



Sovereign Debt Shadows

The current international debt crisis has revived fears that governments in some advanced economies may default on their sovereign debt and unleash a global financial tsunami. After September 2008 the perceived risk of default on national debts by many peripheral European Union (EU) countries (Ireland, Portugal, Spain, Italy, and Greece) increased, spiking to levels not seen since the introduction of the euro in 1999.¹ Financial markets demanded higher yields to keep buying the securities of seemingly different countries. This disparate treatment suggests two related questions: First, what determines the growth of national debts? And second, why are investors so worried about these countries?

The answers to these questions are related to a country's overall fiscal soundness and debt sustainability. The primary fiscal surplus of a country is the difference between tax receipts and government outlays on current expenditures (excluding interest on past debt; a negative surplus is a deficit). Both long-term structural spending (such as changes in military expenditures) and cyclical components (such as unemployment benefits) contribute to fiscal deficits.² The primary surplus (or deficit) less interest payments on outstanding debt is the fiscal surplus (or deficit, if negative). Therefore, the year-to-year change in nominal government debt is the sum of two factors: the interest paid on existing outstanding debt plus the primary deficit. Higher interest rates and outlays and declines in tax receipts tend to increase a country's debt.

Government debt is typically indicated as a percentage of gross domestic product (GDP); this allows meaningful comparisons over time or across countries with respect to ability to service the debt. Faster GDP growth relative to debt permits governments to keep the debt-to-GDP ratio under control. In contrast, meager economic growth and/or little fiscal discipline can balloon the debt-to-GDP ratio until the government develops fiscal discipline or defaults on its debt.

The recent global recession has increased deficits and debt-to-GDP ratios in many countries. Interest rates are now favorably low but will likely increase as the global economy strengthens, further increasing deficits and perhaps making debts unsustainable.

Rising debt-to-GDP ratios of the five peripheral EU countries particularly concern investors, but fiscal pressures are not unique to this group. The chart plots the debt-to-GDP and deficit-to-GDP ratios for selected advanced economies for 2007 and 2009; the average GDP growth rate over 2003-07 is listed in parentheses.

All five peripheral EU countries (white dots on the chart) face burdensome public debt and budget deficits, but the causes

for uncertainty in each country's situation differ. Italy has a large initial stock of debt and poor expected growth. Ireland and Spain had lower debt coming into 2007 but experienced huge deficit increases. Portugal had moderate debt but sizable deficit increases coupled with slow projected growth. Greece had both large pre-crisis debt and a ballooning deficit.

In all countries but Ireland common elements contribute to fiscal concerns, including a high share of government expenditure as a percentage of GDP, low fertility rates (with fewer future workers to reduce the debt), and a large informal economy. In addition, four countries (Ireland is again an exception) currently spend or are projected to spend in the future a larger share of their GDP to pay for public pensions, relative to other advanced economies. A final common element among these countries is membership in the euro area, which presumably prevents the members of this group from inflating away their debt.

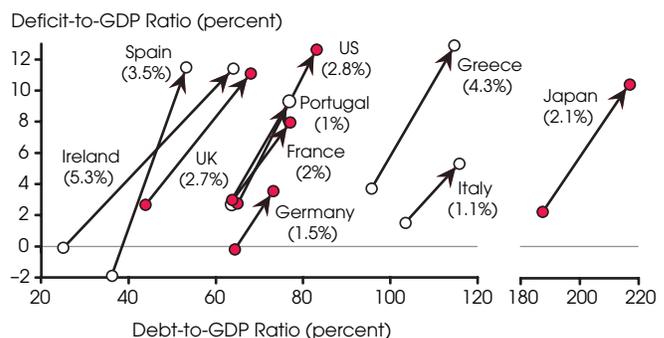
Others countries might may soon face similar fiscal pressures as the need for sizable pruning actions looms on the horizon.

—Silvio Contessi

¹ Measured by the rates on credit default swaps; see Neely, Christopher J. "Markets Worry More about Sovereign Debt." Federal Reserve Bank of St. Louis *International Economic Trends*, February 2009; <http://research.stlouisfed.org/publications/iet/20090201/cover.pdf>.

² See Neely, Christopher J. "Global Factors in Budget Deficits." Federal Reserve Bank of St. Louis *International Economic Trends*, November 2003; <http://research.stlouisfed.org/publications/iet/20031101/cover.pdf>.

Debt-to-GDP Ratios and Deficits-to-GDP in Selected Advanced Economies (2007 and 2009)



SOURCE: Data from various sources.

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

Contents

Page

3	Reference Tables
5	Canada
11	Euro Area
16	France
20	Germany
24	Italy
28	Japan
34	United Kingdom
40	United States
46	Notes and Sources

Conventions used in this publication:

1. Charts and tables contain data that were current through July 2010. Unless otherwise indicated, data are quarterly.
2. The *percent change* refers to the percent change from the same period in the previous year. For example, the percent change in x between quarter $t-4$ and the current quarter t is: $[(x_t/x_{t-4})-1] \times 100$.
3. All data with significant seasonal patterns are adjusted accordingly.

We welcome your comments addressed to:

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

or to:

stlsIET@stls.frb.org

Real Gross Domestic Product

Percent change from year ago

	07.2	07.3	07.4	08.1	08.2	08.3	08.4	09.1	09.2	09.3	09.4	10.1
Canada	2.19	2.62	2.54	1.73	0.86	0.40	-0.88	-2.51	-3.18	-3.06	-1.10	2.21
Euro Area	2.73	2.72	2.20	2.16	1.36	0.27	-1.99	-5.18	-4.91	-4.09	-2.11	0.64
France	1.97	2.59	2.16	1.82	0.71	-0.17	-1.97	-3.91	-3.11	-2.63	-0.47	1.21
Germany	2.58	2.47	1.58	2.86	1.96	0.83	-1.77	-6.70	-5.76	-4.78	-2.20	1.53
Italy	1.74	1.51	0.00	0.28	-0.47	-1.77	-3.30	-6.53	-6.11	-4.70	-2.83	0.50
Japan	2.33	1.89	1.81	1.03	-0.25	-1.32	-4.23	-8.57	-6.05	-4.90	-1.37	4.22
United Kingdom	2.71	2.69	2.40	2.41	1.67	0.24	-2.10	-5.33	-5.90	-5.29	-3.13	-0.22
United States	1.86	2.74	2.53	2.04	1.60	0.03	-1.86	-3.30	-3.83	-2.64	0.06	2.42

Nominal Gross Domestic Product

Percent change from year ago

	07.2	07.3	07.4	08.1	08.2	08.3	08.4	09.1	09.2	09.3	09.4	10.1
Canada	5.82	5.49	6.28	5.35	6.02	6.51	0.77	-3.81	-6.91	-6.85	-0.51	5.54
Euro Area	5.24	5.25	4.68	4.34	3.68	2.50	0.41	-3.43	-3.93	-3.27	-1.91	1.18
France	4.57	5.22	4.39	4.35	3.27	2.24	0.92	-2.17	-2.24	-2.50	-1.24	0.82
Germany	4.56	4.58	3.58	4.21	3.42	2.24	0.16	-5.24	-4.47	-2.93	-1.06	2.98
Italy	3.77	4.29	3.17	2.88	2.86	0.77	-0.77	-3.31	-4.29	-2.55	-1.81	0.53
Japan	1.89	1.26	0.63	-0.08	-1.63	-2.49	-3.80	-8.22	-6.69	-5.59	-4.20	1.60
United Kingdom	6.10	5.39	5.03	5.52	4.60	2.84	1.13	-3.86	-4.95	-3.59	-1.67	3.15
United States	4.87	5.40	5.34	4.19	3.58	2.59	0.07	-1.36	-2.39	-2.09	0.74	2.92

Consumer Price Index

Percent change from year ago

	07.2	07.3	07.4	08.1	08.2	08.3	08.4	09.1	09.2	09.3	09.4	10.1
Canada	2.14	2.10	2.43	1.82	2.33	3.42	1.91	1.28	0.03	-0.87	0.79	1.63
Euro Area	1.87	1.88	2.89	3.37	3.63	3.85	2.30	0.96	0.17	-0.37	0.43	1.11
France	1.24	1.34	2.54	3.31	3.68	3.64	2.03	0.69	-0.25	-0.45	0.42	1.45
Germany	1.96	2.18	3.07	3.07	3.02	3.27	1.68	0.78	0.25	-0.43	0.34	0.81
Italy	1.84	1.69	2.58	3.28	3.77	4.07	2.89	1.35	0.86	0.13	0.73	1.26
Japan	-0.06	-0.17	0.52	1.01	1.36	2.14	1.02	-0.11	-0.99	-2.26	-2.04	-1.14
United Kingdom	2.57	1.76	2.10	2.40	3.37	4.80	3.88	3.02	2.12	1.46	2.09	3.26
United States	2.67	2.35	4.01	4.16	4.30	5.27	1.56	-0.16	-0.97	-1.60	1.46	2.42

Employment

Percent change from year ago

	07.2	07.3	07.4	08.1	08.2	08.3	08.4	09.1	09.2	09.3	09.4	10.1
Canada	1.99	2.29	2.42	2.08	1.89	1.37	0.75	-1.25	-1.79	-1.83	-1.47	0.43
Euro Area	1.72	1.89	1.70	1.51	1.13	0.46	-0.16	-1.34	-1.92	-2.18	-2.07	.
France	1.71	1.68	1.83	1.40	0.88	0.21	-0.88	-2.19	-2.50	.	.	.
Germany	1.65	1.58	1.66	1.62	1.48	1.38	1.09	0.44	0.06	-0.24	-0.37	.
Italy	0.53	1.55	0.95	0.57	0.13	-0.88	-1.11	-2.04	-2.72	-2.96	-3.13	.
Japan	0.91	0.32	0.26	0.05	-0.41	-0.57	-0.75	-0.81	-2.06	-1.75	-1.87	-1.04
United Kingdom	0.44	0.89	0.70	0.87	0.67	-0.08	-1.16	-1.92	-2.61	-2.75	-2.15	.
United States	1.26	0.96	0.43	0.07	0.09	-0.48	-1.54	-3.19	-3.82	-4.06	-4.02	-2.09

Unemployment Rate

Percent

	07.2	07.3	07.4	08.1	08.2	08.3	08.4	09.1	09.2	09.3	09.4	10.1
Canada*	6.03	6.00	5.97	5.93	6.07	6.13	6.50	7.80	8.40	8.53	8.40	8.23
Euro Area*	7.50	7.43	7.33	7.23	7.40	7.60	8.00	8.80	9.37	9.70	9.83	9.93
France*	8.50	8.20	7.90	7.63	7.67	7.83	8.23	8.97	9.40	9.60	9.80	9.90
Germany*	8.47	8.27	8.00	7.60	7.37	7.13	7.10	7.27	7.63	7.57	7.47	7.37
Italy*	5.93	6.20	6.30	6.57	6.87	6.77	6.87	7.37	7.53	7.90	8.37	8.53
Japan*	3.77	3.77	3.87	3.90	3.97	4.03	4.07	4.47	5.13	5.43	5.23	4.93
United Kingdom*	5.30	5.27	5.10	5.13	5.30	5.83	6.30	7.03	7.67	7.80	7.77	7.90
United States*	4.50	4.63	4.80	4.97	5.30	6.03	6.97	8.17	9.27	9.63	10.03	9.70

* Copyright ©, 2010, Organisation for Economic Cooperation and Development, OECD Main Economic Indicators (www.oecd.org).

Reserve Money

Percent change from year ago

	07.2	07.3	07.4	08.1	08.2	08.3	08.4	09.1	09.2	09.3	09.4	10.1
Canada	5.44	5.63	4.92	2.83	3.66	2.42	5.48	7.42	12.94	11.68	9.03	10.00
Japan	-4.32	0.89	0.41	-0.25	0.18	1.14	1.98	6.67	6.19	4.82	5.25	1.95
United Kingdom	4.28	4.86	5.58	6.46	6.02	5.38	6.77	8.17	8.61	8.77	6.94	5.62
United States	1.62	2.11	1.81	1.18	1.11	4.76	67.57	94.22	105.24	95.70	40.65	25.62

Narrow Money

Percent change from year ago

	07.2	07.3	07.4	08.1	08.2	08.3	08.4	09.1	09.2	09.3	09.4	10.1
Canada	9.39	10.29	7.10	7.43	8.04	7.87	12.36	12.65	12.73	13.95	13.18	.
Euro Area	6.58	6.59	3.91	2.75	1.57	1.46	3.87	7.31	10.36	13.28	12.85	10.38
Japan	-0.26	-0.32	0.63	-0.25	-0.46	-0.35	-1.03	-0.02	0.60	0.86	1.25	1.03
United Kingdom	7.26	7.42	6.67	6.70	6.45	5.42	4.60	4.13	3.60	4.45	5.94	5.96
United States	7.62	10.11	12.56	15.09	16.12	13.54	11.68	12.28	10.24	9.25	6.55	0.89

Broad Money

Percent change from year ago

	07.2	07.3	07.4	08.1	08.2	08.3	08.4	09.1	09.2	09.3	09.4	10.1
Canada	7.94	8.17	6.44	7.35	8.50	8.45	12.50	14.50	14.45	14.37	10.94	.
Euro Area	11.13	11.12	11.63	10.75	10.23	9.71	8.60	6.03	4.20	1.99	-0.63	-0.81
Japan	1.75	1.74	2.08	2.22	2.16	2.19	1.82	2.21	2.47	2.97	3.24	2.69
United Kingdom	13.00	13.00	11.86	11.53	10.76	10.89	15.69	16.86	12.14	10.51	5.41	10.49
United States	6.47	6.68	6.26	6.77	6.72	6.37	8.58	9.78	8.88	7.84	5.05	1.89

Short-Term Interest Rates

Percent

	07.2	07.3	07.4	08.1	08.2	08.3	08.4	09.1	09.2	09.3	09.4	10.1
Canada*	4.52	5.11	4.79	3.57	3.16	3.29	2.32	1.06	0.57	0.40	0.38	0.39
Euro Area	4.07	4.50	4.73	4.48	4.86	4.98	4.21	2.01	1.31	0.87	0.72	0.66
Japan*	0.60	0.73	0.76	0.75	0.71	0.74	0.78	0.56	0.34	0.27	0.23	0.20
United Kingdom*	5.72	6.30	6.31	5.69	5.86	5.81	4.60	2.06	1.33	0.82	0.59	0.60
United States	5.32	5.42	5.02	3.23	2.76	3.06	2.82	1.08	0.62	0.30	0.22	0.21

* Copyright ©, 2010, Organisation for Economic Cooperation and Development, OECD Main Economic Indicators (www.oecd.org).

Long-Term Interest Rates

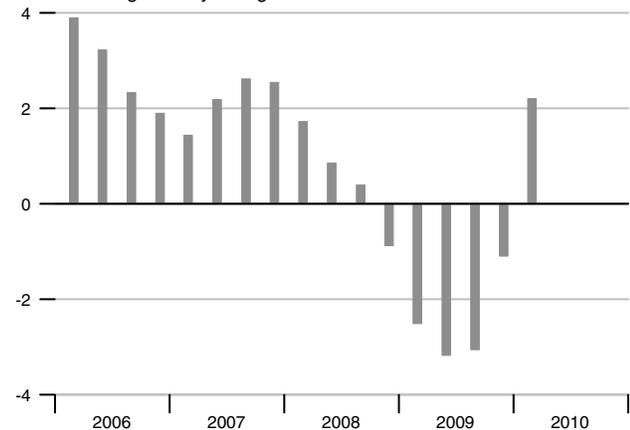
Percent

	07.2	07.3	07.4	08.1	08.2	08.3	08.4	09.1	09.2	09.3	09.4	10.1
Canada*	4.36	4.48	4.17	3.75	3.66	3.62	3.38	2.89	3.20	3.42	3.42	3.48
Euro Area	4.41	4.46	4.34	4.14	4.51	4.57	4.06	3.90	3.98	3.79	3.68	3.72
France*	4.39	4.44	4.33	4.08	4.47	4.48	3.90	3.64	3.79	3.63	3.53	3.49
Germany*	4.33	4.34	4.19	3.93	4.25	4.26	3.50	3.07	3.32	3.30	3.19	3.18
Italy*	4.54	4.64	4.53	4.38	4.78	4.90	4.66	4.54	4.46	4.19	4.06	4.02
Japan	1.75	1.73	1.57	1.40	1.62	1.52	1.43	1.28	1.45	1.35	1.32	1.33
United Kingdom*	5.21	5.18	4.79	4.52	4.91	4.78	4.15	3.54	3.58	3.73	3.74	4.06
United States	5.03	4.98	4.59	4.25	4.46	4.38	3.90	3.55	4.05	4.16	4.10	4.32

* Copyright ©, 2010, Organisation for Economic Cooperation and Development, OECD Main Economic Indicators (www.oecd.org).

