

Freedom, Trade, and Growth

For over a decade, the Heritage Foundation and the *Wall Street Journal* have published an annual *Index of Economic Freedom*, ranking countries around the world using a set of ten objective economic criteria. On a scale from 1 to 5, a country is considered “free” if its average score is less than 2, “mostly free” if between 2 and 2.99, “mostly unfree” if between 3 and 3.99, and “repressed” if its score is 4 or greater. (See Table 1.) One of the ten categories included in the *Index of Economic Freedom* is a measure of openness to trade. The rankings of countries for this particular variable are closely related to their rankings in the overall index.

The trade measure is based on a country’s weighted average tariff rate, with the weights based on imports from the country’s trading partners. The best score (1) is given if a country’s weighted average tariff rate is less than 2.5 percent. The worst score (5) is given to countries with a weighted average tariff rate greater than 20 percent. One point is also added to a country’s trade score when there is evidence of significant non-tariff barriers.

Of the 157 countries given a trade score in the 2006 index, only two—Singapore and Hong Kong—received the top grade. These two countries were also the top two countries in the overall index score. Of the 18 countries receiving the worst score on trade, 16 fell into the categories of “mostly unfree” or “repressed” in the overall results.

The measure of trade-openness used in the index, based on tariff rates, contrasts with alternative measures of trade policy that are related to the volume of trade. For example, the Penn World Tables includes a measure called “openness,” which is calculated as the sum of exports and imports divided by gross domestic product. These two measures—one based on policies and the other based on trade outcomes—yield similar rankings among countries. The 37 countries receiving a score of 2 or better in the index had an average openness score of 108 in the Penn World Tables. The 49 countries receiving a score of 4 or worse in the index had an openness score of only 75 in the Penn World Tables.

Openness to trade and other measures of economic freedom are important not only for their direct benefits, but also because they indicate a more general propensity to follow economic policies that foster growth and development. For example, Table 2 shows that those countries that moved toward freer trade over time have grown faster than those who have moved toward more restrictive trade policies. The 79 countries that improved their trade policy score between 1997 and 2006 showed an average

growth rate of 2.5 percent, while the 28 countries whose trade scores declined grew at an average rate of only 1.8 percent.

Table 2 also subdivides each of these categories into categories related to the overall index. This breakdown shows the complementarity between open trade and economic freedom in general. In each category (trade policy rising or falling) those countries that are “free” or “mostly free” showed higher growth rates than those that are “mostly unfree” or “repressed.” The more economic freedom displayed by the policies of a country, the better its residents can respond to more open trade.

—Joshua A. Byrge and Michael R. Pakko

Table 1. Economic Freedom Index, 2006

“Free” (top six)		“Repressed” (bottom six)	
Hong Kong	1.28	North Korea	5.00
Singapore	1.56	Iran	4.51
Ireland	1.58	Burma (Myanmar)	4.46
Luxembourg	1.60	Zimbabwe	4.23
Iceland	1.74	Libya	4.16
United Kingdom	1.74	Venezuela	4.16

SOURCE: Heritage Foundation/*Wall Street Journal’s Index of Economic Freedom*, 2006.

Table 2. Trade Policy and Growth

Changes in trade policy score (2006 vs. 1997)	Percent real GDP per capita growth (1995-2003)
Improved (79 countries)	2.49
“Free” or “mostly free”	2.80
“Mostly unfree” or “repressed”	2.15
Declined (28 countries)	1.80
“Free” or “mostly free”	2.21
“Mostly unfree” or “repressed”	1.53

SOURCE: Heritage Foundation/*Wall Street Journal’s Index of Economic Freedom*, 1997 and 2006; Penn World Tables, Volume 6.2; and authors’ calculations.

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Conventions used in this publication:

1. Charts and tables contain data that were current through October 2006. 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. The following data are not seasonally adjusted: exchange rates, real effective exchange rates, interest rates, stock exchange indexes, government budget balances, government debts, and foreign exchange reserves.

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Please keep in mind that we must make some difficult choices with respect to the material we include.

Thank you in advance for your help in making *International Economic Trends* a great publication.

Sincerely,

Christopher J. Neely

Editor, *International Economic Trends*

Real Gross Domestic Product

Percent change from year ago

	03.3	03.4	04.1	04.2	04.3	04.4	05.1	05.2	05.3	05.4	06.1	06.2
Canada	1.25	1.47	1.98	3.44	4.07	3.70	3.22	2.95	2.73	2.85	3.19	2.85
Euro Area	0.62	1.03	1.58	2.02	1.70	1.46	1.17	1.25	1.67	1.82	2.17	2.73
France	1.15	1.56	1.74	2.63	1.75	2.04	1.55	0.78	1.38	1.01	1.40	2.64
Germany	-0.52	0.17	0.98	1.23	0.71	0.15	0.42	0.80	1.45	1.71	1.74	2.38
Italy	0.00	0.00	0.66	0.99	0.98	0.66	0.00	0.33	0.00	0.33	1.63	1.30
Japan	1.42	2.63	3.71	2.57	2.33	0.51	1.07	2.65	2.77	4.00	3.41	2.52
United Kingdom	2.72	3.28	3.50	3.84	3.10	2.62	2.11	1.64	1.78	1.88	2.32	2.57
United States	3.05	3.68	4.35	4.49	3.41	3.40	3.29	3.10	3.36	3.15	3.69	3.51

Nominal Gross Domestic Product

Percent change from year ago

	03.3	03.4	04.1	04.2	04.3	04.4	05.1	05.2	05.3	05.4	06.1	06.2
Canada	4.74	3.81	3.65	7.21	7.25	7.38	6.28	5.31	6.21	7.16	7.05	5.71
Euro Area	2.90	3.04	3.76	4.21	3.38	3.32	3.12	2.92	3.50	3.86	4.00	4.72
France	2.90	3.55	3.47	4.50	3.51	3.65	3.48	2.52	3.25	2.98	3.46	4.72
Germany	0.76	0.94	1.99	2.27	1.36	0.90	1.28	1.24	2.02	2.38	2.21	3.16
Italy	3.99	3.04	4.57	5.14	2.65	2.95	1.75	1.44	2.01	3.44	3.15	4.25
Japan	0.27	0.97	2.41	0.93	0.95	0.09	0.07	1.48	1.40	2.29	2.10	1.72
United Kingdom	6.05	6.72	5.93	6.54	5.70	5.70	5.07	3.84	3.50	3.92	4.10	4.83
United States	5.31	5.93	6.77	7.55	6.43	6.69	6.49	5.98	6.56	6.35	6.86	6.89

Consumer Price Index

Percent change from year ago

	03.4	04.1	04.2	04.3	04.4	05.1	05.2	05.3	05.4	06.1	06.2	06.3
Canada	1.69	0.88	2.19	2.00	2.27	2.14	1.89	2.66	2.23	2.42	2.60	.
Euro Area	2.02	1.76	2.25	2.28	2.28	2.07	2.04	2.25	2.33	2.35	2.46	2.18
France	2.37	2.03	2.63	2.43	2.28	1.90	1.83	2.05	1.83	2.01	2.21	1.93
Germany	1.12	1.07	1.92	2.02	2.15	1.74	1.65	2.08	2.20	2.08	2.14	1.62
Italy	2.65	2.37	2.29	2.29	2.15	2.08	2.20	2.16	2.39	2.25	2.33	2.32
Japan	-0.29	-0.16	-0.28	-0.10	0.50	0.01	-0.08	-0.29	-0.73	-0.14	0.18	.
United Kingdom	2.66	2.55	2.78	3.09	3.42	3.15	3.02	2.78	2.38	2.38	2.94	.
United States	1.89	1.82	2.80	2.71	3.34	3.04	2.95	3.80	3.73	3.68	3.99	3.34

