, China began to build the first of four large aboveground storage facilities, which together will hold 102 million barrels or about a 33-day supply, at current import rates. The first of these, the Zhenhai oil reserve, was finished in September 2006. Analysts believe that one tenth of this first facility was filled with about 3 million barrels of Russian crude oil at the time of its completion. The rest of the aboveground facilities are scheduled to be completed in 2008. These initial facilities will later be supplemented by underground tanks scattered around the country.

As a point of comparison, the U.S. strategic petroleum reserve had 688 million barrels in underground salt caverns as of November 10, 2006. That stockpile provides about a 55-day supply of oil imports at 2005 U.S. rates of consumption.

At least two factors will influence the rate at which China purchases oil for storage. The first is the Chinese government's sensitivity to the price impact of such purchases. The second factor is the price of oil. Other things equal, higher oil prices will probably mean a slower accumulation of reserves.

Analysts estimate that China will purchase oil at a rate of 100,000 bpd.[2] This means that the first stage of the storage process (102 million barrels in the aboveground facilities) would be finished by the third quarter of 2009.

A back-of-the-envelope supply/demand calculation can estimate the effect of this strategic petroleum reserve on oil prices. Given that China's strategic oil reserve is a long-term project, publicized and anticipated, it seems likely that the increase in oil prices will be determined by long-run elasticities. Studies have estimated the long-run elasticity of demand as –0.05 and the long-run elasticity of supply as 0.08.[3] On November 13, 2006, the price of West Texas intermediate crude was approximately $58.60. Global oil consumption and production is in the range of 80 million bpd. Shifting the demand curve out by 100,000 bpd would increase total demand by 0.125 percent and the price of a barrel of oil by almost 1 percent, to $59.16. This increase is modest compared with the 1.6 percent daily standard deviation in recent crude oil prices. Thus, filling China's petroleum reserve will probably have a very modest impact on prices.

—Christopher J. Neely

[1] This calculation uses net imports to China and Hong Kong over total oil consumption.

[2] This estimate is consistent with estimates of how fast China has chosen to fill the first completed facility. See www.uofaweb.ualberta.ca/chinainstitute/nav03.cfm?nav03=51660&nav02=43610&nav01=43092.

[3] See Noureddine Krichene's paper, "World Crude Oil Markets: Monetary Policy and the Recent Oil Shock," International Monetary Fund Working Paper 2006-62, March 2006.

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

Contents

Page	
3	Economy at a Glance
4	Output and Growth
7	Interest Rates
8	Inflation and Prices
10	Labor Markets
12	Consumer Spending
14	Investment Spending
16	Government Revenues, Spending, and Debt
18	International Trade
20	Productivity and Profits
22	Quick Reference Tables
27	Notes and Sources

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*
Research Division
Federal Reserve Bank of St. Louis
P.O. Box 442
St. Louis, MO 63166-0442

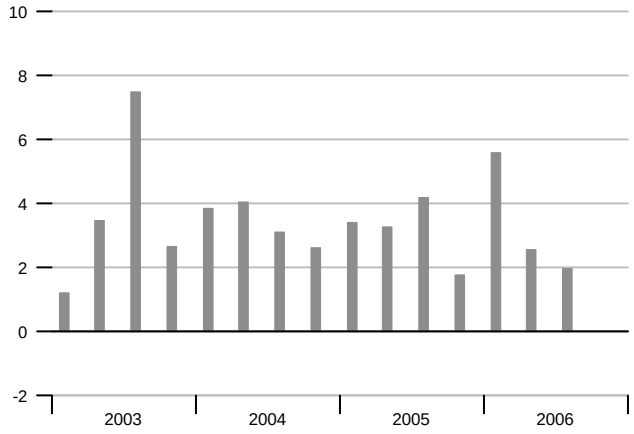
or to:

stlsFRED@stls.frb.org

National Economic Trends is published by the Research Division of the Federal Reserve Bank of St. Louis. Visit the Research Division's website at research.stlouisfed.org/publications/net to download the current version of this publication or register for e-mail notification updates. For more information on data in this publication, please visit research.stlouisfed.org/fred2 or call (314) 444-8573.