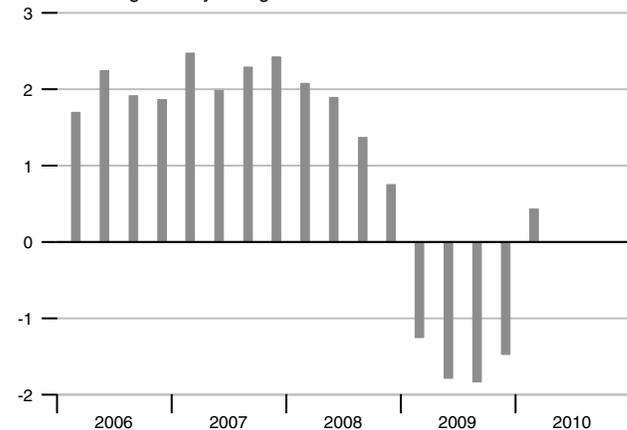
Real GDP

Percent change from year ago



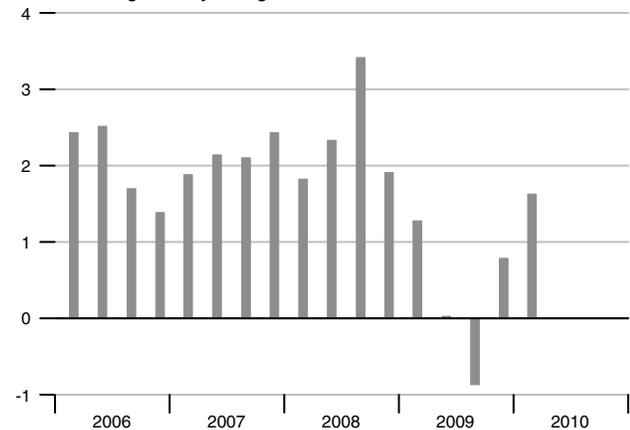
Employment

Percent change from year ago



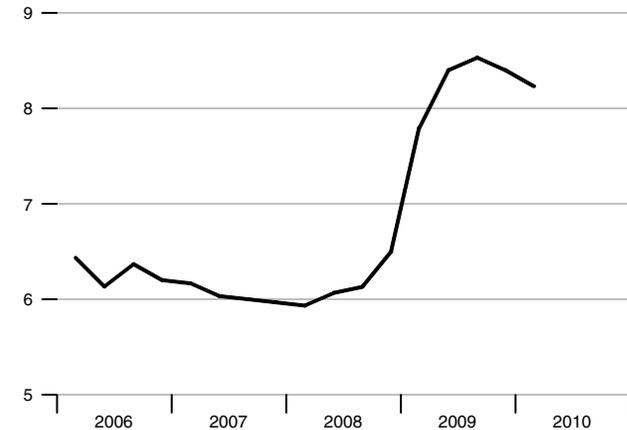
Consumer Price Index

Percent change from year ago



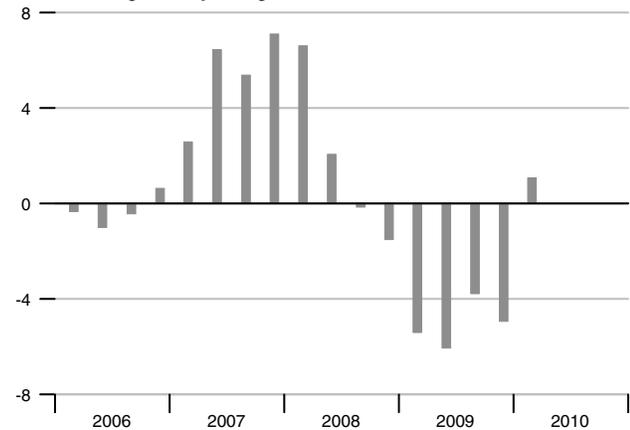
Unemployment Rate

Percent



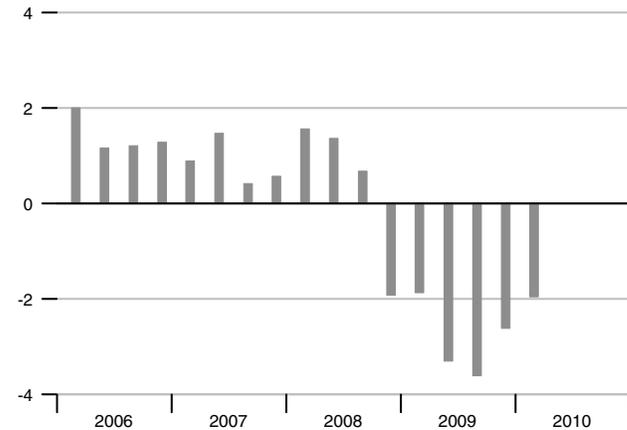
Real Hourly Earnings

Percent change from year ago



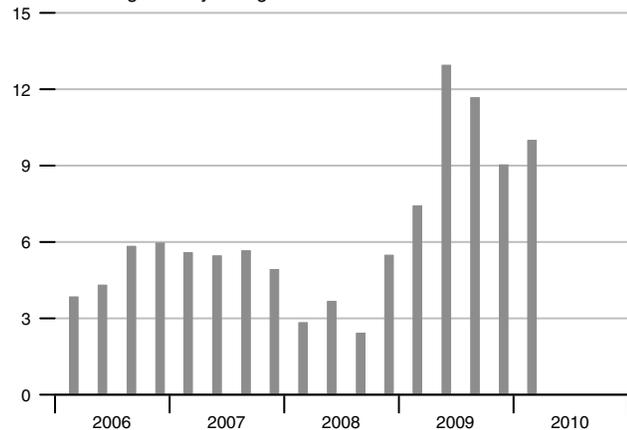
Current Account Balance

Percent of GDP



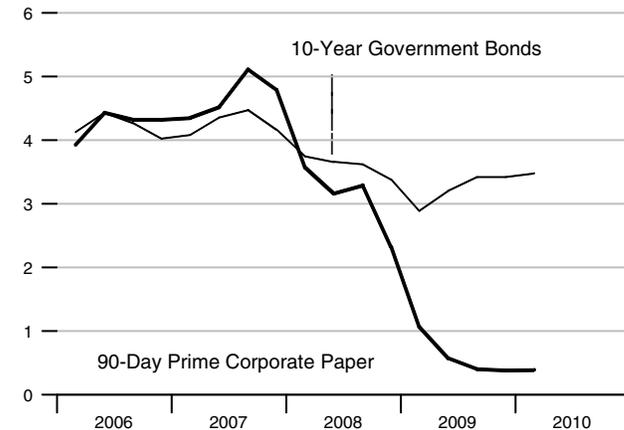
Reserve Money

Percent change from year ago



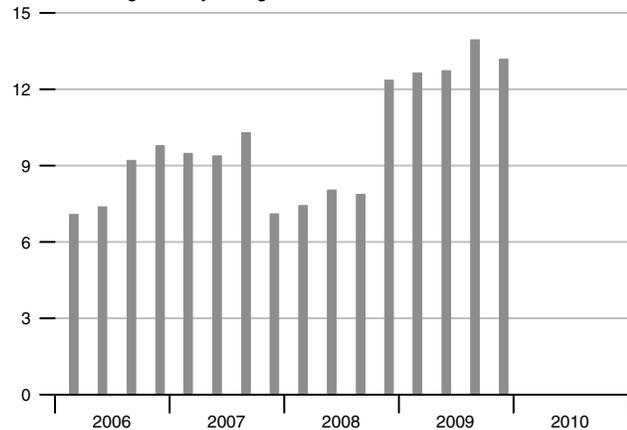
Interest Rates

Percent



M1B

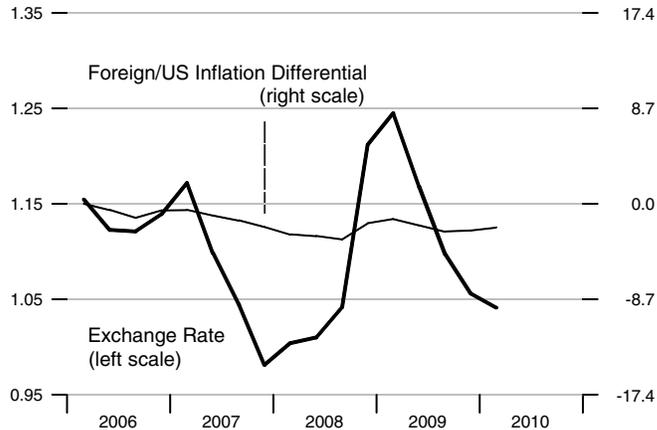
Percent change from year ago



Exchange Rate and Inflation Differential

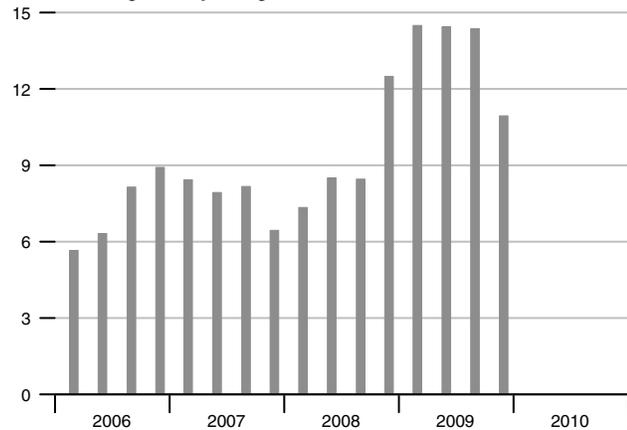
C\$/US\$

Percent



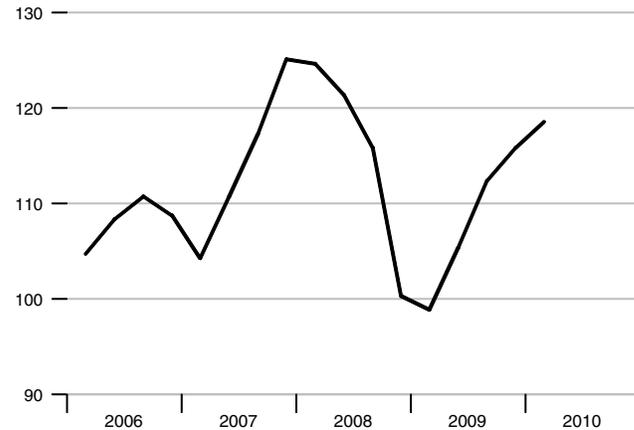
M2

Percent change from year ago



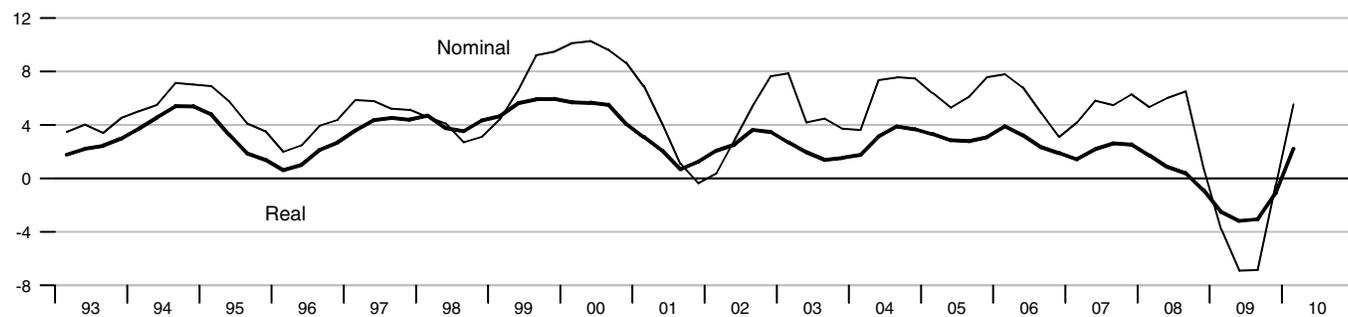
Real Effective Exchange Rate

Index 2005 = 100



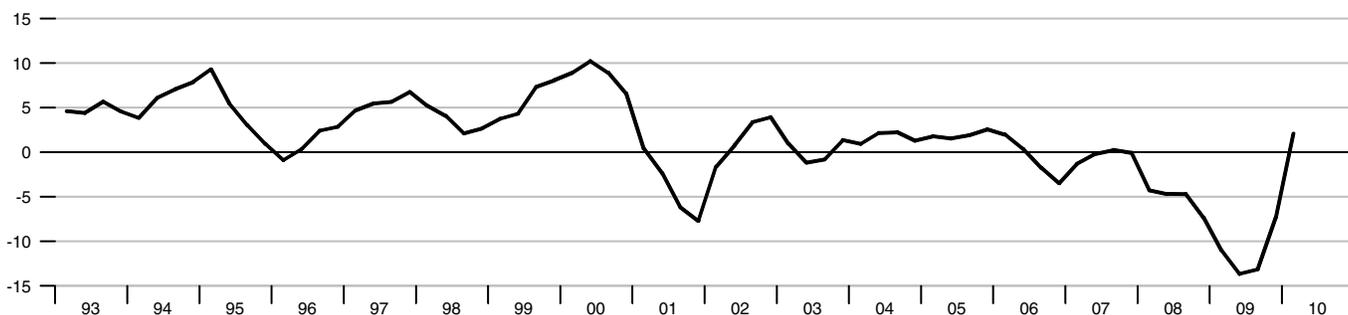
GDP

Percent change from year ago



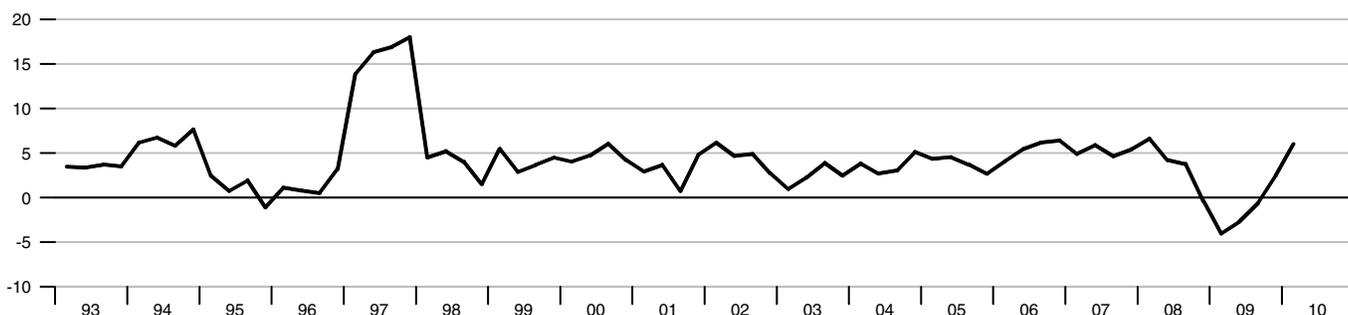
Industrial Production

Percent change from year ago



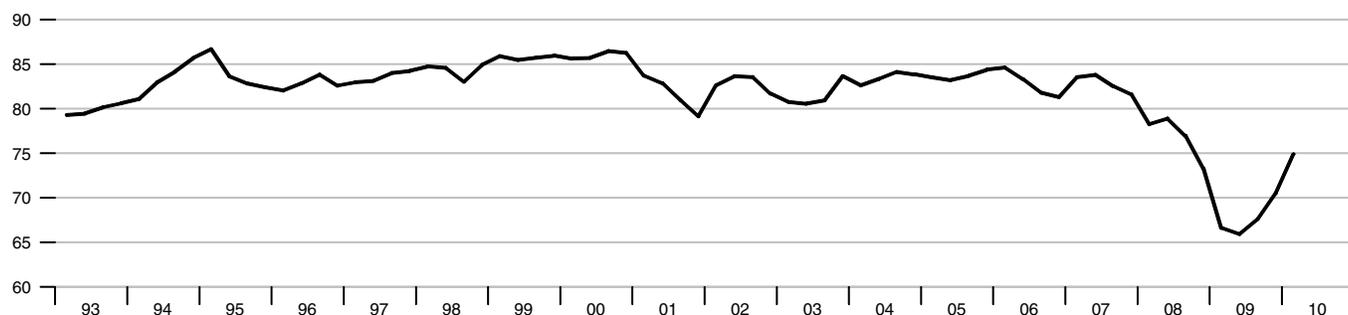
Retail Sales

Percent change from year ago



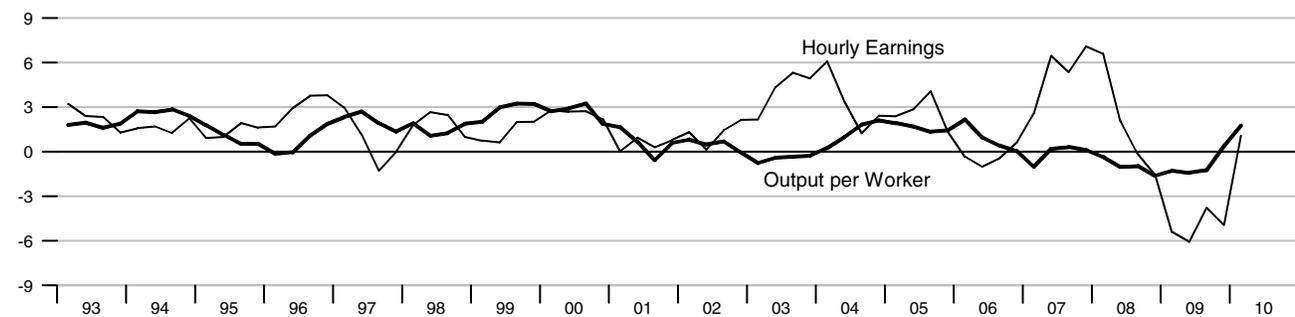
Capacity Utilization

Percent



Real Hourly Earnings and Output per Worker

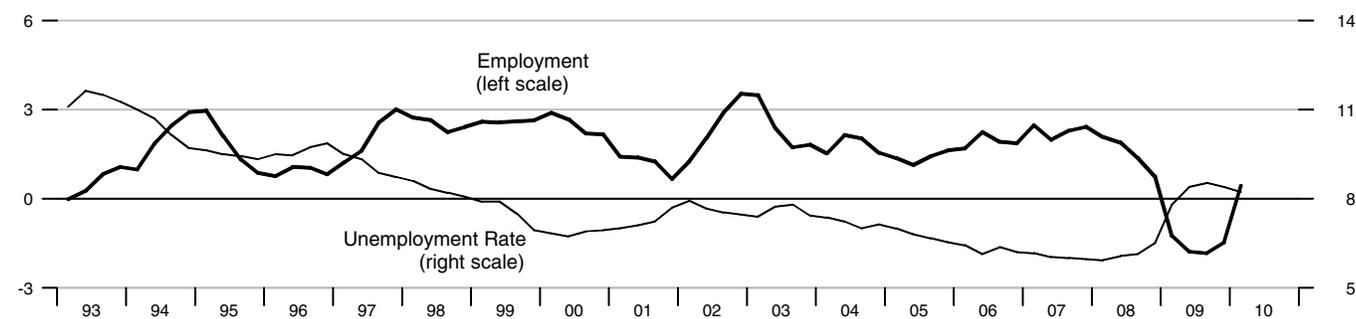
Percent change from year ago



Labor Force Indicators

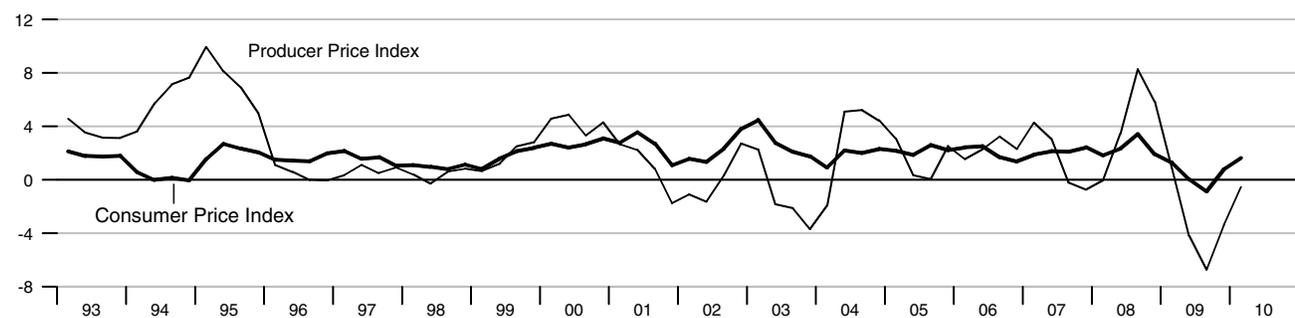
Percent change from year ago

Percent



Inflation

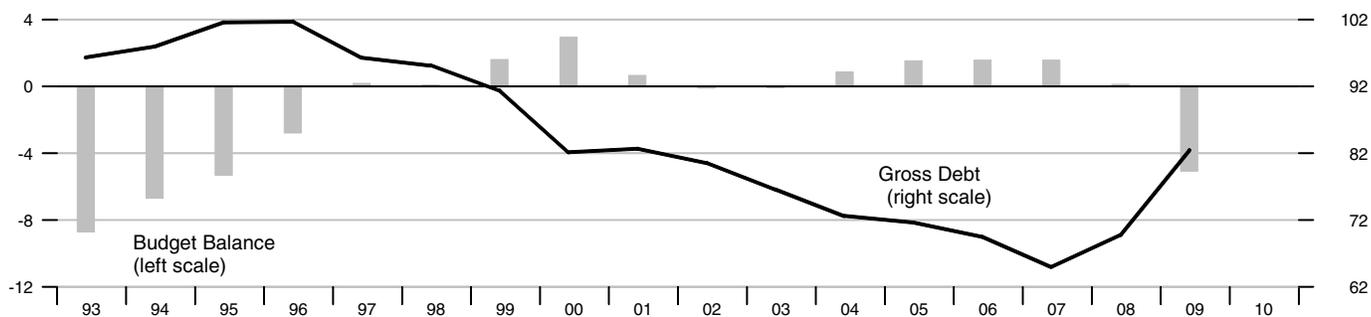
Percent change from year ago



Gross Government Debt and Budget Balance

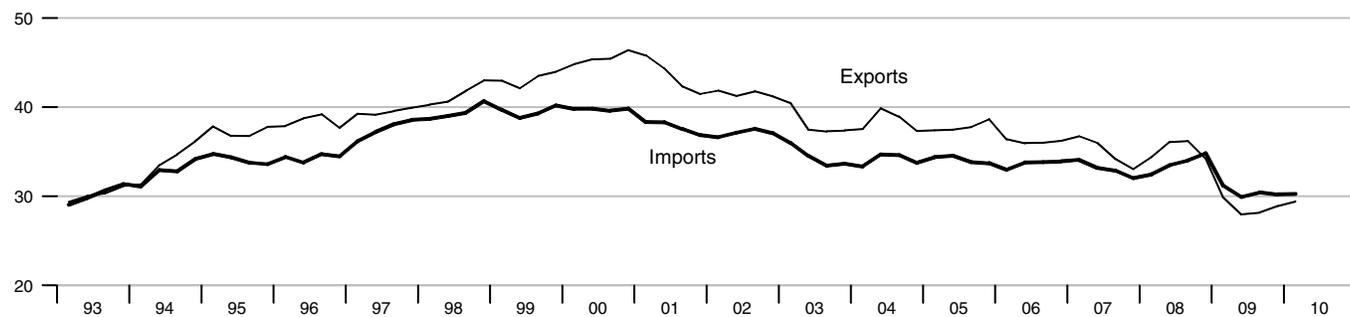
Percent of GDP, annual data

Percent of GDP, annual data



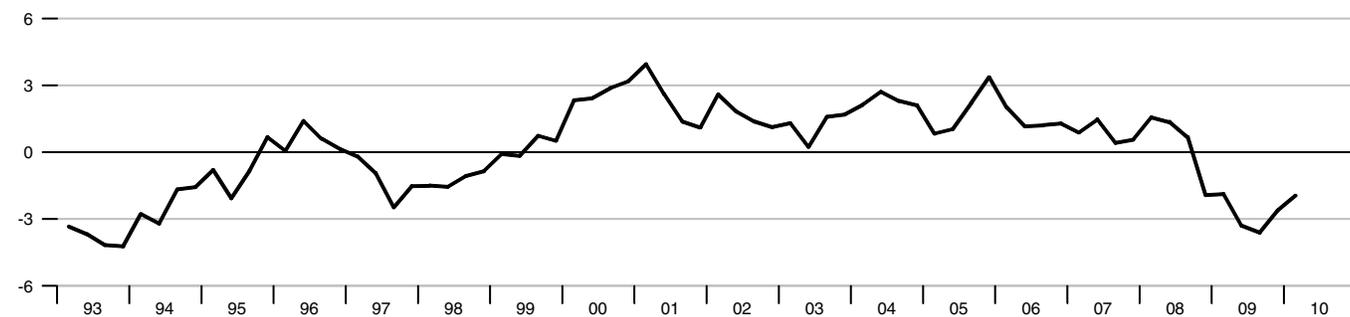
International Trade - Goods and Services

Percent of GDP



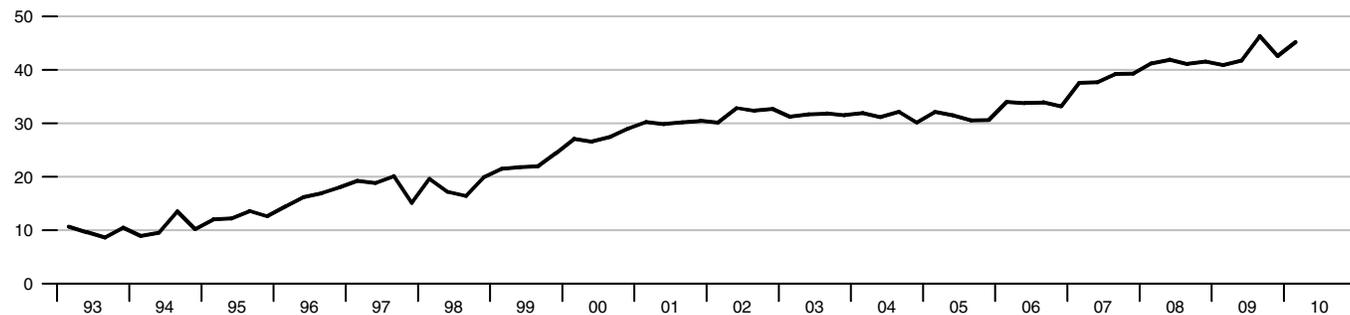
Current Account Balance

Percent of GDP



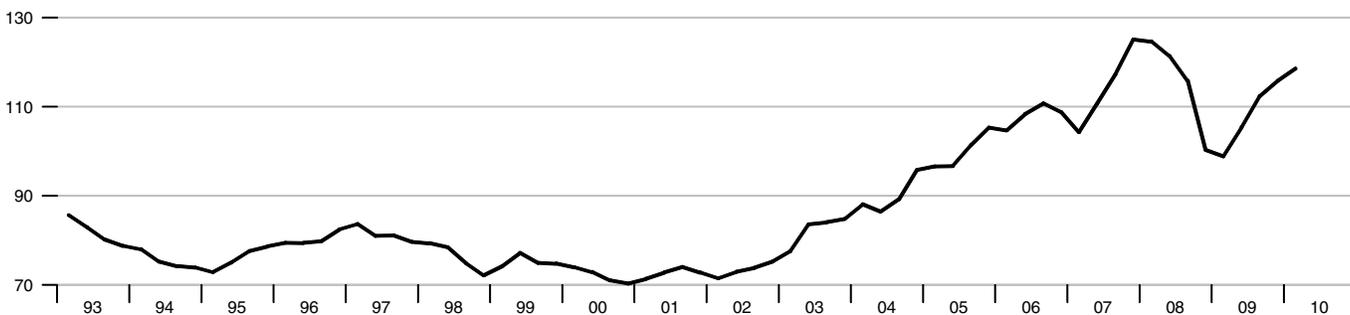
Foreign Exchange Reserves

Billions of US\$



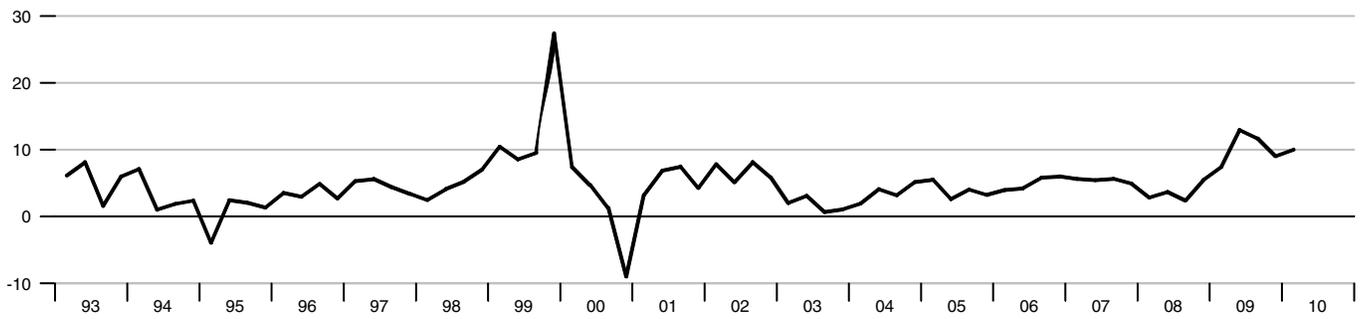
Real Effective Exchange Rate

Index 2005 = 100



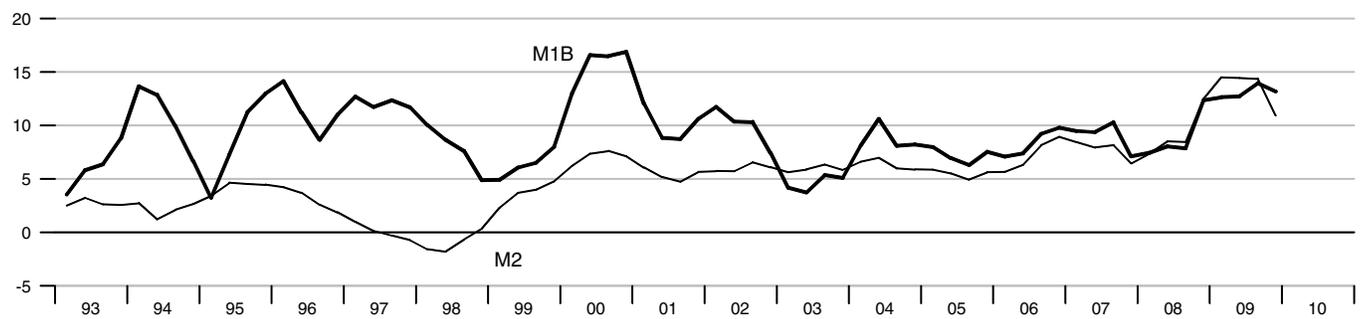
Reserve Money

Percent change from year ago



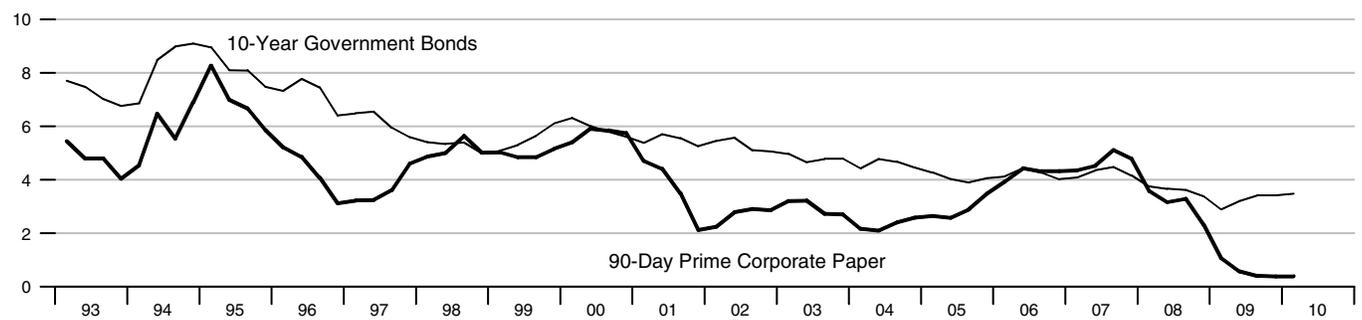
Monetary Aggregates

Percent change from year ago



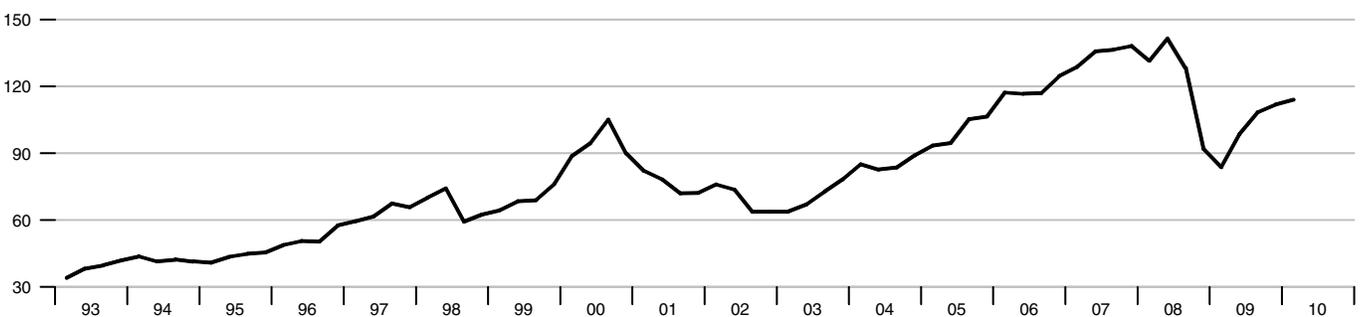
Interest Rates

Percent

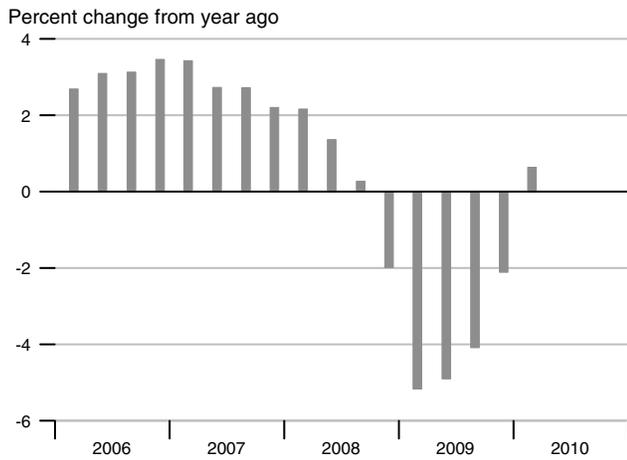


Stock Exchange Index - Toronto Stock Exchange

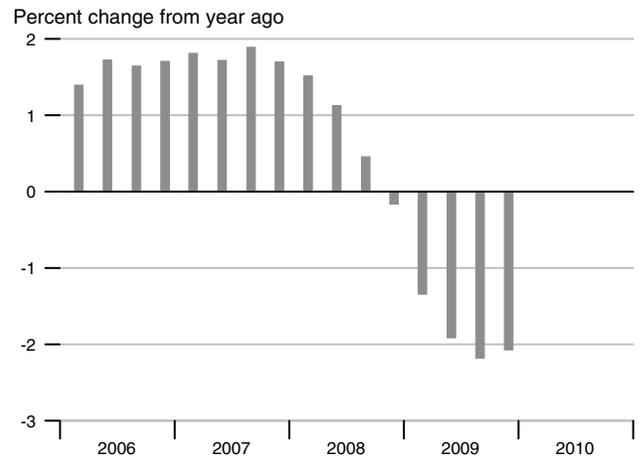
2005 = 100



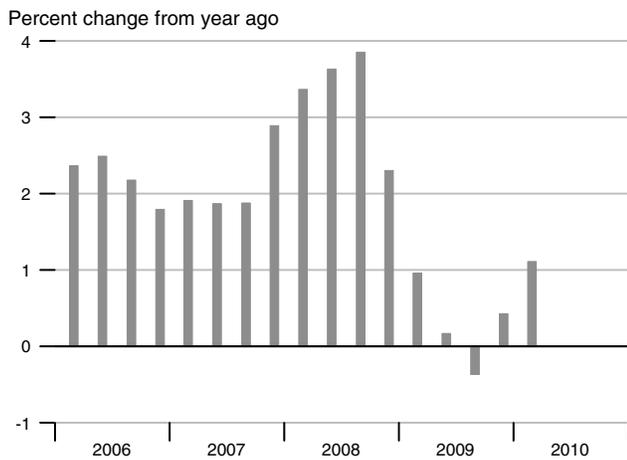
Real GDP



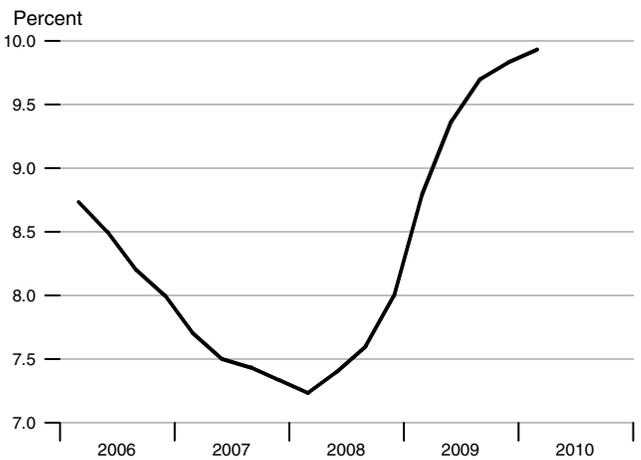
Employment



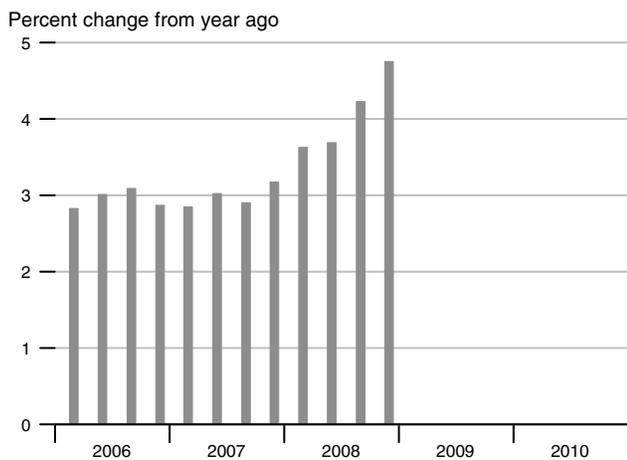
Consumer Price Index



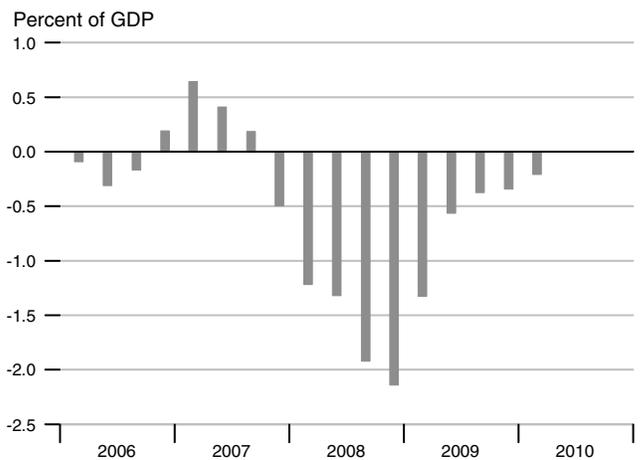
Unemployment Rate



Real Hourly Earnings

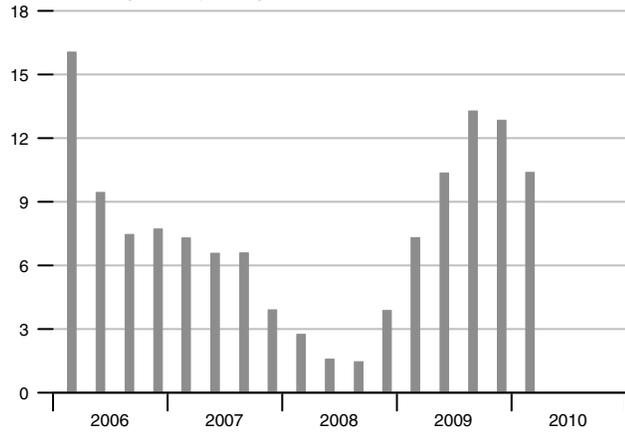


Current Account Balance



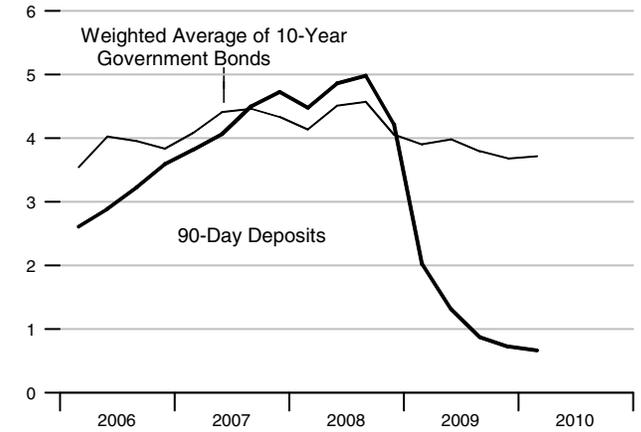
M1

Percent change from year ago



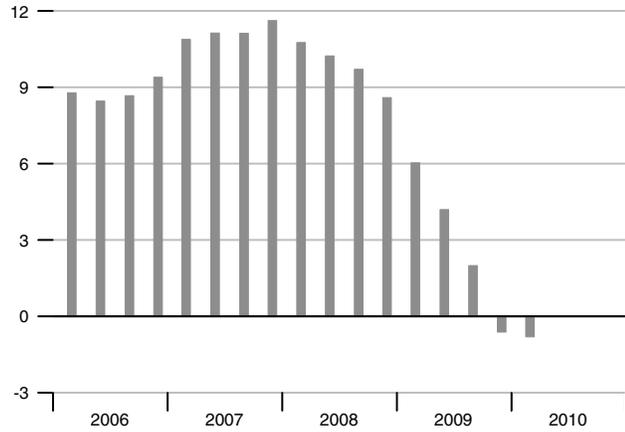
Interest Rates

Percent



M3

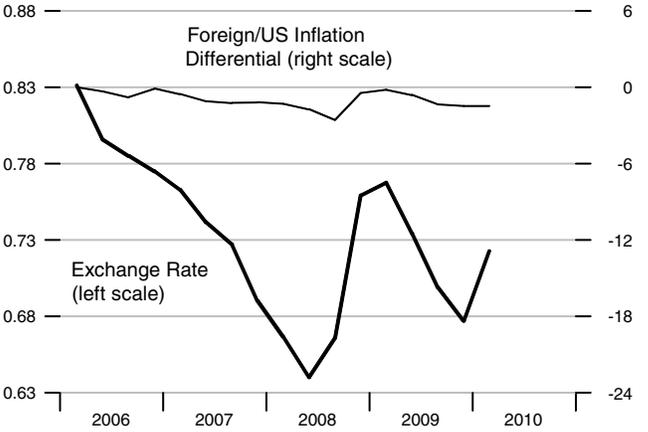
Percent change from year ago



Exchange Rate and Inflation Differential

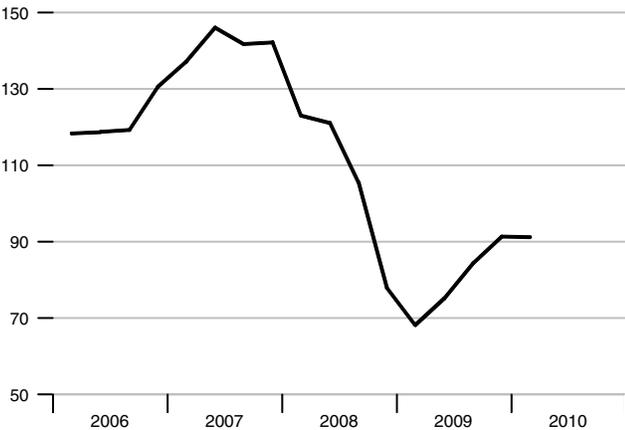
Euro/US\$

Percent



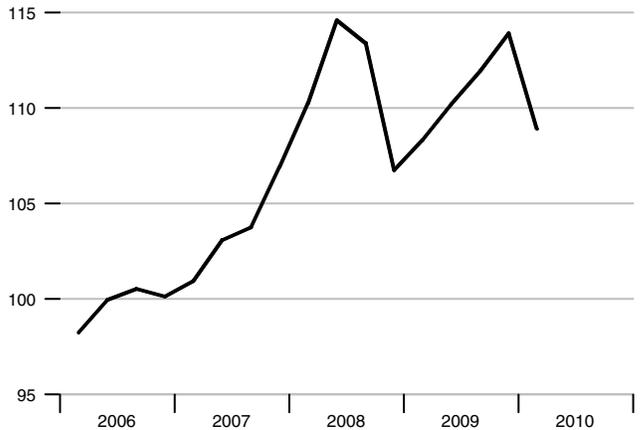
Stock Exchange Index - Dow Jones EURO STOXXSM