Employment

Percent change from year ago

	03.4	04.1	04.2	04.3	04.4	05.1	05.2	05.3	05.4	06.1	06.2	06.3
Canada	1.81	1.50	2.10	1.95	1.53	1.37	1.15	1.38	1.62	1.82	2.17	1.89
Euro Area	0.76	0.69	0.71	0.69	0.74	0.83	0.77	0.72	0.77	0.99	1.25	.
France	-0.38	-0.34	-0.00	0.13	0.08	0.41	0.17	0.37	0.50	0.49	0.88	.
Germany	-0.47	-0.01	0.43	0.50	0.55	0.08	-0.28	-0.21	-0.04	0.08	0.49	.
Italy	1.15	0.73	0.34	-0.25	-0.55	-0.07	-0.34	-0.75	-0.59	0.72	1.19	.
Japan	-0.07	0.24	0.19	0.22	0.12	0.19	0.44	0.59	0.50	0.54	0.24	.
United Kingdom	0.39	0.77	0.79	0.86	1.08	1.25	1.02	0.95	0.43	0.21	0.59	.
United States	1.20	0.74	0.90	1.46	1.29	1.37	1.88	1.99	1.87	2.10	1.77	1.59

Unemployment Rate

Percent

	03.3	03.4	04.1	04.2	04.3	04.4	05.1	05.2	05.3	05.4	06.1	06.2
Canada	7.77	7.47	7.35	7.20	7.06	7.13	6.97	6.80	6.76	6.50	6.44	6.18
Euro Area	8.77	8.87	8.90	8.90	8.90	8.80	8.80	8.73	8.53	8.40	8.10	7.90
France	9.56	9.69	9.63	9.53	9.55	9.57	9.72	9.90	9.81	9.56	9.39	9.08
Germany	9.68	9.80	9.40	9.50	9.70	9.60	9.70	9.67	9.23	9.27	8.80	8.27
Italy	8.30	8.19	8.18	8.13	7.91	7.92	7.85	7.68	7.61	7.64	7.45	.
Japan	5.17	5.07	4.91	4.64	4.78	4.54	4.56	4.35	4.33	4.48	4.24	4.09
United Kingdom	4.95	4.83	4.74	4.70	4.59	4.63	4.63	4.64	4.69	4.96	5.10	5.37
United States	6.11	5.83	5.66	5.56	5.46	5.42	5.25	5.09	5.01	4.96	4.71	4.66

Reserve Money

Percent change from year ago

	03.4	04.1	04.2	04.3	04.4	05.1	05.2	05.3	05.4	06.1	06.2	06.3
Canada	1.10	1.97	3.95	3.27	5.19	5.51	2.48	4.11	3.26	3.93	4.16	.
Japan	16.69	14.11	6.23	4.46	4.27	2.57	2.41	1.29	1.65	0.97	-12.92	-19.77
United Kingdom	7.56	7.11	5.79	5.69	5.64	5.61	4.27	4.43	3.34	4.53	5.48	5.15
United States	5.84	4.74	4.43	5.17	4.97	4.83	4.08	3.27	3.09	4.04	4.20	3.24

Narrow Money

Percent change from year ago

	03.4	04.1	04.2	04.3	04.4	05.1	05.2	05.3	05.4	06.1	06.2	06.3
Canada	6.46	9.47	12.94	11.14	12.99	12.30	9.61	6.89	9.25	10.32	10.97	.
Euro Area	9.62	10.39	9.12	9.30	8.62	9.03	16.52	16.79	17.69	16.21	9.45	.
Japan	4.02	4.13	4.17	3.80	3.91	4.79	4.91	4.76	5.51	4.85	4.03	.
United Kingdom	9.85	9.81	10.26	9.86	9.06	8.90	8.72	9.21	9.11	9.37	9.19	.
United States	5.49	4.16	5.03	2.84	4.06	3.59	1.30	1.70	2.40	3.56	4.09	4.01

Broad Money

Percent change from year ago

	03.4	04.1	04.2	04.3	04.4	05.1	05.2	05.3	05.4	06.1	06.2	06.3
Canada	5.29	5.69	6.28	6.03	6.33	6.41	5.65	4.17	5.02	5.14	6.06	.
Euro Area	6.50	6.00	5.33	5.94	6.40	6.47	7.73	8.54	8.24	8.85	8.50	.
Japan	1.61	1.82	1.84	1.90	2.04	2.09	1.62	2.01	1.97	1.44	1.20	.
United Kingdom	7.19	8.02	8.12	9.28	8.76	10.38	10.25	11.07	12.68	11.99	13.38	.
United States	5.56	4.72	4.87	3.76	5.33	5.43	3.87	4.06	4.03	4.68	4.80	4.59

Short-Term Interest Rates

Percent

	03.4	04.1	04.2	04.3	04.4	05.1	05.2	05.3	05.4	06.1	06.2	06.3
Canada	2.70	2.16	2.10	2.40	2.58	2.64	2.58	2.90	3.48	3.93	4.43	4.32
Euro Area	2.15	2.06	2.08	2.12	2.16	2.14	2.13	2.13	2.34	2.61	2.89	.
Japan	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.05	0.13	.
United Kingdom	3.86	4.11	4.51	4.85	4.82	4.85	4.83	4.55	4.56	4.53	4.64	4.85
United States	1.10	1.05	1.25	1.70	2.25	2.78	3.23	3.74	4.30	4.72	5.18	5.39

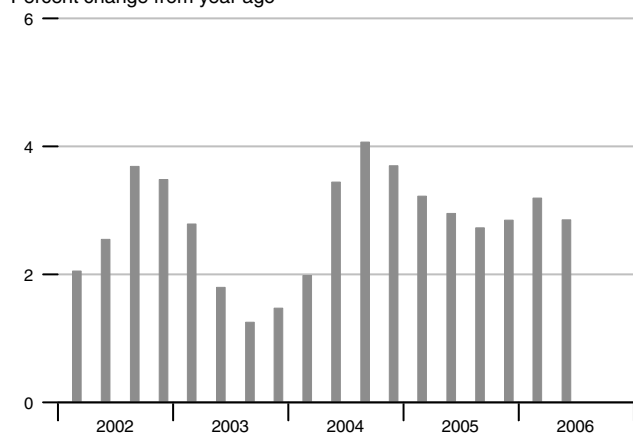
Long-Term Interest Rates

Percent

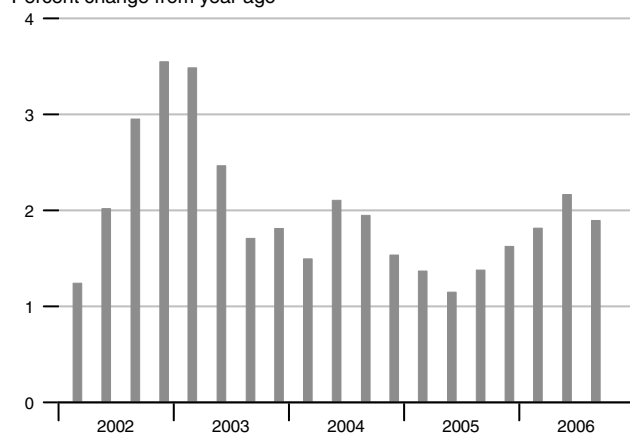
	03.4	04.1	04.2	04.3	04.4	05.1	05.2	05.3	05.4	06.1	06.2	06.3
Canada	4.79	4.43	4.78	4.68	4.46	4.28	4.03	3.90	4.06	4.13	4.43	4.27
Euro Area	4.37	4.15	4.32	4.19	3.83	3.65	3.38	3.24	3.40	3.55	4.03	3.95
France	4.34	4.11	4.31	4.16	3.83	3.64	3.37	3.23	3.39	3.51	3.99	.
Germany	4.29	4.06	4.22	4.11	3.75	3.60	3.30	3.17	3.34	3.48	3.94	3.88
Italy	4.45	4.28	4.46	4.32	3.97	3.74	3.54	3.39	3.55	3.72	4.26	4.17
Japan	1.38	1.31	1.59	1.64	1.45	1.40	1.28	1.36	1.53	1.58	1.90	1.80
United Kingdom	4.94	4.77	5.08	4.99	4.65	4.63	4.44	4.28	4.30	4.09	4.55	4.59
United States	5.00	4.71	5.22	4.91	4.72	4.65	4.46	4.45	4.73	4.74	5.26	5.06