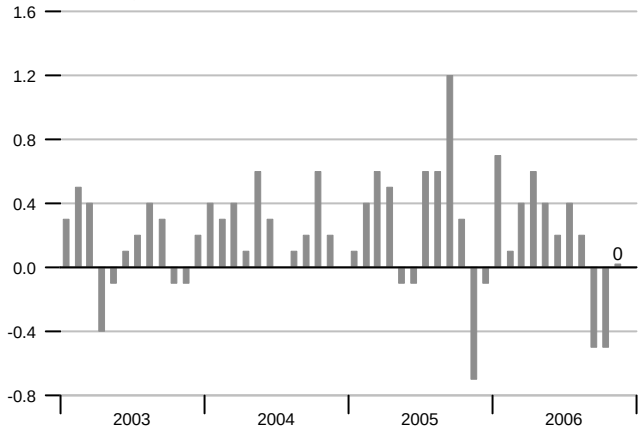
Real GDP Growth

Compounded annual rates of change



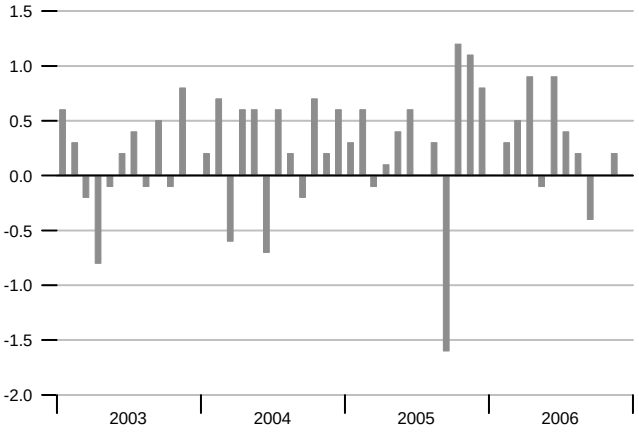
Consumer Price Index

Percent change



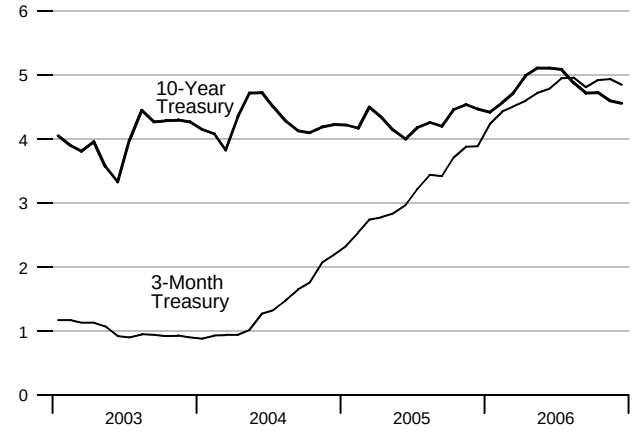
Industrial Production

Percent change



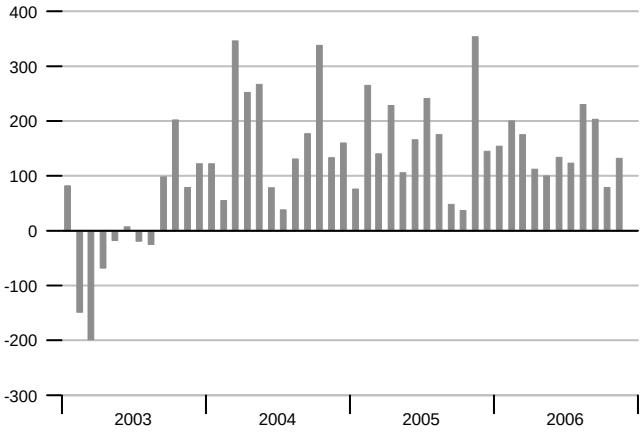
Interest Rates

Percent



Change in Nonfarm Payrolls

Thousands

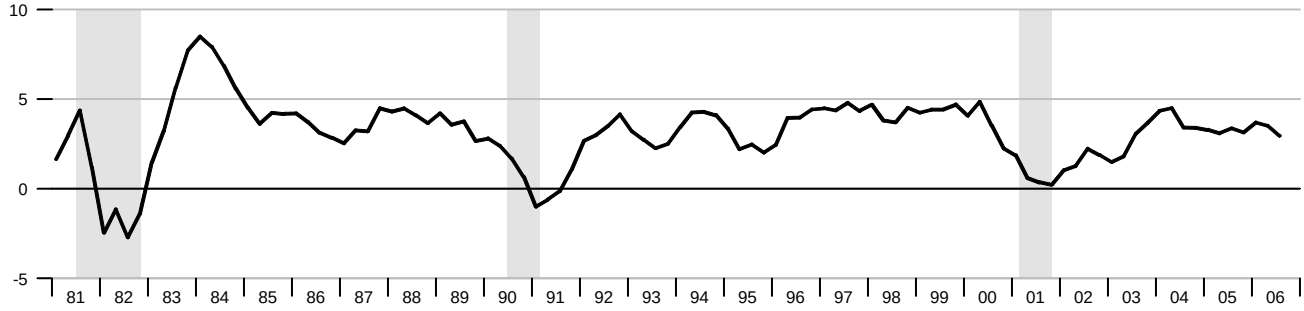


Unemployment Rate

Percent of labor force

Real Gross Domestic Product

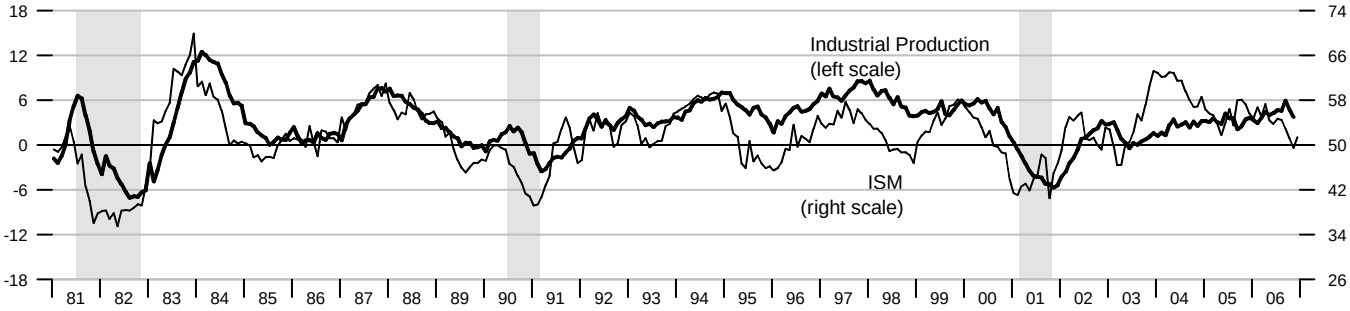
Percent change from year ago



Industrial Production and Institute for Supply Management (ISM) Indexes

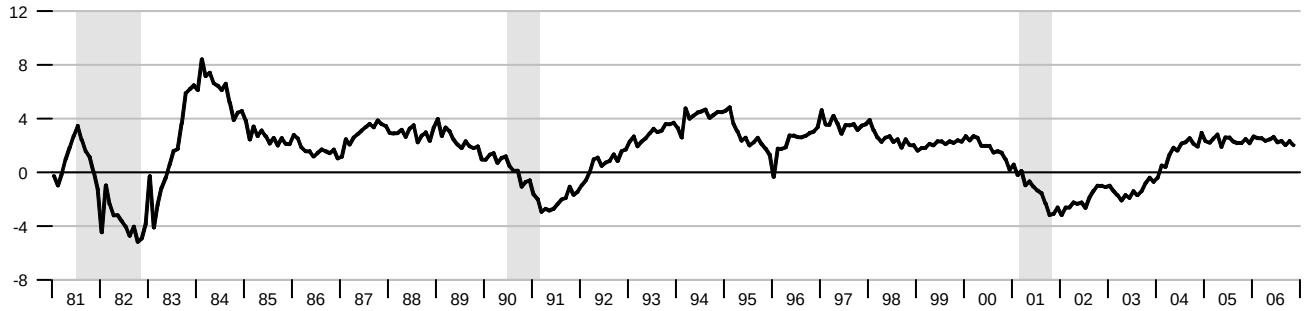
Percent change from year ago

Index



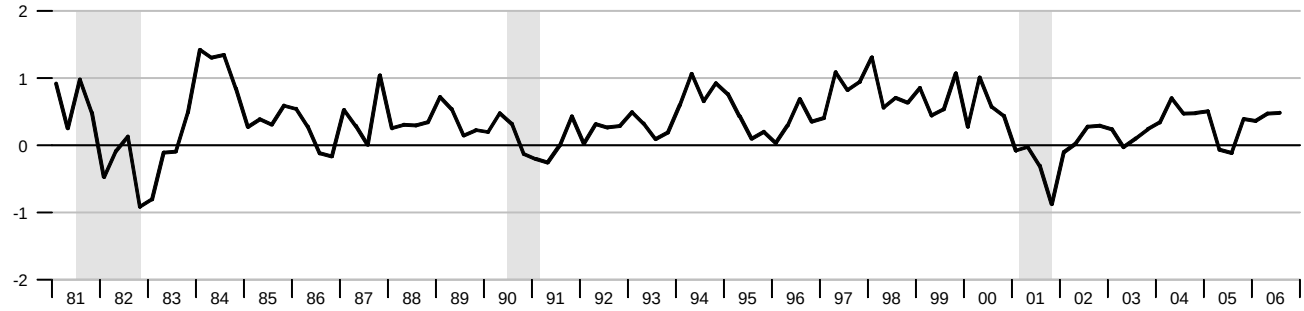
Aggregate Private Nonfarm Hours

Percent change from year ago



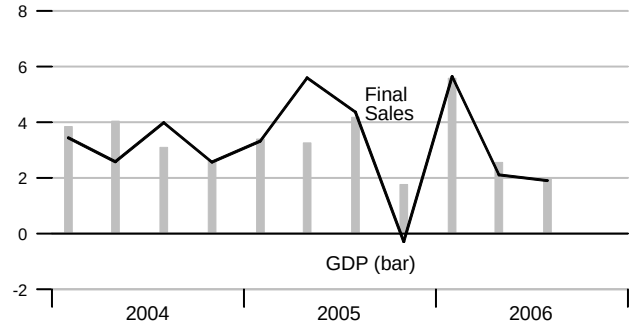
Real Change in Private Inventories

Percent of GDP



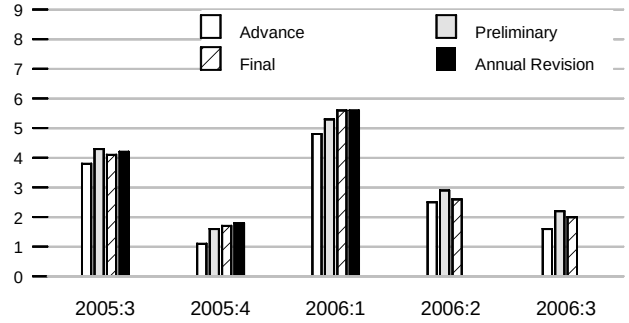
Real Final Sales and GDP

Compounded annual rates of change



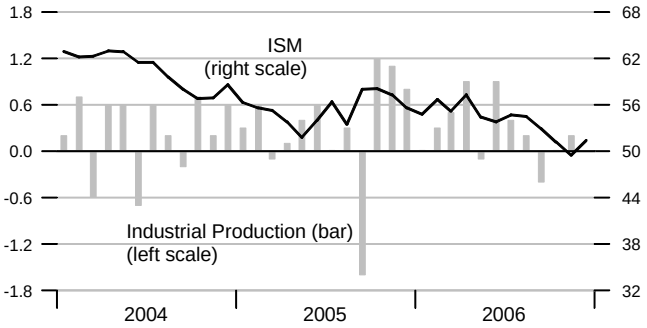
Real GDP Revisions

Compounded annual rates of change



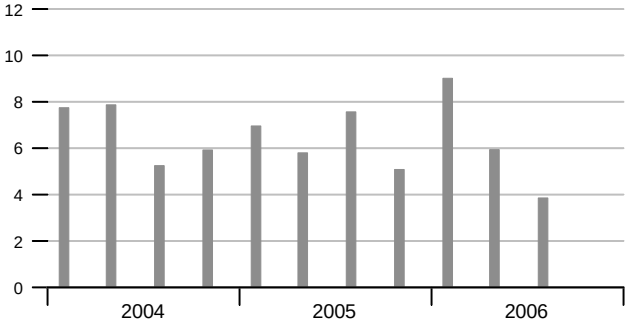
Industrial Production and ISM Index

Percent change | Index



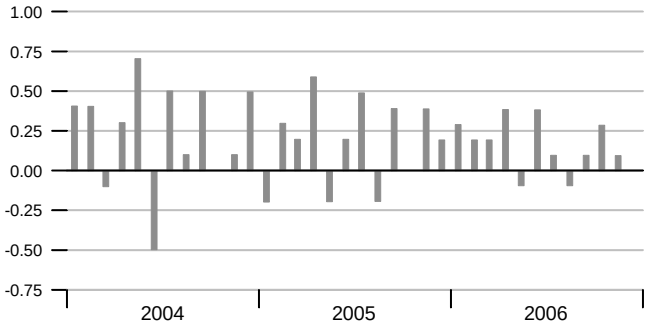
Nominal Gross Domestic Product

Compounded annual rates of change



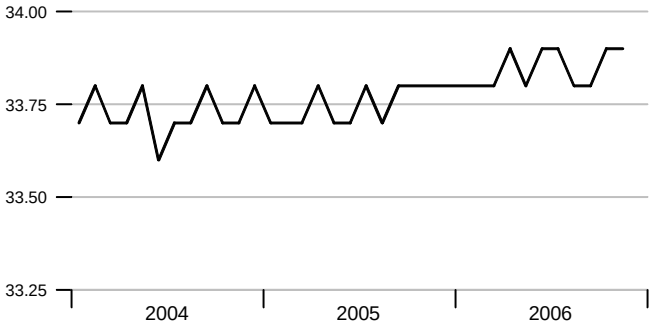
Aggregate Private Nonfarm Hours

Percent change



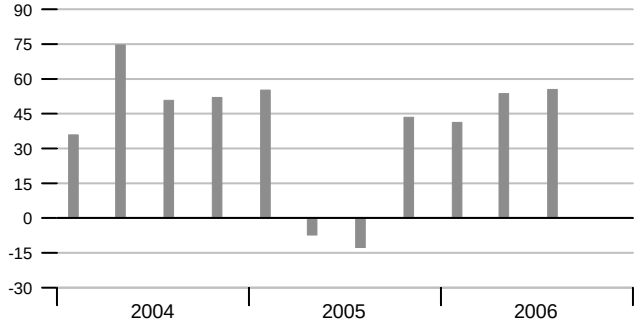
Average Weekly Private Nonfarm Hours

Hours



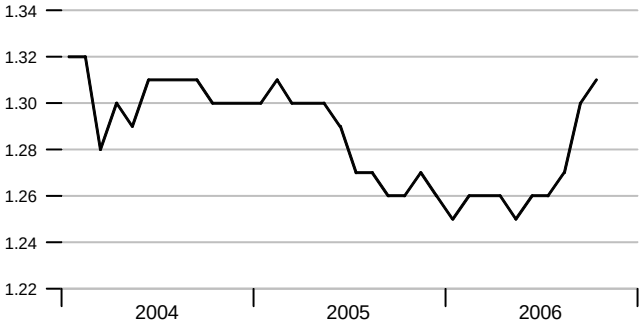
Real Change in Private Inventories

Billions of 2000 dollars



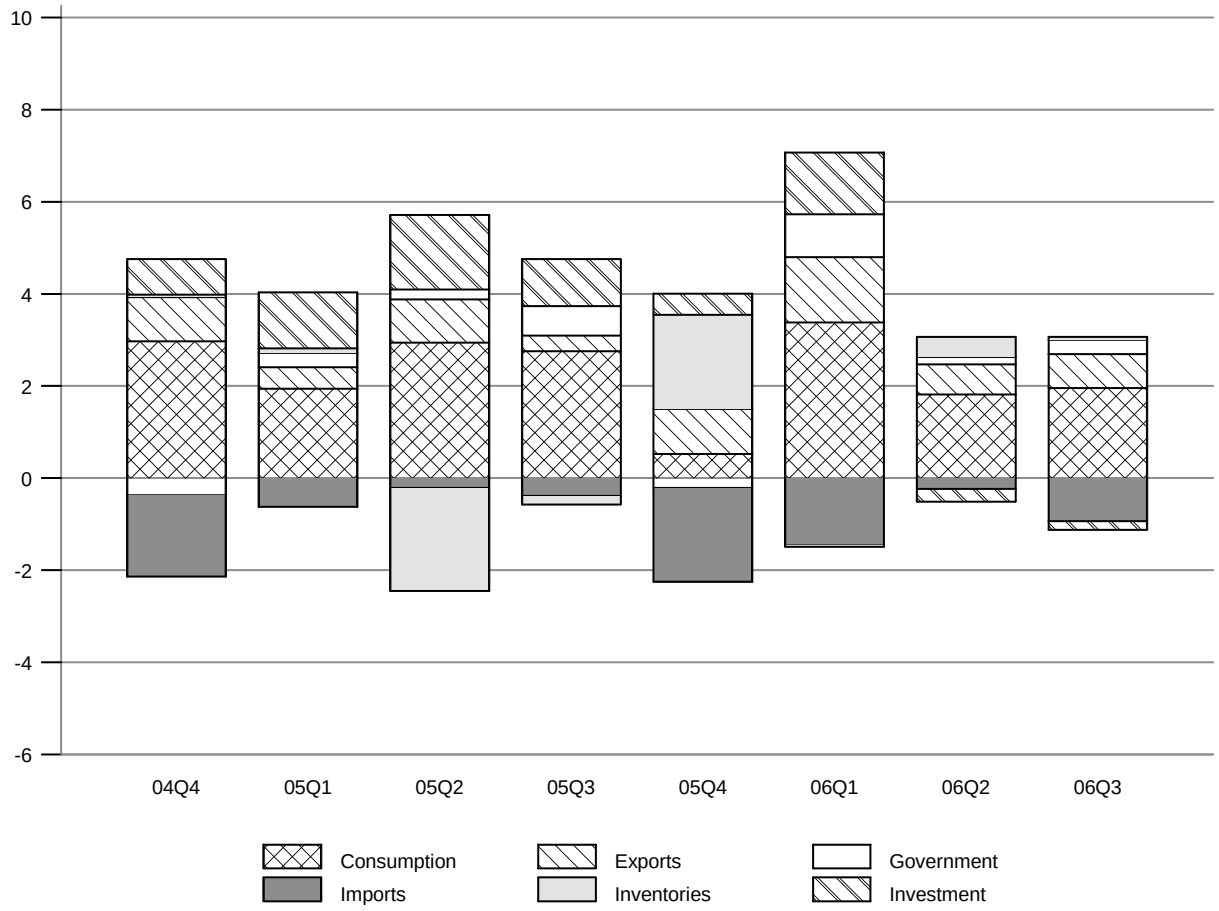
Inventory-Sales Ratio

Manufacturing and trade



Contribution of Components to Real GDP Growth

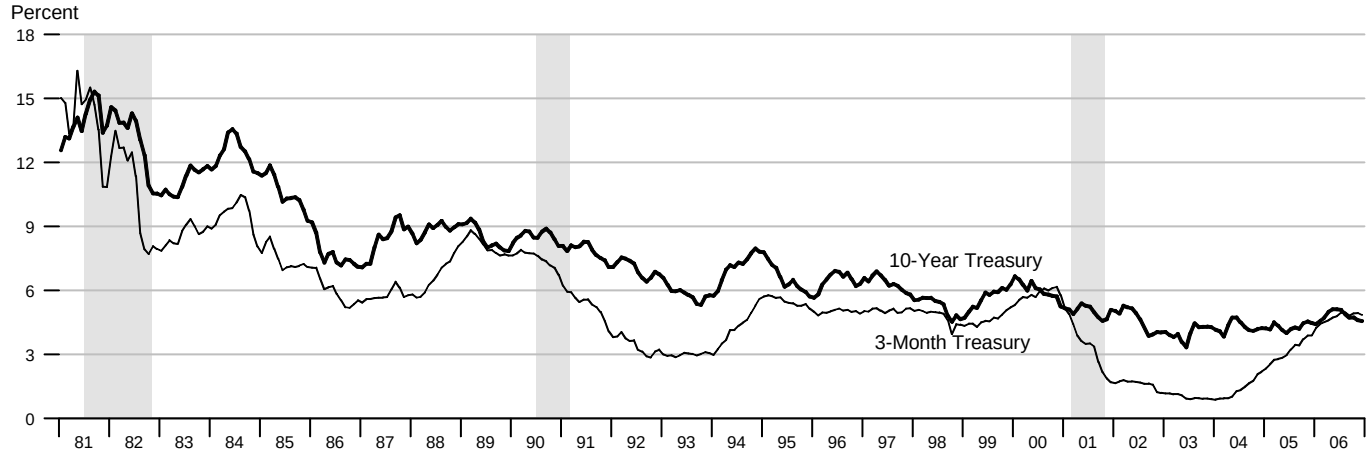
Percentage points at compounded annual rates



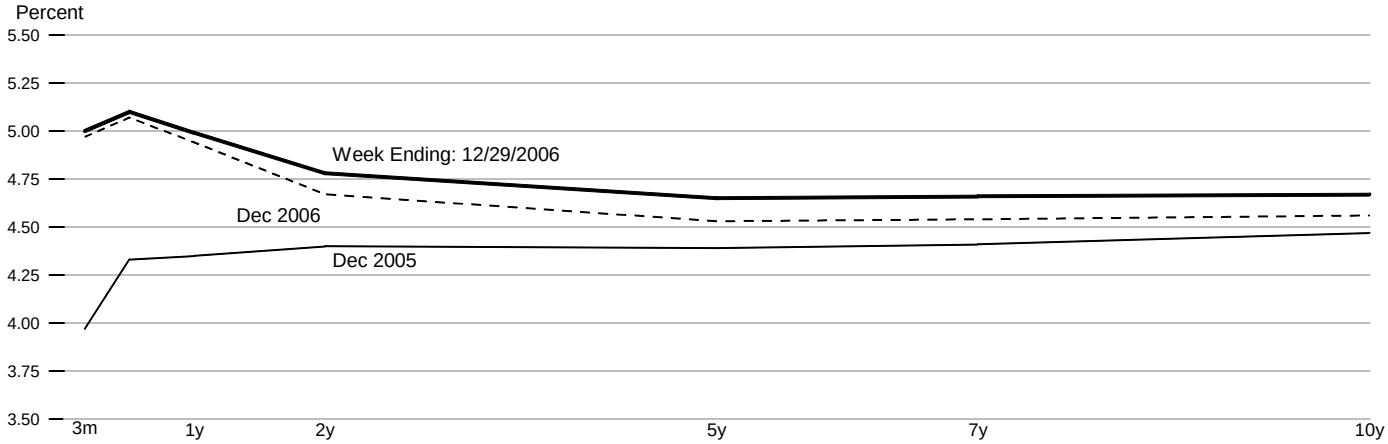
Contributions to Real GDP Growth Rate

	2004	2005				2006		
	4th	1st	2nd	3rd	4th	1st	2nd	3rd
Final Sales	2.56	3.31	5.49	4.36	-0.29	5.61	2.12	1.90
Consumption	2.97	1.94	2.94	2.76	0.53	3.38	1.81	1.96
Fixed Investment	0.77	1.22	1.62	1.02	0.46	1.34	-0.27	-0.19
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	-1.20
Government	-0.37	0.31	0.21	0.64	-0.21	0.94	0.16	0.32
Federal	-0.38	0.23	0.03	0.66	-0.33	0.61	-0.32	0.09
State and Local	0.01	0.08	0.18	-0.01	0.13	0.33	0.48	0.23
Net Exports	-0.81	-0.16	0.72	-0.06	-1.07	-0.04	0.42	-0.19
Exports	0.96	0.47	0.94	0.33	0.97	1.41	0.66	0.73
Imports	-1.77	-0.63	-0.22	-0.39	-2.04	-1.46	-0.24	-0.93
Change in Inventory	0.05	0.09	-2.23	-0.18	2.05	-0.03	0.44	0.06
Residual	-0.09	-0.01	0.08	0.01	-0.08	-0.10	-0.15	-0.26
Real GDP Growth	2.61	3.40	3.26	4.18	1.76	5.58	2.56	1.96