2005 = 100



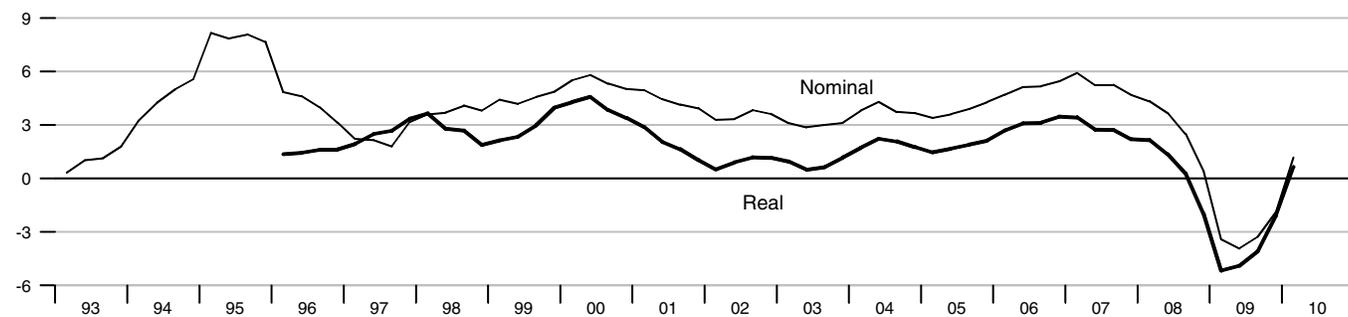
Real Effective Exchange Rate

Index 2005 = 100



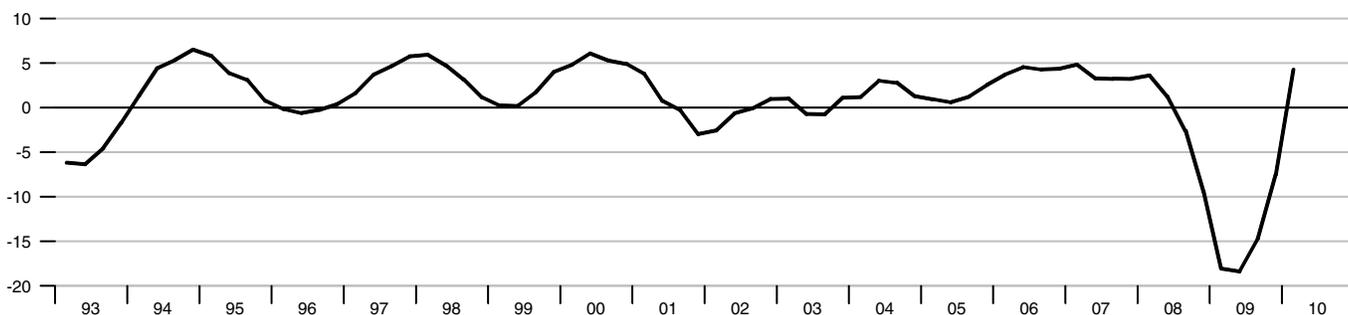
GDP

Percent change from year ago



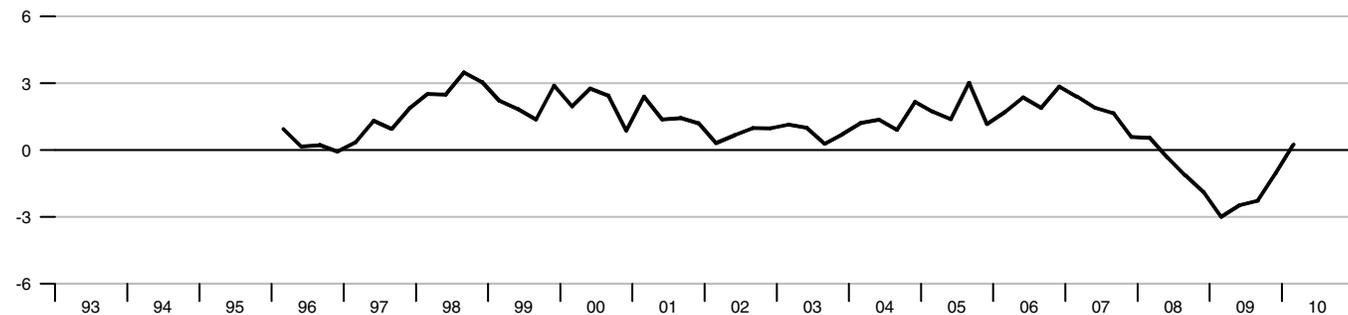
Industrial Production

Percent change from year ago



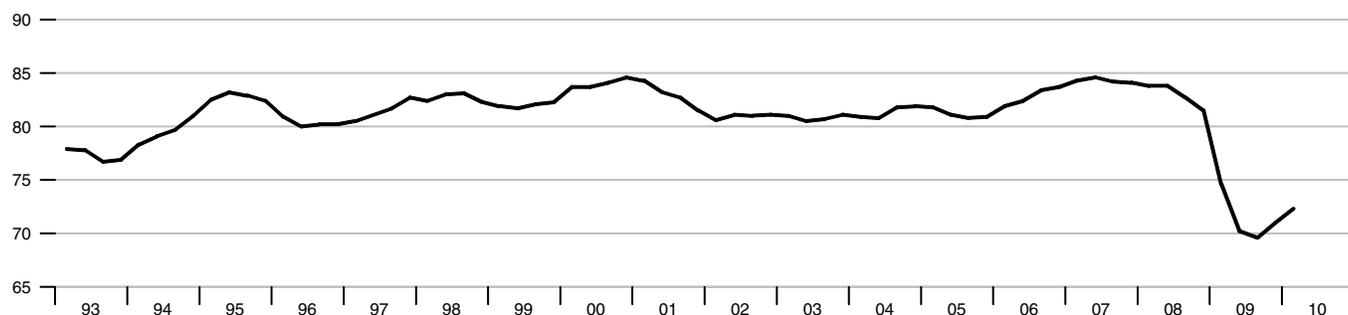
Retail Sales

Percent change from year ago



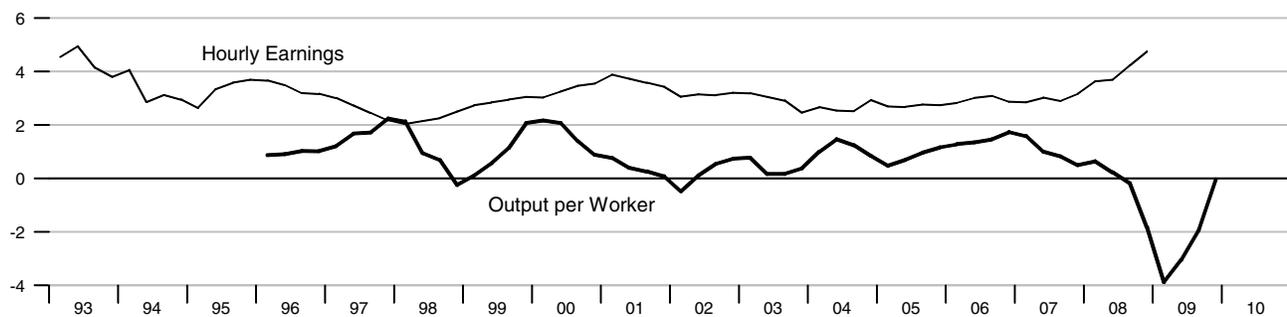
Capacity Utilization

Percent



Real Hourly Earnings and Output per Worker

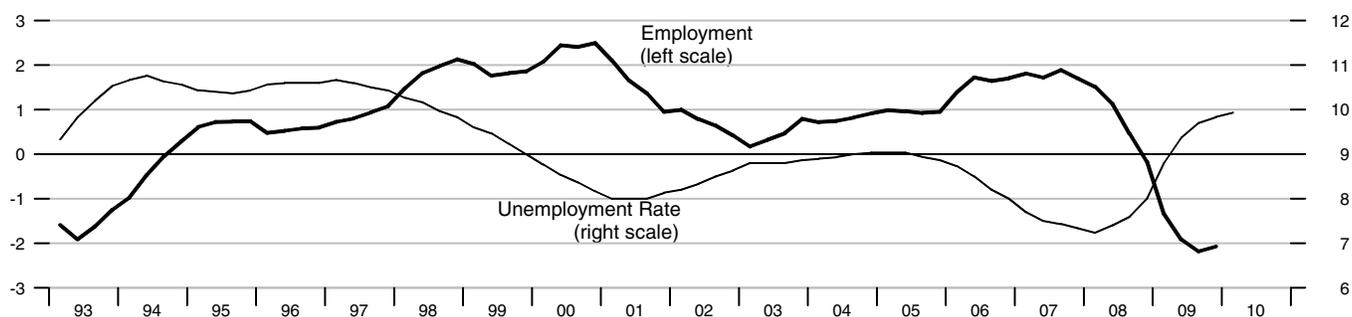
Percent change from year ago



Labor Force Indicators

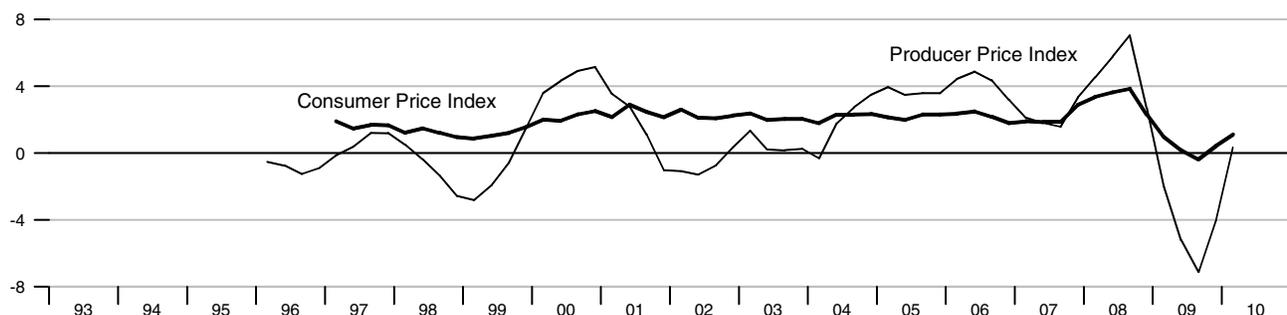
Percent change from year ago

Percent



Inflation

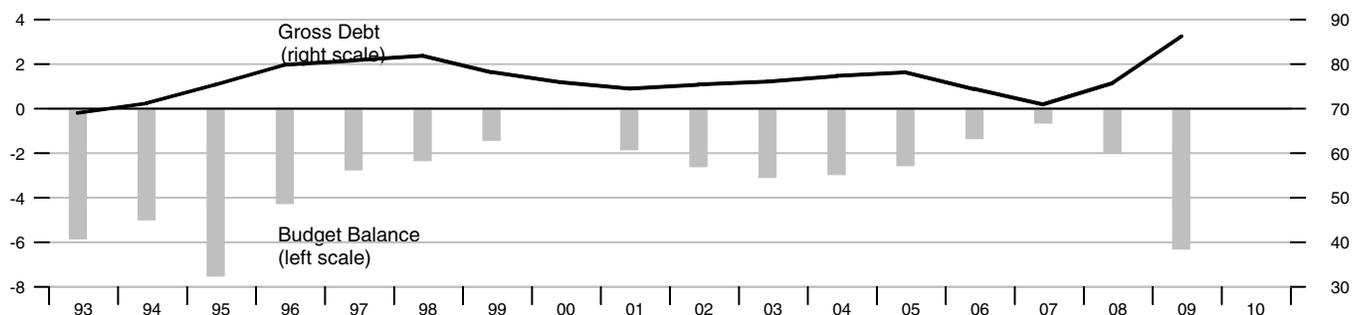
Percent change from year ago



Gross Government Debt and Budget Balance

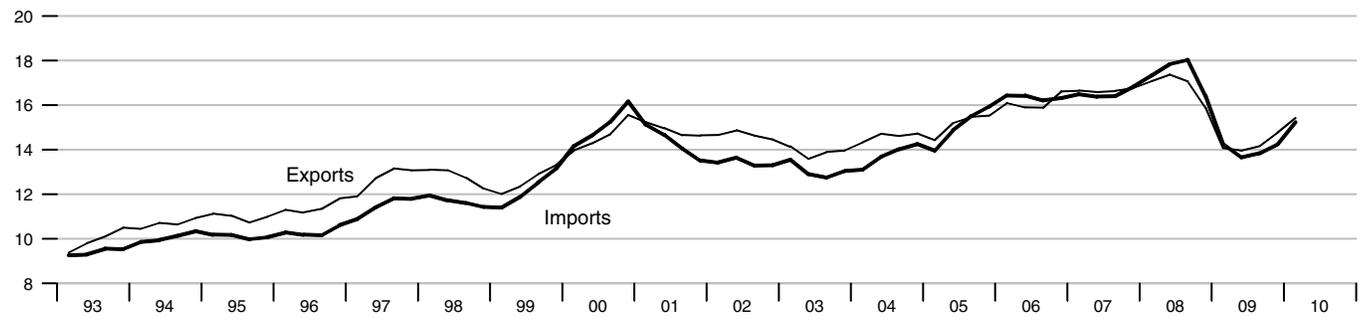
Percent of GDP, annual data

Percent of GDP, annual data



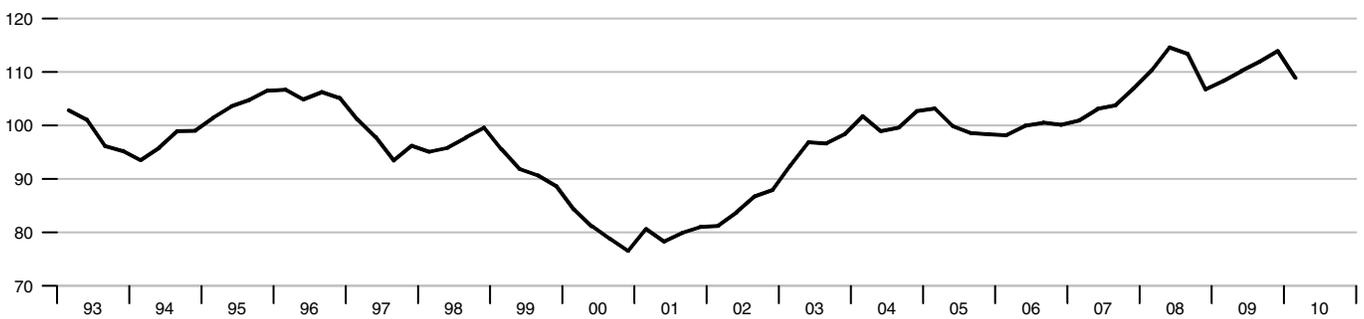
International Trade - Goods

Percent of GDP



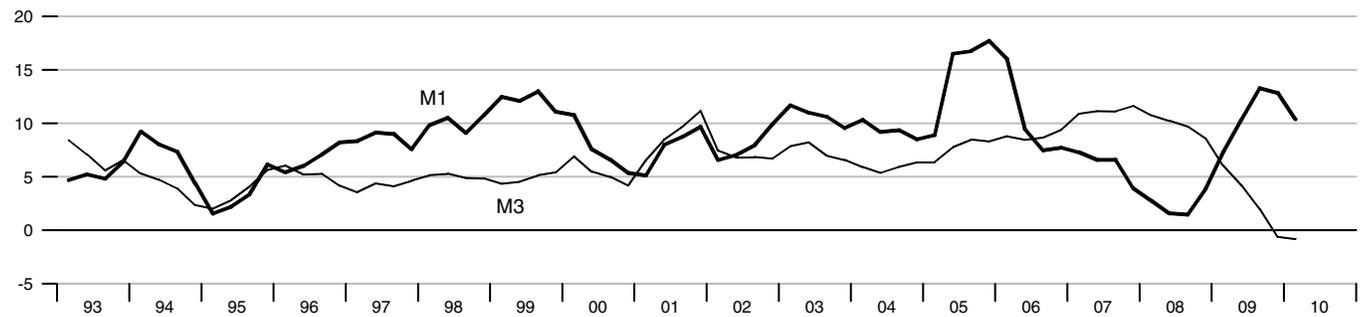
Real Effective Exchange Rate

Index 2005 = 100



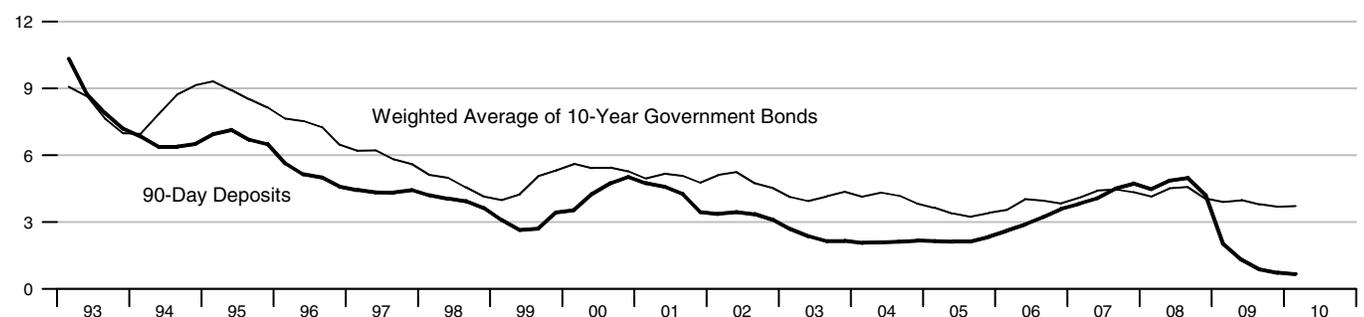
Monetary Aggregates

Percent change from year ago



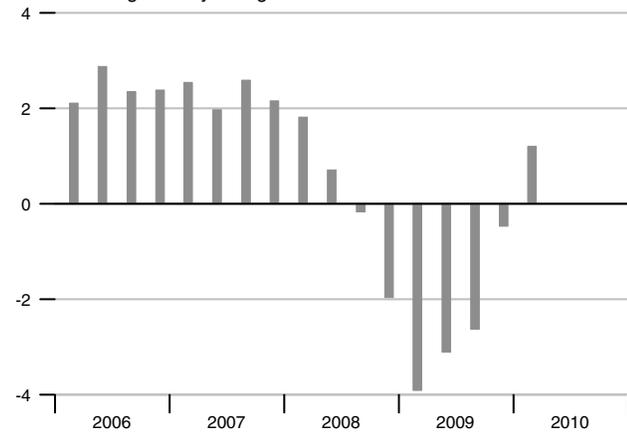
Interest Rates

Percent



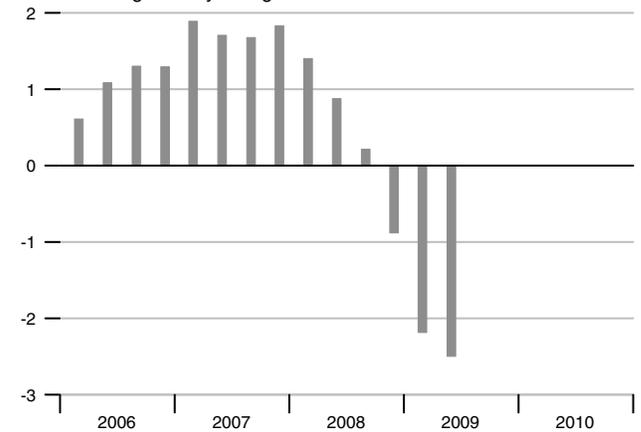
Real GDP

Percent change from year ago



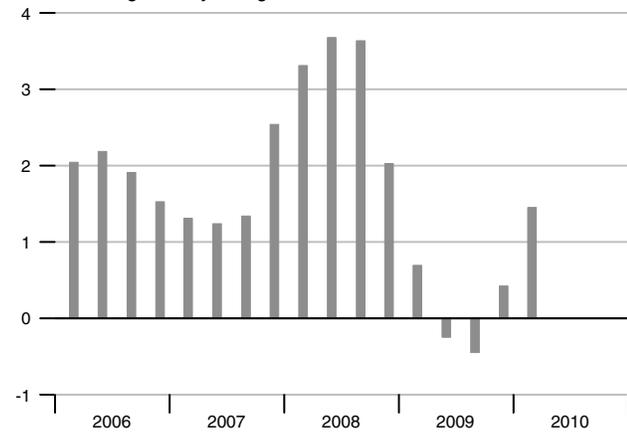
Employment

Percent change from year ago



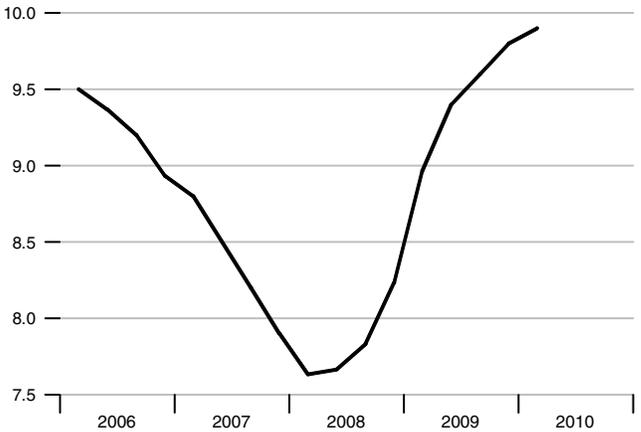
Consumer Price Index

Percent change from year ago



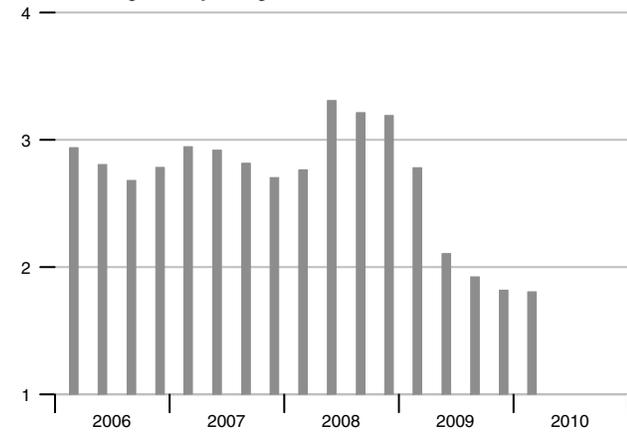
Unemployment Rate

Percent



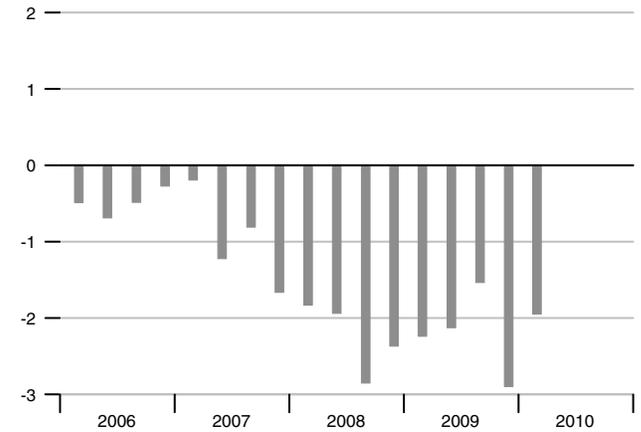
Real Hourly Earnings

Percent change from year ago



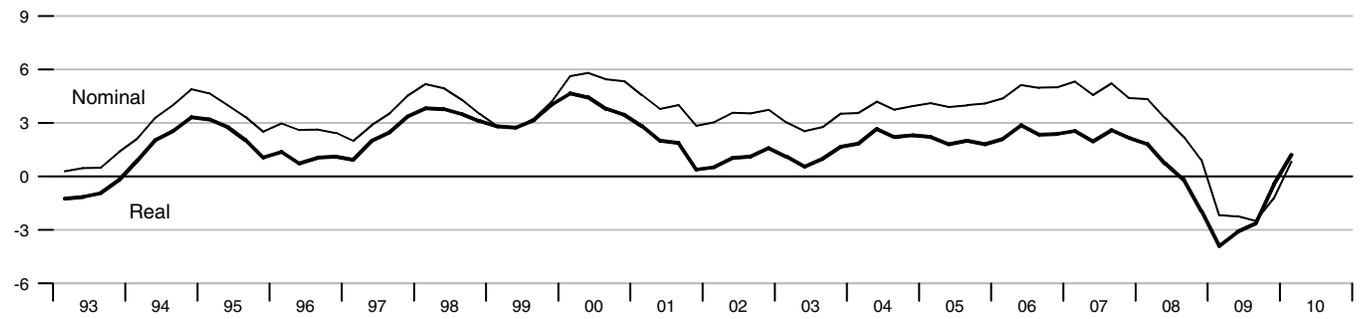
Current Account Balance

Percent of GDP



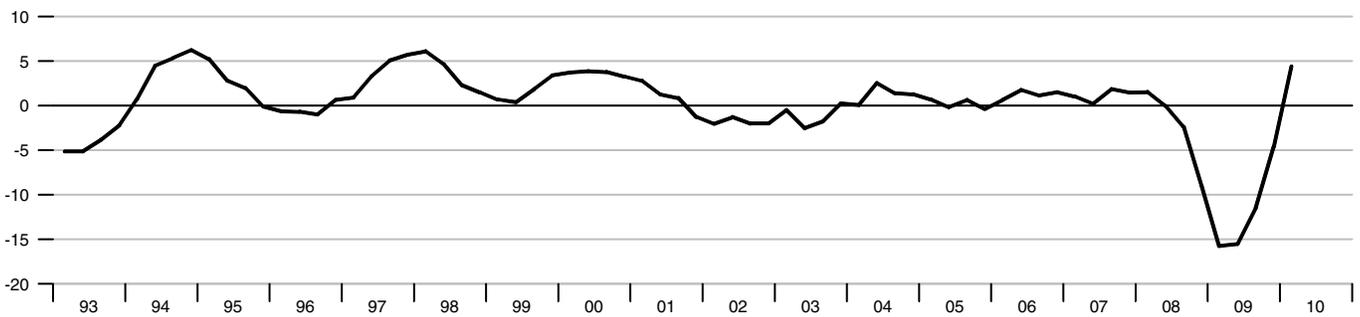
GDP

Percent change from year ago



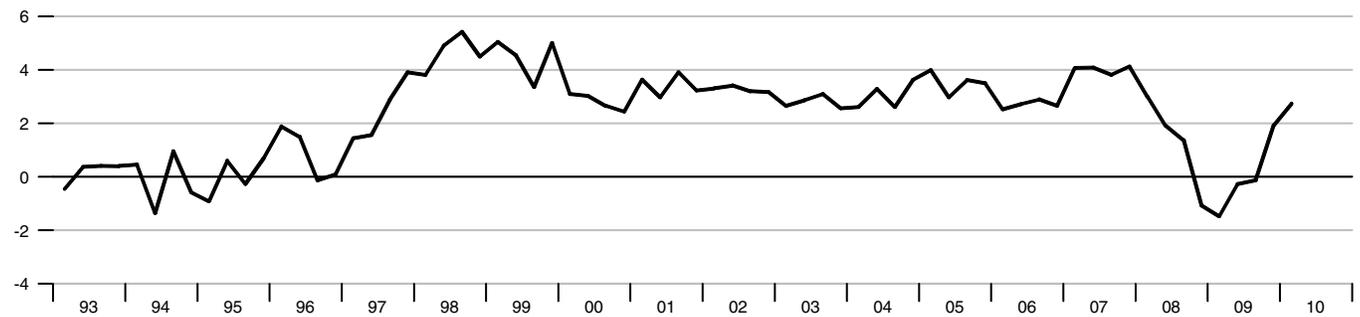
Industrial Production

Percent change from year ago



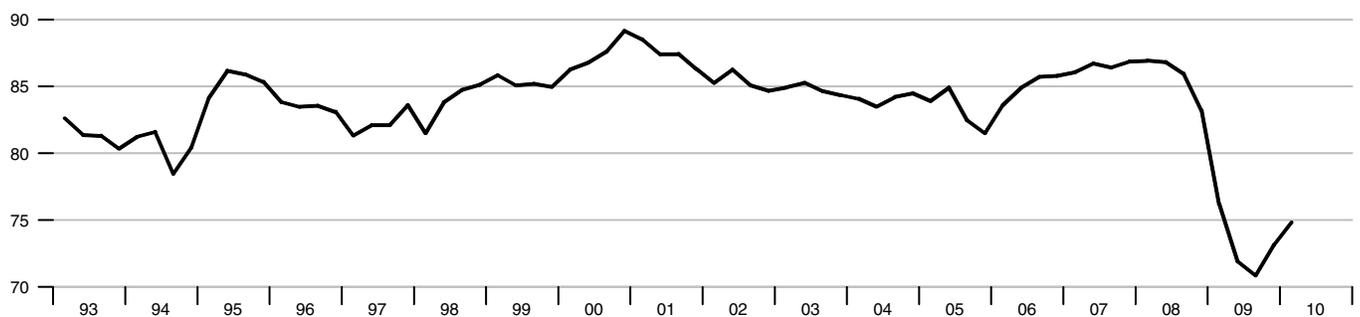
Retail Sales

Percent change from year ago



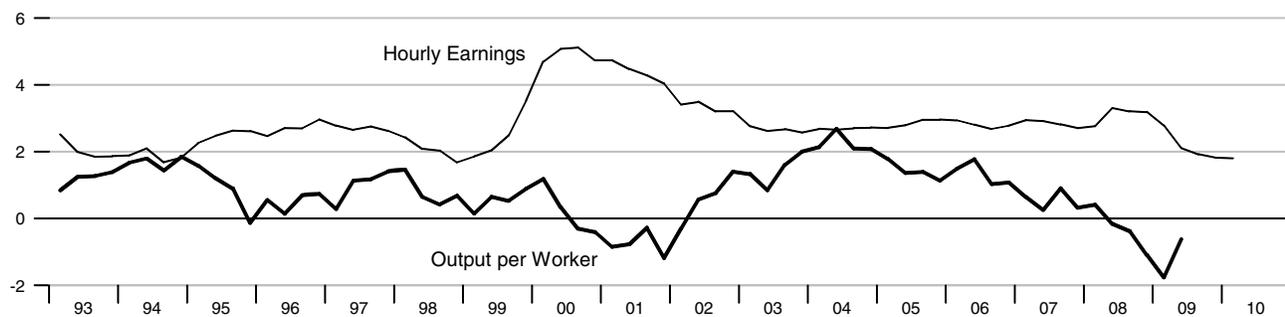
Capacity Utilization

Percent



Real Hourly Earnings and Output per Worker

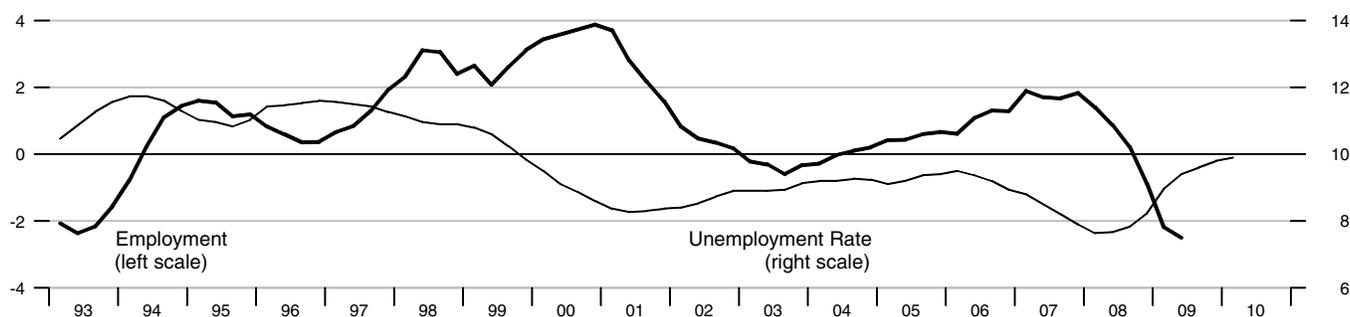
Percent change from year ago



Labor Force Indicators

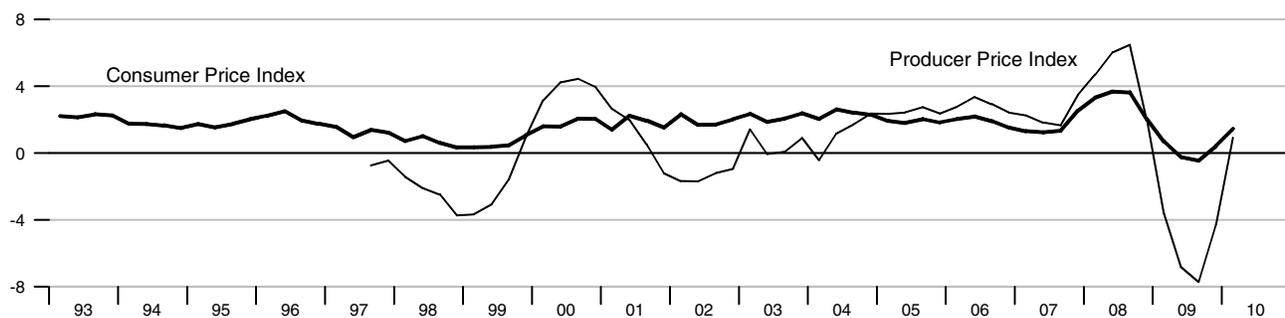
Percent change from year ago

Percent



Inflation

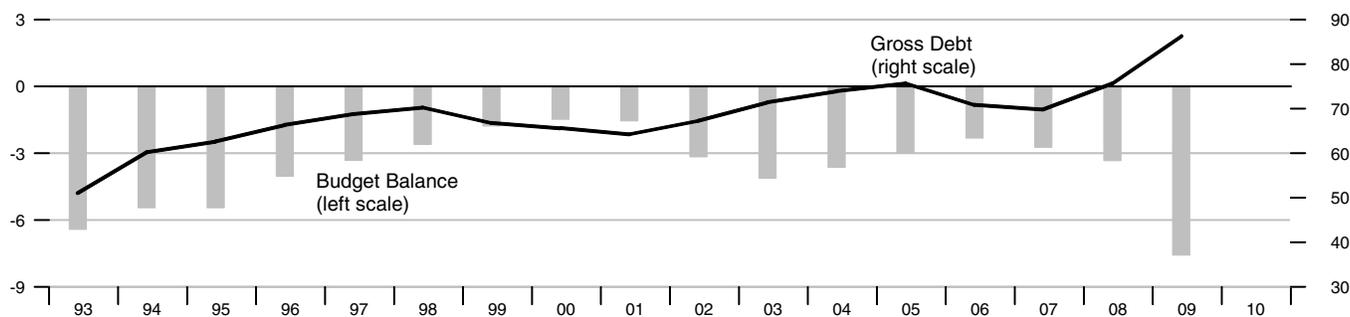
Percent change from year ago



Gross Government Debt and Budget Balance

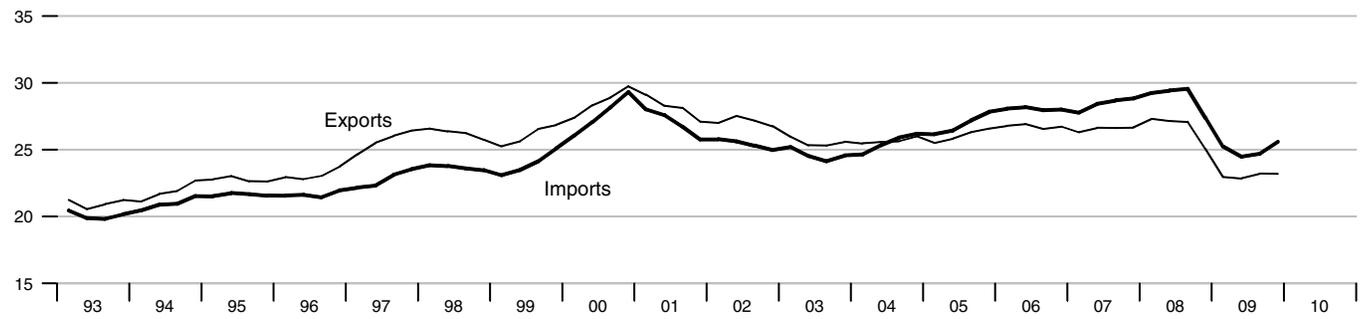
Percent of GDP, annual data

Percent of GDP, annual data



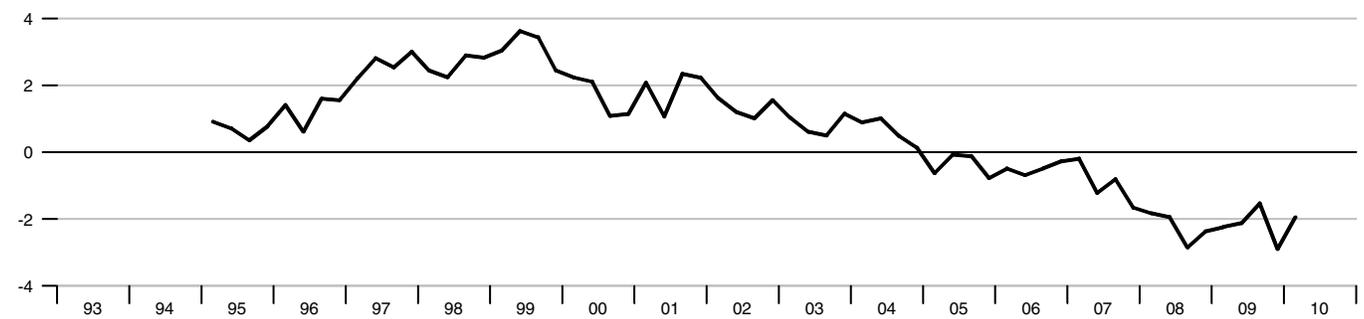
International Trade - Goods and Services