Real GDP

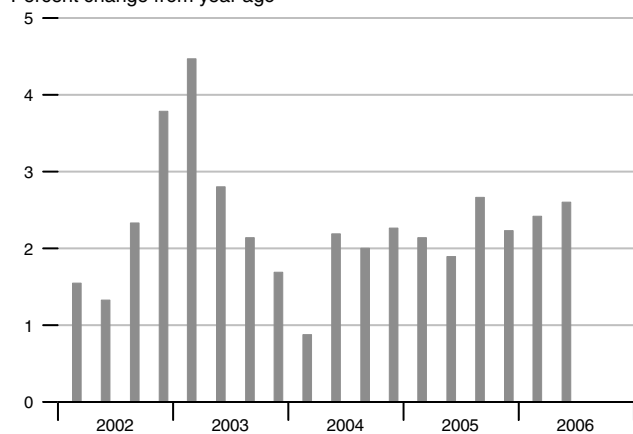
Percent change from year ago

**Employment**

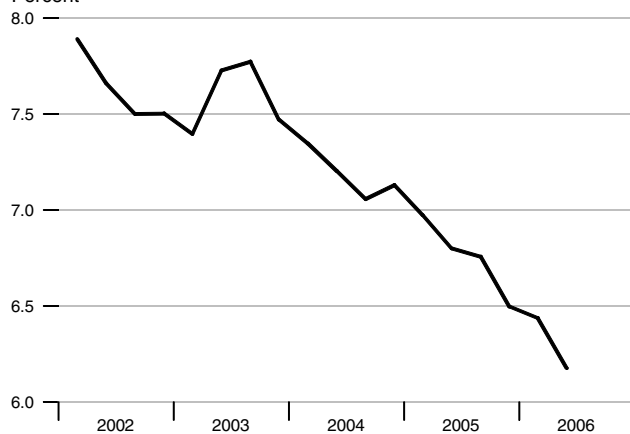
Percent change from year ago

**Consumer Price Index**

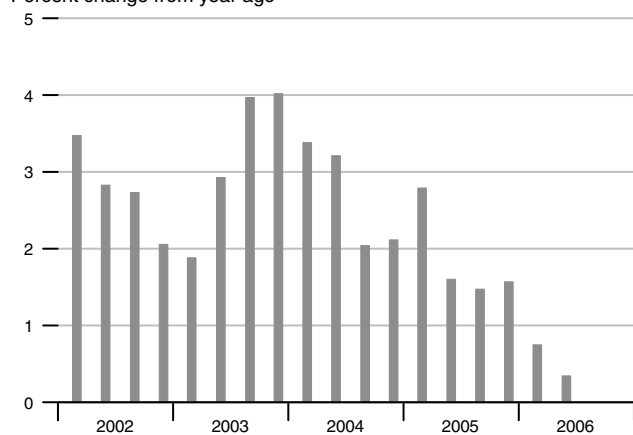
Percent change from year ago

**Unemployment Rate**

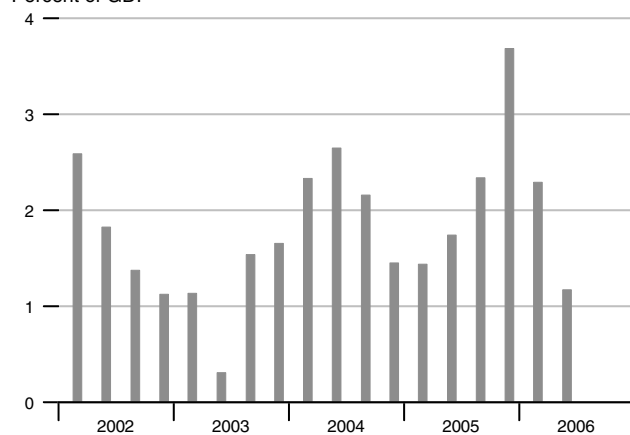
Percent

**Real Hourly Earnings**

Percent change from year ago

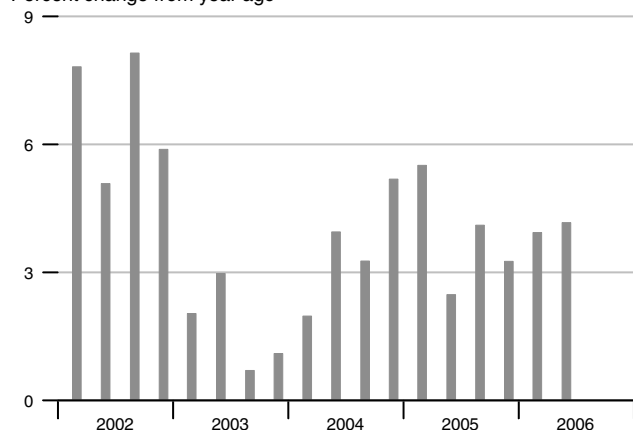
**Current Account Balance**

Percent of GDP



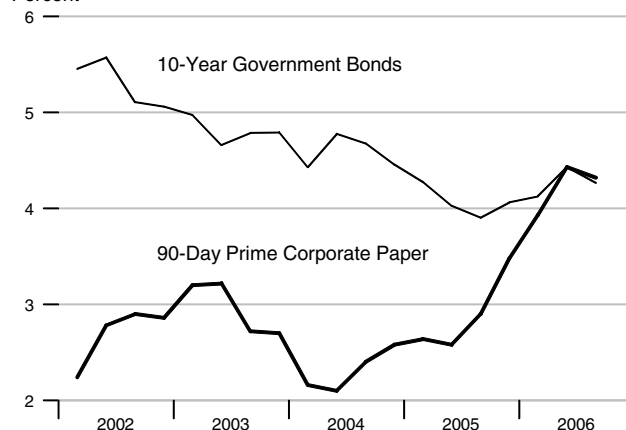
Reserve Money

Percent change from year ago



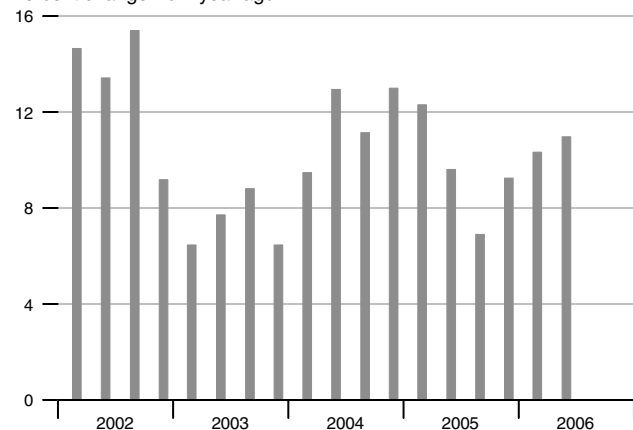