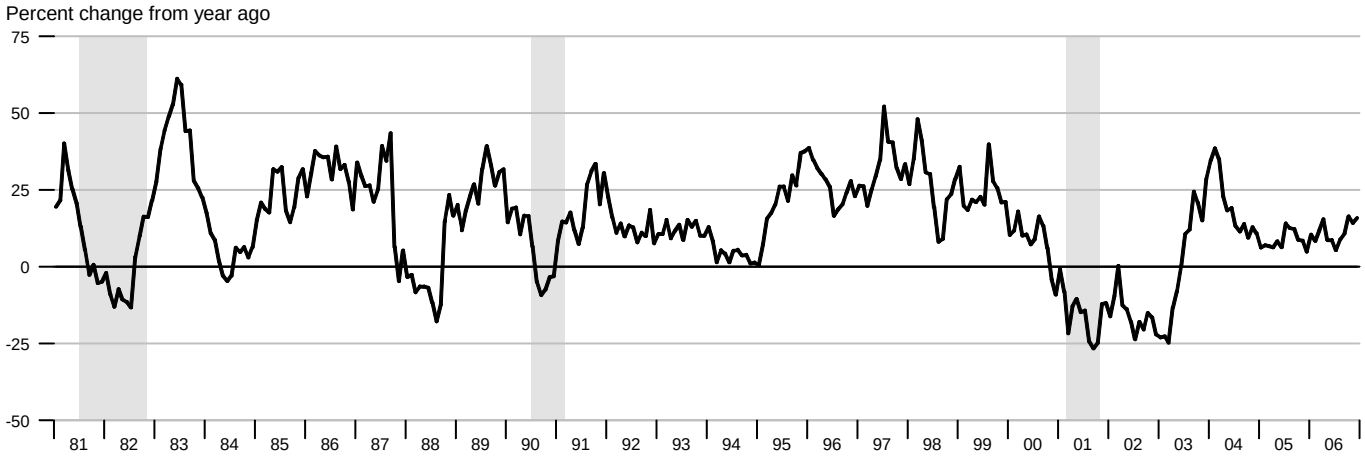
Interest Rates



Treasury Yield Curve

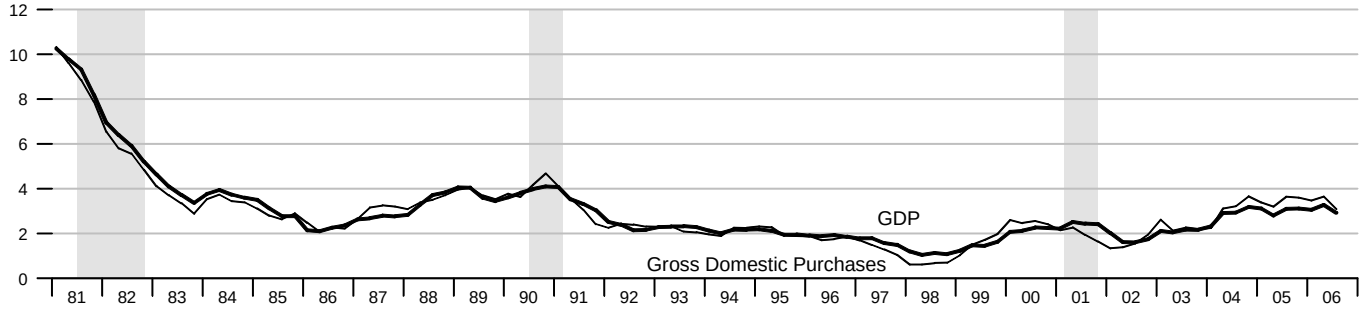


Standard and Poor's 500 Index with Reinvested Dividends



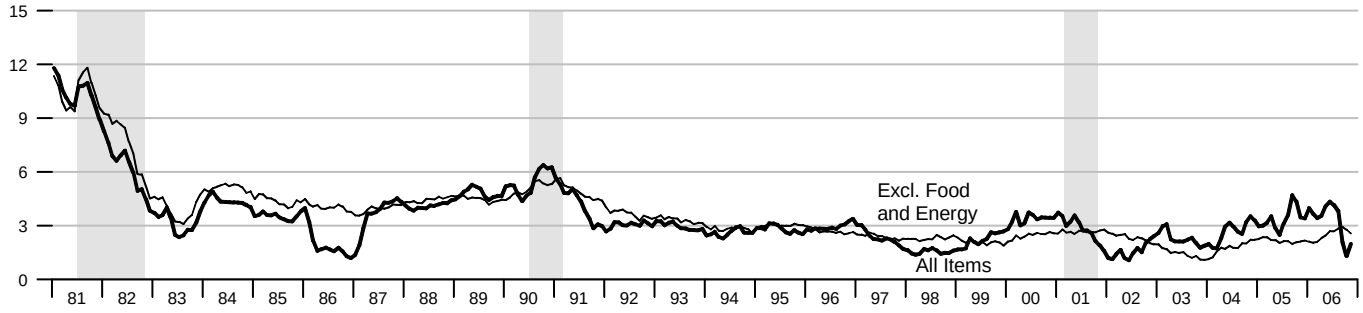
NIPA Chain Price Indexes

Percent change from year ago



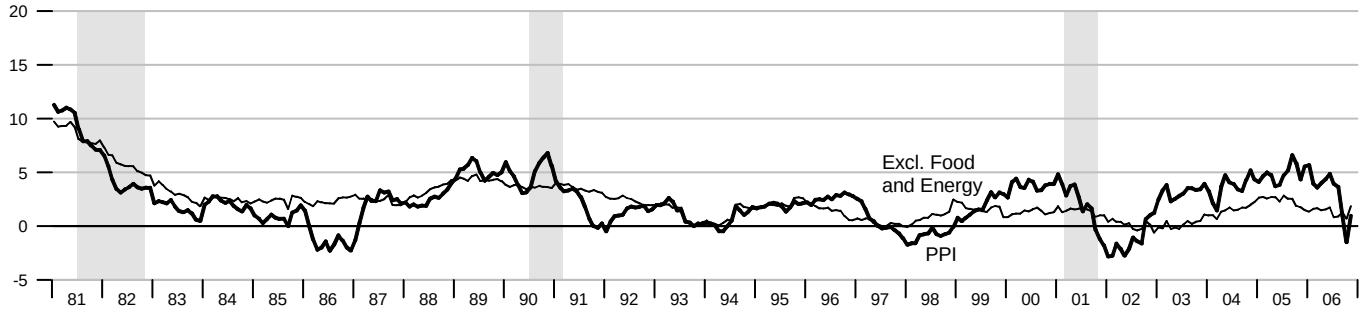
Consumer Price Index

Percent change from year ago



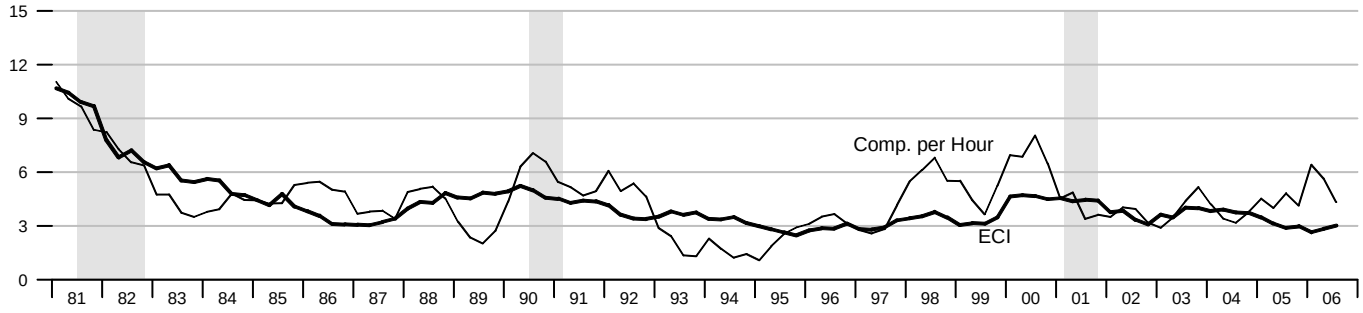
Producer Price Index, Finished Goods

Percent change from year ago



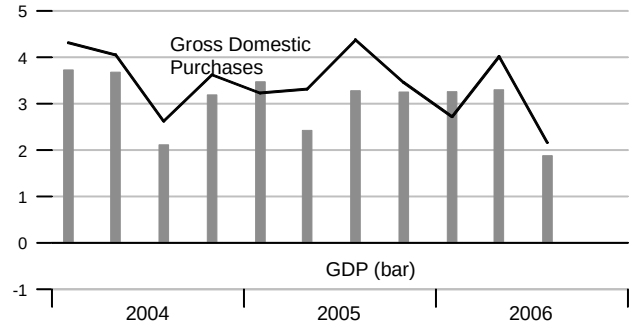
Employment Cost Index and Compensation per Hour

Percent change from year ago



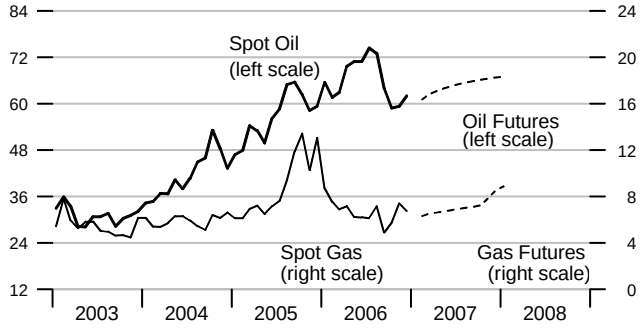
NIPA Chain Price Indexes

Compounded annual rates of change



Oil & Natural Gas Prices: Spot & Futures

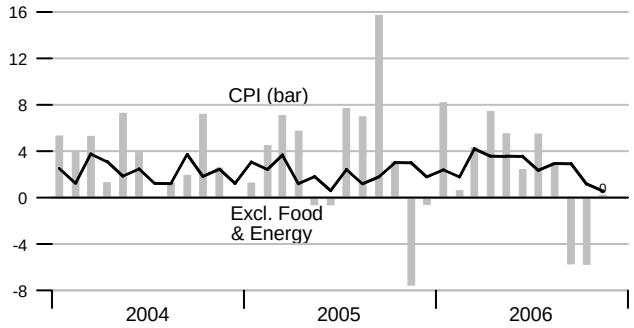
Dollars per barrel | Dollars per million btu



Note: Futures prices as of 01/02/2007.