Percent of GDP



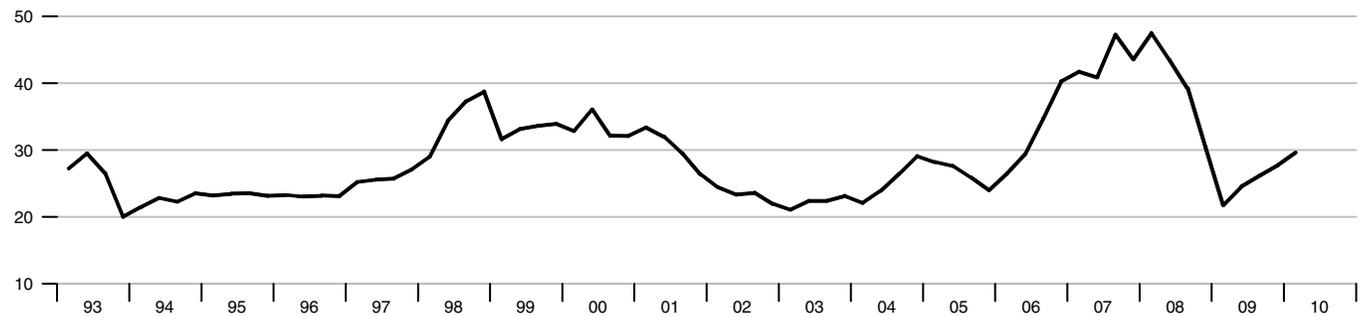
Current Account Balance

Percent of GDP



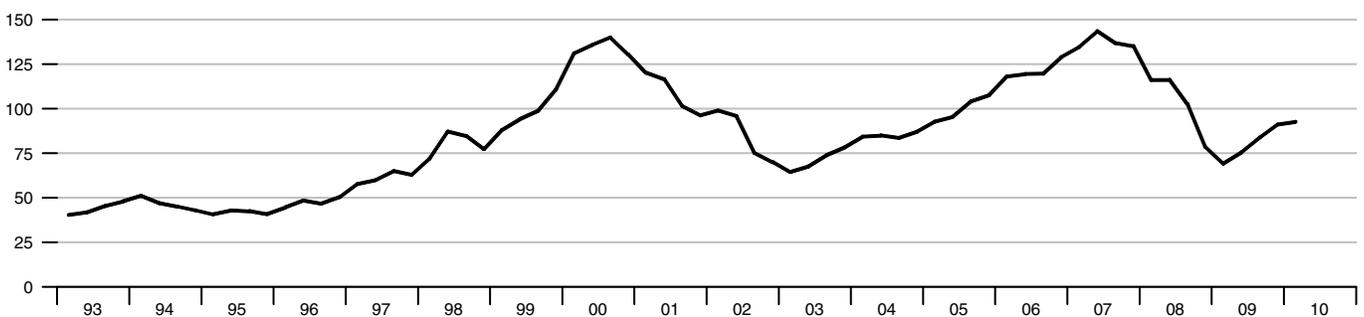
Foreign Exchange Reserves

Billions of US\$



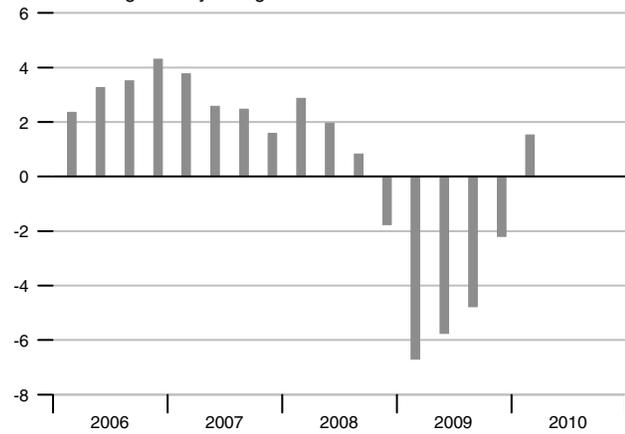
Stock Exchange Index - SBF 250

2005 = 100



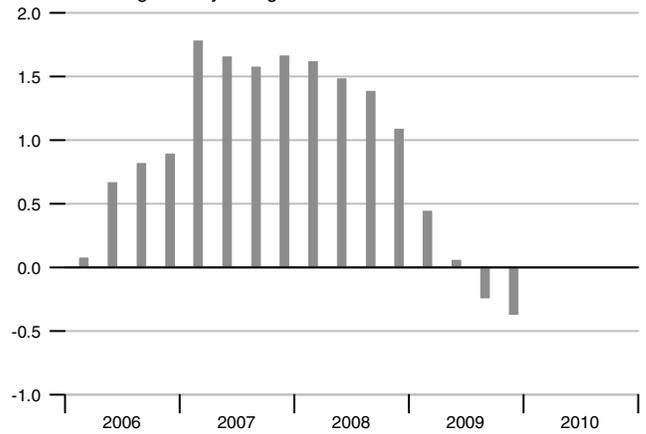
Real GDP

Percent change from year ago



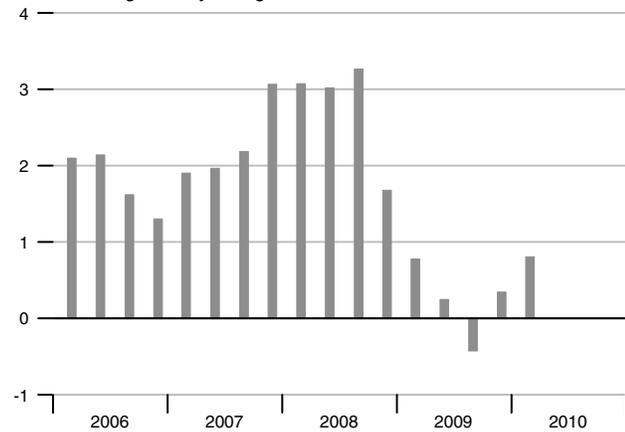
Employment

Percent change from year ago



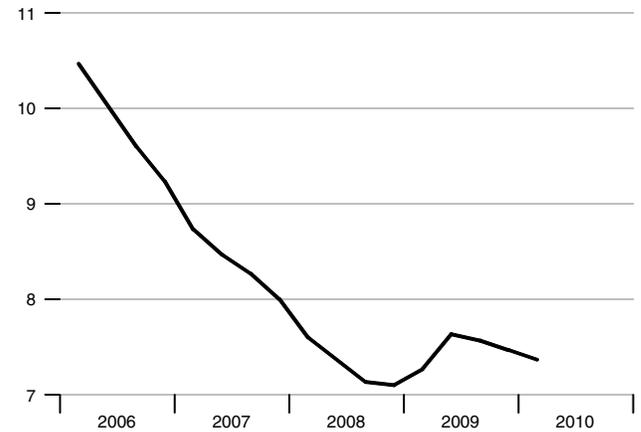
Consumer Price Index

Percent change from year ago



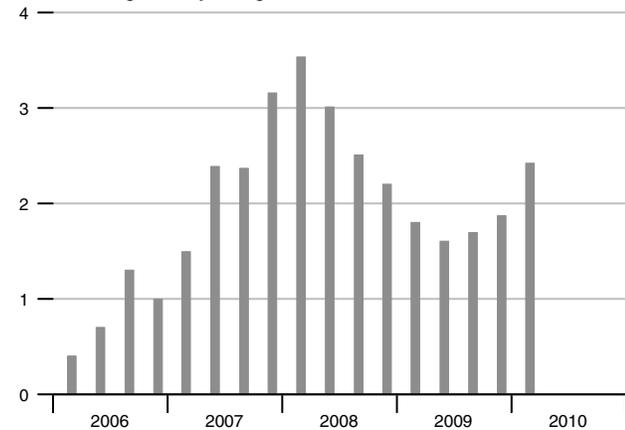
Unemployment Rate

Percent



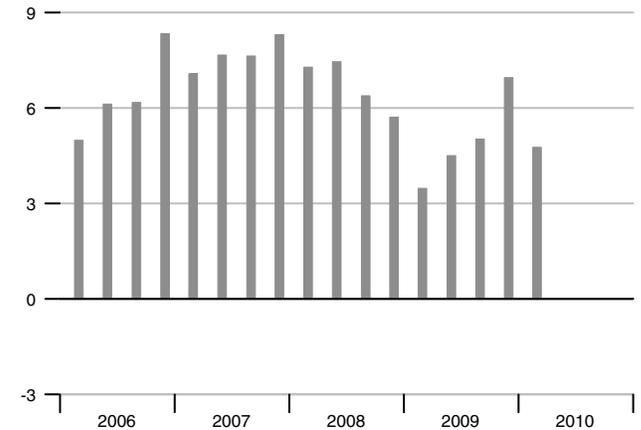
Real Hourly Earnings

Percent change from year ago



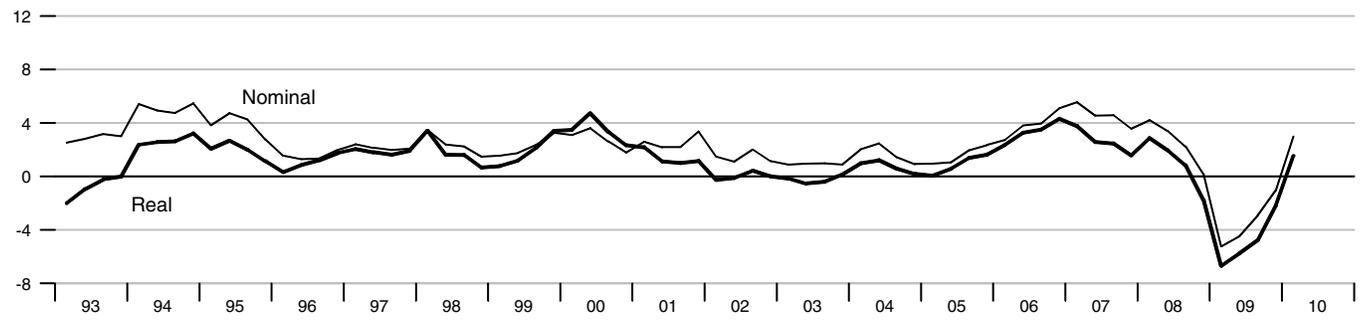
Current Account Balance

Percent of GDP



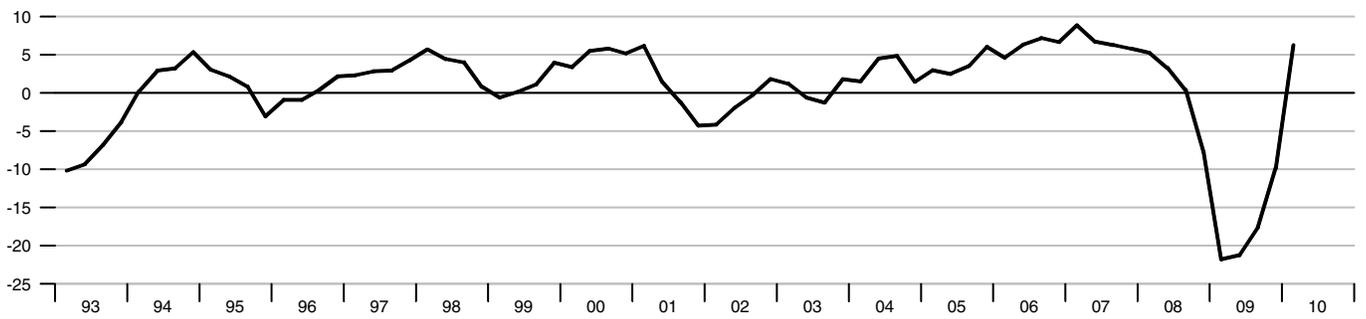
GDP

Percent change from year ago



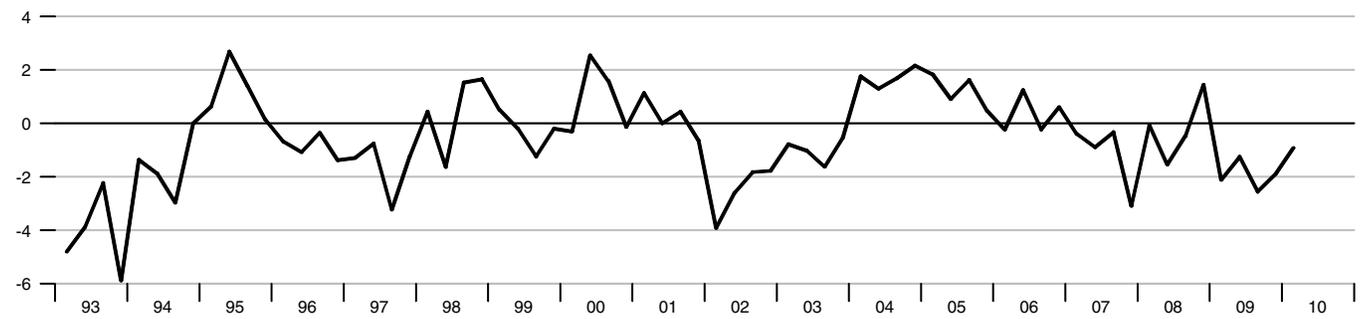
Industrial Production

Percent change from year ago



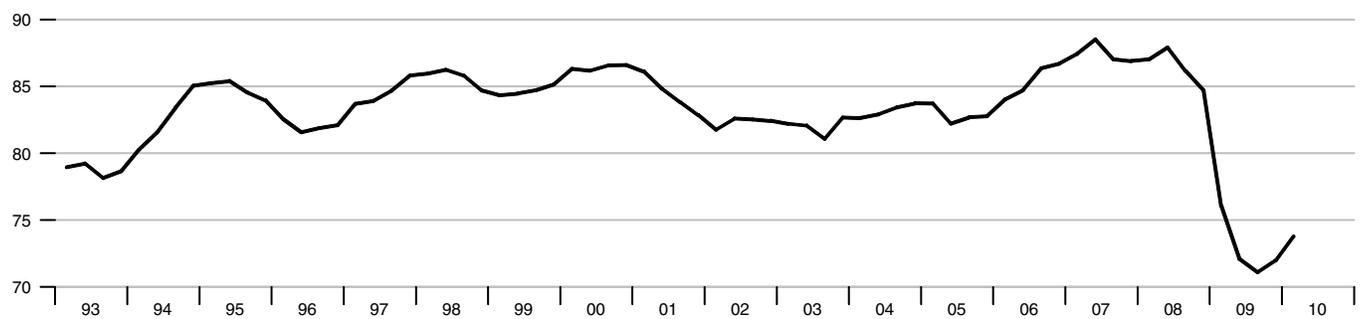
Retail Sales

Percent change from year ago

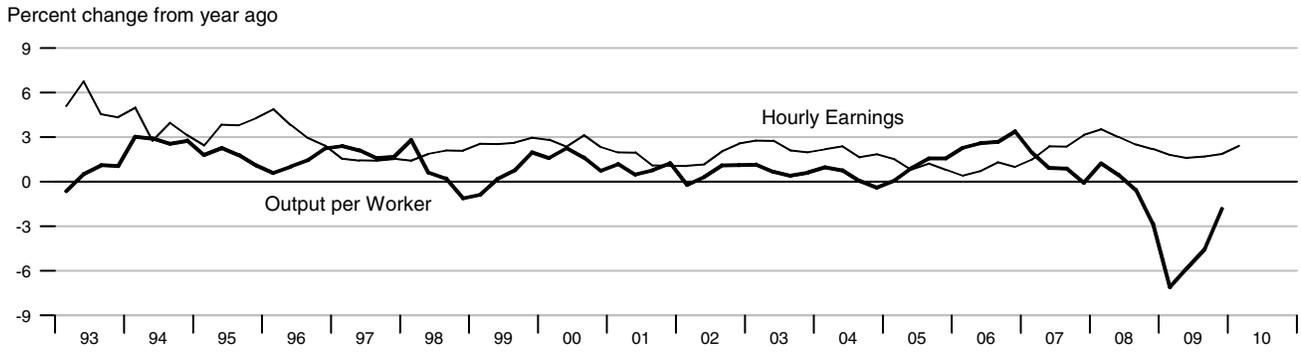


Capacity Utilization

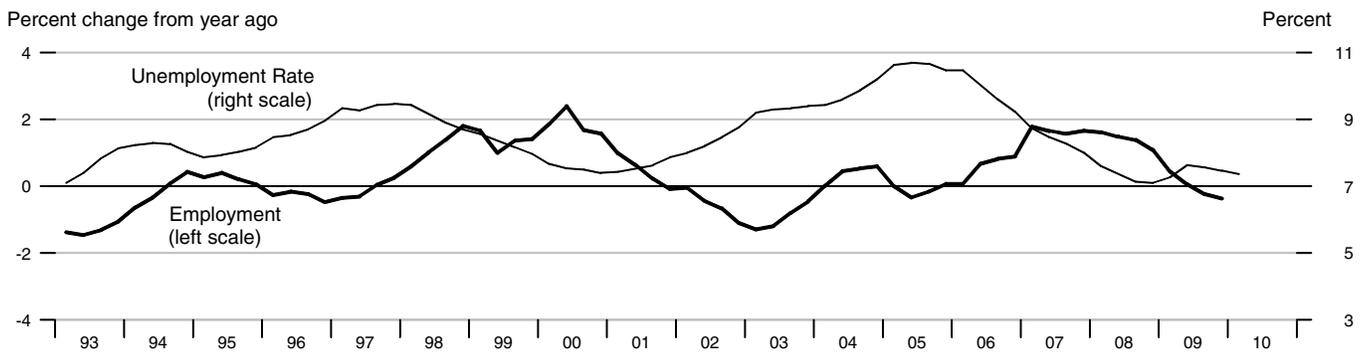
Percent



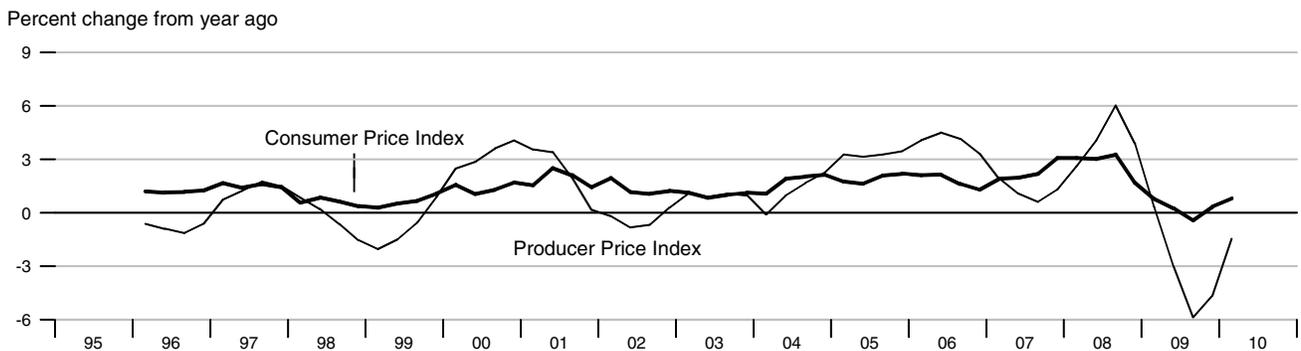
Real Hourly Earnings and Output per Worker



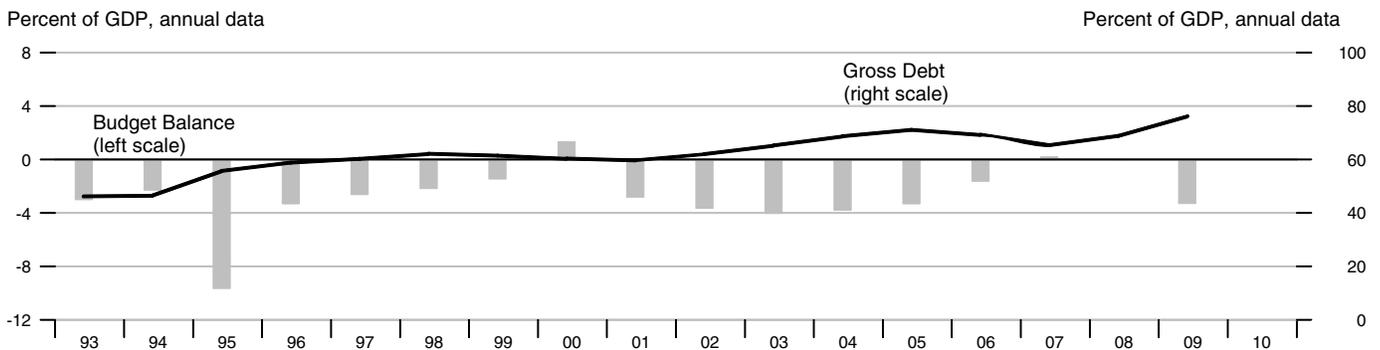
Labor Force Indicators



Inflation



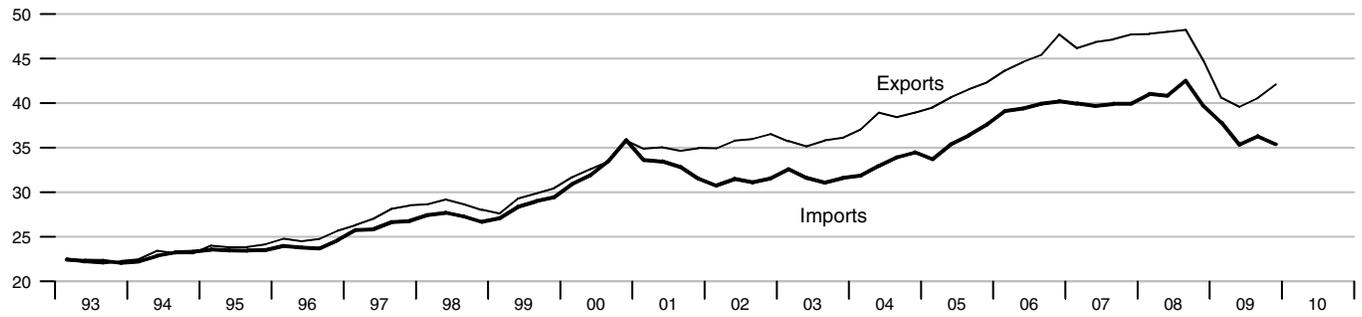
Gross Government Debt and Budget Balance



The actual value for budget balance in 2008 is 0.0%.

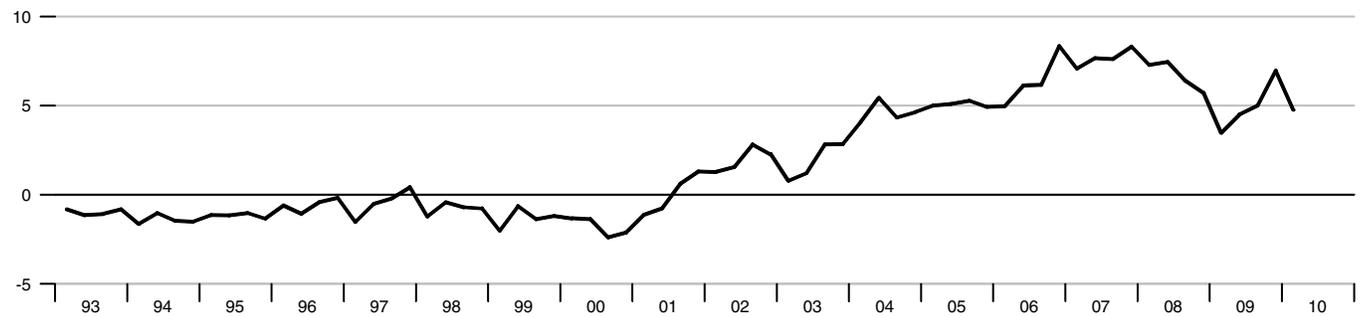
International Trade - Goods and Services