Interest Rates

Percent



M1

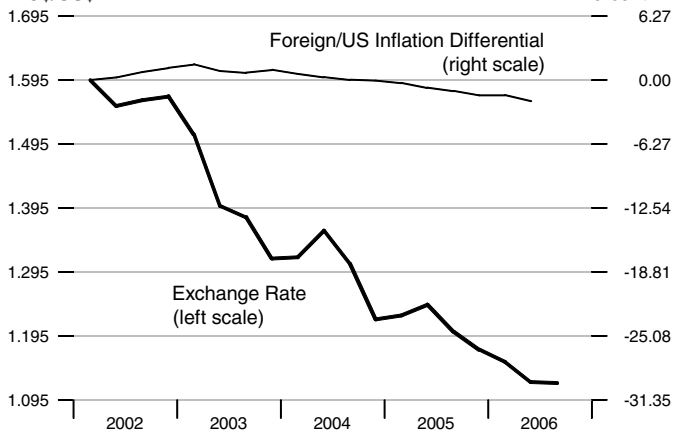
Percent change from year ago



Exchange Rate and Inflation Differential

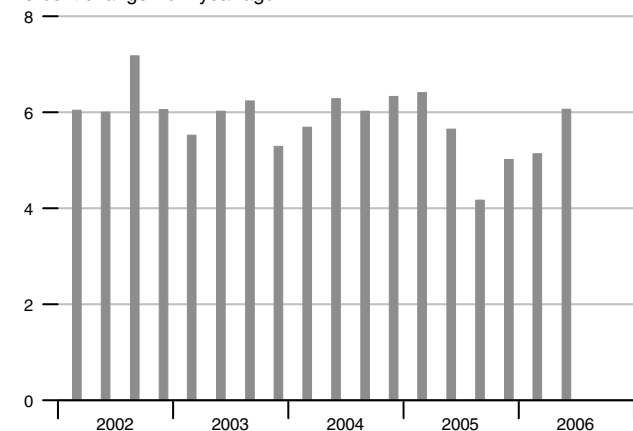
C\$/US\$

Percent



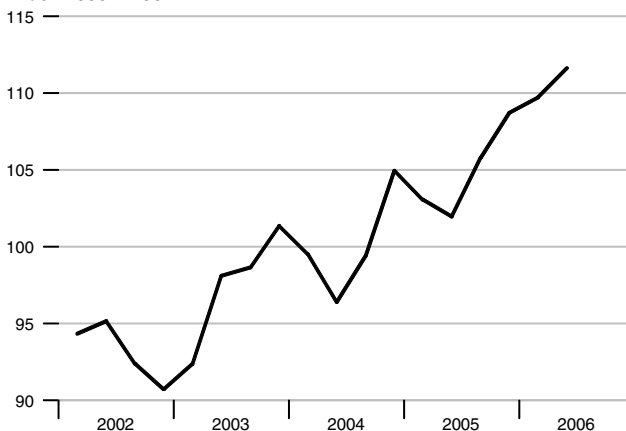
M2

Percent change from year ago



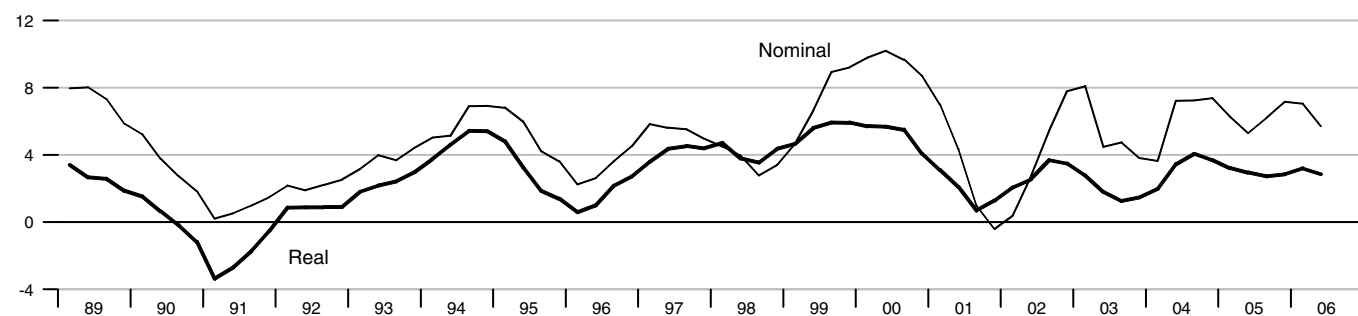
Real Effective Exchange Rate

Index 2000 = 100



GDP

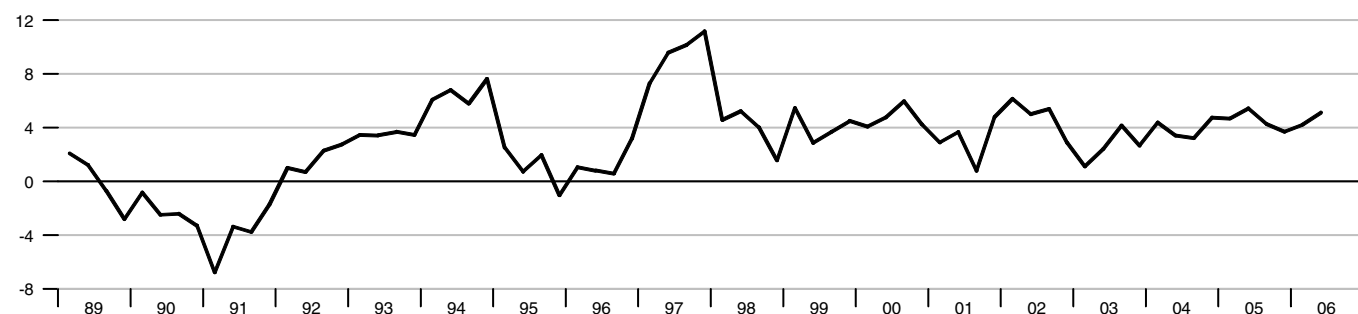
Percent change from year ago

**Industrial Production**

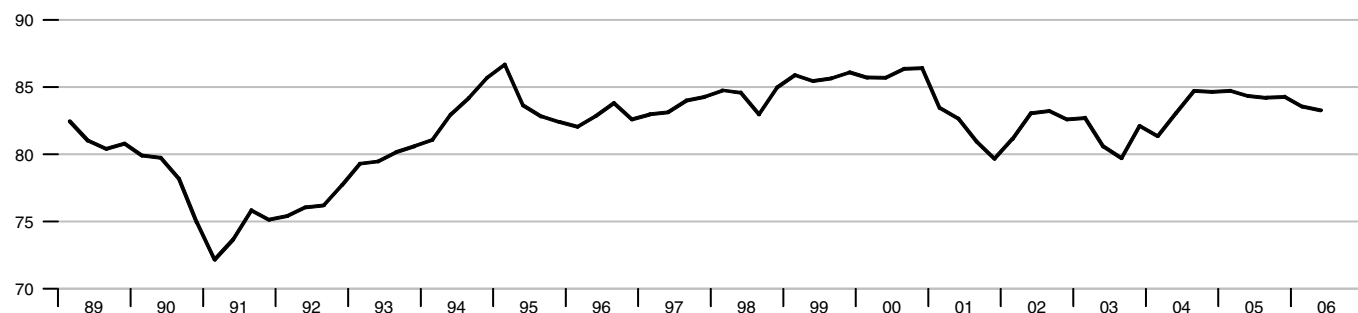
Percent change from year ago

**Retail Sales**

Percent change from year ago