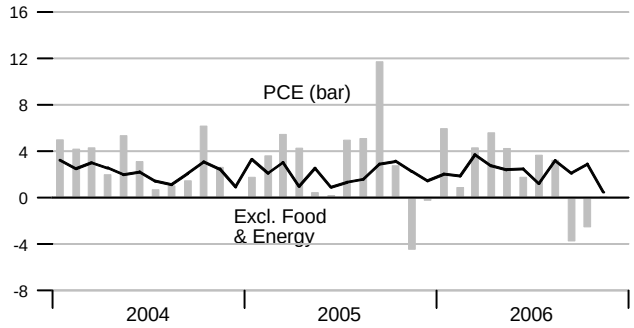
Consumer Price Index

Compounded annual rates of change



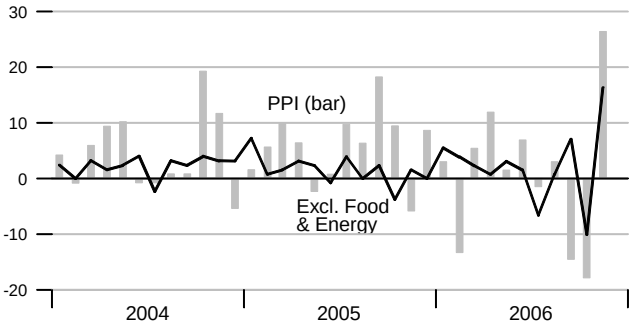
Consumption Chain Price Index

Compounded annual rates of change



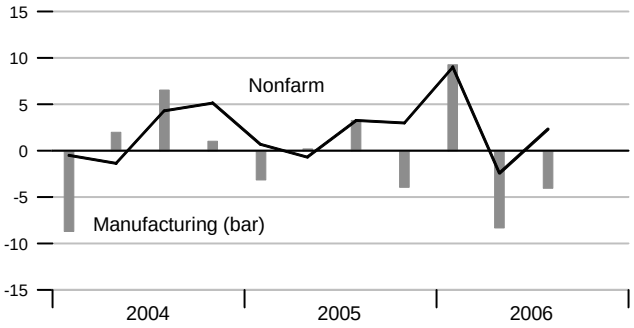
Producer Price Index, Finished Goods

Compounded annual rates of change



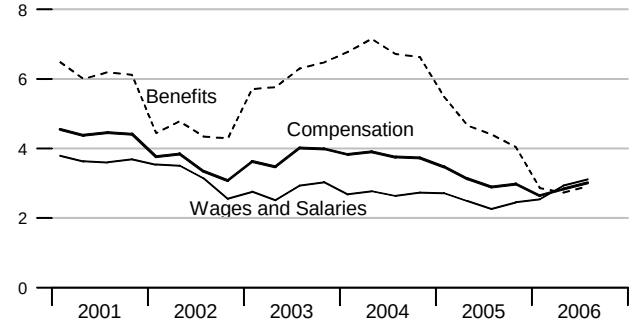
Unit Labor Cost

Compounded annual rates of change



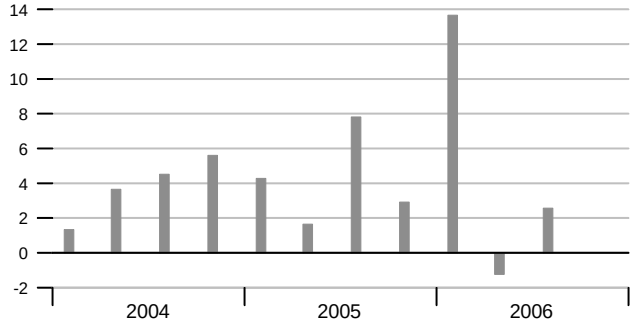
Employment Cost Index

Percent change from year ago

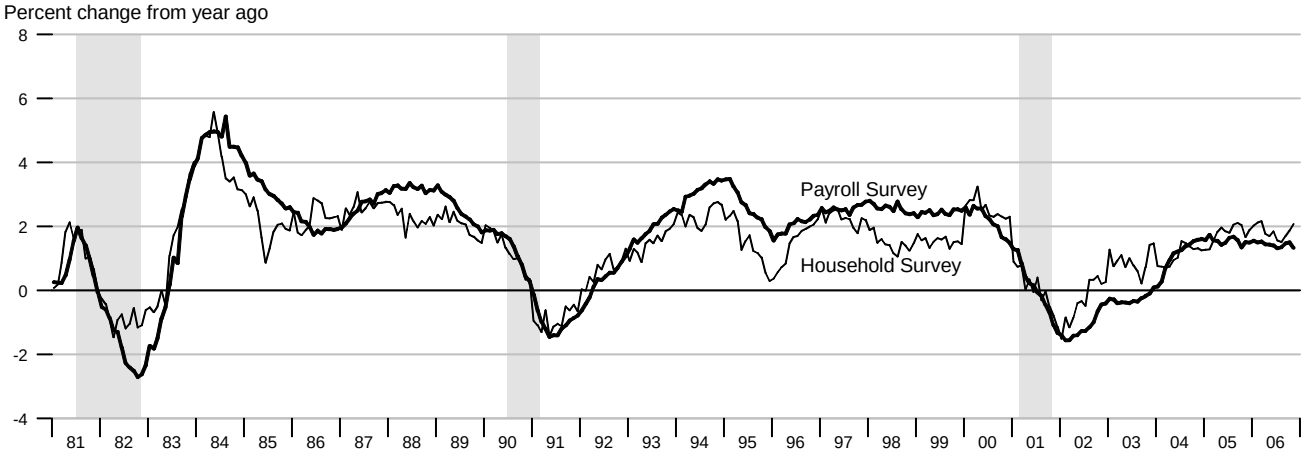


Compensation per Hour

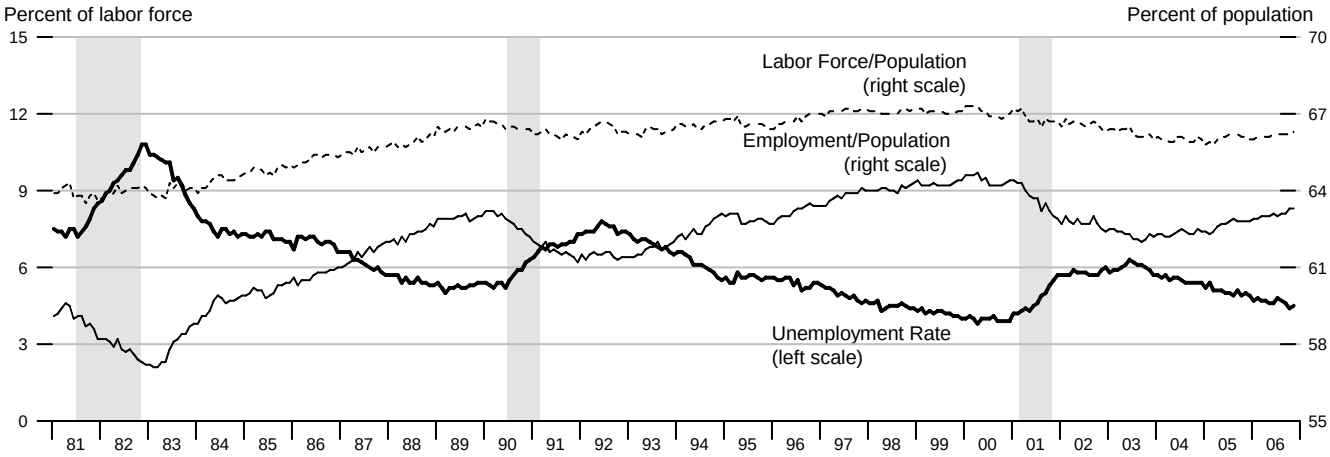
Compounded annual rates of change



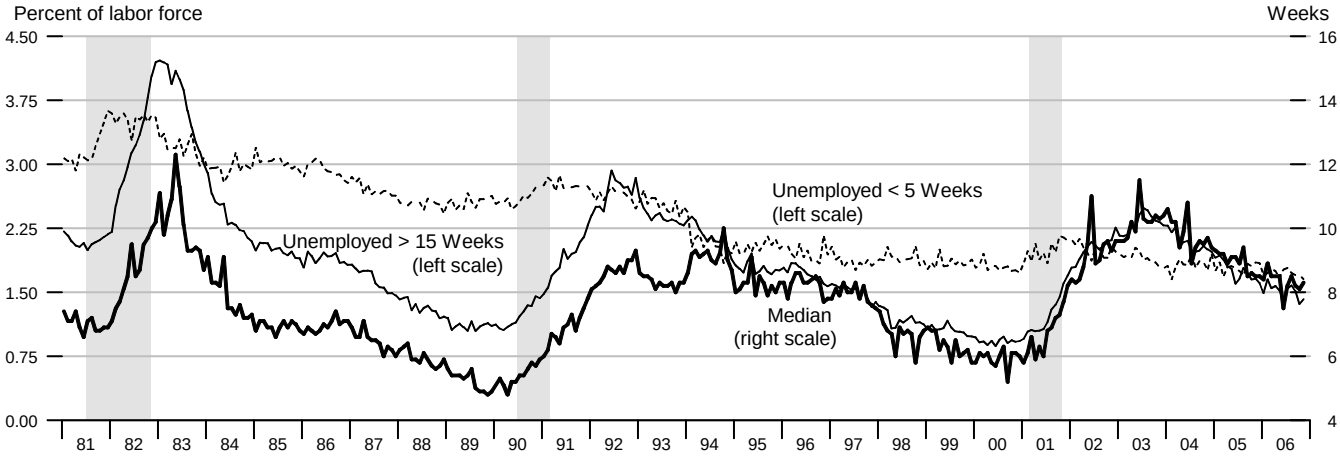
Employment



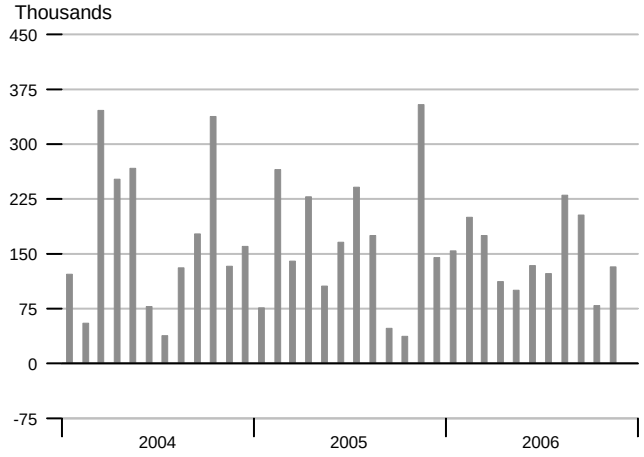
Unemployment, Labor Force Participation, and Employment Rates



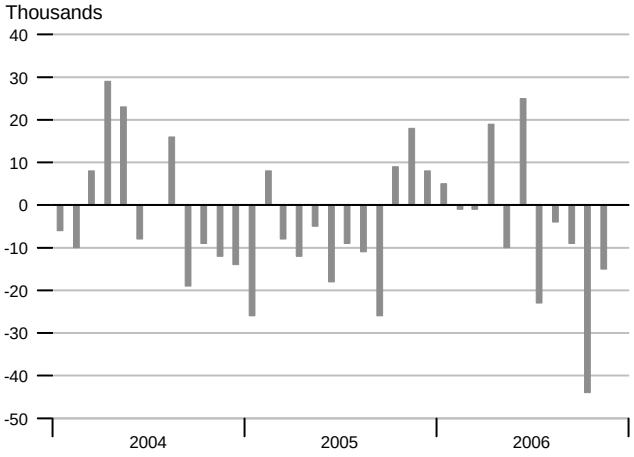
Duration of Unemployment



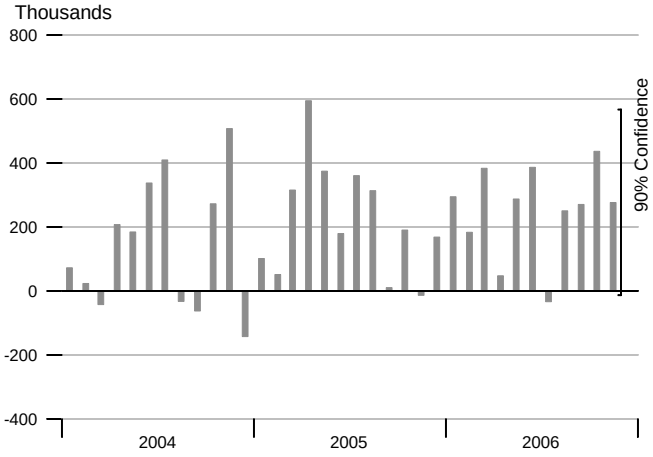
Change in Nonfarm Payrolls



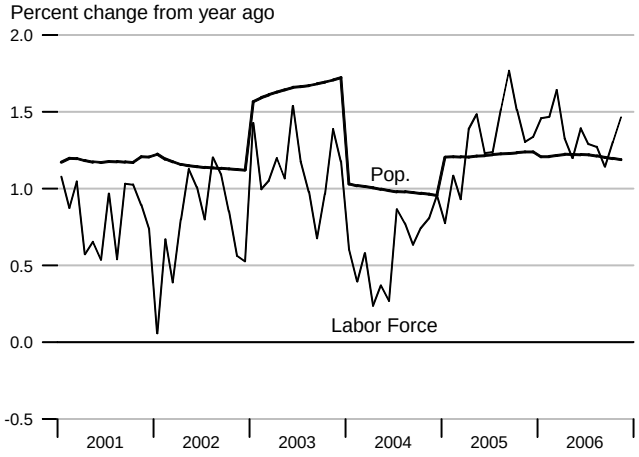
Change in Manufacturing Payrolls



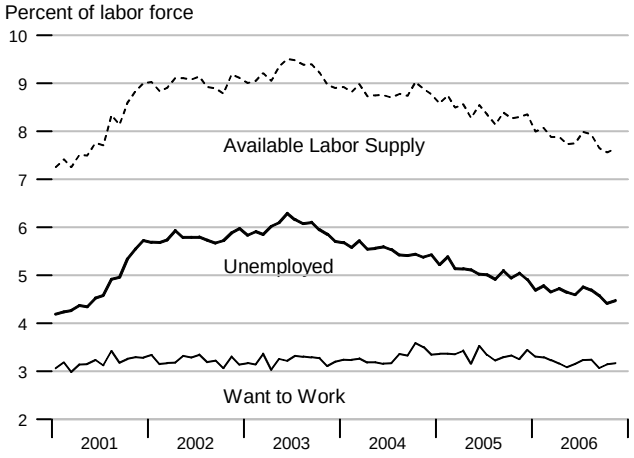
Change in Household Employment



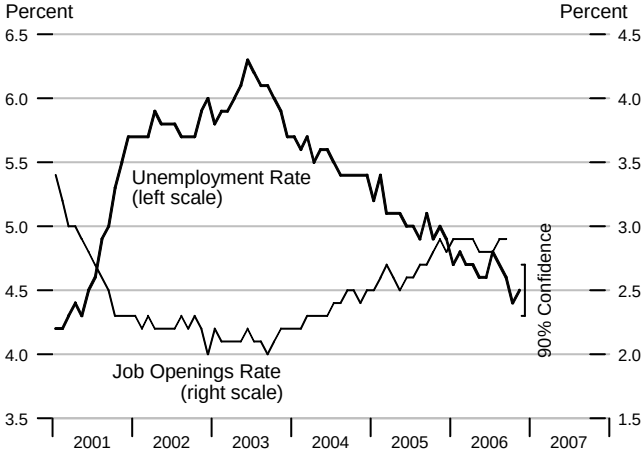
Labor Force and Population



Available Labor Supply and Components

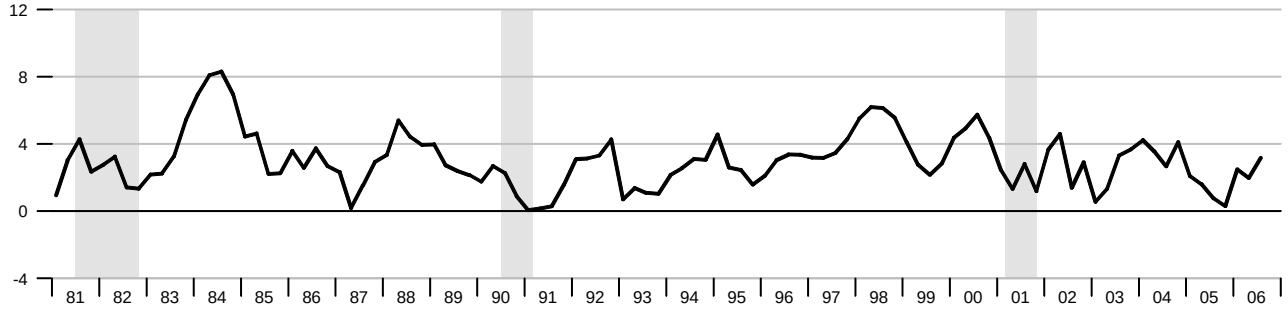


Unemployment Rate & Job Openings Rate



Real Disposable Personal Income

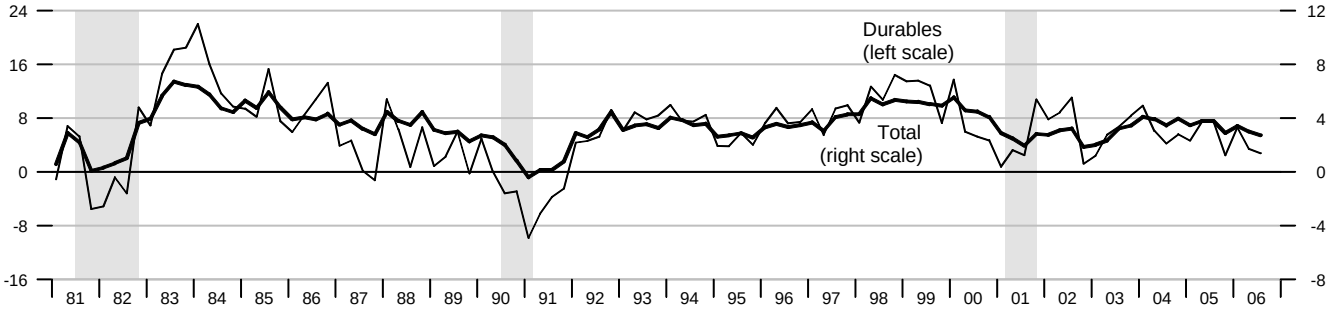
Percent change from year ago, quarterly data



Real Consumption

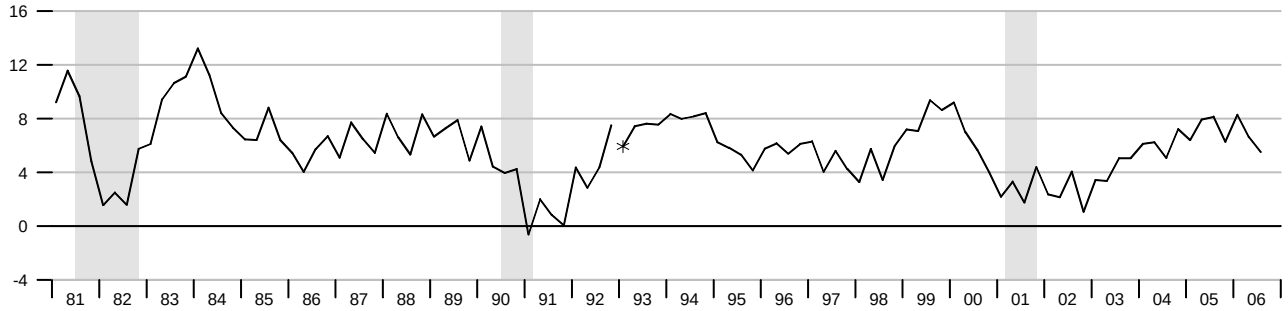
Percent change from year ago, quarterly data

Percent change from year ago, quarterly data



Retail and Food Services Sales

Percent change from year ago, quarterly average

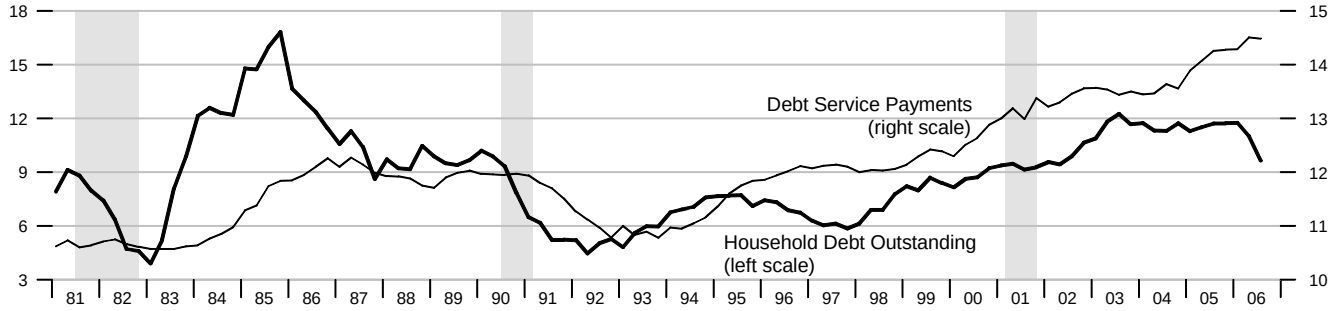


*Data from Jan. 1992 to the present are on a NAICS basis; data prior to Jan. 1992 are on an SIC basis and are not strictly comparable (see End Note).