Percent of GDP



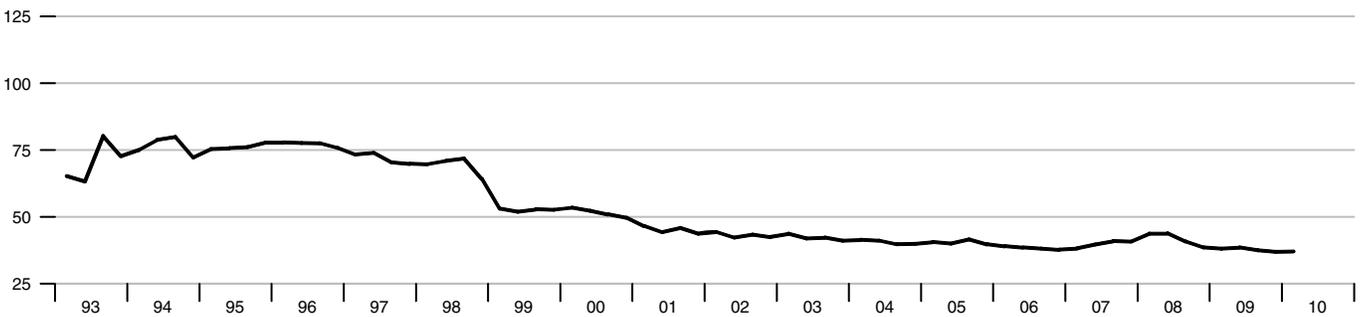
Current Account Balance

Percent of GDP



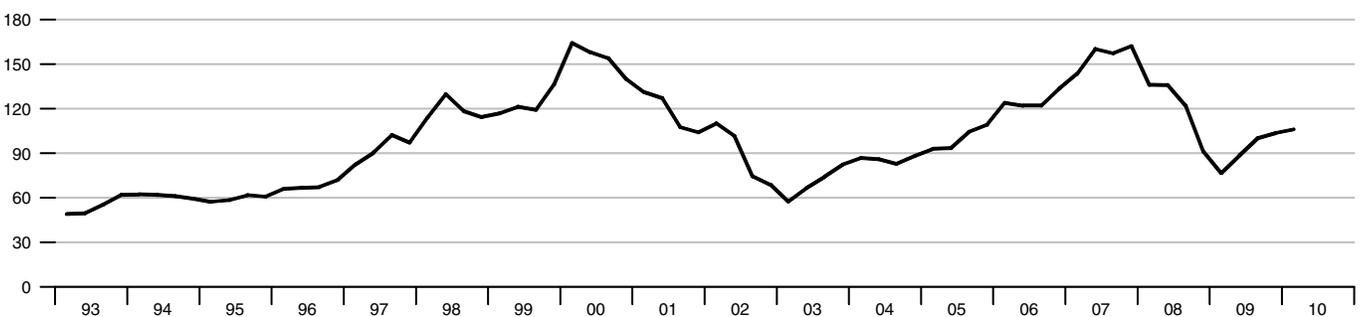
Foreign Exchange Reserves

Billions of US\$



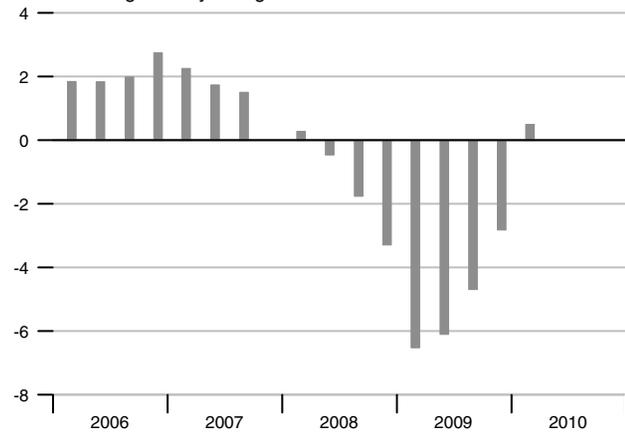
Stock Exchange Index - CDAX

2005 = 100



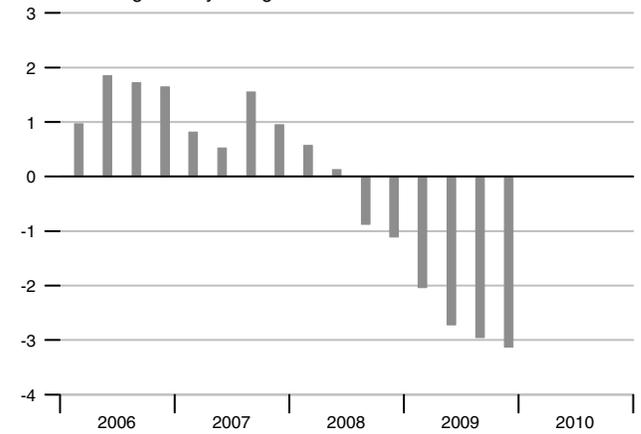
Real GDP

Percent change from year ago



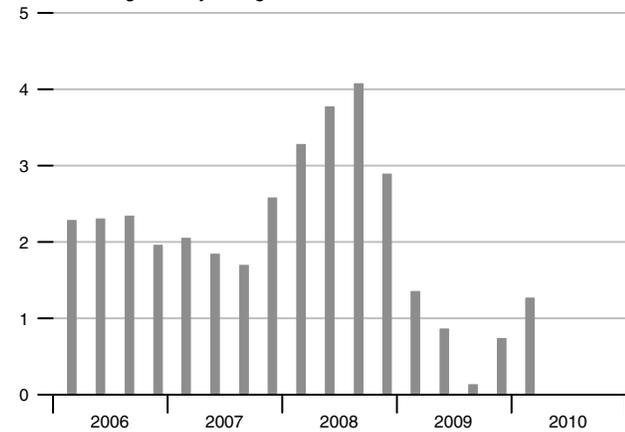
Employment

Percent change from year ago



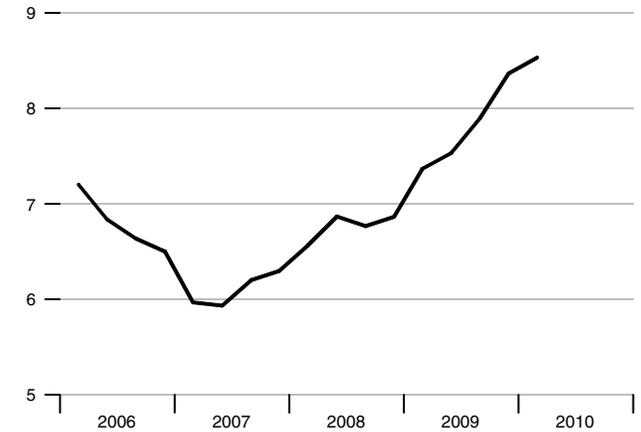
Consumer Price Index

Percent change from year ago



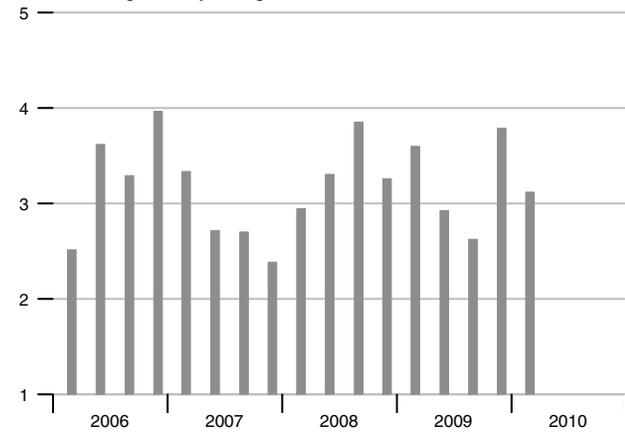
Unemployment Rate

Percent



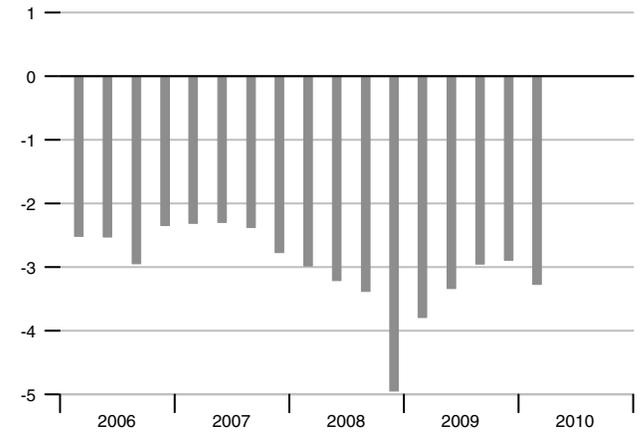
Real Hourly Earnings

Percent change from year ago



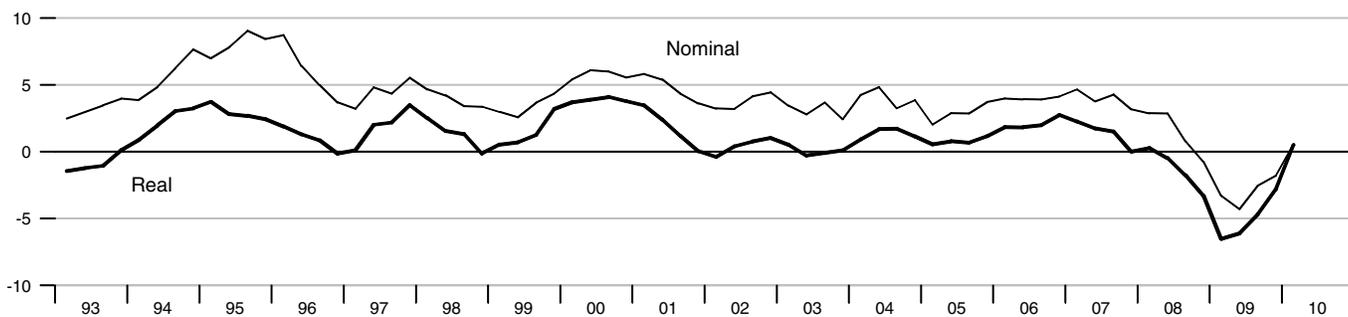
Current Account Balance

Percent of GDP



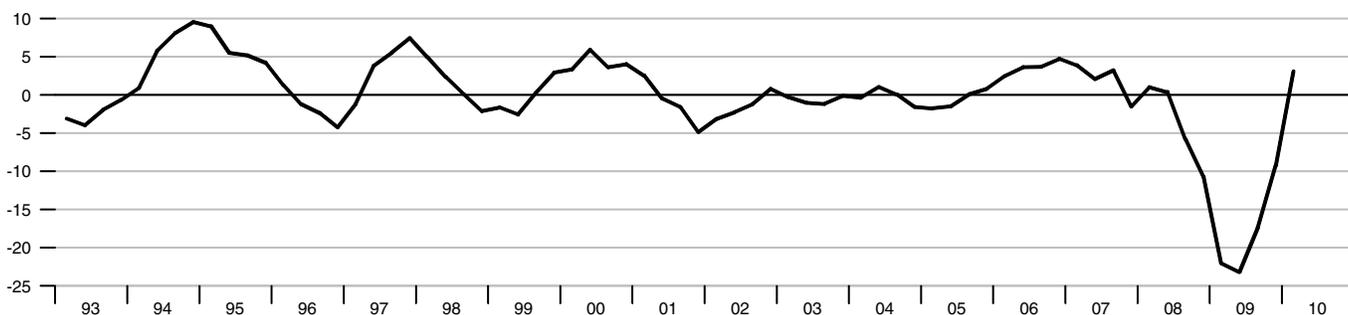
GDP

Percent change from year ago



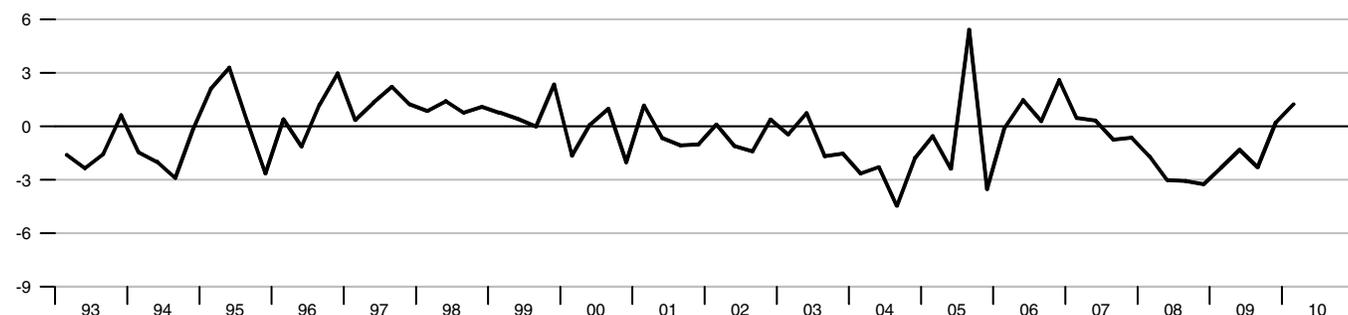
Industrial Production

Percent change from year ago



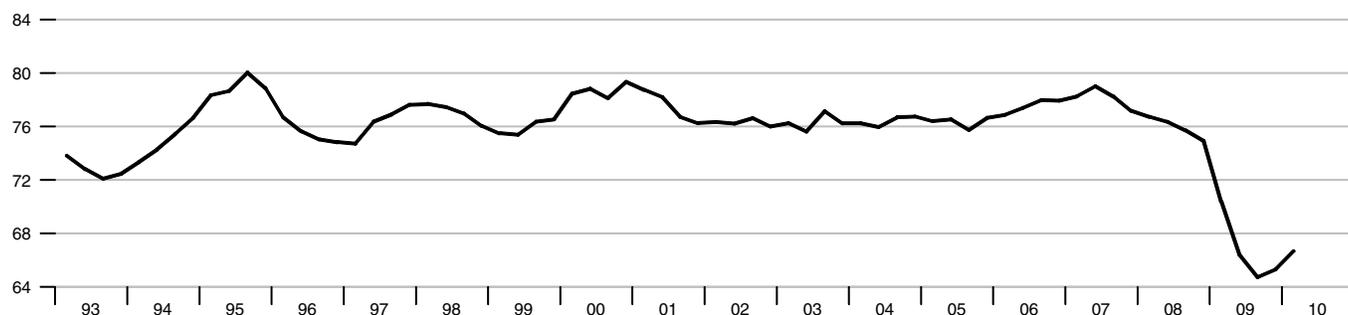
Retail Sales

Percent change from year ago



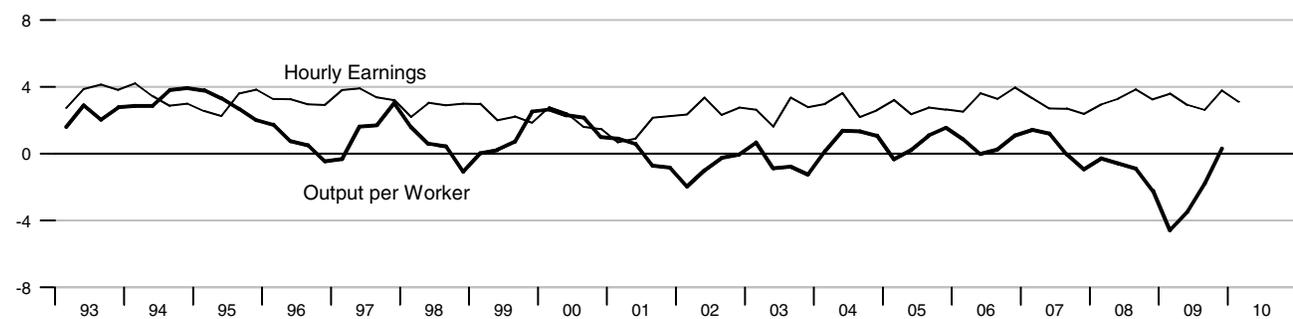
Capacity Utilization

Percent



Real Hourly Earnings and Output per Worker

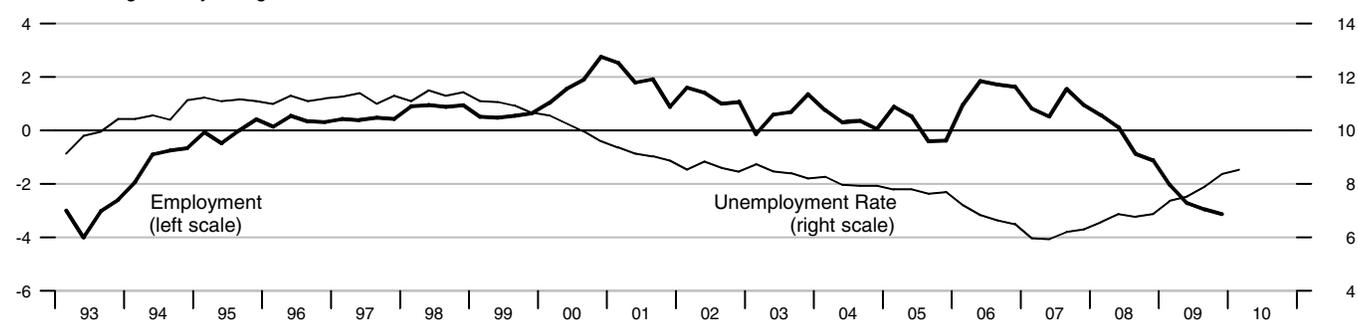
Percent change from year ago



Labor Force Indicators

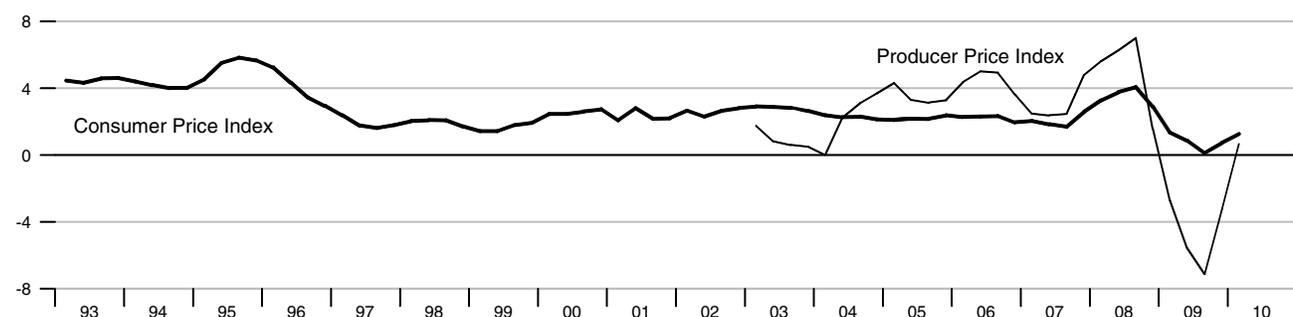
Percent change from year ago

Percent



Inflation

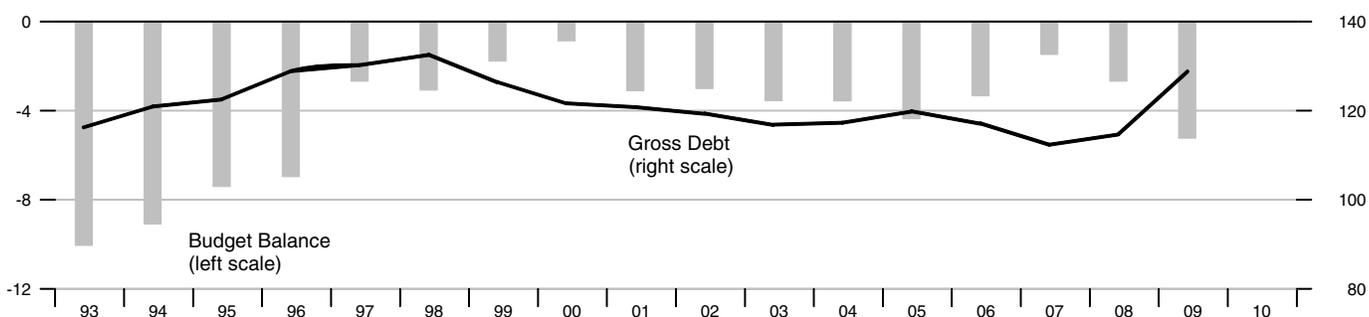
Percent change from year ago



Gross Government Debt and Budget Balance

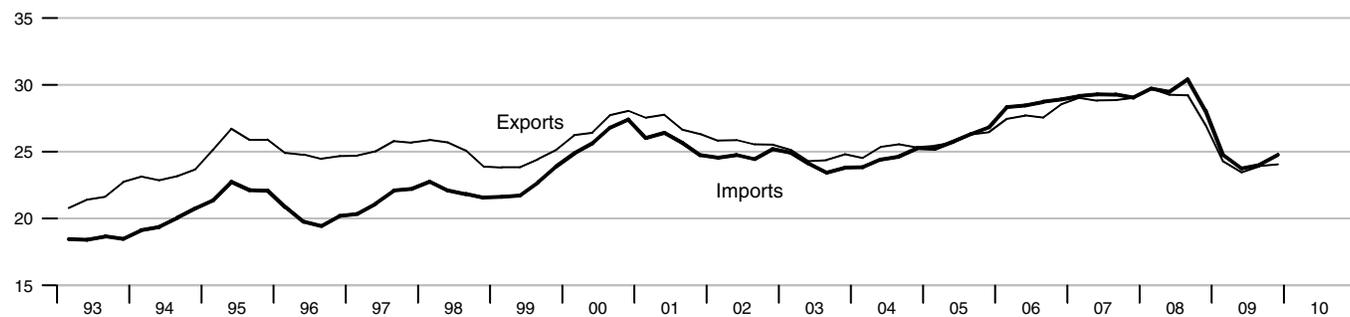
Percent of GDP, annual data

Percent of GDP, annual data



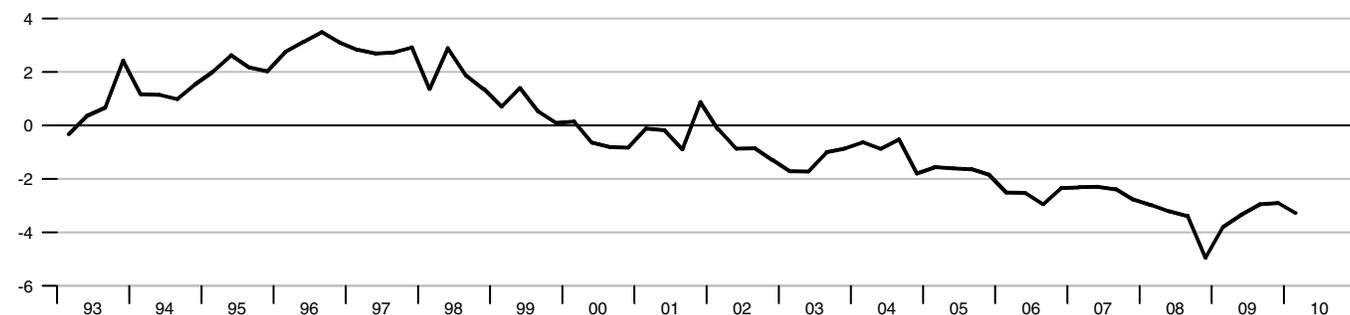
International Trade - Goods and Services

Percent of GDP



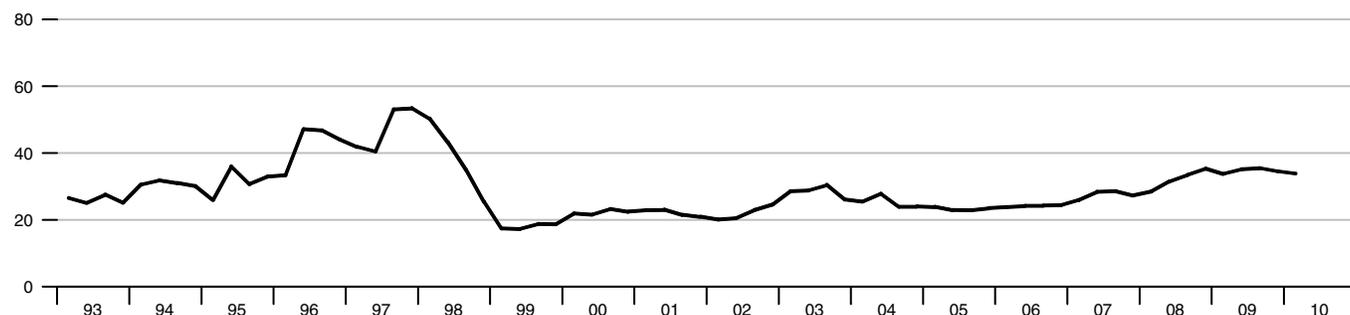
Current Account Balance

Percent of GDP



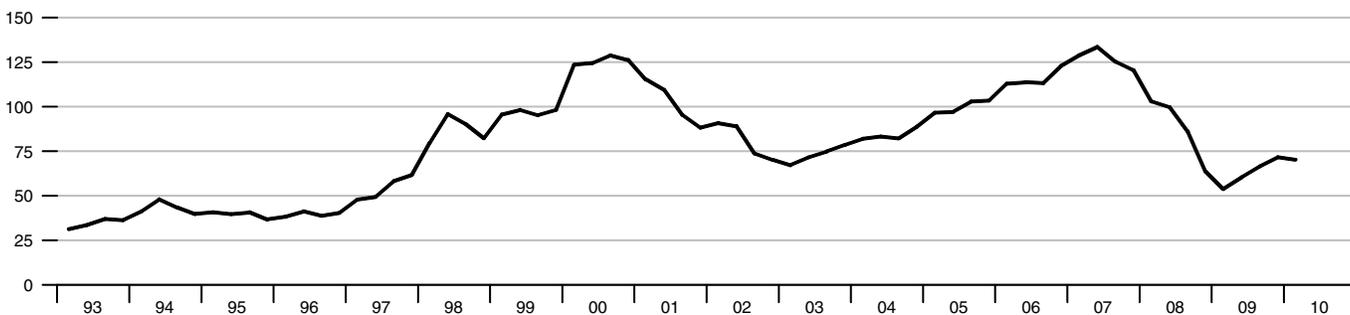
Foreign Exchange Reserves

Billions of US\$



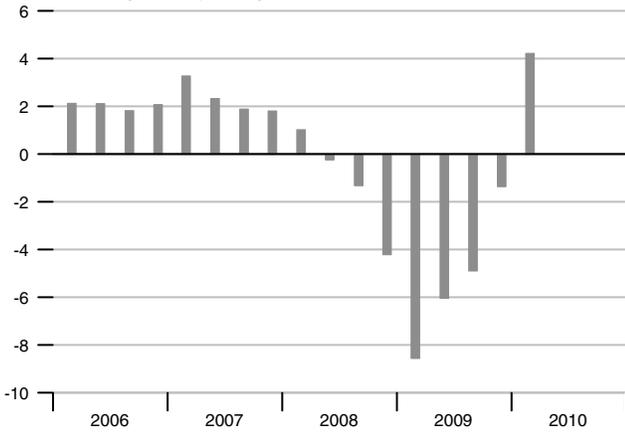
Stock Exchange Index - Milan Stock Exchange

2005 = 100



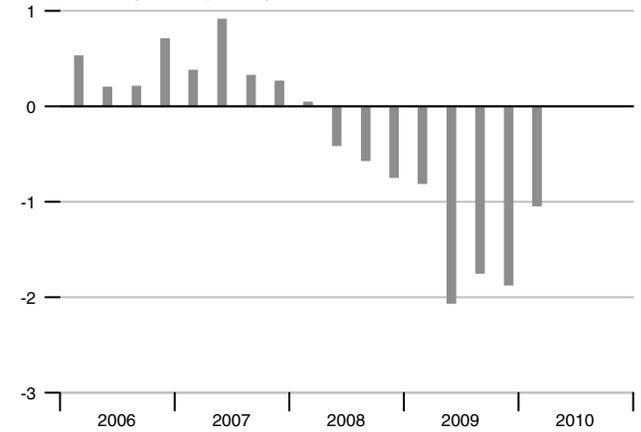
Real GDP

Percent change from year ago



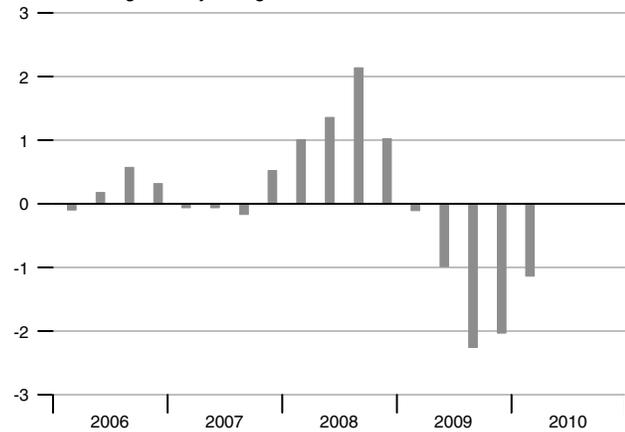
Employment

Percent change from year ago



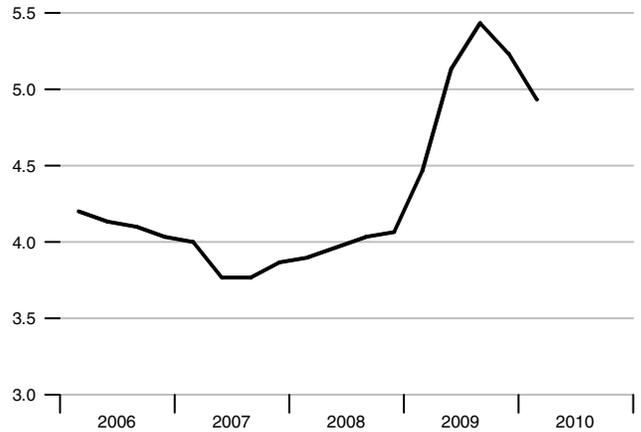
Consumer Price Index

Percent change from year ago



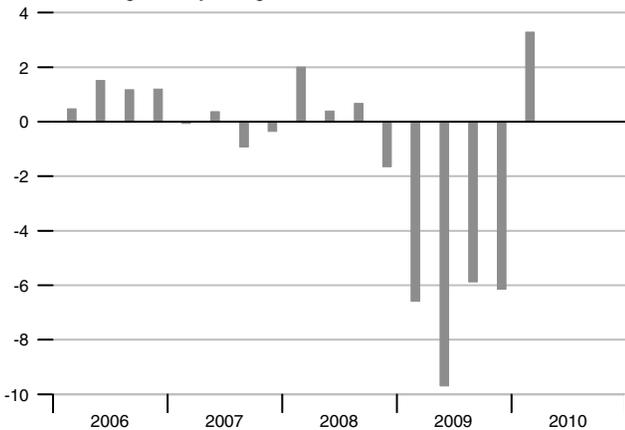
Unemployment Rate

Percent



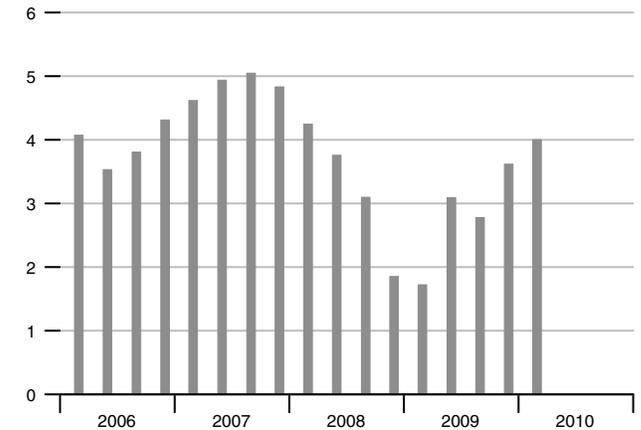
Real Monthly Earnings

Percent change from year ago

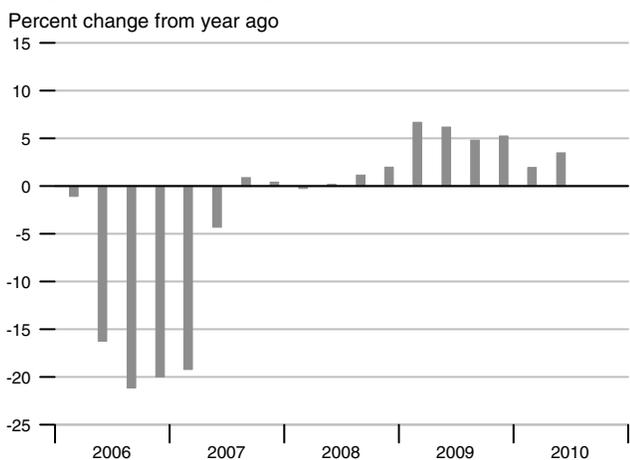


Current Account Balance

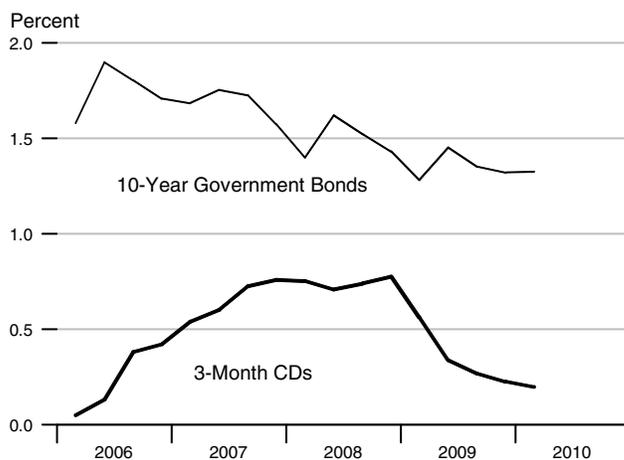
Percent of GDP



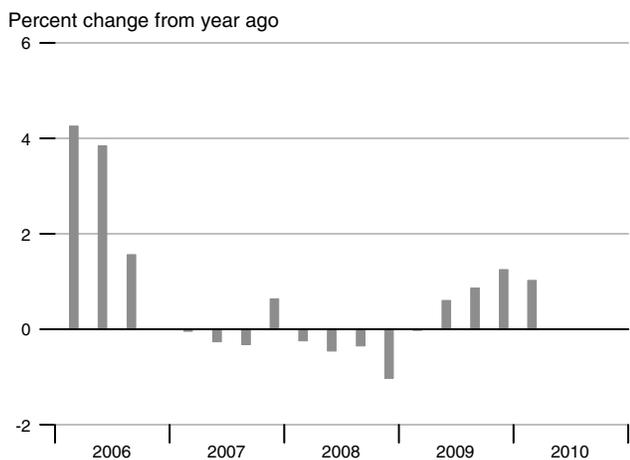
Adjusted Monetary Base



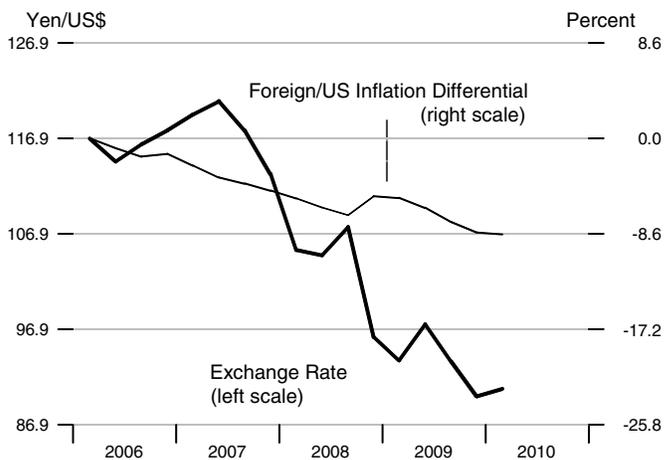
Interest Rates



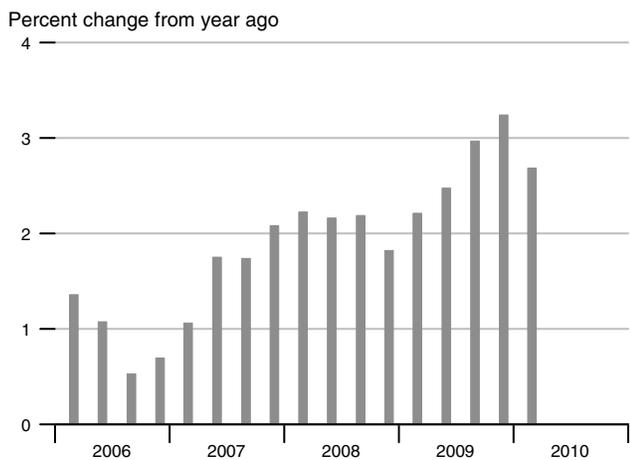
M1



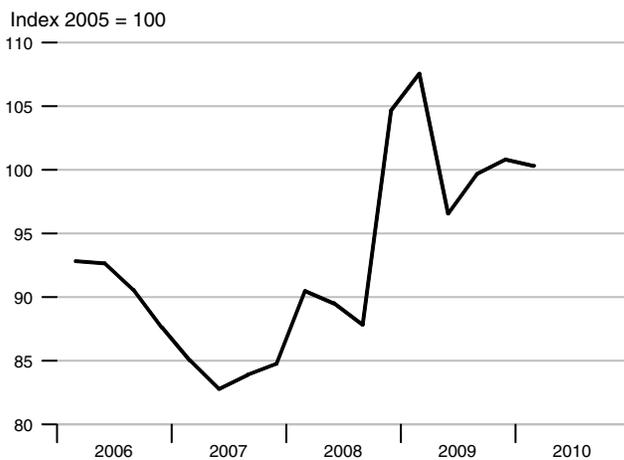
Exchange Rate and Inflation Differential