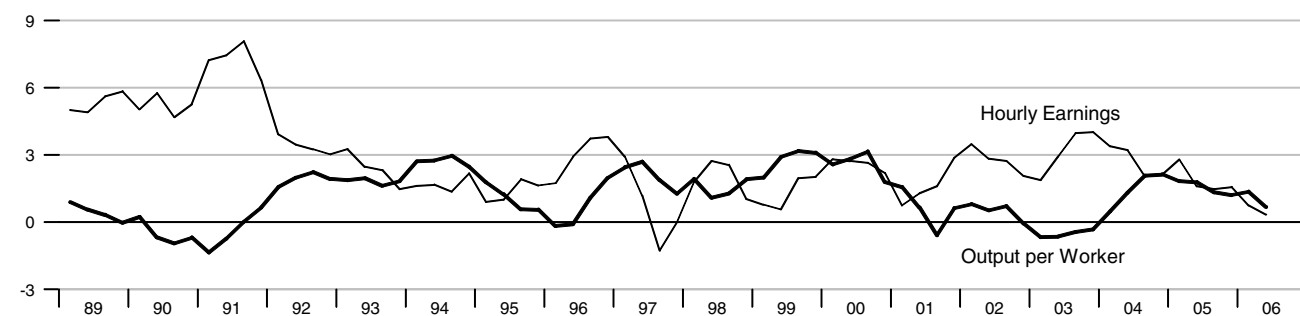
**Capacity Utilization**

Percent



Real Hourly Earnings and Output per Worker

Percent change from year ago



Labor Force Indicators

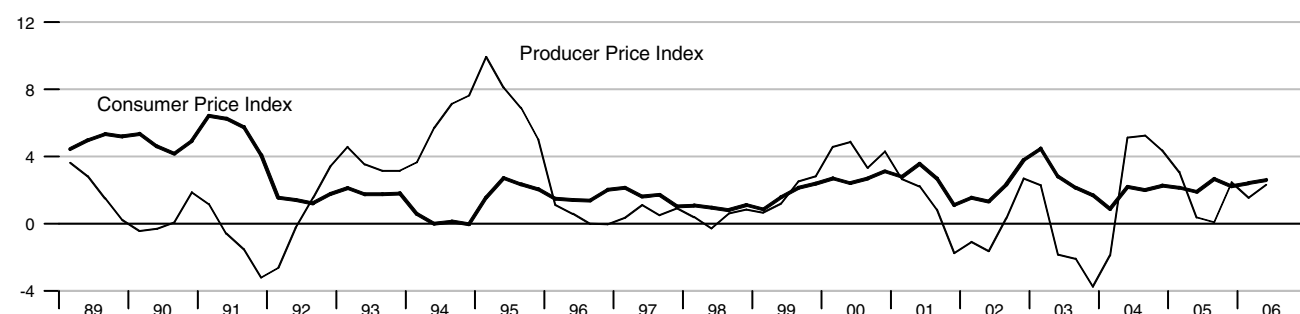
Percent change from year ago

Percent



Inflation

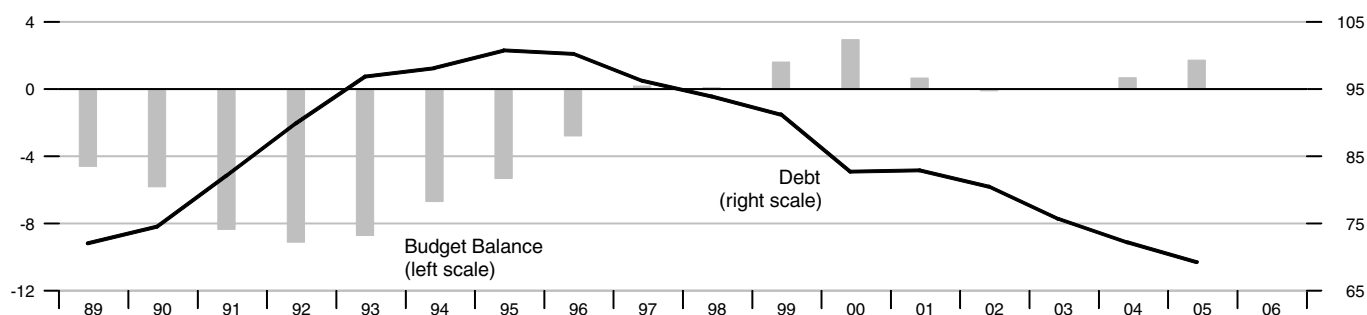
Percent change from year ago



Government Debt and Budget Balance

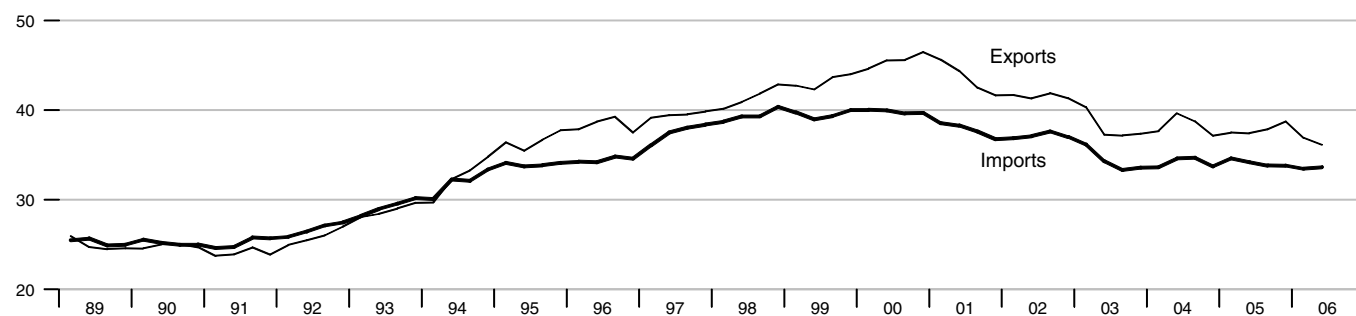
Percent of GDP, annual data

Percent of GDP, annual data

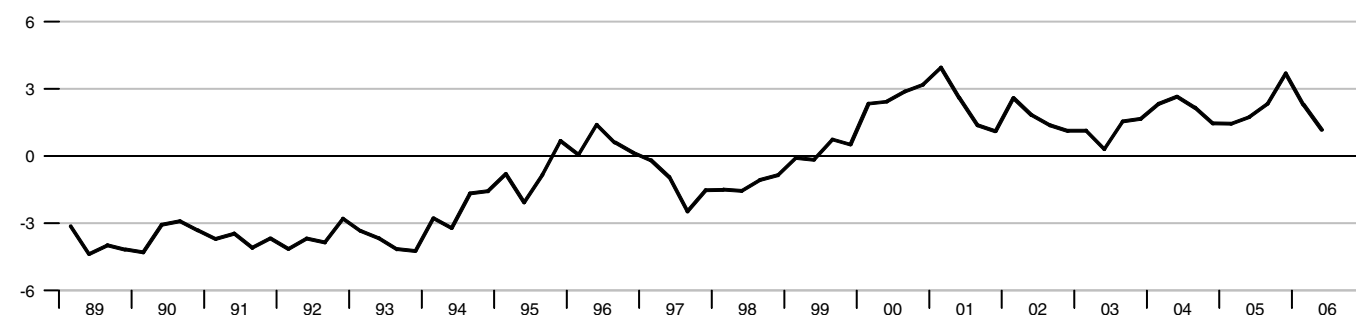


International Trade - Goods and Services

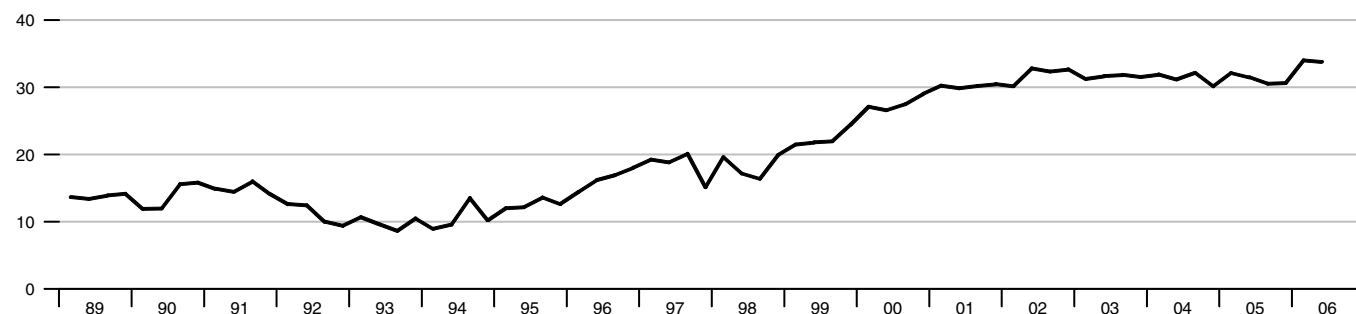