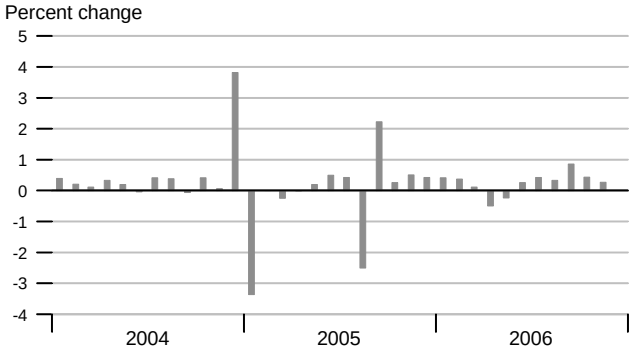
Debt Service Payments and Household Debt Outstanding

Percent change from year ago, quarterly data

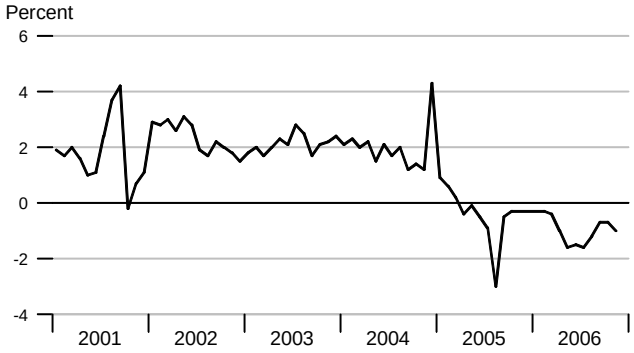
Percent of disposable personal income



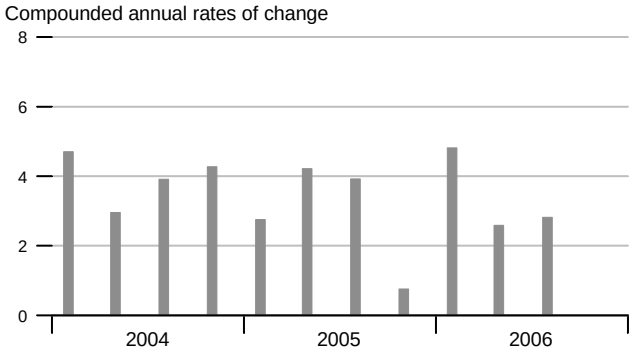
Real Disposable Personal Income



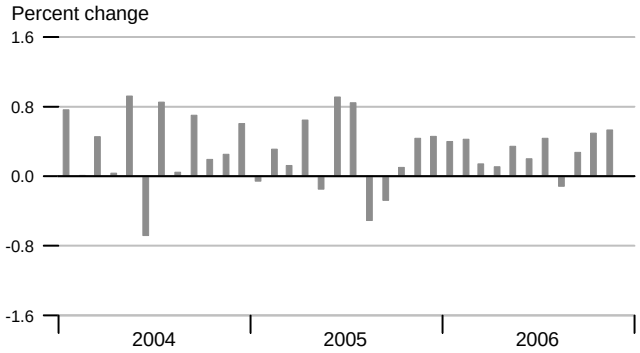
Personal Saving Rate



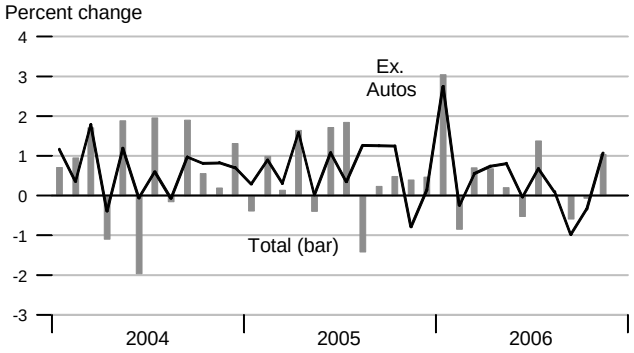
Real Consumption



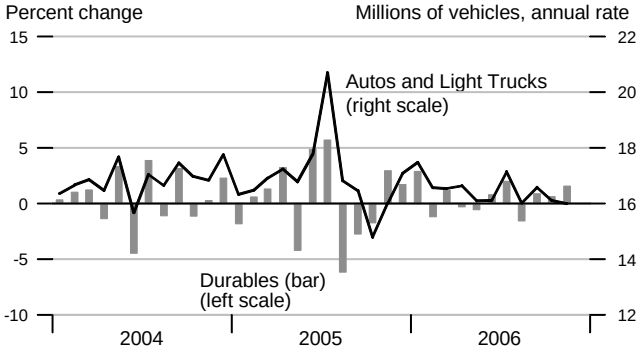
Real Consumption



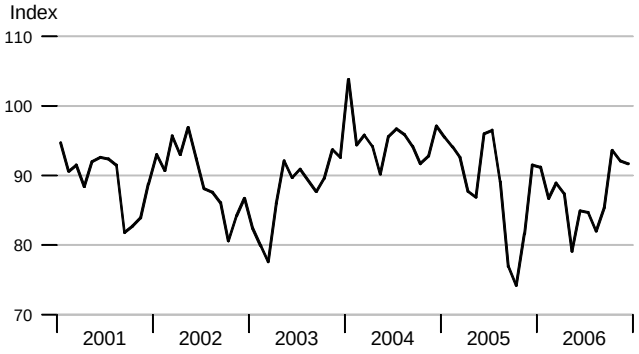
Retail & Food Services



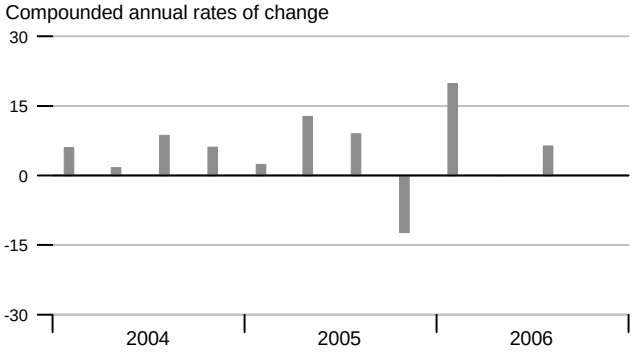
Real Durables Consumption & Vehicle Sales



Consumer Sentiment (U. of Michigan)

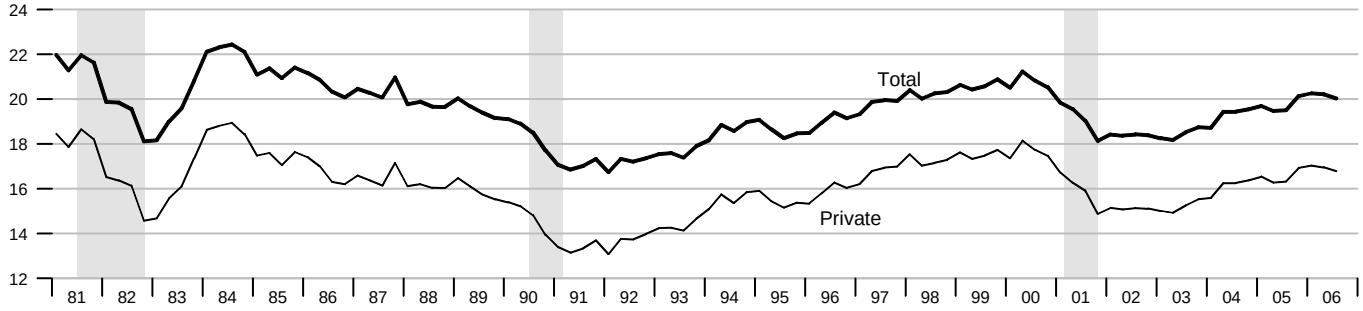


Real Durables Consumption



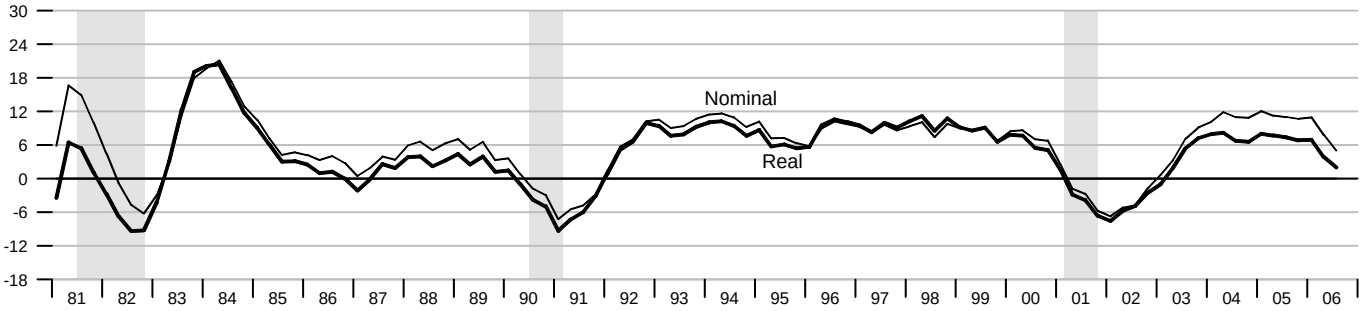
Investment

Percent of nominal GDP



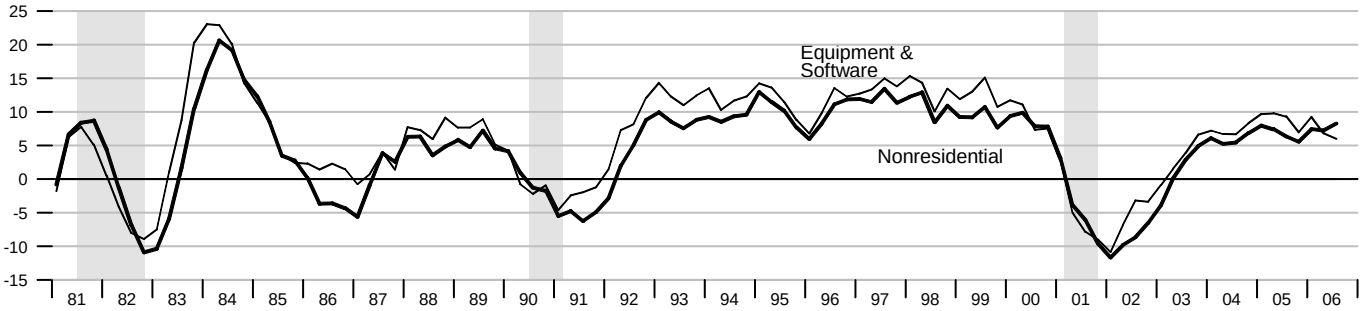
Private Fixed Investment

Percent change from year ago



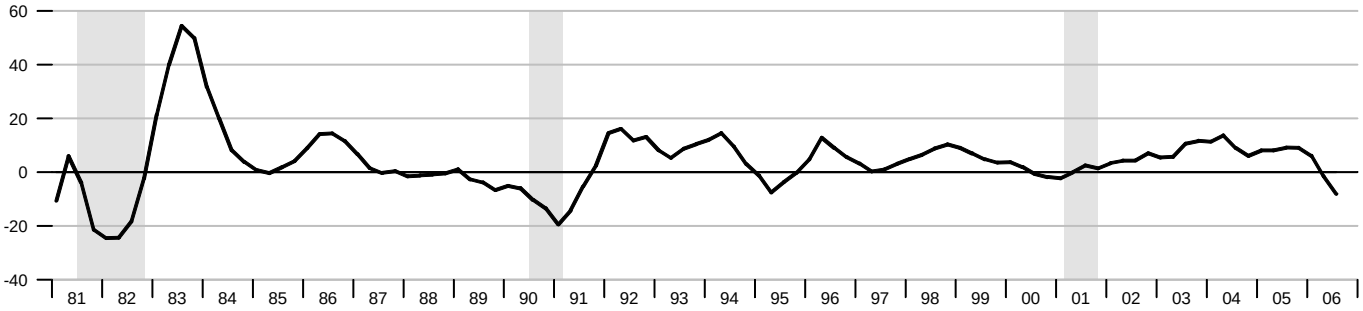
Real Nonresidential Fixed and Equipment & Software Investment

Percent change from year ago

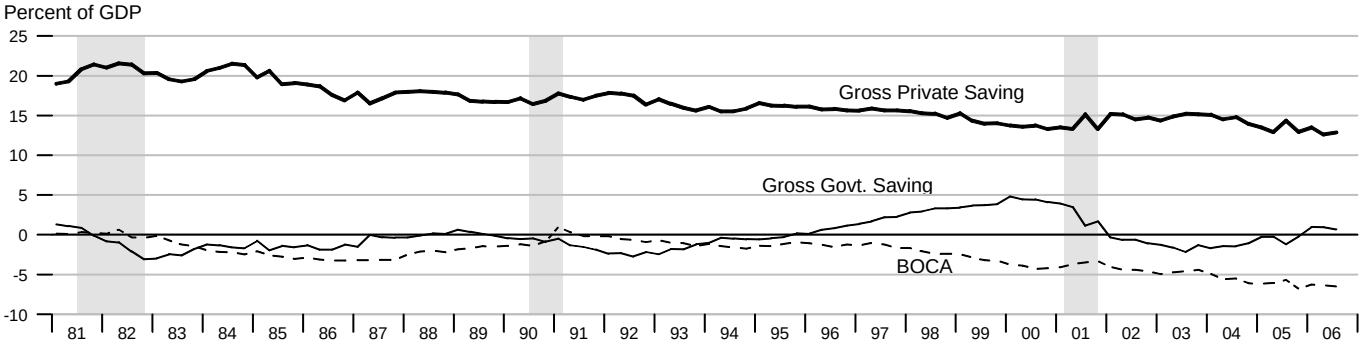


Real Residential Fixed Investment

Percent change from year ago

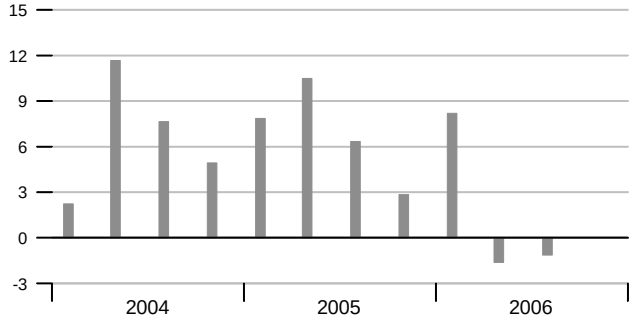


Gross Saving Rates and Balance on Current Account (NIPA)