M2

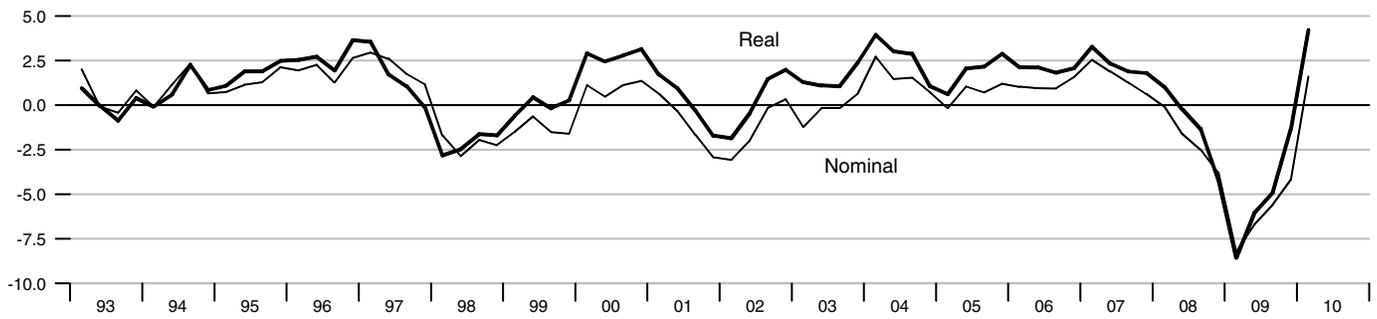


Real Effective Exchange Rate



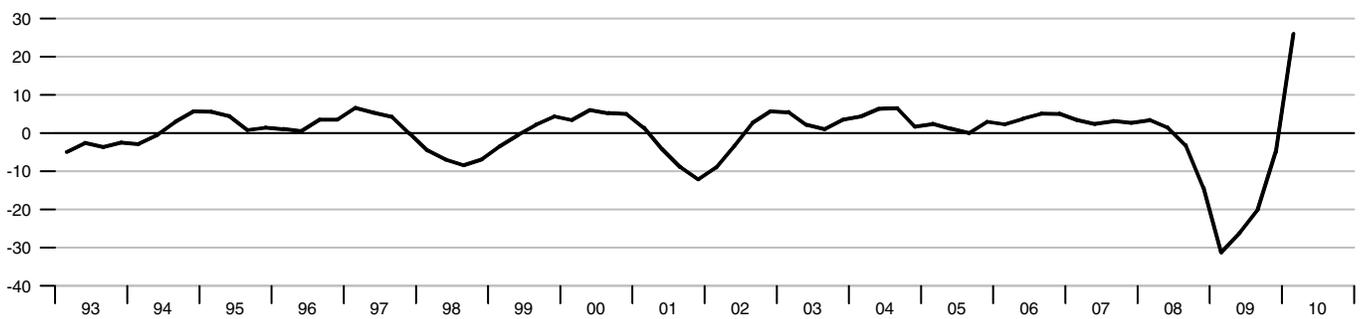
GDP

Percent change from year ago



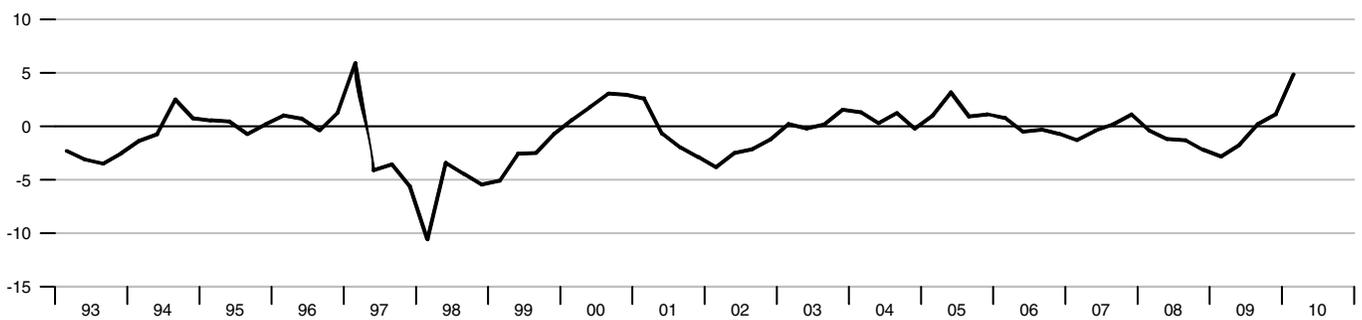
Industrial Production

Percent change from year ago



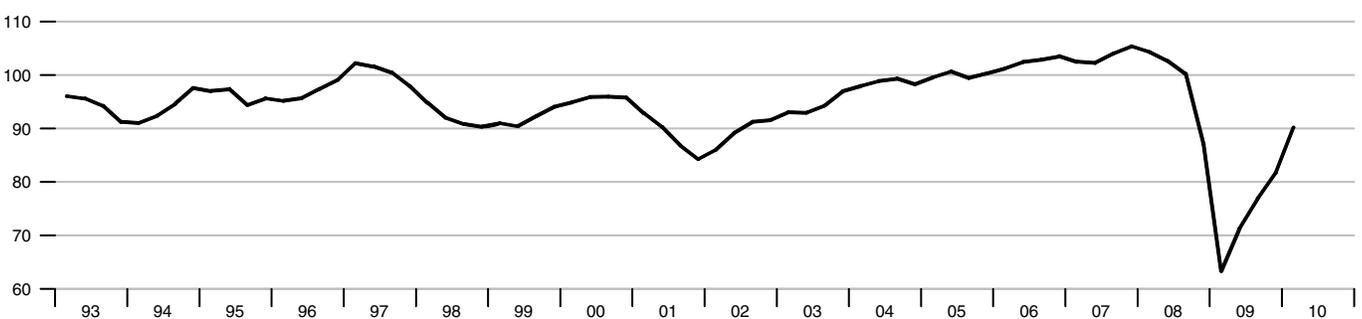
Retail Sales

Percent change from year ago



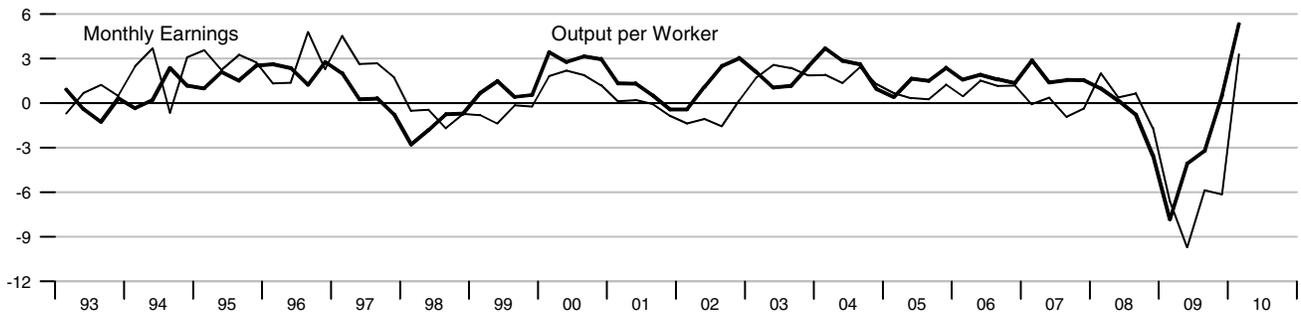
Capacity Utilization

2005 = 100



Real Monthly Earnings and Output per Worker

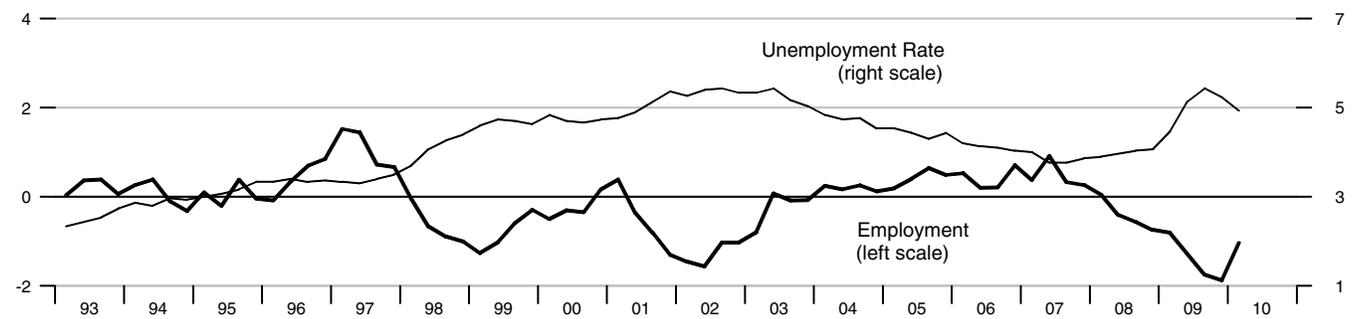
Percent change from year ago



Labor Force Indicators

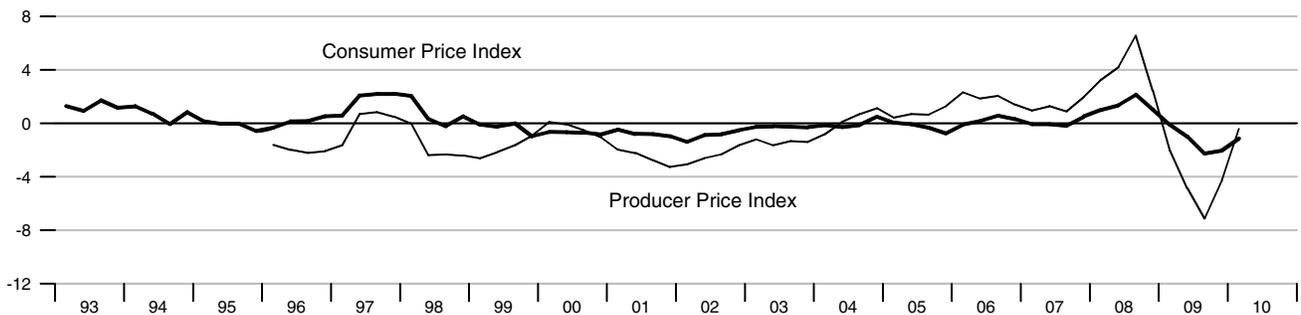
Percent change from year ago

Percent



Inflation

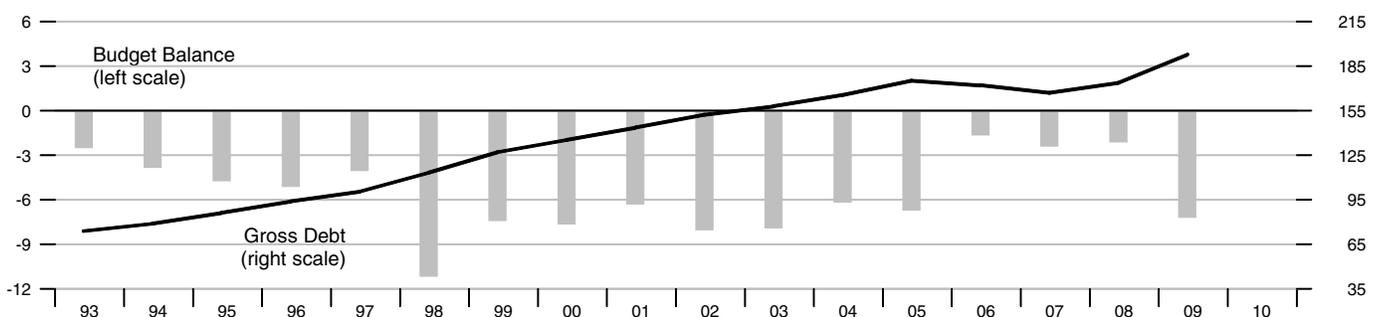
Percent change from year ago



Gross Government Debt and Budget Balance

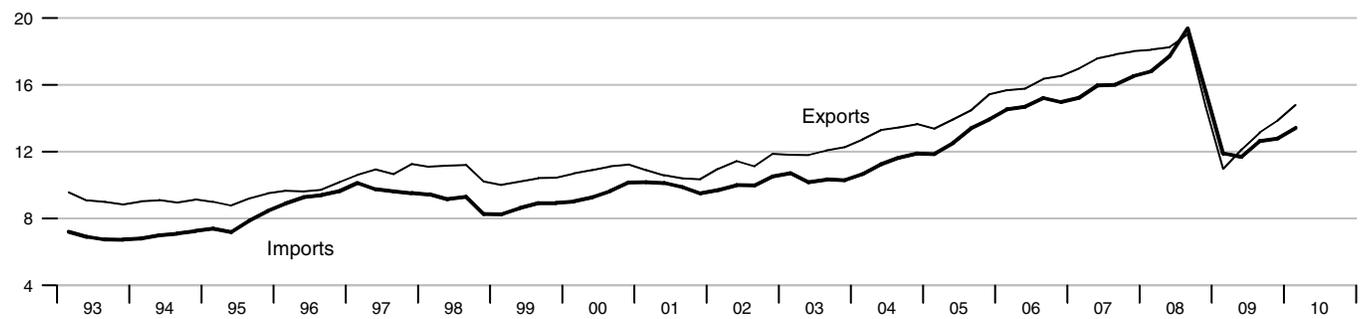
Percent of GDP, annual data

Percent of GDP, annual data



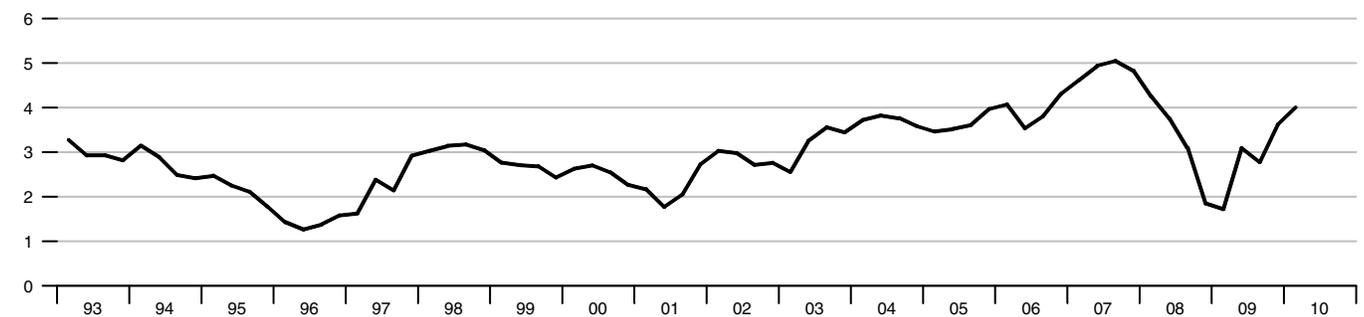
International Trade - Goods and Services

Percent of GDP



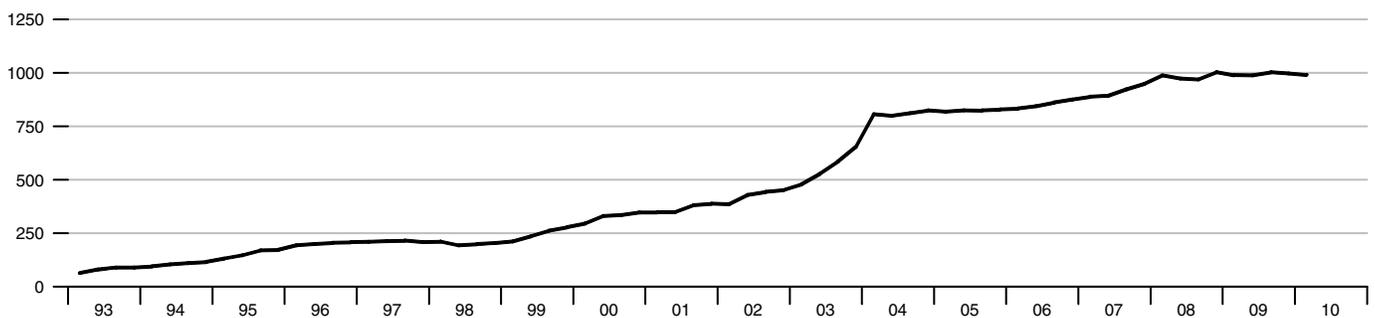
Current Account Balance

Percent of GDP



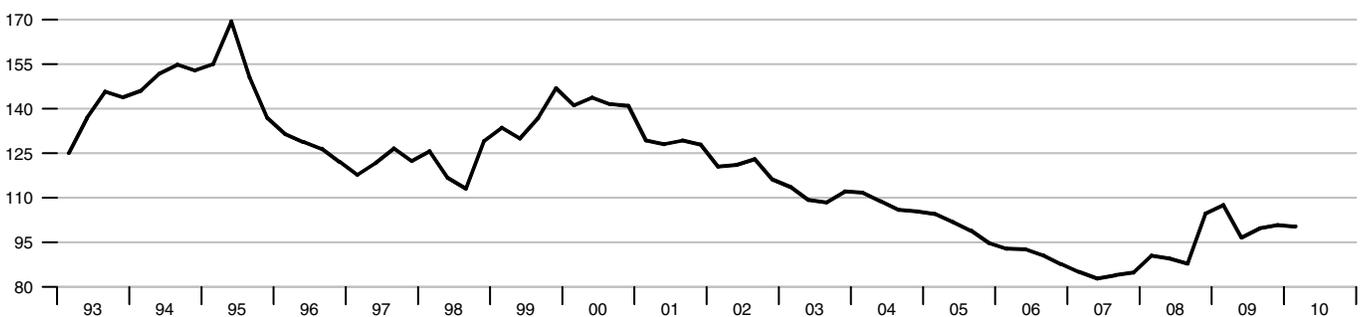
Foreign Exchange Reserves

Billions of US\$



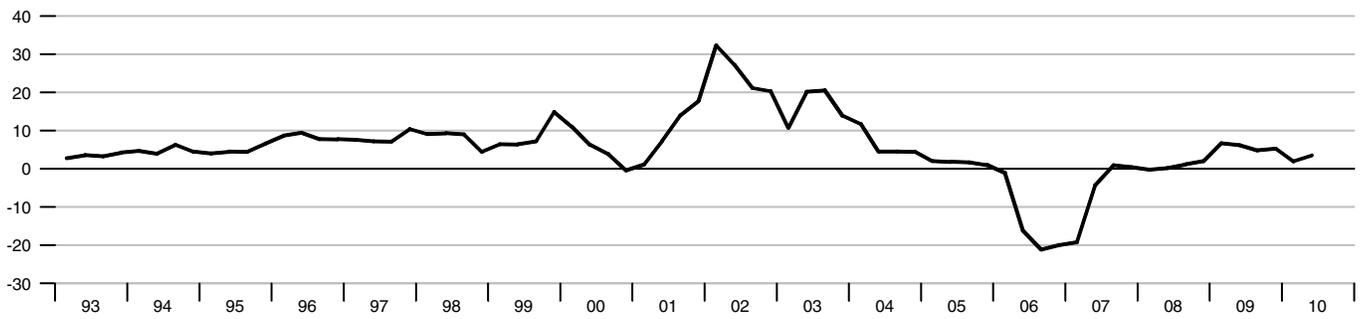
Real Effective Exchange Rate

Index 2000 = 100



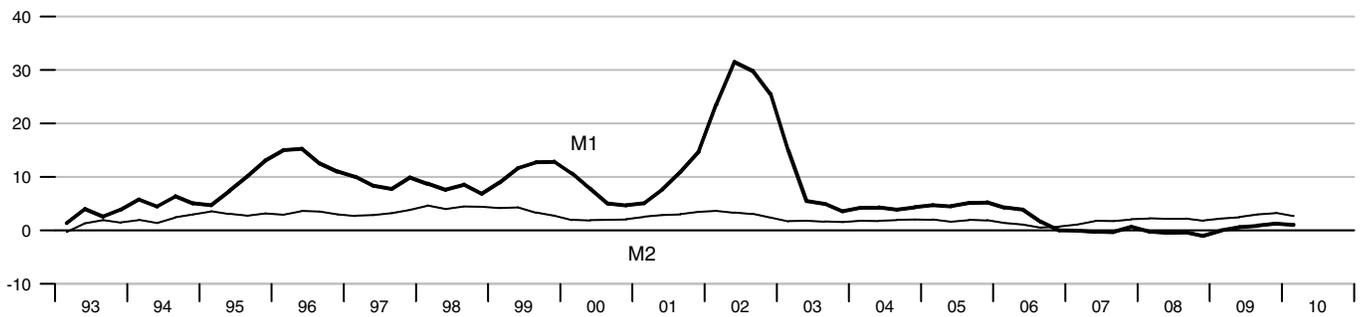
Adjusted Monetary Base

Percent change from year ago



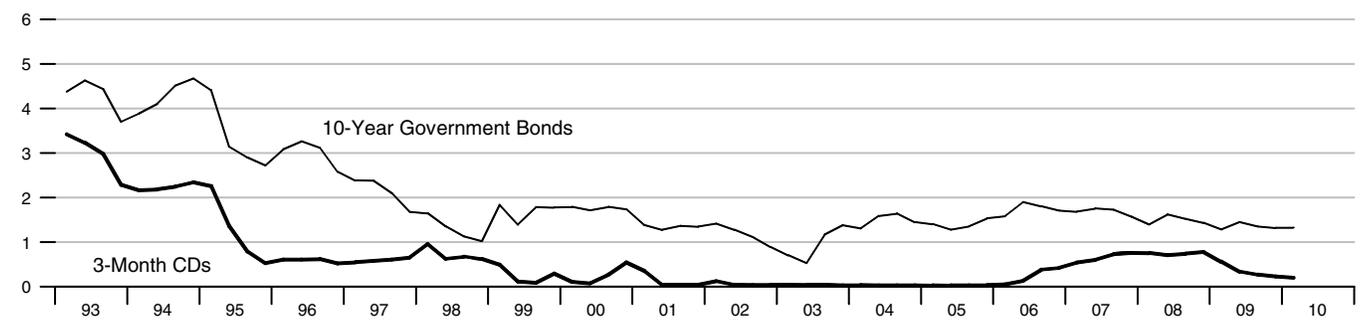
Monetary Aggregates

Percent change from year ago



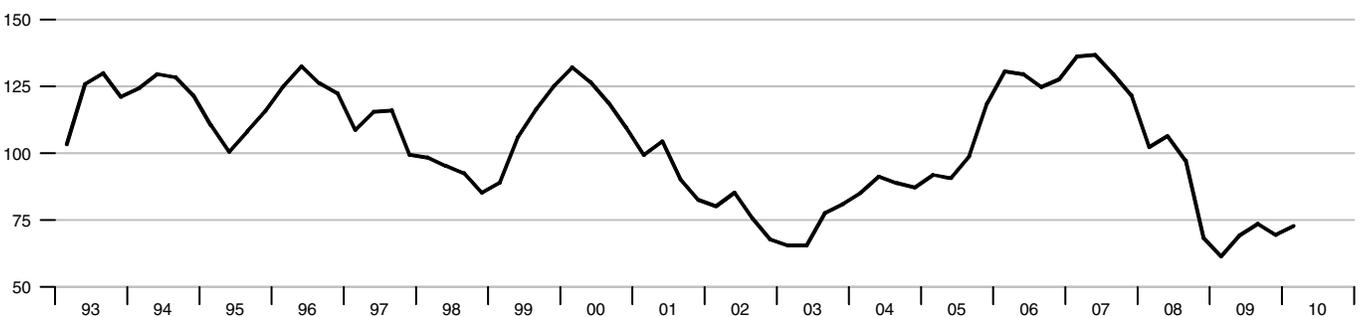
Interest Rates

Percent

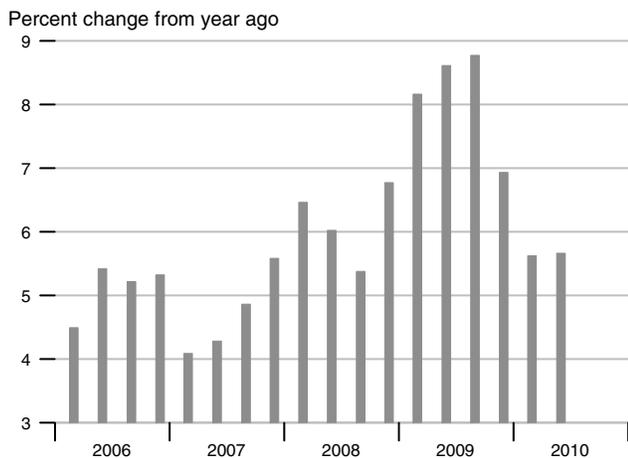


Stock Exchange Index - Tokyo Stock Exchange

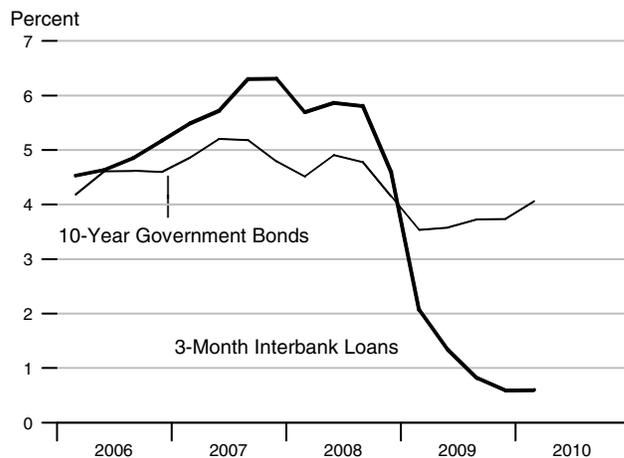
2005 = 100



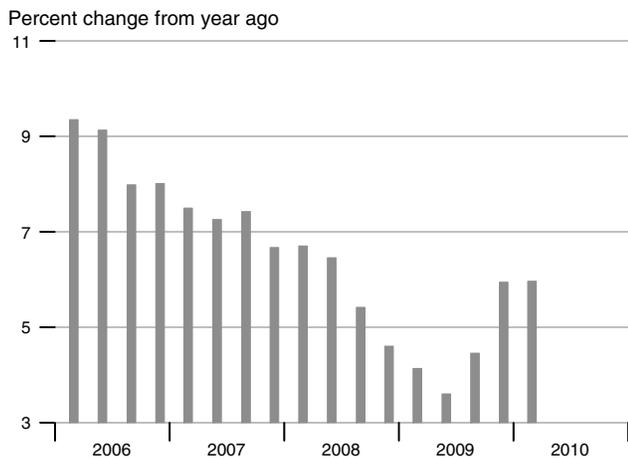
Notes and Coins in Circulation



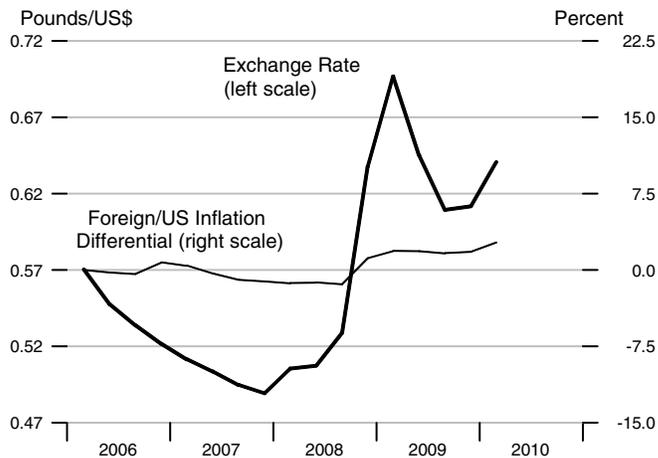
Interest Rates



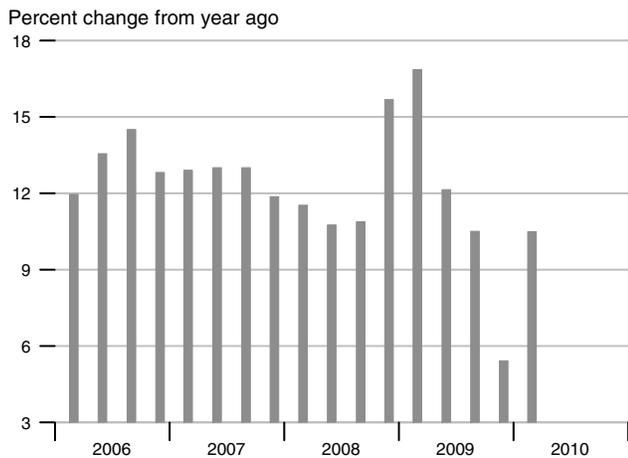
M2



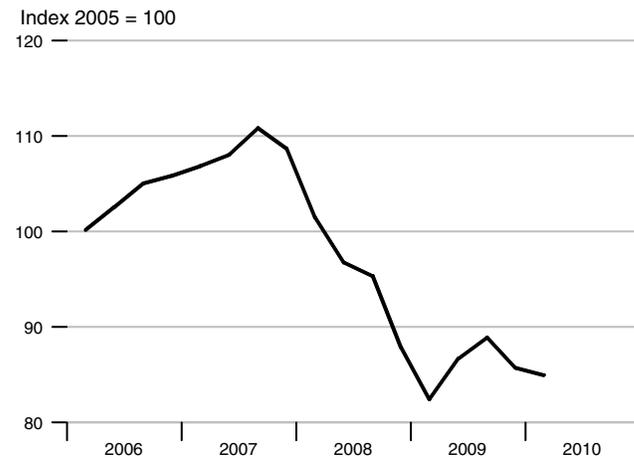
Exchange Rate and Inflation Differential