Percent of GDP

**Current Account Balance**

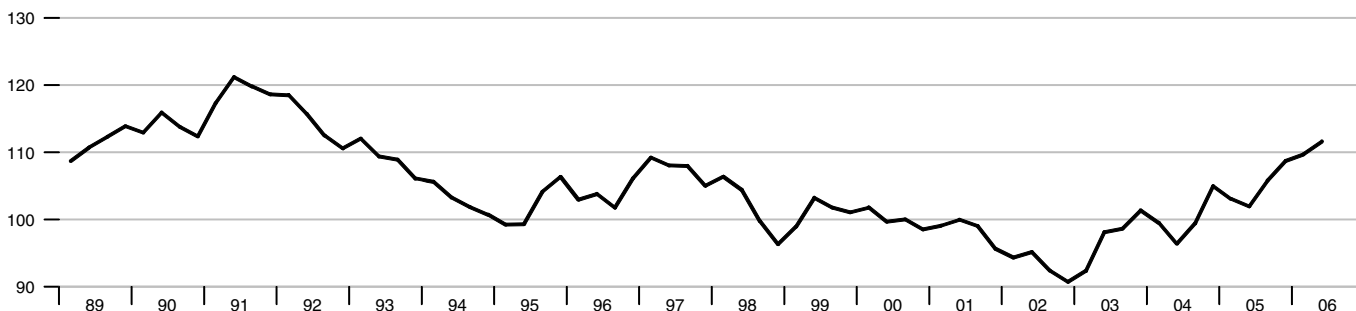
Percent of GDP

**Foreign Exchange Reserves**

Billions of US\$

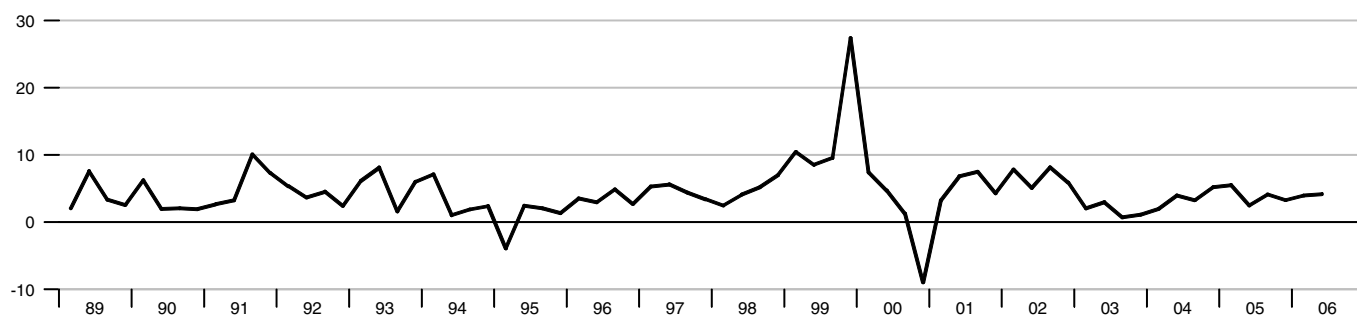
**Real Effective Exchange Rate**

Index 2000 = 100



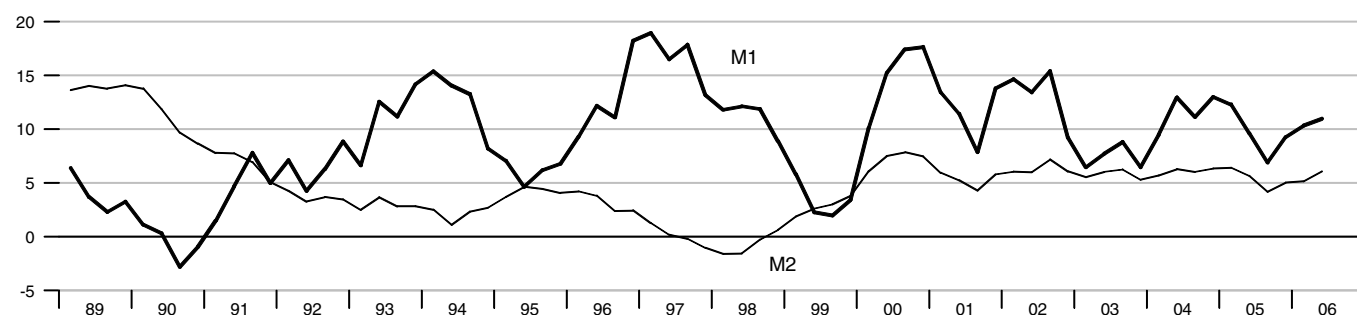
Reserve Money

Percent change from year ago



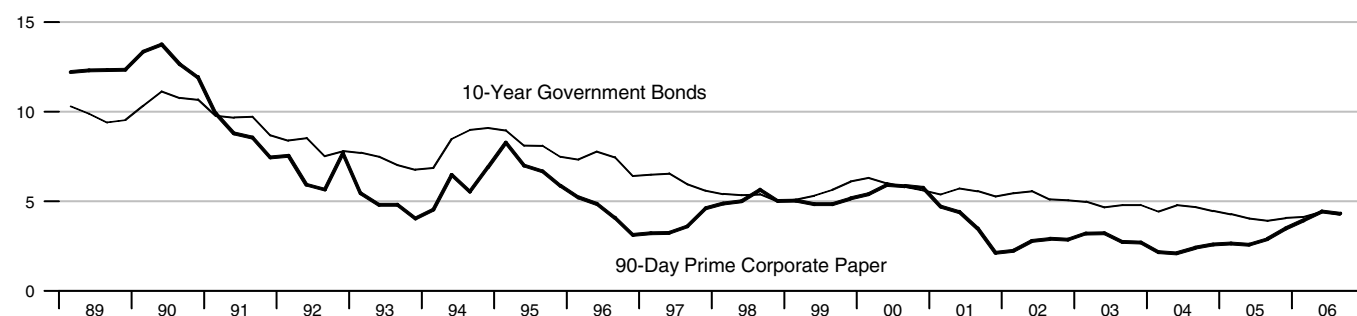
Monetary Aggregates

Percent change from year ago



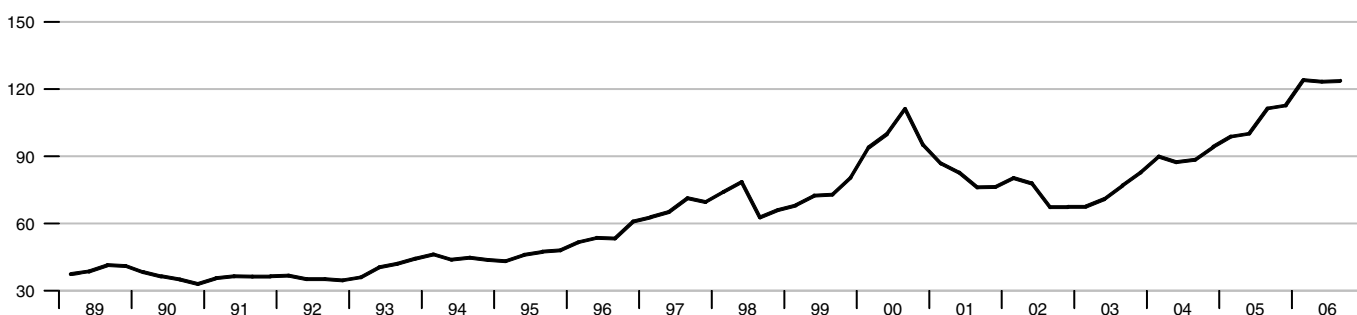
Interest Rates

Percent



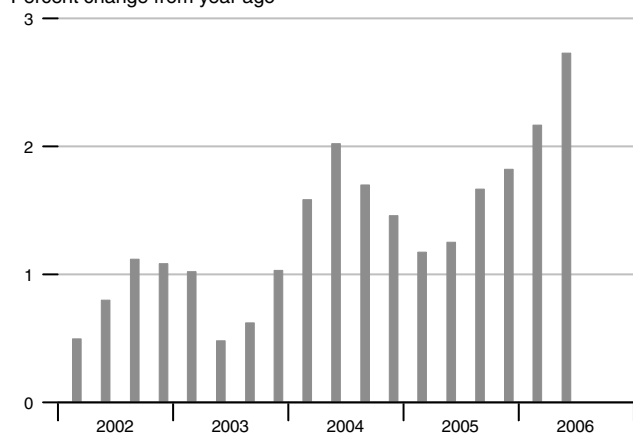
Stock Exchange Index - Toronto Stock Exchange