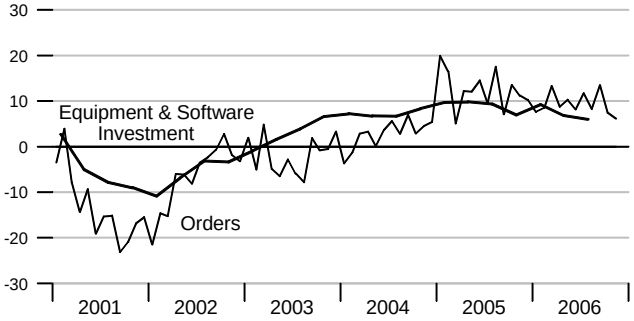
Real Private Fixed Investment

Compounded annual rates of change



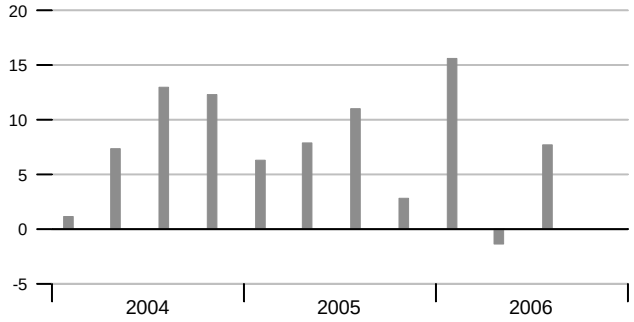
Nondefense Capital Goods Orders

Percent change from year ago, excluding aircraft



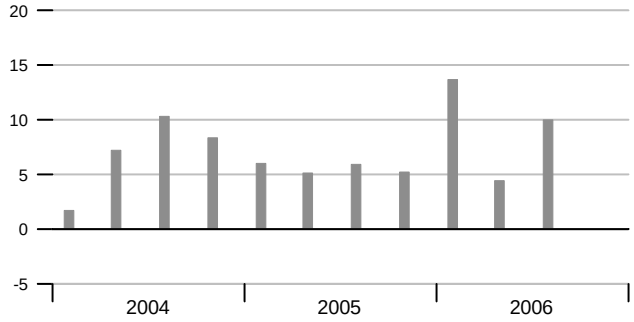
Real Equipment & Software Investment

Compounded annual rates of change



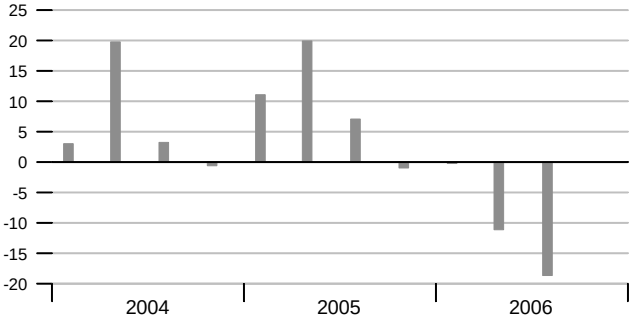
Real Nonresidential Fixed Investment

Compounded annual rates of change



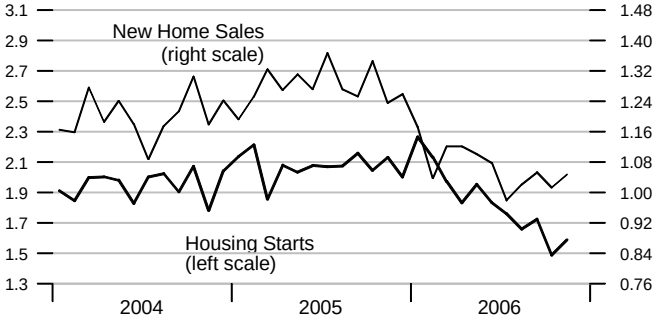
Real Residential Fixed Investment

Compounded annual rates of change



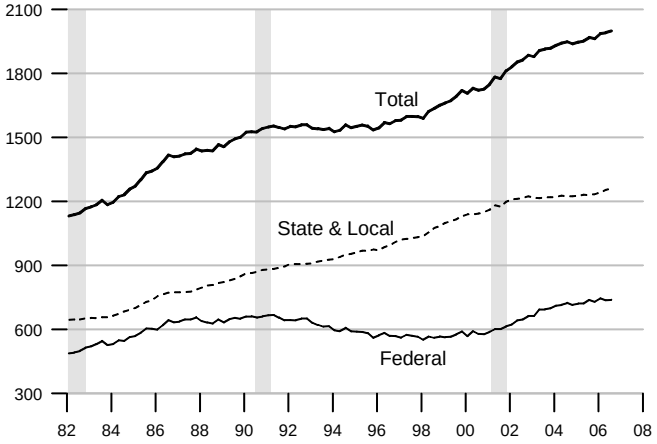
Housing Starts and New Home Sales

Millions, annual rate | Millions, annual rate



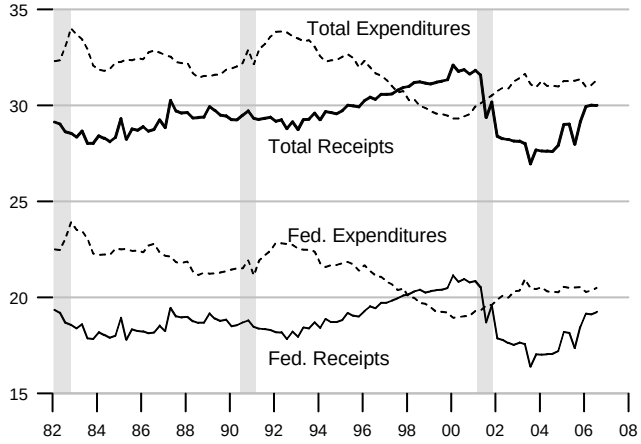
Govt. Consumption and Investment

Billions of 2000 dollars



Govt. Current Receipts and Expenditures

Percent of GDP

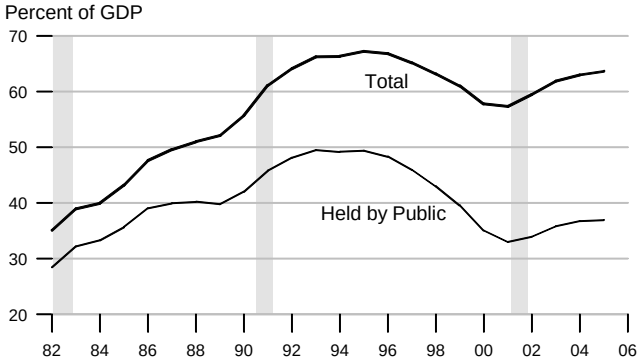


Government Budgets

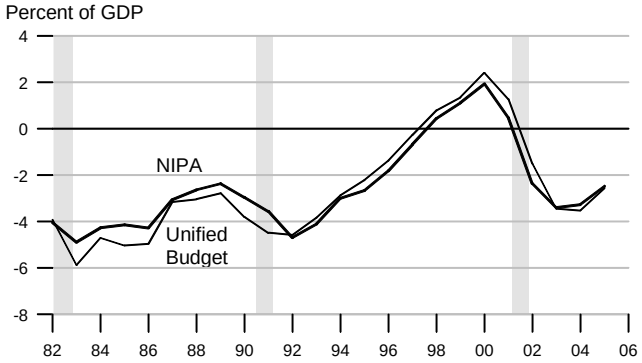
Billions of dollars

	National Income Accounts, Calendar Years						Unified Budget, Fiscal Years		
	State and Local			Federal			Federal		
	Receipts	Expenditures	Surplus or Deficit (-)	Receipts	Expenditures	Surplus or Deficit (-)	Receipts	Outlays	Surplus or Deficit (-)
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	1798.7	1808.9	-10.2	2564.7	2730.2	-165.5	596.9	638.7	-41.7

Federal Debt

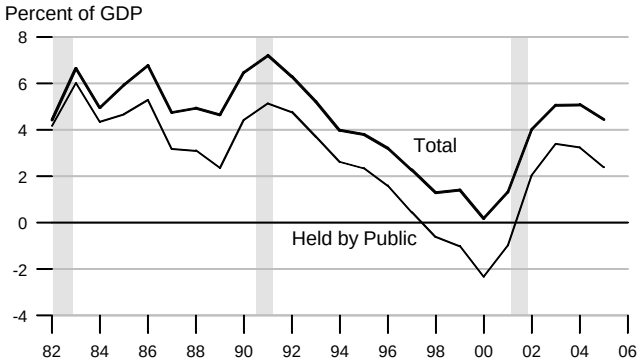


Federal Surplus (+) / Deficit (-)

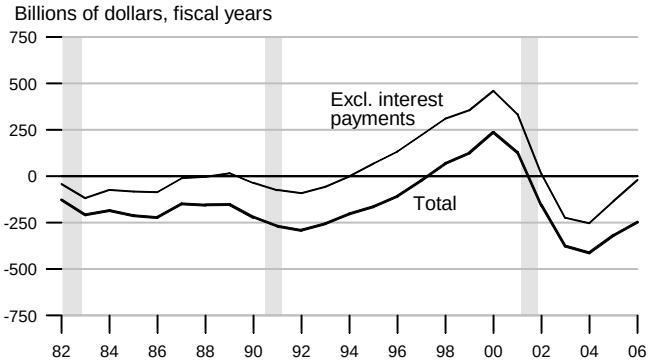


NIPA: Net government saving.

Change in Federal Debt



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

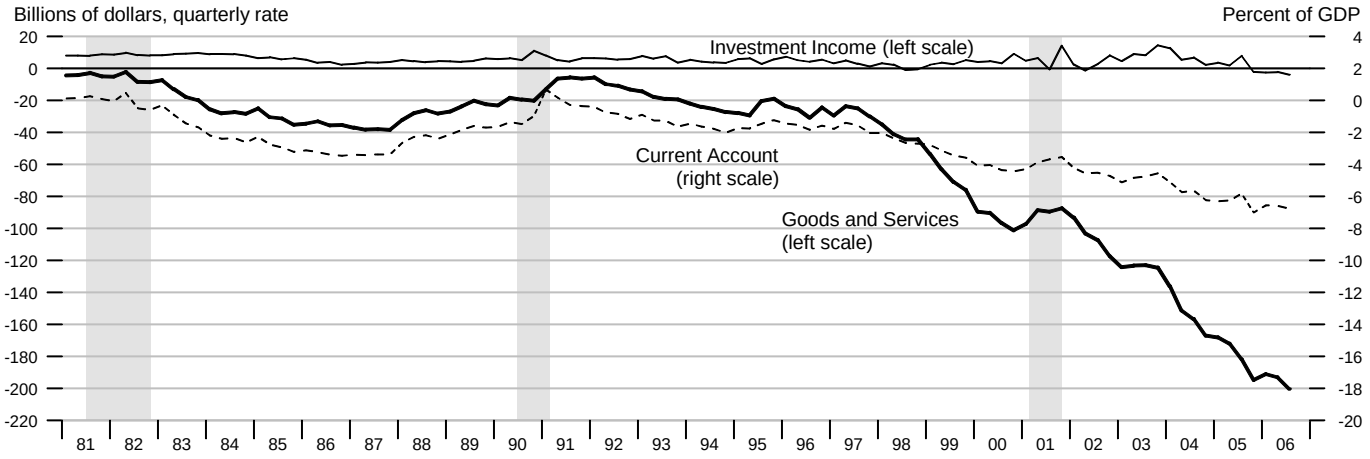


Federal Government Debt

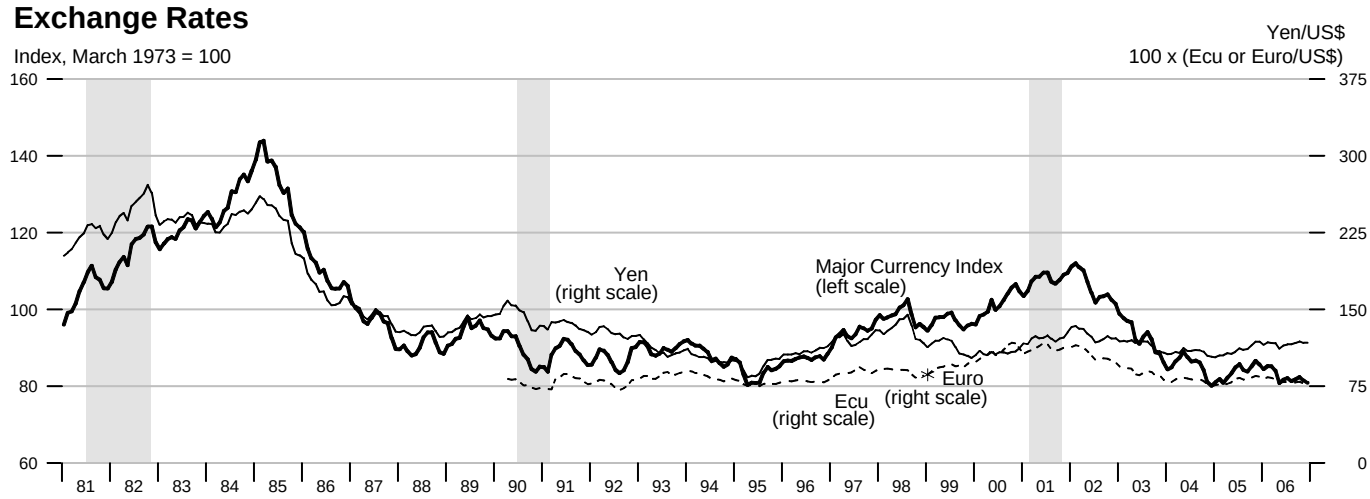
Billions of dollars, end of month or fiscal year
Excludes Agency-issued debt

		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

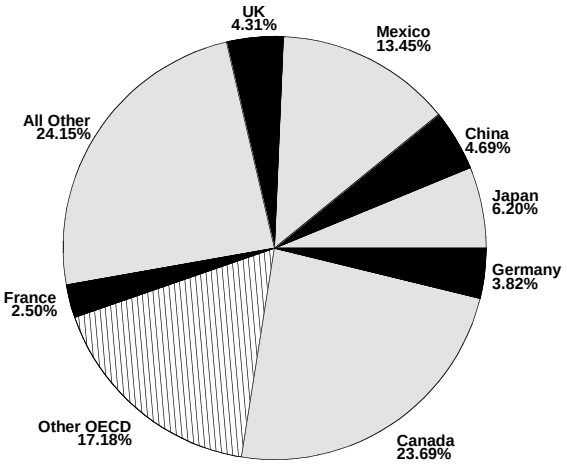
Current Account, Trade and Investment Income Balances