M4

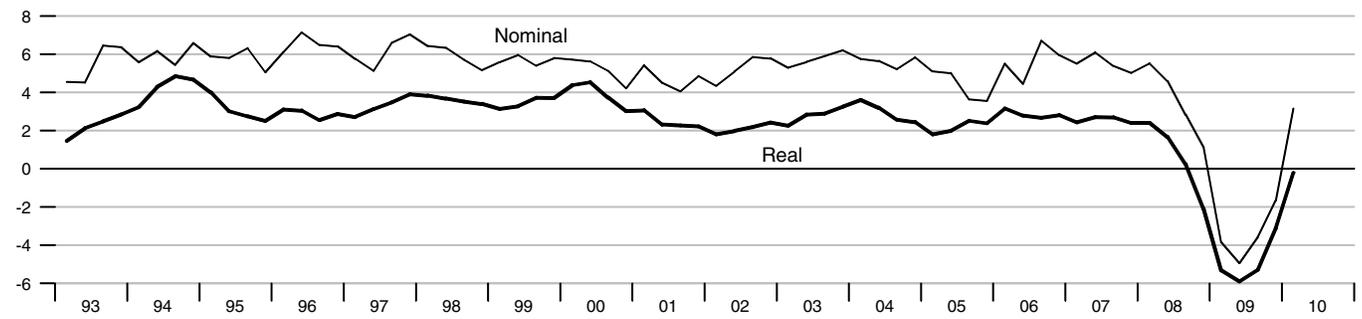


Real Effective Exchange Rate



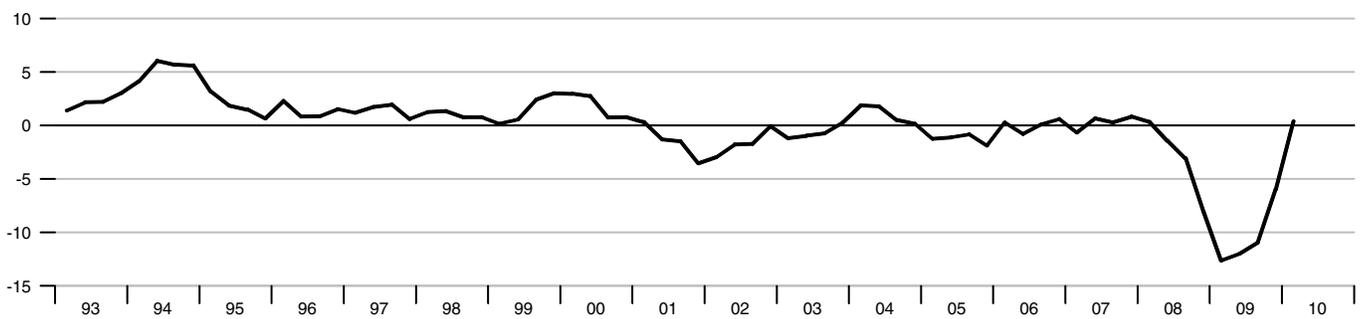
GDP

Percent change from year ago



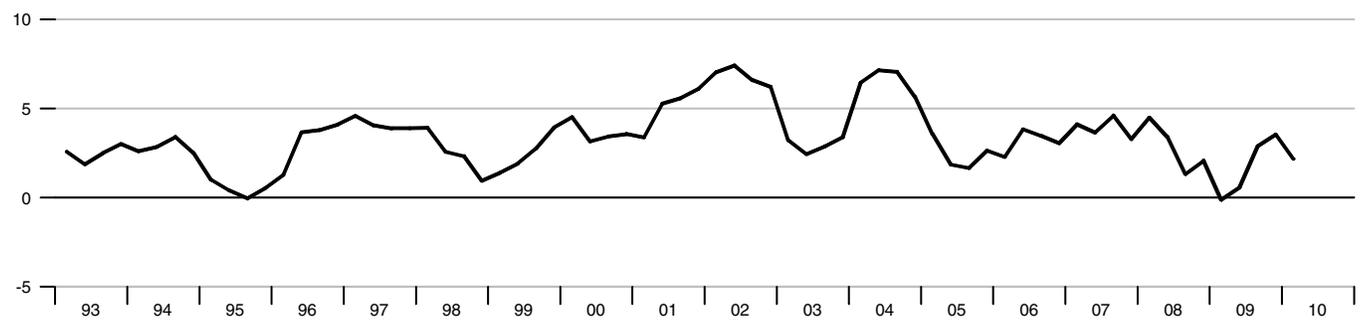
Industrial Production

Percent change from year ago



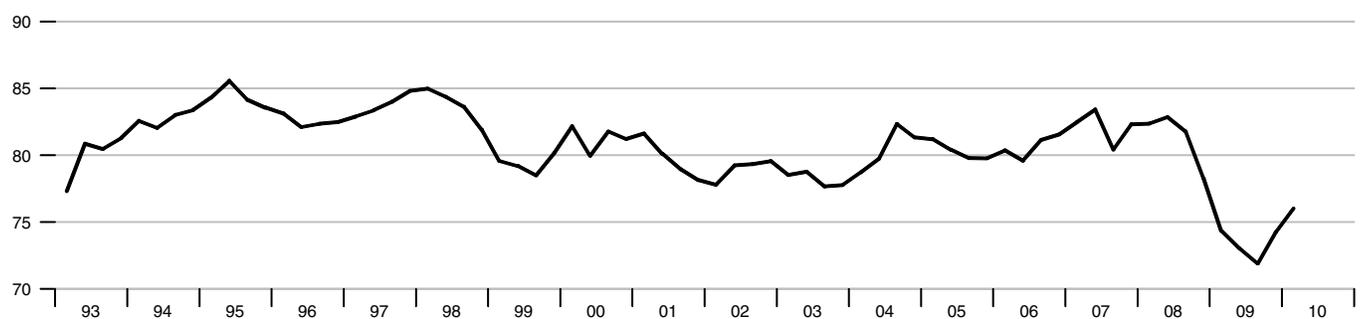
Retail Sales

Percent change from year ago



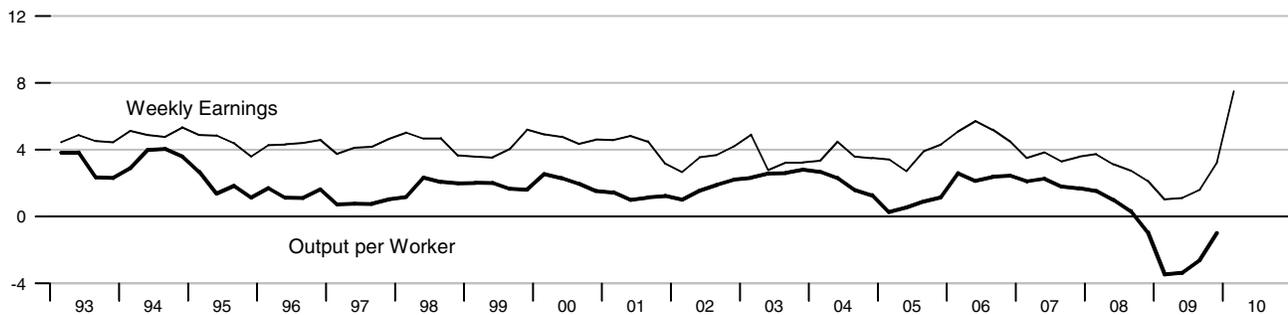
Capacity Utilization

Percent



Real Weekly Earnings and Output per Worker

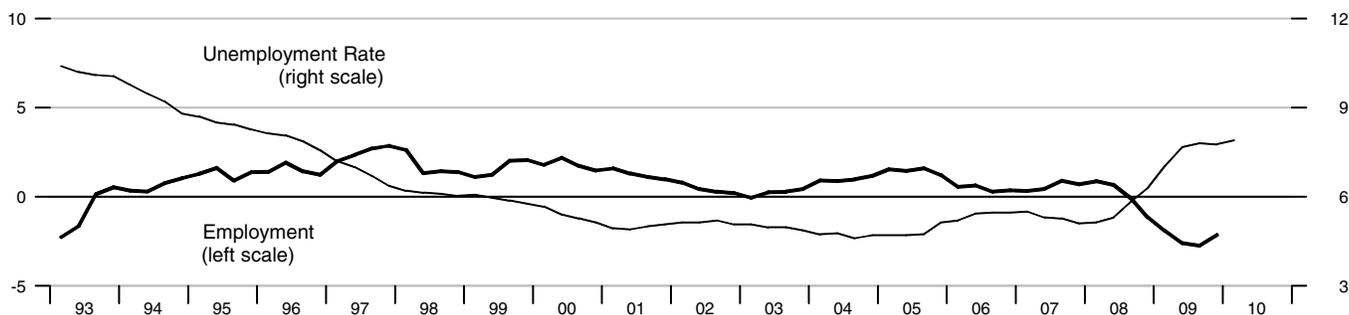
Percent change from year ago



Labor Force Indicators

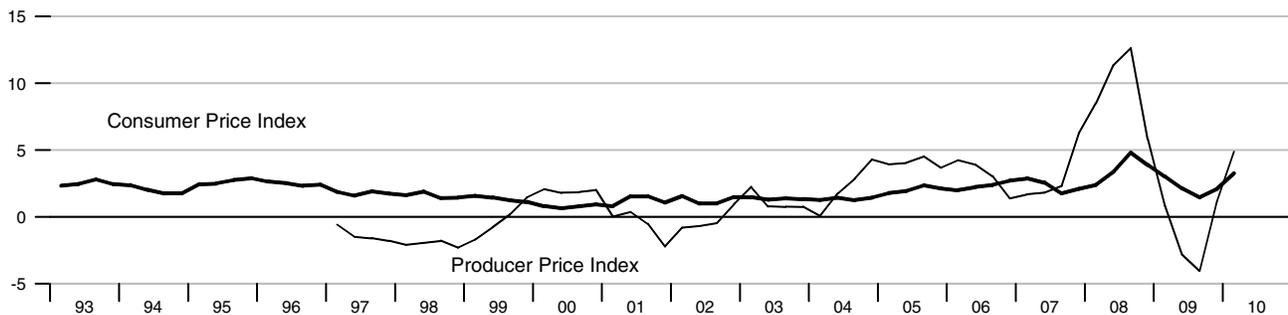
Percent change from year ago

Percent



Inflation

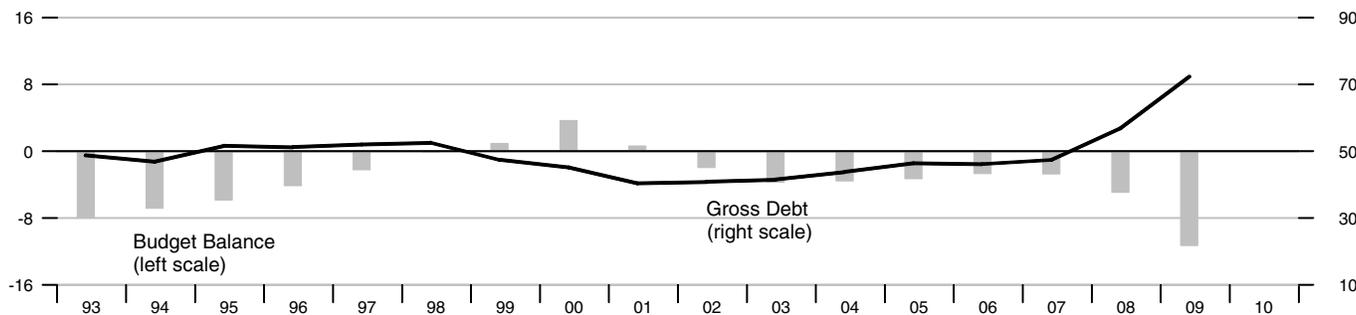
Percent change from year ago



Gross Government Debt and Budget Balance

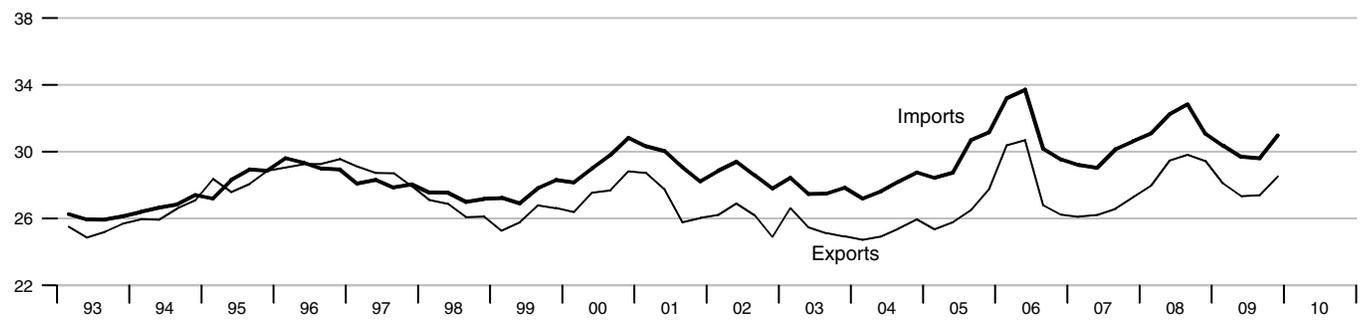
Percent of GDP, annual data

Percent of GDP, annual data



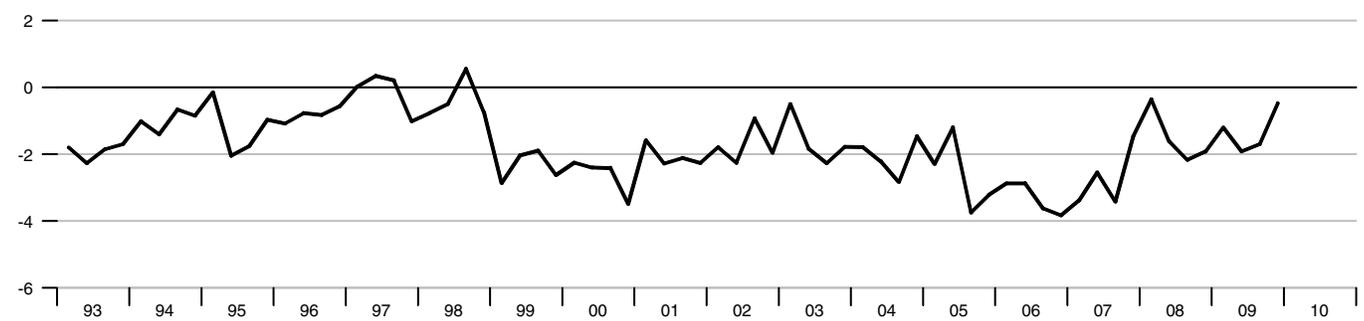
International Trade - Goods and Services

Percent of GDP



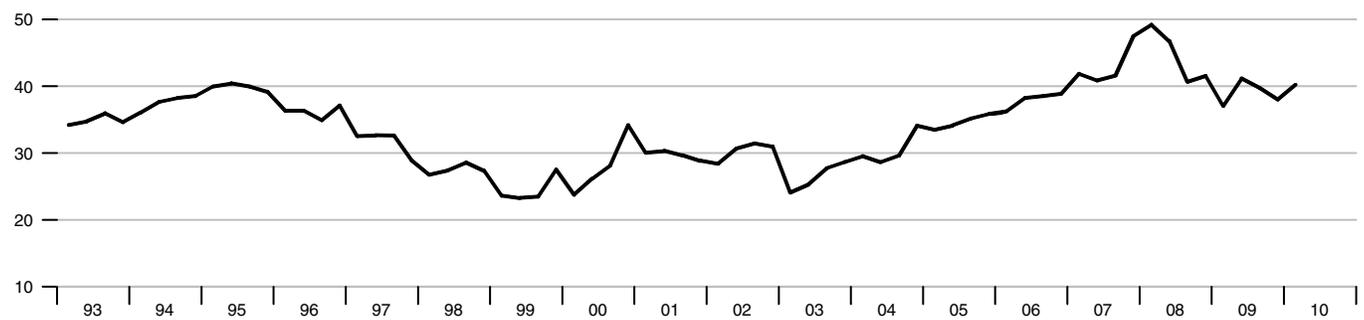
Current Account Balance

Percent of GDP



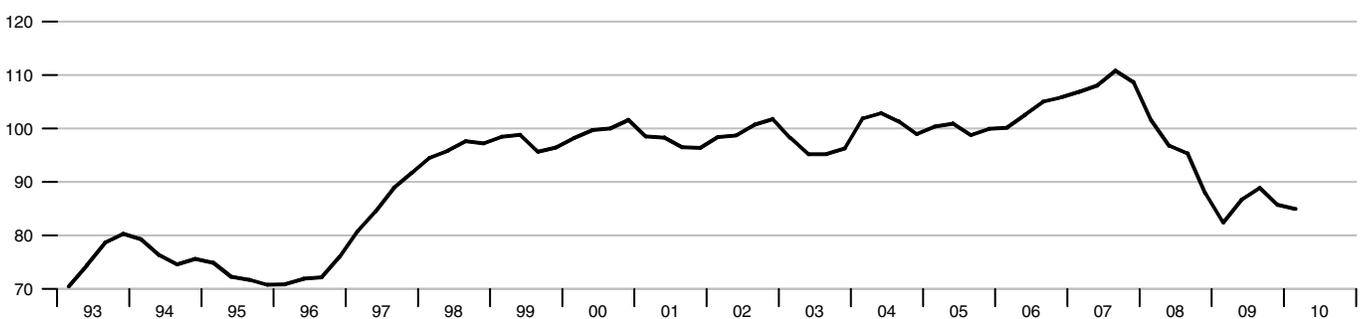
Foreign Exchange Reserves

Billions of US\$



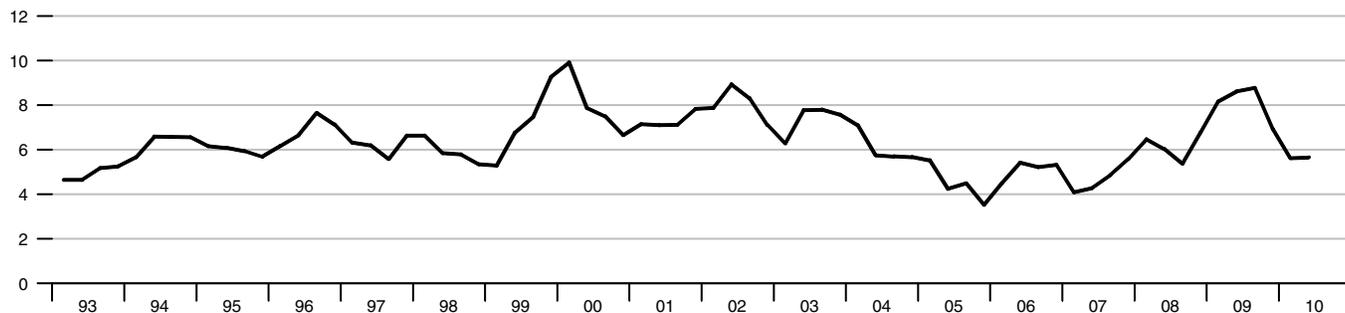
Real Effective Exchange Rate

Index 2005 = 100



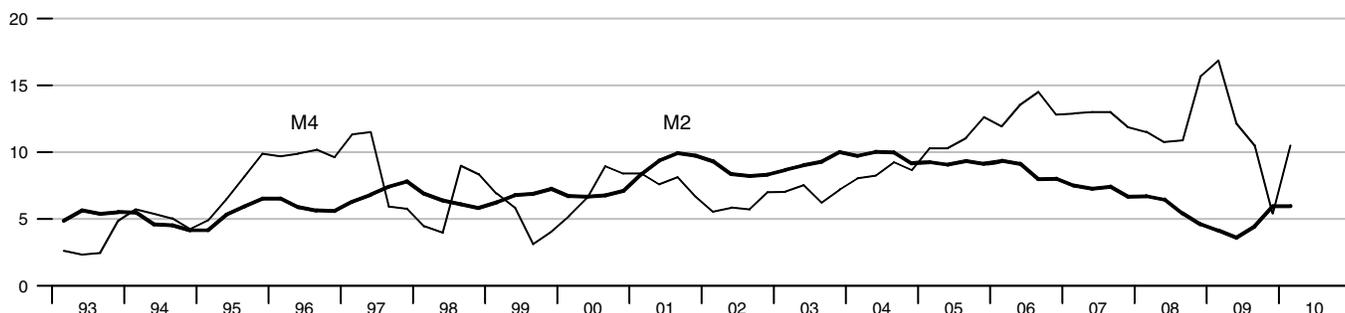
Notes and Coins in Circulation

Percent change from year ago



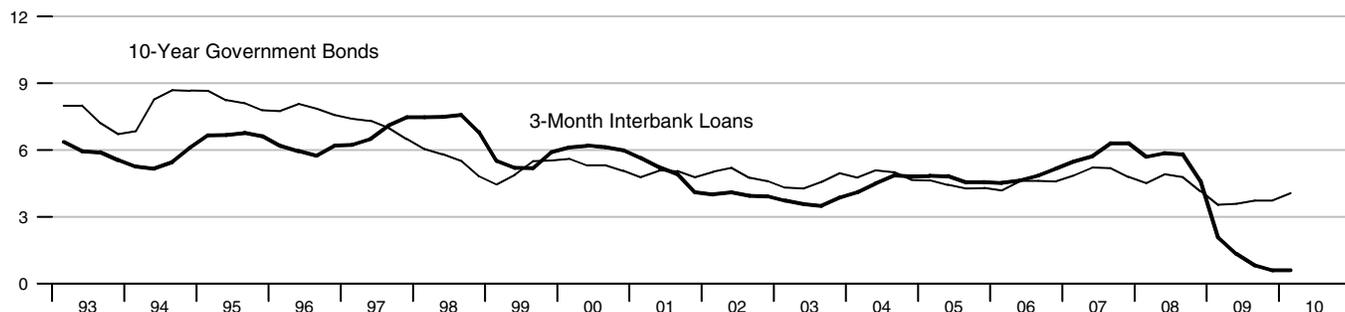
Monetary Aggregates

Percent change from year ago



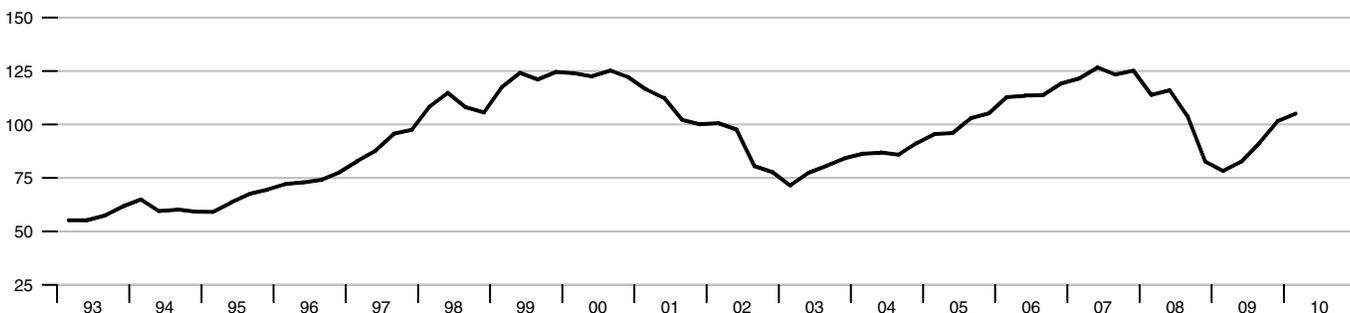
Interest Rates

Percent



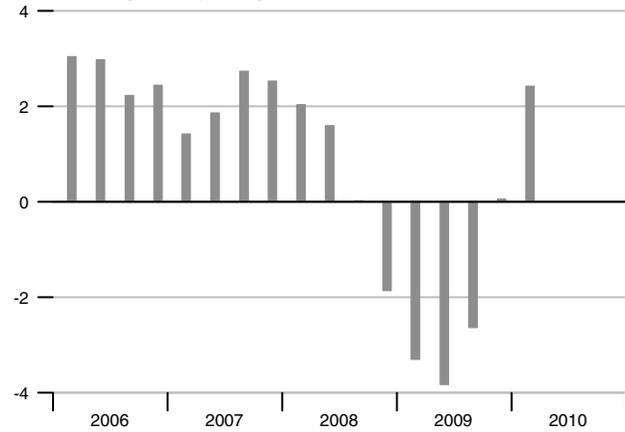
Stock Exchange Index - Financial Times Stock Exchange