2000 = 100

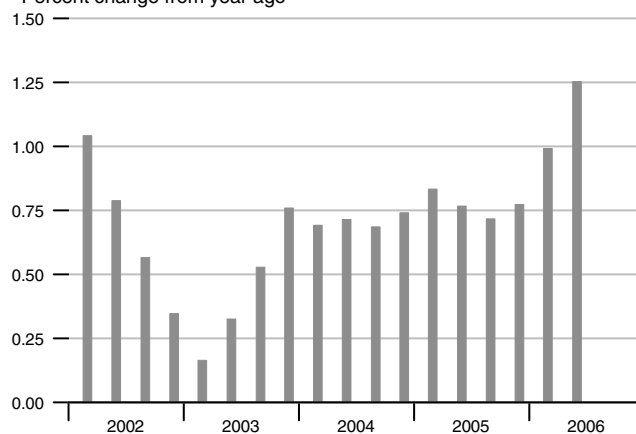


Real GDP

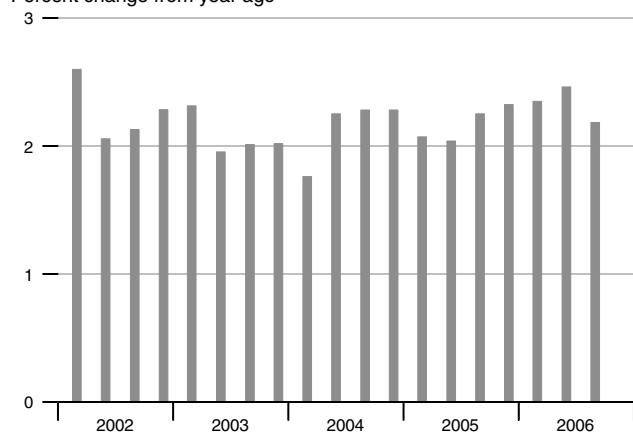
Percent change from year ago

**Employment**

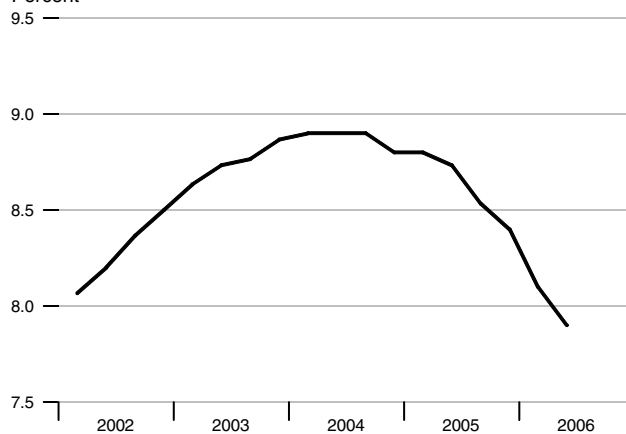
Percent change from year ago

**Consumer Price Index**

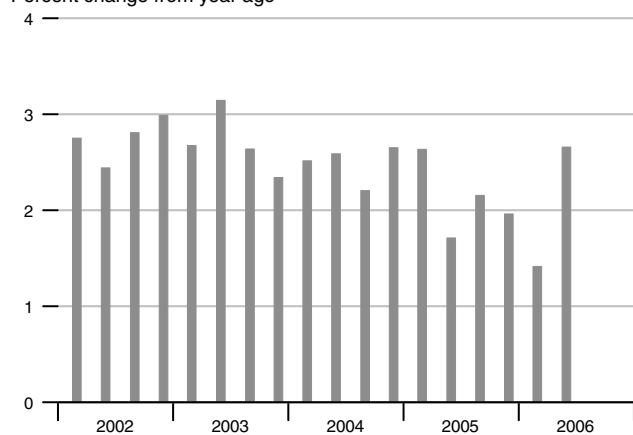
Percent change from year ago

**Unemployment Rate**

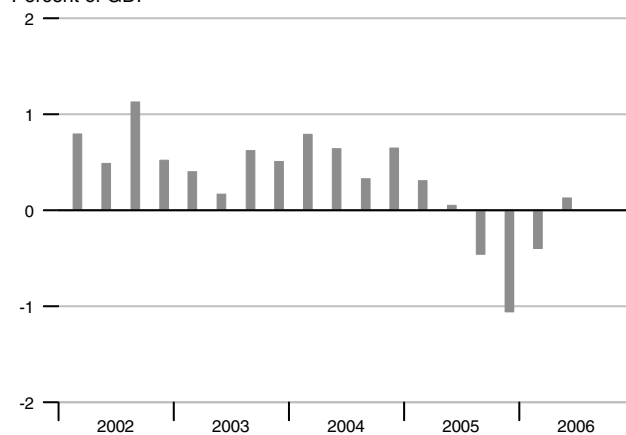
Percent

**Real Hourly Earnings**

Percent change from year ago

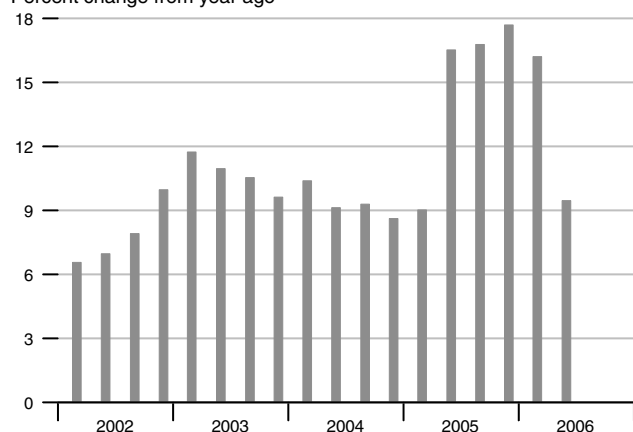
**Current Account Balance**

Percent of GDP



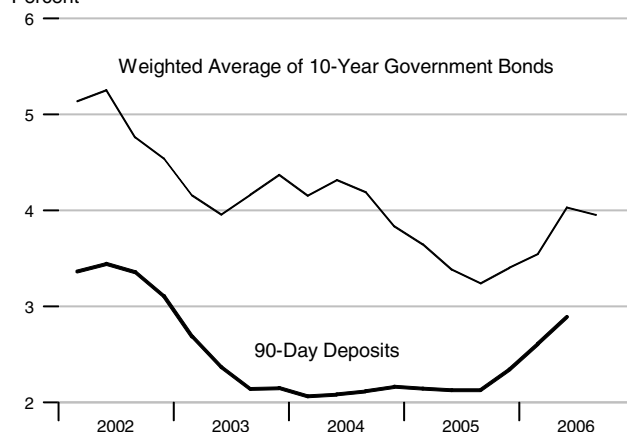
M1

Percent change from year ago



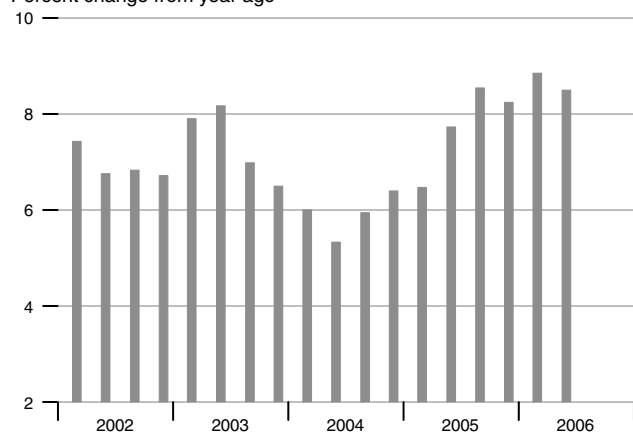
Interest Rates