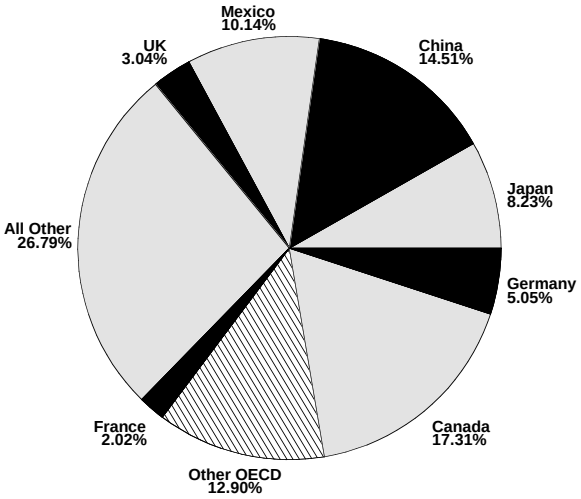
Exchange Rates



Goods Export Shares, 2005

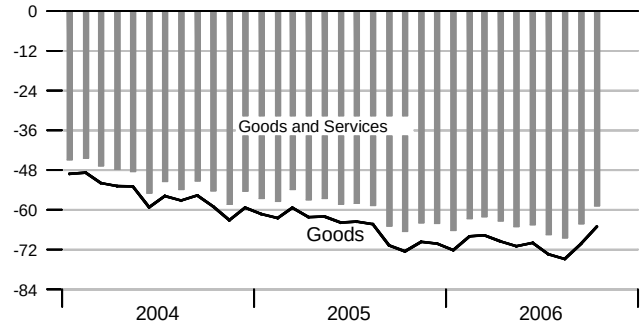


Goods Import Shares, 2005



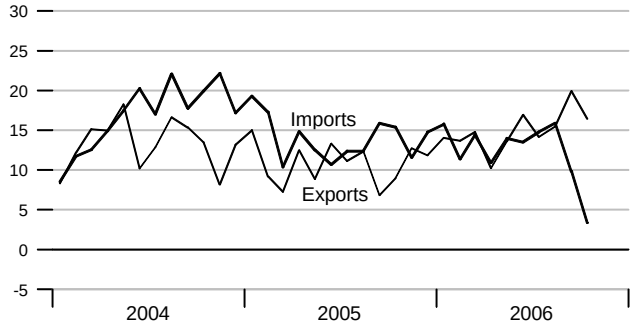
Trade Balance

Billions of dollars



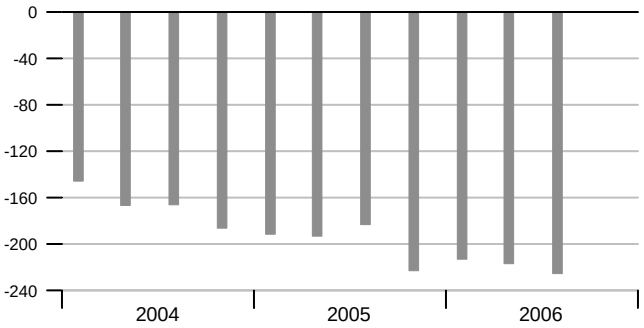
Goods Trade

Percent change from year ago



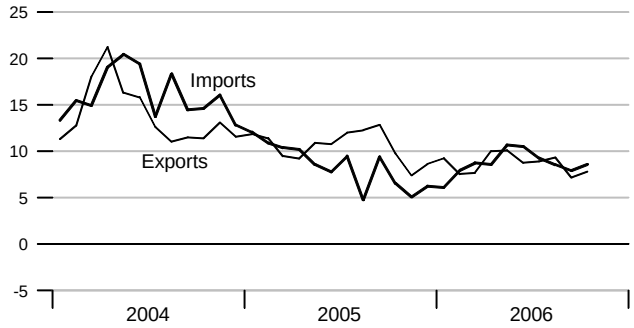
Current Account Balance

Billions of dollars



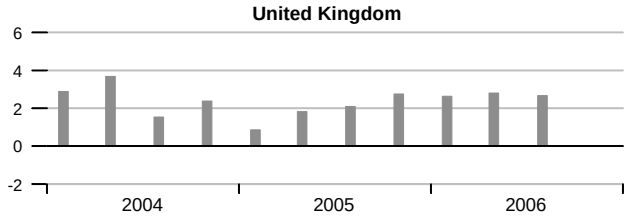
Services Trade

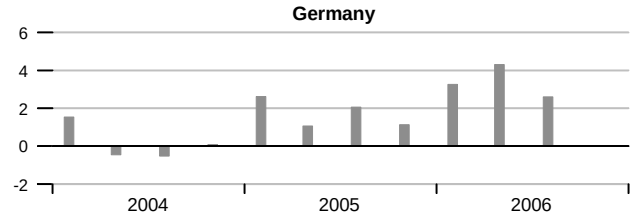
Percent change from year ago

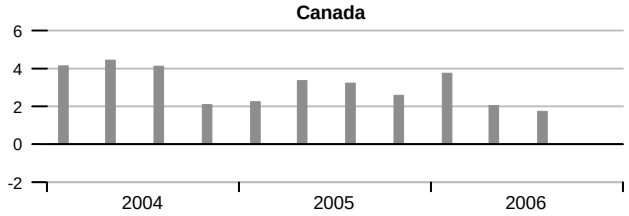


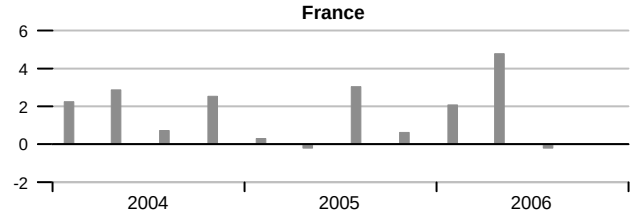
Real GDP Growth of Major Trading Partners

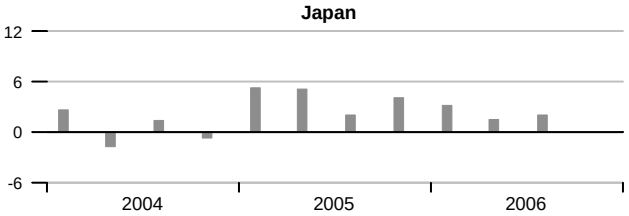
Compounded annual rates of change

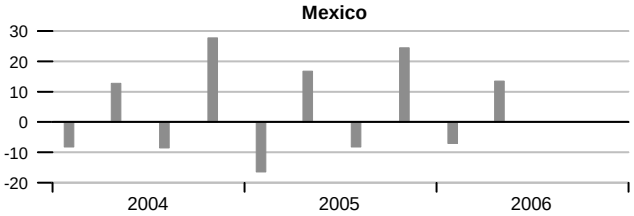




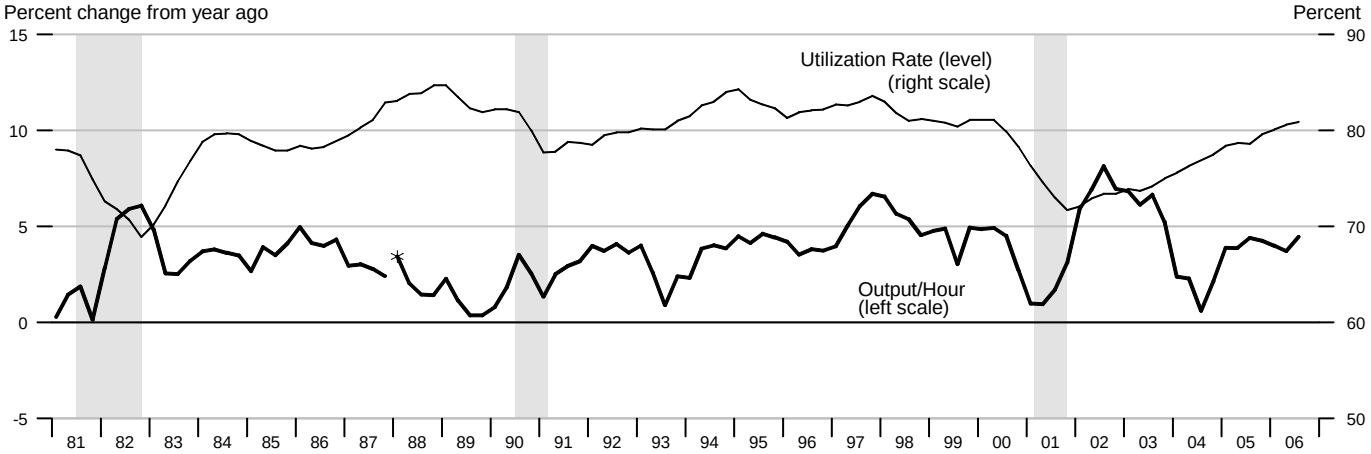






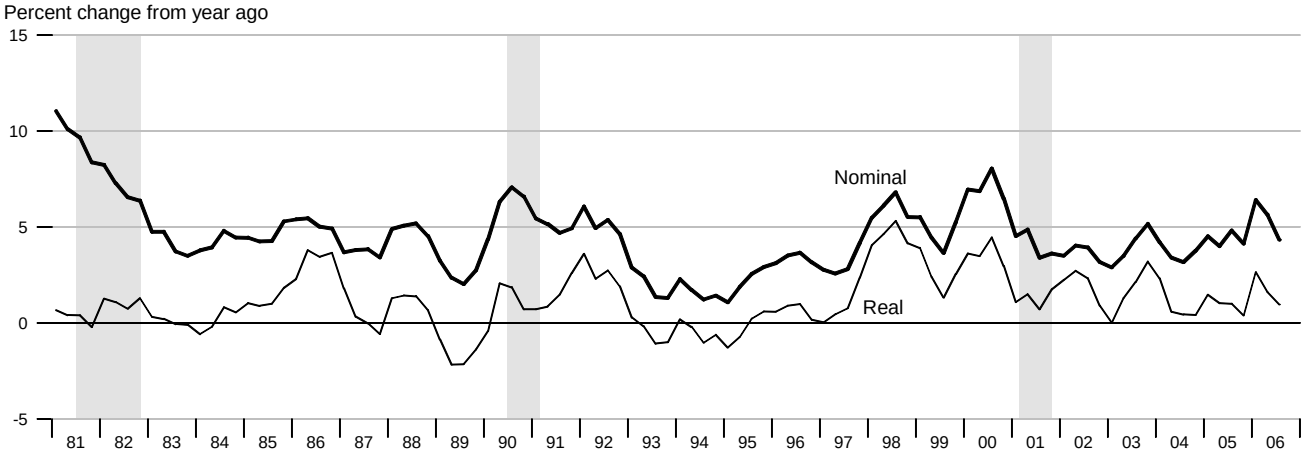


Output per Hour and Capacity Utilization, Manufacturing

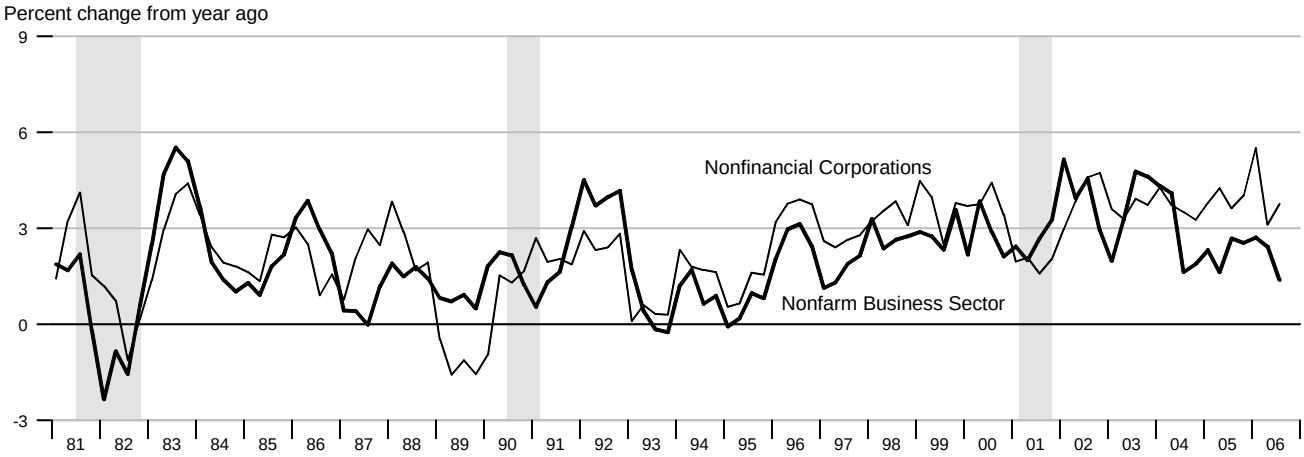


*Data from 1987 to the present are on a NAICS basis; data prior to 1987 are on an SIC basis and are not strictly comparable (see End Note).

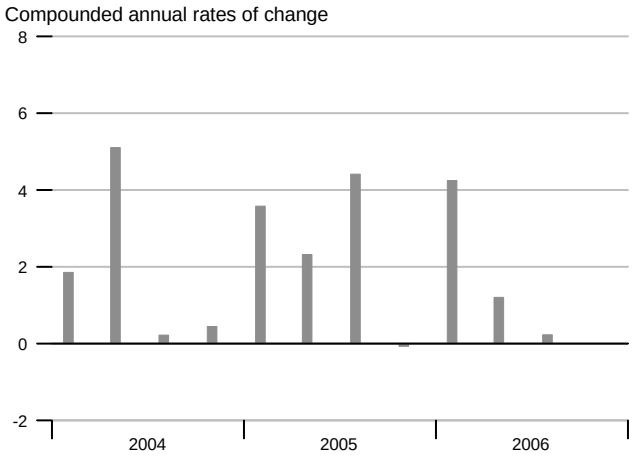
Nonfarm Compensation per Hour



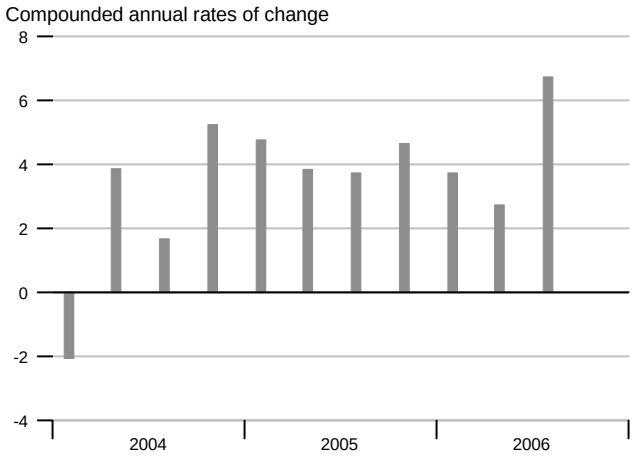
Output per Hour, Nonfarm Business and Nonfinancial Corporations