2005 = 100



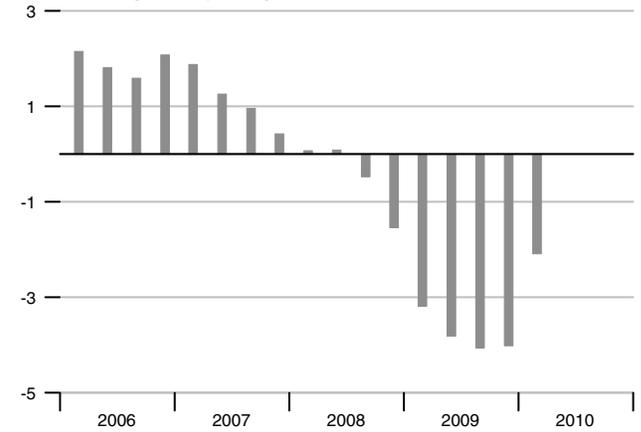
Real GDP

Percent change from year ago



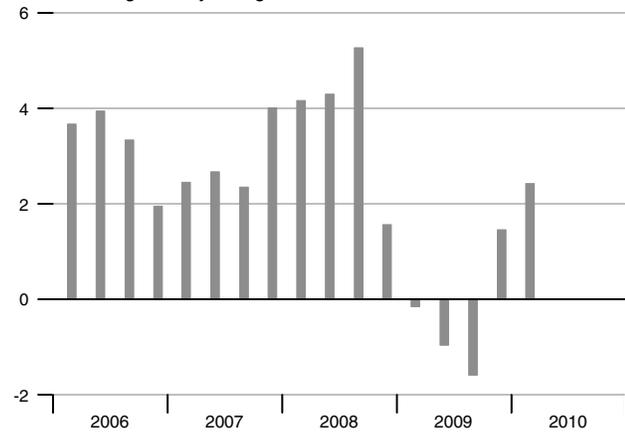
Employment

Percent change from year ago



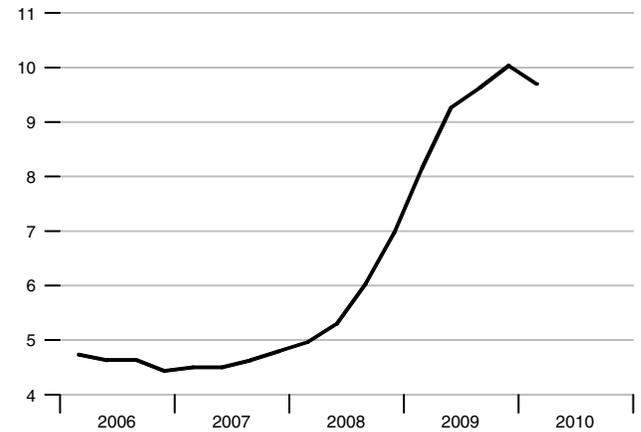
Consumer Price Index

Percent change from year ago



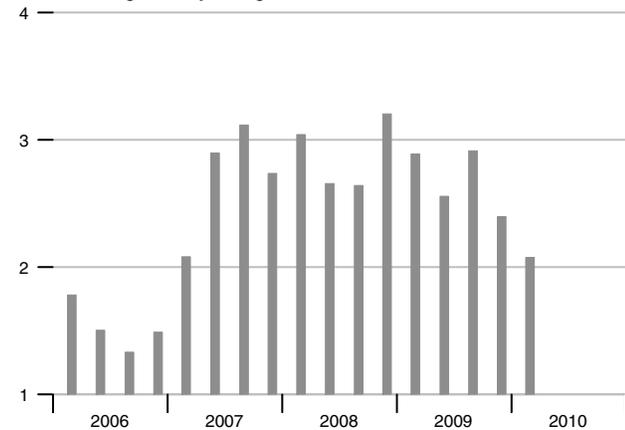
Unemployment Rate

Percent



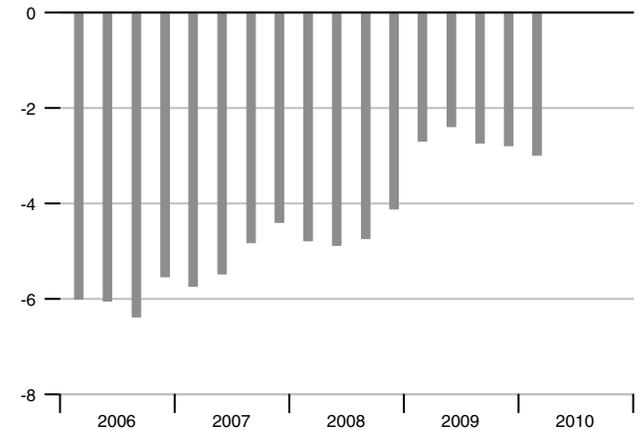
Real Hourly Earnings

Percent change from year ago



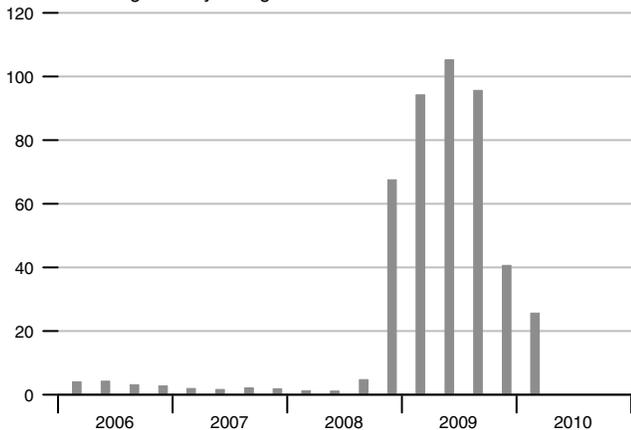
Current Account Balance

Percent of GDP



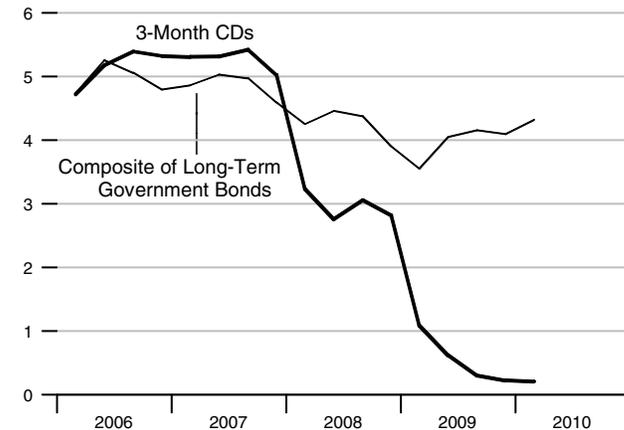
Adjusted Monetary Base

Percent change from year ago



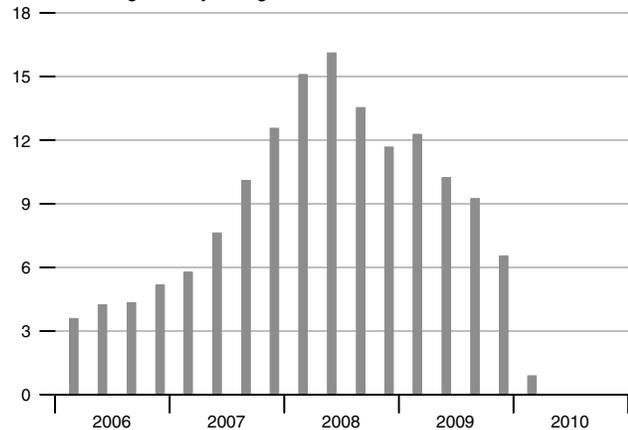
Interest Rates

Percent



MZM

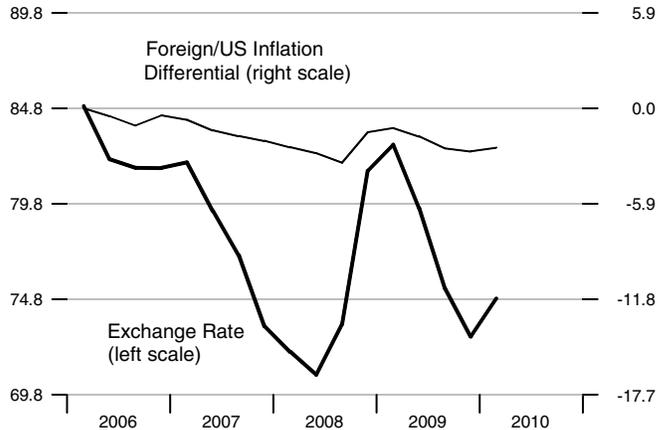
Percent change from year ago



Exchange Rate and Inflation Differential

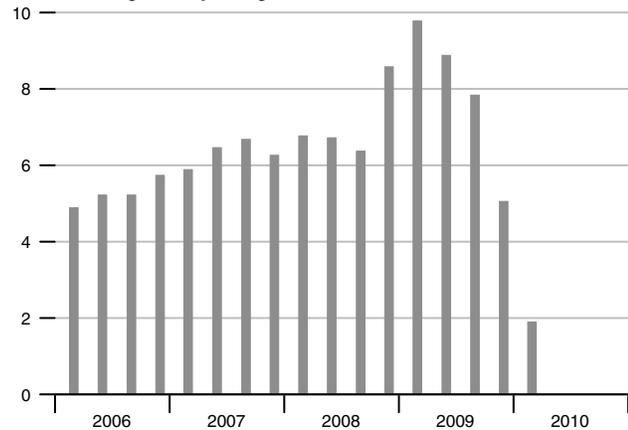
TWEX, March 1973 = 100

Percent



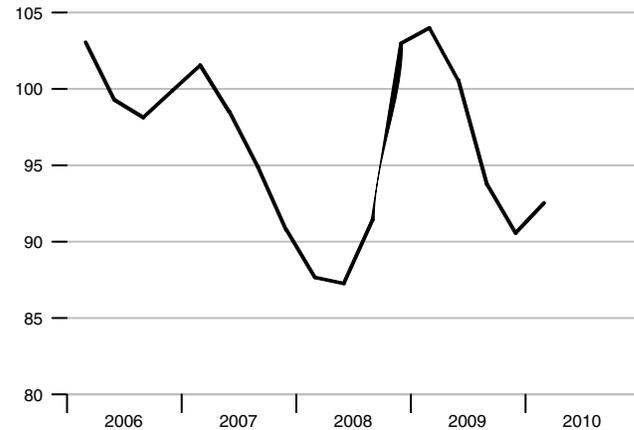
M2

Percent change from year ago



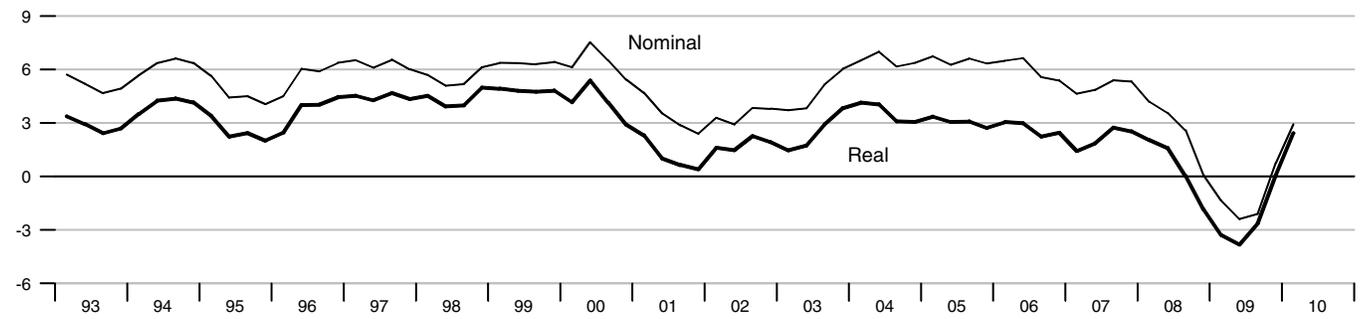
Real Effective Exchange Rate

Index 2005 = 100



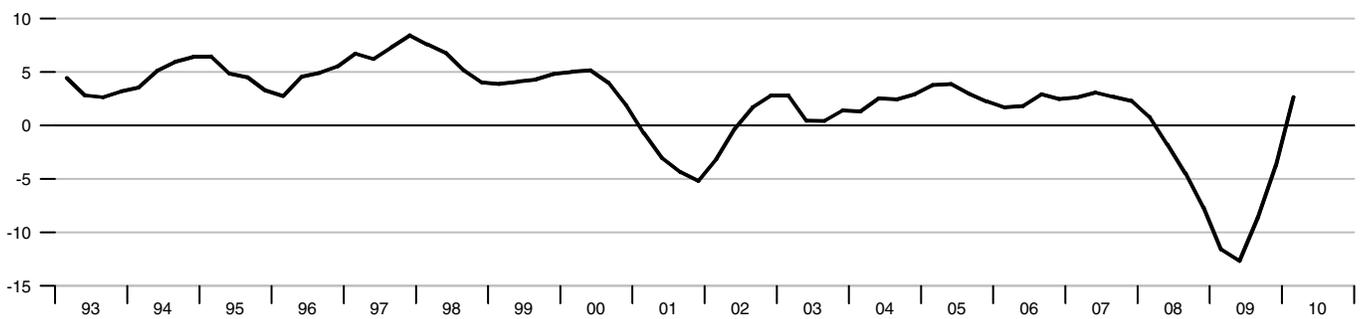
GDP

Percent change from year ago



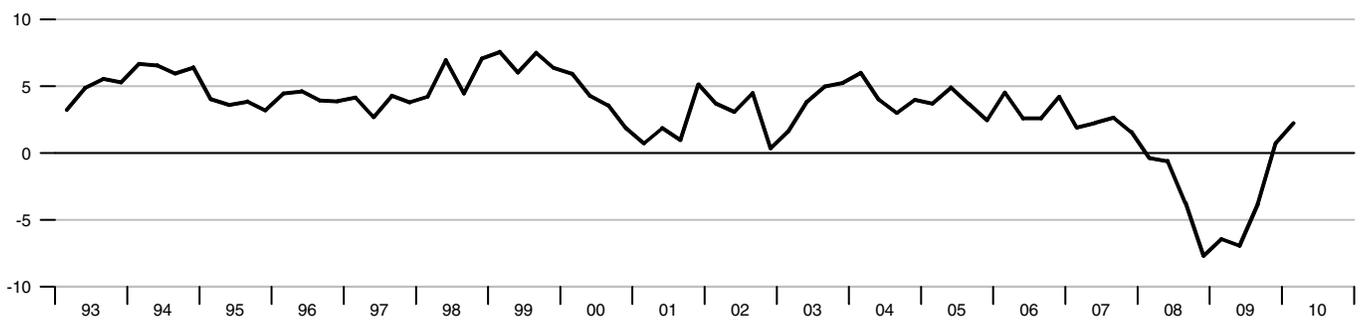
Industrial Production

Percent change from year ago



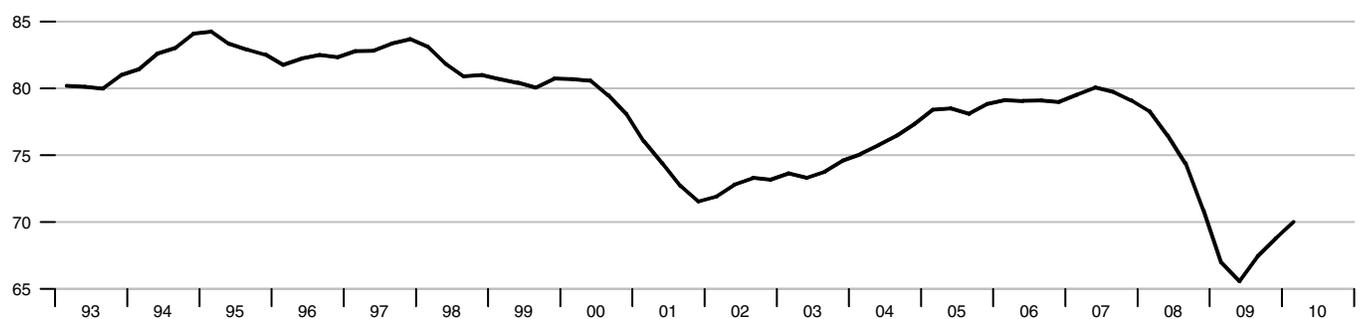
Retail Sales

Percent change from year ago



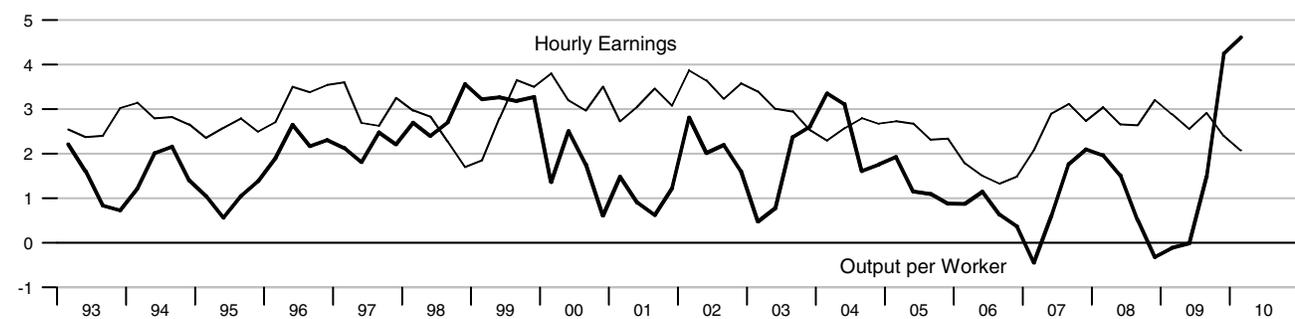
Capacity Utilization

Percent



Real Hourly Earnings and Output per Worker

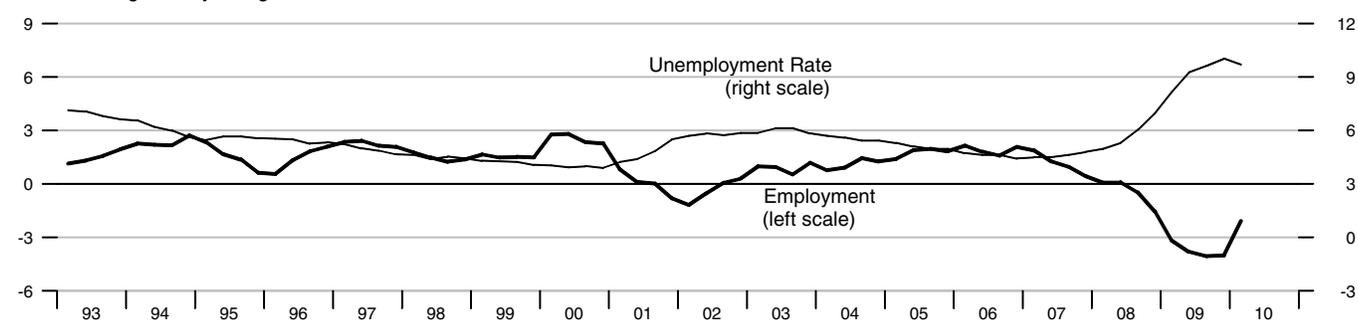
Percent change from year ago



Labor Force Indicators

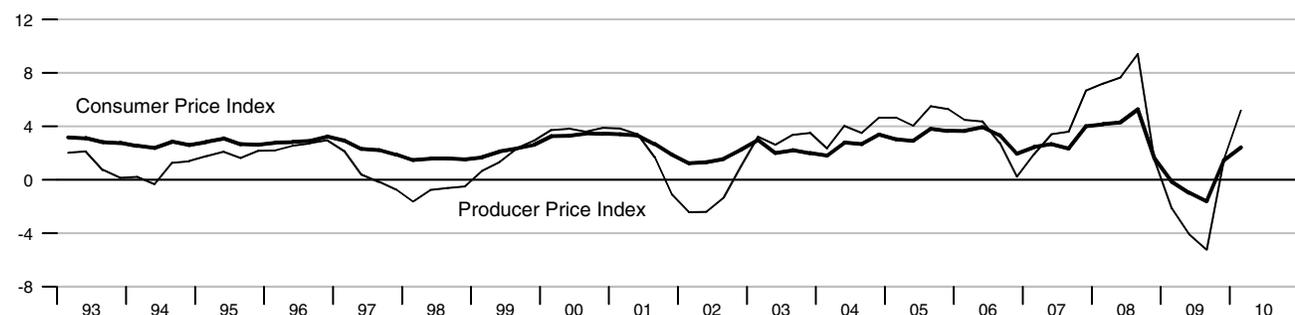
Percent change from year ago

Percent



Inflation

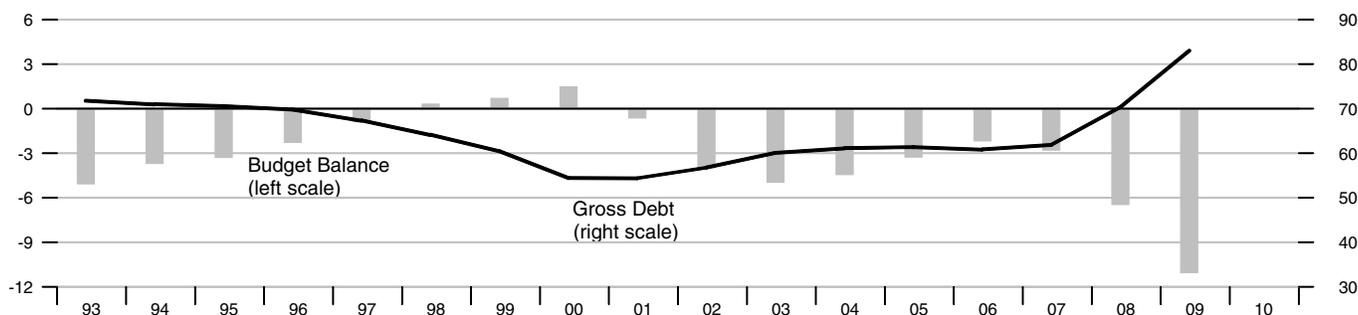
Percent change from year ago



Gross Government Debt and Budget Balance

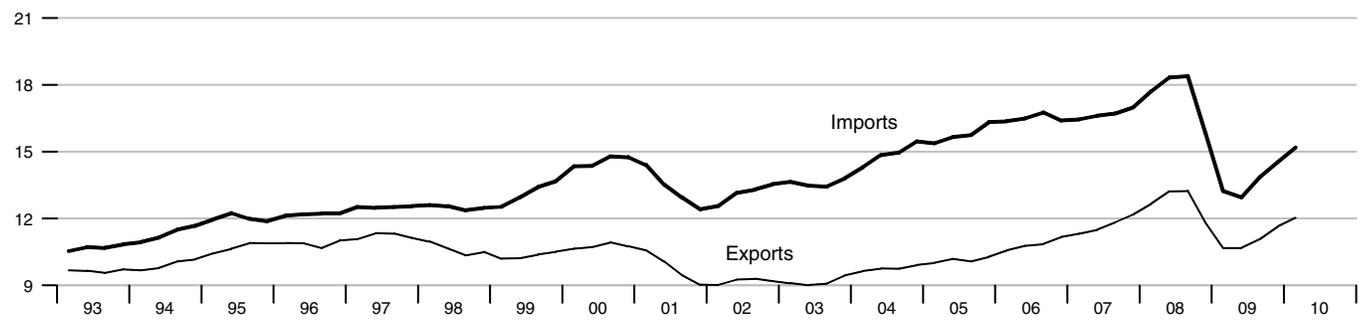
Percent of GDP, annual data

Percent of GDP, annual data



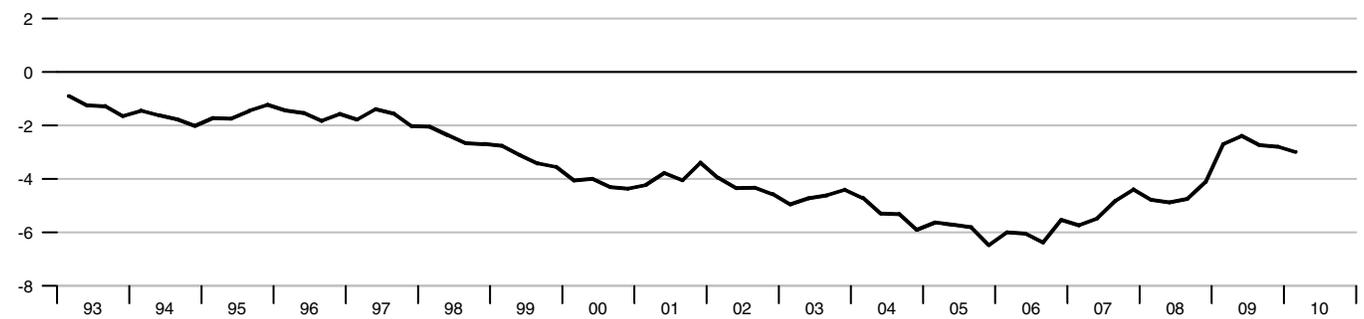
International Trade - Goods and Services

Percent of GDP



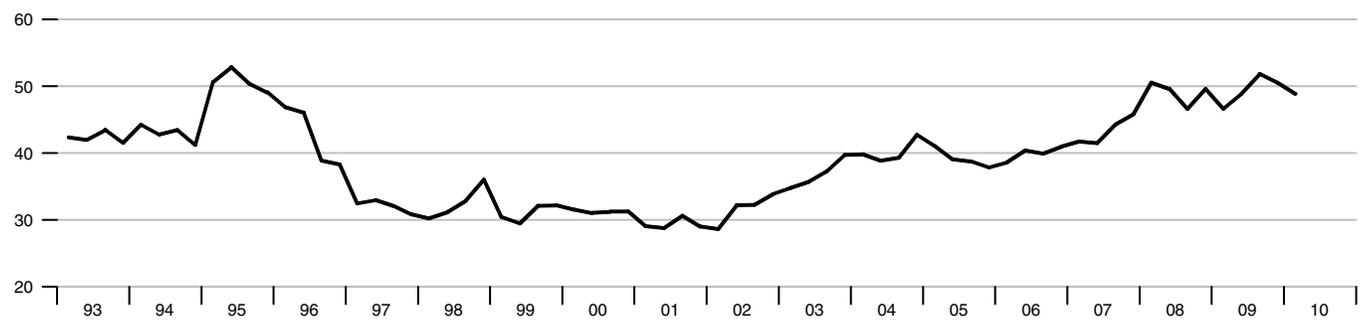
Current Account Balance

Percent of GDP



Foreign Exchange Reserves

Billions of US\$



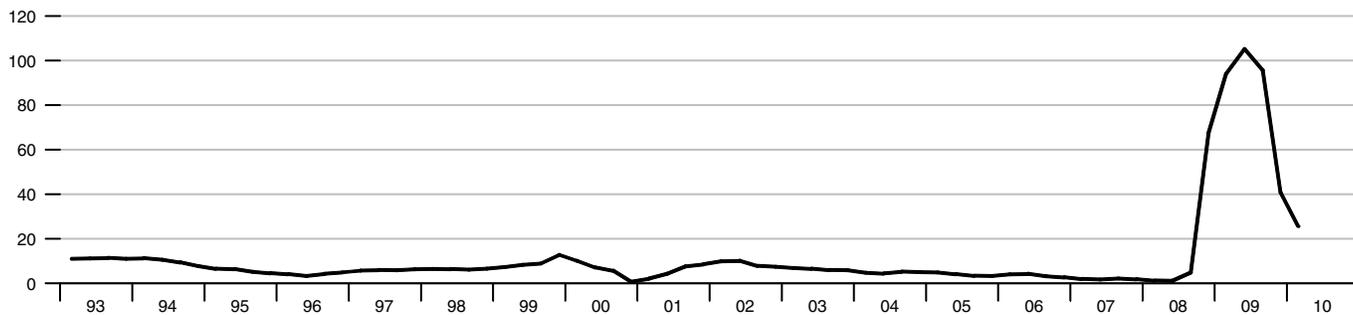
Real Effective Exchange Rate

Index 2005 = 100



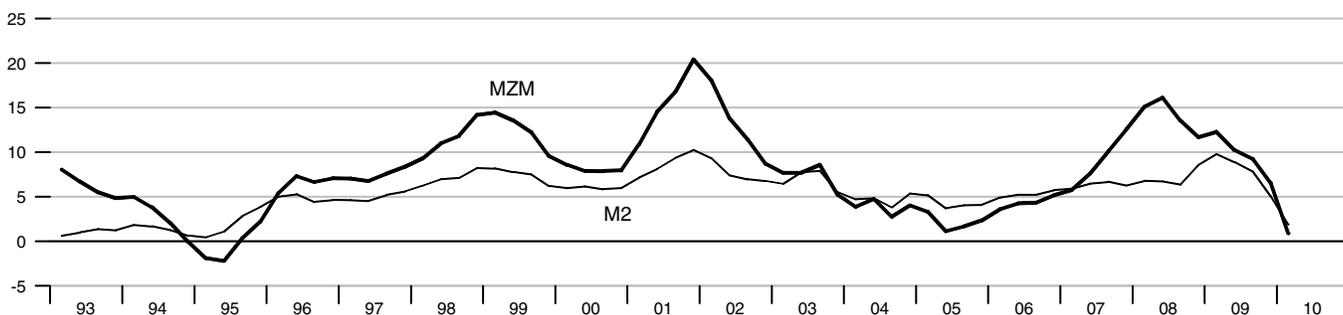
Adjusted Monetary Base

Percent change from year ago



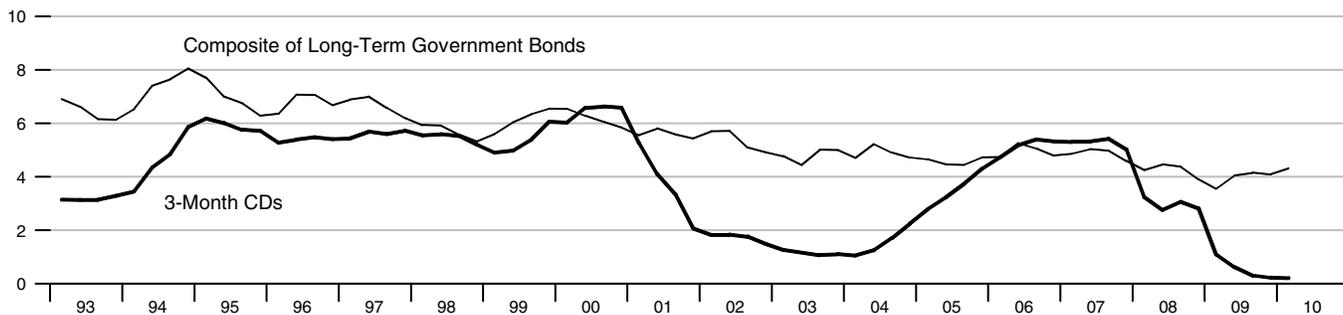
Monetary Aggregates

Percent change from year ago



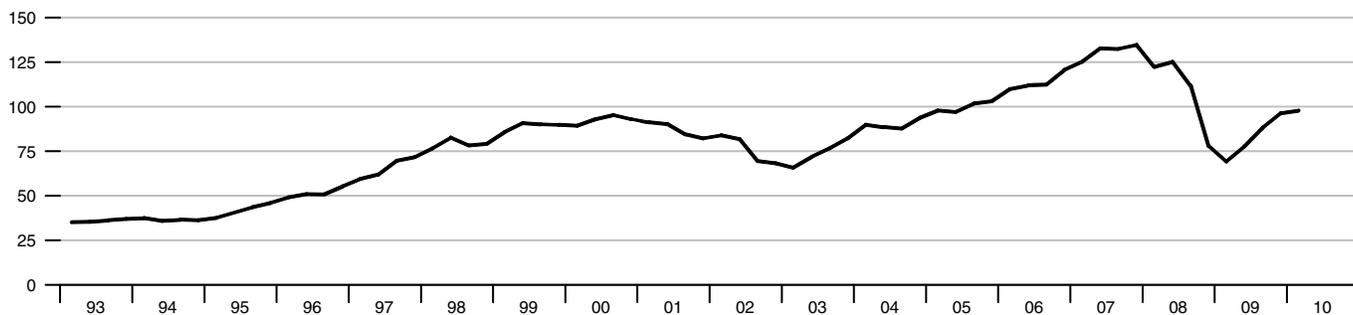
Interest Rates

Percent



Stock Exchange Index - New York Stock Exchange

2005 = 100



Notes

Euro-Area Data: Euro-area countries are Austria, Belgium, Cyprus, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, the Netherlands, Portugal, Slovenia, Slovakia, and Spain. Data series are break adjusted and include all euro area countries for the full sample, with these exceptions: Series for interest rates are not break adjusted.

Euro-area interest rates prior to December 1998 are calculated on the basis of national government yields weighted by GDP. Starting in 1999, short-term rates are euro interbank offered rates. Long-term rates are calculated on the basis of national government bond yields weighted by the nominal outstanding amounts of government bonds in each maturity band.

The euro/dollar exchange rate used in the chart on page 12 is a synthetic rate prior to January 1999. This is constructed by calculating a weighted average of the exchange rates of the euro-area countries, excluding Greece and Luxembourg, against the dollar. The weights are based on 1997 GDP shares.

German Data: As a result of reunification, data for all of Germany are now incorporated in the statistical series. The starting periods for unified German data are listed below. Care should be exercised when interpreting the data around these break periods.

Third quarter 1992: capacity utilization.

First quarter 1993: stock exchange index.

Third quarter 1993: employment.

First quarter 1995: hourly earnings.

Capacity Utilization covers the manufacturing sector for Canada, France, Japan, the United Kingdom, the United States, and the euro area; manufacturing excluding food, beverage, and tobacco for Germany; and mining and manufacturing for Italy.

Consumer Price Index is for all items. The current index is based on goods and services consumed by all individuals for Canada; all multi-person households excluding those mainly engaged in agriculture, forestry, and fisheries for Japan; all households except pensioners dependent on state pension and high income households for the United Kingdom; and all urban households for the United States. Data for the euro area, France, Germany, and Italy are based on the harmonized index of consumer prices.

Current Account Balance is the sum of merchandise and service exports and income receipts on domestic assets abroad minus the sum of merchandise and service imports and income payments from foreign assets in the domestic economy plus net unilateral transfers.

Real Earnings are based on hourly earnings in manufacturing for Canada, Germany, the United States, and the euro area; hourly earnings in manufacturing excluding construction for France, hourly earnings in industry for Italy; monthly earnings in manufacturing for Japan; and weekly earnings in manufacturing for the United Kingdom.

German real earnings data prior to 2007 are not strictly comparable with the new figures: Before 2007, gross hourly earnings covered full-time wage earners only. Since the first quarter of 2007, the data refer to the index of gross hourly earnings (excluding extra payments) of full-time wage earners and salaried employees.

The **Exchange Rate** for all countries except the United States is expressed as units of local currency per U.S. dollar. For the United States the trade-weighted exchange rate, **TWEX**, is used. This is a weighted average of the exchange value of the U.S. dollar relative to the major international currencies—the euro, Canadian dollar, Japanese yen, British pound, Swiss franc, Australian dollar, and Swedish kronor. Prior to 1999, the currencies of the euro-area countries (with the exception of Greece) are used instead of the euro.

Real Effective Exchange Rate uses normalized unit labor costs in manufacturing. The weighting scheme used to construct the rates, for all except the euro area, is based on disaggregated data for trade among 21 industrial countries in manufactured goods for 2005. For the euro area the weights relate to the trade of the euro area with the other countries. The weights reflect the relative importance of a country's trading partners in its direct bilateral trade relations and competition in third markets. Normalized unit labor costs in manufacturing are calculated by dividing an index of actual hourly compensation per worker by a five-year moving average index of output per man-hour.

Employment data refer to civilian employment for Canada, Germany, Italy, Japan, and the United States; industrial employment for France; and total employment for the euro area and the United Kingdom.

Foreign Exchange Reserve data are end of period. The dollar value of reserves may fluctuate as a result of changes in reserve holdings and/or changes in the value of the currencies held vis-à-vis the U.S. dollar.

Government Budget Balance is the difference between general government current receipts and total outlays. Total outlays consist of current expenditures and net capital expenditures. **Gross Government Debt** incorporates all financial liabilities of the general government sector. The general government sector consolidates the accounts of the central, state, local, and social security sectors.

Cumulative Inflation Differential is the cumulative change in the foreign consumer price index (CPI) over the change in the U.S. CPI, in percentage terms. The base period for the cumulative rate of change is taken to be the first period of the chart. For example, if the base period is 2002:Q1, then the cumulative inflation differential for Japan for 2006:Q3 is as follows:

$$\text{inflation differential} = 100 \cdot \left(\frac{P_{2006Q3}^J / P_{2006Q3}^{US}}{P_{2002Q1}^J / P_{2002Q1}^{US}} - 1 \right)$$

where P_{2006Q3}^J is the Japanese CPI in the third quarter of 2006. For the U.S. chart on page 41, foreign CPI is calculated as the weighted average of the CPIs of countries whose currencies are used in the major currency trade-weighted exchange rate index. Starting in 1999, the euro-area harmonized consumer price index is used for the euro area. Prior to 1999, the price levels for the individual euro area countries (excluding Greece and Luxembourg) are used. The cumulative inflation differential is shown because the theory of purchasing power parity states that exchange rate changes should be systematically positively related to this variable.

Industrial Production measures the change in the volume of output in the mining, manufacturing, oil, electricity, gas, and water industries.

The **Short-Term Interest Rate** table on page 4 uses the relevant 3-month interest rate shown in the country pages.

The **Long-Term Interest Rate** table on page 4 uses the government bond rate. The government bond rate is a composite of yields on federal government bonds with maturities of more than 10 years for the United States; 10-year benchmark bonds for France; 7- to 15-year public sector bonds for Germany; 15- to 20-year government bonds through 1990 and 10-year government bonds starting in 1991 for Italy; and 10-year government bonds for Canada, the euro area, Japan, and the United Kingdom.

The **Reserve Money** table on page 4 refers to the adjusted monetary base for Japan and the United States; monetary base for Canada; and M0 for the United Kingdom. **Reserve Money** is currency in circulation, deposits of the deposit money banks, and demand deposits of other residents (with the exception of the central government) with the monetary authority.

Adjusted Monetary Base

Japan: currency in circulation and current deposits at the Bank of Japan.

United States: the sum of currency in circulation outside Federal Reserve banks and the U.S. Treasury, deposits of depository financial institutions at Federal Reserve banks, and an adjustment for the effects of changes in statutory reserve requirements on the quantity of base money held by depositories.

Notes and Coins in Circulation

United Kingdom: After reforming the rules governing bank reserves, the Bank of England discontinued its M0 series in May 2006 because the data would not be comparable to previous data. *IET* now presents a related series, "Notes and Coins in Circulation," in place of M0. The Bank of England directs interested parties to "Publication of narrow money data: the implication of money market reform" in its Autumn 2005 *Quarterly Bulletin* (<http://www.bankofengland.co.uk/publications/quarterlybulletin/qb050304.pdf>).

M1

Japan: cash, currency in circulation, and deposit money.

Euro area: currency in circulation and overnight deposits.

M1B

Canada: currency outside banks, chartered bank checkable deposits, less inter-bank checkable deposits.

MZM

United States: currency in circulation, travelers' checks, total publicly-held checkable deposits minus cash items in the process of collection and Federal Reserve float, savings deposits, shares in retail money market mutual funds (funds with initial investments of less than \$50,000), net of retirement accounts, and institutional money market mutual funds.

M2

Canada: currency outside banks, chartered bank demand and notice deposits, chartered bank personal term deposits, adjustments to M2 (continuity adjustments and inter-bank demand and notice deposits).

United Kingdom: currency in circulation and sterling retail deposits with the U.K. banks and building societies.

United States: MZM less institutional money market mutual funds plus small denomination (less than \$100,000) time deposits.

M2 + CDs

Japan: M1 plus private deposits, public deposits less demand deposits, and certificates of deposit.

M3

Euro area: M1 plus deposits with a maturity up to 2 years, deposits redeemable at notice up to 3 months, repurchase agreements, money market funds, and debt securities up to 2 years.

M4

United Kingdom: M2 plus wholesale deposits with the U.K. banks and building societies.

Output Per Worker is the ratio of real GDP to employment.

Producer Price Index covers manufacturing for Canada and the United Kingdom; and total industry for Japan and the United States. Data for the euro area, France, Germany, and Italy are based on the harmonized index of total industry excluding construction.

Retail Sales are based on a volume index. The percent change in retail sales for the United States is based on the Standard Industrial Classification system through 1992 and the North American Industrial Classification System from 1993 on.

Stock Exchange Index refers to all share prices except for the United Kingdom, which excludes financial firms.

Unemployment Rate is the standardized unemployment rate. It is the percentage of the civilian labor force that is unemployed. The unemployed are all persons of working age who are without work, readily available for work, and actively seeking work. The standardized rate may differ from the national unemployment rate calculations.

Sources

Abbreviations

Board of Governors of the Federal Reserve System (BOG)
 Bureau of Economic Analysis, U.S. Department of Commerce (BEA)
 Bureau of Labor Statistics, U.S. Department of Labor (BLS)
 International Monetary Fund, *International Financial Statistics* (IMF)
 Organization for Economic Cooperation and Development,
Economic Outlook (OECD1)
Main Economic Indicators (OECD2)
National Accounts Quarterly (OECD3)

Canada

Bank of Canada: M1B and M2.

BOG: exchange rate.

IMF: foreign exchange reserves, merchandise and service trade, real effective exchange rate, and reserve money.

OECD1: gross government debt and budget balance.

OECD2: capacity utilization, consumer price index, current account balance, GDP, hourly earnings, industrial production, interest rates, producer price index, retail sales, stock exchange index, and unemployment rate.

Statistics Canada: employment.

Euro Area

European Central Bank: current account balance and employment.

Eurostat: capacity utilization, consumer price index, GDP, interest rates, merchandise trade, producer price index, and retail sales.

Haver Analytics: synthetic euro exchange rate.

IMF: real effective exchange rate.

OECD1: gross government debt and budget balance.

OECD2: hourly earnings, industrial production, M1, M3, stock exchange index, and unemployment.

France

BOG: exchange rate.

Eurostat: capacity utilization, consumer price index, and producer price index.

IMF: foreign exchange reserves, merchandise and service trade, and real effective exchange rate.

Institut National de la Statistique et des Etudes Economiques: employment.

OECD1: gross government debt and budget balance.

OECD2: current account balance, GDP, hourly earnings, industrial production, retail sales, interest rates, stock exchange index, and unemployment.

Germany

BOG: exchange rate.

Bundesanstalt Fur Arbeit: employment.

Eurostat: capacity utilization, consumer price index, and producer price index.

IMF: foreign exchange reserves, merchandise and service trade, and real effective exchange rate.

OECD1: gross government debt and budget balance.

OECD2: current account balance, GDP, hourly earnings, industrial production, M1, M3, retail sales, interest rates, stock exchange index, and unemployment.

Italy

BOG: exchange rate.

Eurostat: capacity utilization, consumer price index, and producer price index.

IMF: foreign exchange reserves, merchandise and service trade, and real effective exchange rate.

Instituto Nazionale di Statistica: employment.

OECD1: gross government debt and budget balance.

OECD2: current account balance, GDP, hourly earnings, industrial production, long-term interest rates, retail sales, stock exchange index, and unemployment.

Japan

Bank of Japan: adjusted monetary base and long-term interest rate.

BOG: exchange rate.

IMF: foreign exchange reserves, merchandise and service trade, and real effective exchange rate.

OECD1: gross government debt and budget balance.

OECD2: capacity utilization, consumer price index, current account balance, employment, GDP, hourly earnings, industrial production, M1, M2, producer price index, retail sales, short-term interest rate, stock exchange index, and unemployment.

United Kingdom

Bank of England: M2.

BOG: exchange rate.

IMF: foreign exchange reserves, merchandise and service trade, and real effective exchange rate.

OECD1: gross government debt and budget balance.

OECD2: capacity utilization, consumer price index, current account balance, GDP, industrial production, interest rates, M4, producer price index, retail sales, stock exchange index, unemployment, and weekly earnings.

U.K. Office for National Statistics: employment and Notes and Coins in Circulation.

United States

BOG: capacity utilization, exchange rate, industrial production index, M2, and interest rates.

BEA: GDP, current account balance, merchandise and service trade, and retail sales.

BLS: employment, consumer price index, and producer price index.

Federal Reserve Bank of St. Louis: adjusted monetary base and MZM.

IMF: foreign exchange reserves and real effective exchange rate.

OECD1: gross government debt and budget balance.

OECD2: hourly earnings, stock exchange index, and unemployment.