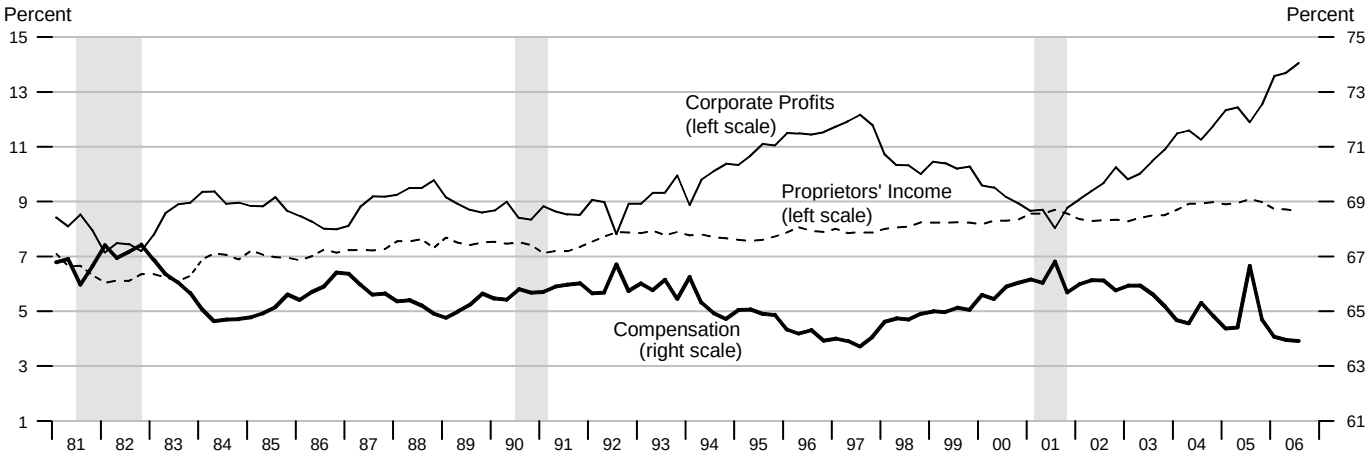
Nonfarm Output per Hour



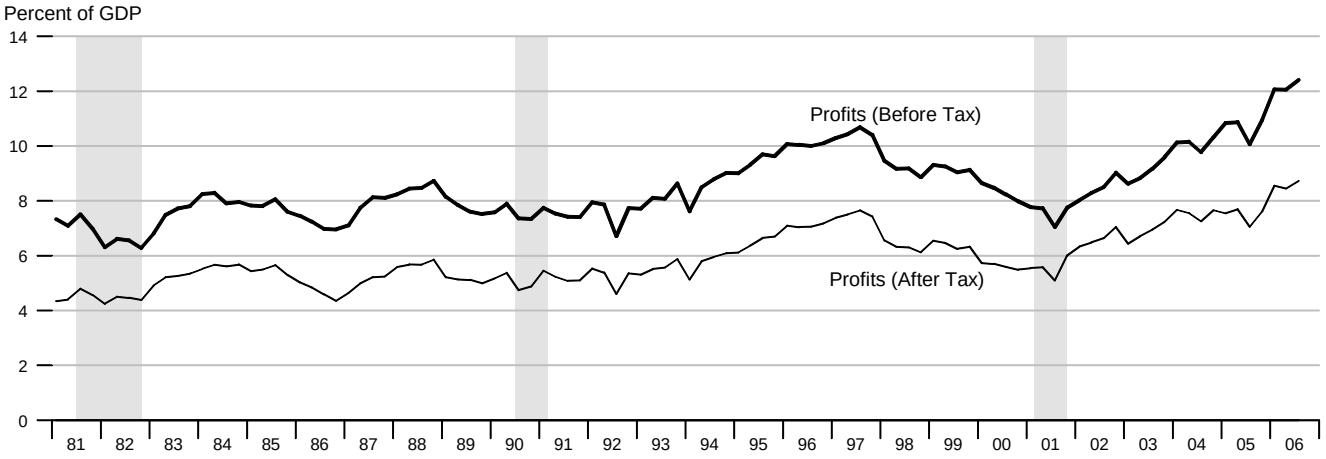
Manufacturing Output per Hour



Selected Component Shares of National Income



Corporate Profits



		Nominal GDP			Real GDP			Final Sales			Change in Private Inventories	
			Percent change			Percent change			Percent change		Billions of 2000 $	
		Billions of $	Annual rate	Year ago	Billions of 2000 $	Annual rate	Year ago	Billions of 2000 $	Annual rate	Year ago	Last qtr	Year/Year ago
2002		10469.6		3.4	10048.846		1.6	10036.504		1.2		12.482
2003		10960.8		4.7	10301.044		2.5	10285.104		2.5		14.282
2004		11712.5		6.9	10703.539		3.9	10648.291		3.5		53.350
2005		12455.8		6.3	11048.606		3.2	11025.241		3.5		19.646
2003	1	10705.6	4.4	3.6	10126.007	1.2	1.5	10100.923	1.3	1.1	24.282	21.106
	2	10831.8	4.8	3.9	10212.691	3.5	1.8	10213.657	4.5	1.8	-2.654	19.780
	3	11086.1	9.7	5.3	10398.723	7.5	3.1	10385.929	6.9	3.2	10.534	15.411
	4	11219.5	4.9	5.9	10466.951	2.7	3.7	10440.002	2.1	3.7	24.968	14.283
2004	1	11430.9	7.8	6.8	10566.298	3.9	4.3	10528.725	3.4	4.2	35.889	17.184
	2	11649.3	7.9	7.5	10671.536	4.0	4.5	10596.073	2.6	3.7	74.725	36.529
	3	11799.4	5.3	6.4	10753.312	3.1	3.4	10700.119	4.0	3.0	50.764	46.587
	4	11970.3	5.9	6.7	10822.914	2.6	3.4	10768.247	2.6	3.1	52.023	53.350
2005	1	12173.2	7.0	6.5	10913.819	3.4	3.3	10856.482	3.3	3.1	55.154	58.167
	2	12346.1	5.8	6.0	11001.779	3.3	3.1	11005.329	5.6	3.9	-7.396	37.636
	3	12573.5	7.6	6.6	11115.067	4.2	3.4	11123.529	4.4	4.0	-12.653	21.782
	4	12730.5	5.1	6.4	11163.759	1.8	3.1	11115.525	-0.3	3.2	43.481	19.647
2006	1	13008.4	9.0	6.9	11316.413	5.6	3.7	11268.960	5.6	3.8	41.206	16.160
	2	13197.3	5.9	6.9	11388.077	2.6	3.5	11328.011	2.1	2.9	53.686	31.430
	3	13322.6	3.9	6.0	11443.543	2.0	3.0	11381.596	1.9	2.3	55.435	48.452

		Consumption			Durables Consumption			Private Fixed Investment			Nonresidential Fixed Investment		
			Percent change			Percent change			Percent change			Percent change	
		Billions of 2000 $	Annual rate	Year ago	Billions of 2000 $	Annual rate	Year ago	Billions of 2000 $	Annual rate	Year ago	Billions of 2000 $	Annual rate	Year ago
2002		7099.261		2.7	964.784		7.1	1544.608		-5.2	1071.522		-9.2
2003		7295.309		2.8	1020.572		5.8	1596.874		3.4	1081.810		1.0
2004		7577.083		3.9	1085.658		6.4	1713.899		7.3	1145.767		5.9
2005		7841.199		3.5	1145.340		5.5	1841.971		7.5	1223.770		6.8
2003	1	7184.918	2.1	2.0	971.423	0.4	2.4	1536.297	-0.4	-1.0	1047.546	-2.6	-3.9
	2	7249.279	3.6	2.3	1009.841	16.8	5.5	1575.585	10.6	1.9	1074.467	10.7	0.1
	3	7352.864	5.8	3.2	1049.623	16.7	6.7	1626.743	13.6	5.4	1098.751	9.4	2.9
	4	7394.311	2.3	3.4	1051.384	0.7	8.3	1648.855	5.5	7.2	1106.476	2.8	4.9
2004	1	7479.833	4.7	4.1	1066.985	6.1	9.8	1658.006	2.2	7.9	1111.232	1.7	6.1
	2	7534.355	2.9	3.9	1071.439	1.7	6.1	1704.412	11.7	8.2	1130.711	7.2	5.2
	3	7607.073	3.9	3.5	1093.938	8.7	4.2	1736.078	7.6	6.7	1158.840	10.3	5.5
	4	7687.069	4.3	4.0	1110.263	6.1	5.6	1757.132	4.9	6.6	1182.298	8.3	6.9
2005	1	7739.367	2.7	3.5	1116.781	2.4	4.7	1790.628	7.8	8.0	1199.670	6.0	8.0
	2	7819.768	4.2	3.8	1150.805	12.8	7.4	1835.776	10.5	7.7	1214.837	5.2	7.4
	3	7895.316	3.9	3.8	1175.910	9.0	7.5	1864.201	6.3	7.4	1232.382	5.9	6.3
	4	7910.210	0.8	2.9	1137.855	-12.3	2.5	1877.280	2.8	6.8	1248.190	5.2	5.6
2006	1	8003.753	4.8	3.4	1190.466	19.8	6.6	1914.587	8.2	6.9	1288.823	13.7	7.4
	2	8054.972	2.6	3.0	1190.250	-0.1	3.4	1906.813	-1.6	3.9	1302.770	4.4	7.2
	3	8111.178	2.8	2.7	1208.820	6.4	2.8	1901.272	-1.2	2.0	1334.238	10.0	8.3

		GDP Chain Price Index			Employment Cost Index			ECI: Wages			ECI: Benefits		
			Percent change			Percent change			Percent change			Percent change	
		Index	Annual rate	Year ago	Index	Annual rate	Year ago	Index	Annual rate	Year ago	Index	Annual rate	Year ago
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	116.446	1.9	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		
			Percent change			Percent change			Percent change			Percent change	
		Billions of 2000 $	Annual rate	Year ago	Billions of 2000 $	Annual rate	Year ago	Index	Annual rate	Year ago	Index	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	170.117	-1.2	5.6
	3	1310.002	6.8	9.1	1938.824	5.6	7.2	137.659	0.2	1.4	171.199	2.6	4.3

		Household Survey Employment				Nonfarm Payroll Employment				Nonfarm Aggregate Hours			
				Percent change				Percent change			Percent change		
		Thousands	Change	Annual rate	Year ago	Thousands	Change	Annual rate	Year ago	Index	Monthly rate	Annual rate	Year ago
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	135595	467	1.4	1.4	105.2	0.3	1.1	2.2
2004	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	135807	203	1.8	1.5	105.2	0.1	1.1	2.0
	Oct	145287	437	3.7	1.9	135886	79	0.7	1.5	105.5	0.3	3.5	2.3
	Nov	145564	277	2.3	2.1	136018	132	1.2	1.3	105.6	0.1	1.1	2.0

		Unempl. Rate	Retail and Food Services Sales				Industrial Production				Treasury Yields (Percent)	
			Billions of dollars	Percent change Monthly/ quarterly	Annual rate	Year ago	Index	Percent change Monthly/ quarterly	Annual rate	Year ago	3-mo	10-yr
2002		5.8	3467.083			2.4	100.0000			0.0	1.60	4.61
2003		6.0	3614.287			4.2	101.0619			1.1	1.01	4.02
2004		5.5	3836.987			6.2	103.5734			2.5	1.37	4.27
2005		5.1	4112.875			7.2	106.9340			3.2	3.15	4.29
2006											4.73	4.79
2004	1	5.7	938.788	2.0	8.3	6.1	102.5879	0.8	3.3	1.4	0.92	4.02
	2	5.6	947.407	0.9	3.7	6.2	103.2261	0.6	2.5	2.9	1.08	4.60
	3	5.4	964.134	1.8	7.3	5.1	103.6902	0.4	1.8	2.7	1.49	4.30
	4	5.4	986.658	2.3	9.7	7.2	104.7895	1.1	4.3	3.0	2.01	4.17
2005	1	5.2	998.909	1.2	5.1	6.4	105.9764	1.1	4.6	3.3	2.54	4.30
	2	5.1	1022.622	2.4	9.8	7.9	106.6983	0.7	2.8	3.4	2.86	4.16
	3	5.0	1042.720	2.0	8.1	8.2	106.9113	0.2	0.8	3.1	3.36	4.21
	4	4.9	1048.624	0.6	2.3	6.3	108.1499	1.2	4.7	3.2	3.83	4.49
2006	1	4.7	1081.608	3.1	13.2	8.3	109.4847	1.2	5.0	3.3	4.39	4.57
	2	4.6	1090.393	0.8	3.3	6.6	111.2261	1.6	6.5	4.2	4.70	5.07
	3	4.7	1100.225	0.9	3.7	5.5	112.3097	1.0	4.0	5.0	4.91	4.90
	4										4.90	4.63
2004	Dec	5.4	331.941	1.3	16.8	8.1	105.3070	0.6	7.7	3.2	2.19	4.23
2005	Jan	5.2	330.643	-0.4	-4.6	6.9	105.5963	0.3	3.3	3.2	2.33	4.22
	Feb	5.4	333.908	1.0	12.5	7.0	106.2295	0.6	7.4	3.1	2.54	4.17
	Mar	5.1	334.358	0.1	1.6	5.3	106.1033	-0.1	-1.4	3.6	2.74	4.50
	Apr	5.1	339.841	1.6	21.6	8.2	106.2128	0.1	1.2	3.1	2.78	4.34
	May	5.1	338.488	-0.4	-4.7	5.8	106.6034	0.4	4.5	2.8	2.84	4.14
	Jun	5.0	344.293	1.7	22.6	9.8	107.2787	0.6	7.9	4.2	2.97	4.00
	Jul	5.0	350.635	1.8	24.5	9.7	107.3023	0.0	0.3	3.6	3.22	4.18
	Aug	4.9	345.648	-1.4	-15.8	8.3	107.5921	0.3	3.3	3.6	3.44	4.26
	Sep	5.1	346.437	0.2	2.8	6.5	105.8396	-1.6	-17.9	2.1	3.42	4.20
	Oct	4.9	348.095	0.5	5.9	6.4	107.0570	1.2	14.7	2.5	3.71	4.46
	Nov	5.0	349.459	0.4	4.8	6.7	108.2431	1.1	14.1	3.4	3.88	4.54
	Dec	4.9	351.070	0.5	5.7	5.8	109.1496	0.8	10.5	3.6	3.89	4.47
2006	Jan	4.7	361.743	3.0	43.2	9.4	109.1081	-0.0	-0.5	3.3	4.24	4.42
	Feb	4.8	358.675	-0.8	-9.7	7.4	109.3862	0.3	3.1	3.0	4.43	4.57
	Mar	4.7	361.190	0.7	8.7	8.0	109.9597	0.5	6.5	3.6	4.51	4.72
	Apr	4.7	363.611	0.7	8.3	7.0	110.9443	0.9	11.3	4.5	4.60	4.99
	May	4.6	364.343	0.2	2.4	7.6	110.8746	-0.1	-0.8	4.0	4.72	5.11
	Jun	4.6	362.439	-0.5	-6.1	5.3	111.8594	0.9	11.2	4.3	4.79	5.11
	Jul	4.8	367.415	1.4	17.8	4.8	112.3067	0.4	4.9	4.7	4.95	5.09
	Aug	4.7	367.491	0.0	0.2	6.3	112.5208	0.2	2.3	4.6	4.96	4.88
	Sep	4.6	365.319	-0.6	-6.9	5.5	112.1016	-0.4	-4.4	5.9	4.81	4.72
	Oct	4.4	365.075	-0.1	-0.8	4.9	112.1232	0.0	0.2	4.7	4.92	4.73
	Nov	4.5	368.861	1.0	13.2	5.6	112.3227	0.2	2.2	3.8	4.94	4.60
	Dec										4.85	4.56

		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	161.1	0.0	0.1	2.8
2004	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	161.5	-0.1	-1.5	3.9
	Aug	203.7	0.2	3.0	3.8	4.6	206.9	0.2	2.9	2.8	3.0	161.9	0.2	3.0	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
	Nov	201.7	0.0	0.0	2.0	2.2	207.7	0.0	0.6	2.6	2.6	160.3	2.0	26.4	0.9

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 (± 0.2 percentage points) and change in household survey employment (± 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/>. 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 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.

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