Percent



M3

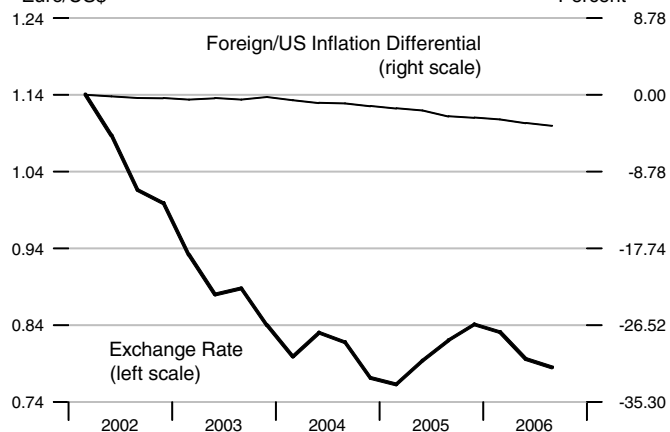
Percent change from year ago



Exchange Rate and Inflation Differential

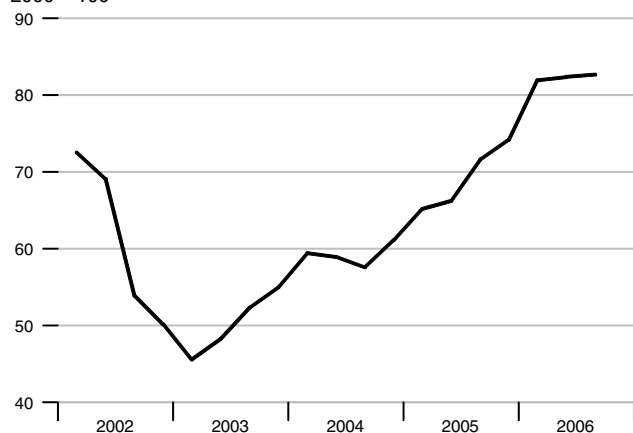
Euro/US\$

Percent



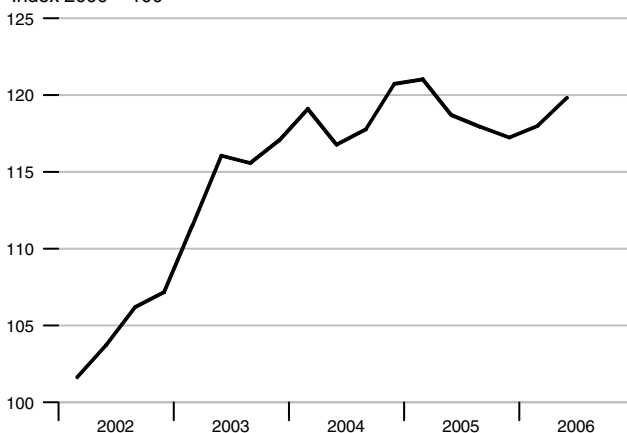
Stock Exchange Index - Dow Jones EURO STOXXSM

2000 = 100



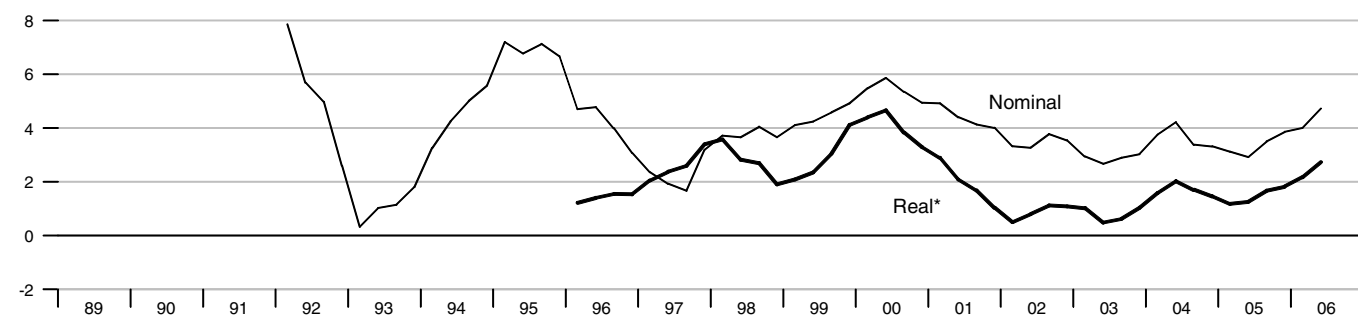
Real Effective Exchange Rate

Index 2000 = 100



GDP

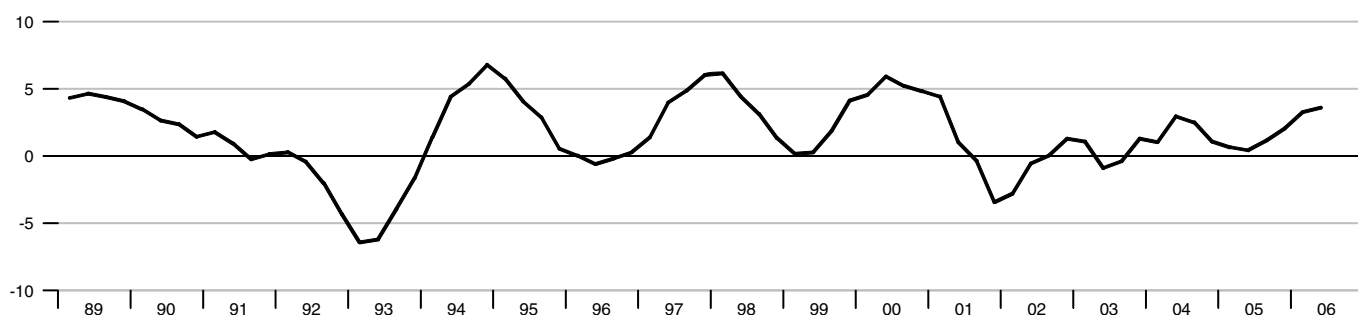
Percent change from year ago



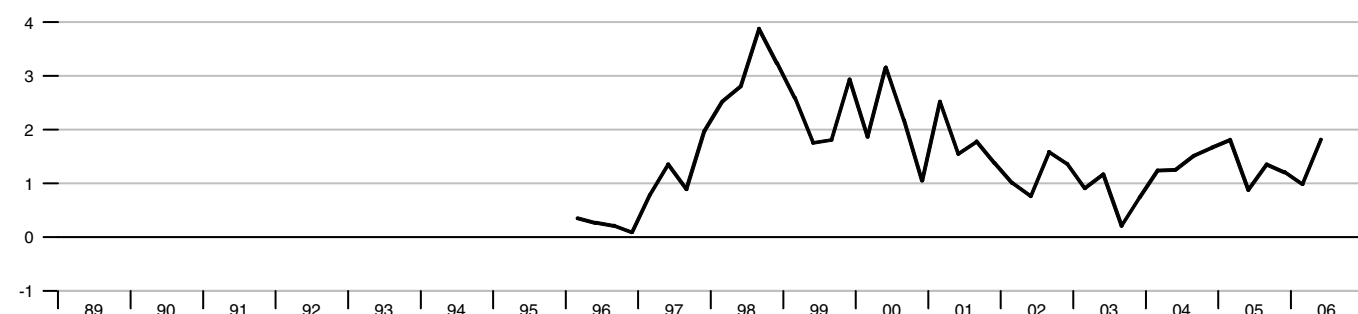
* EUROSTAT has recently changed how it calculates GDP. Data are currently available back to 1995 but will soon be revised back to 1991.

Industrial Production

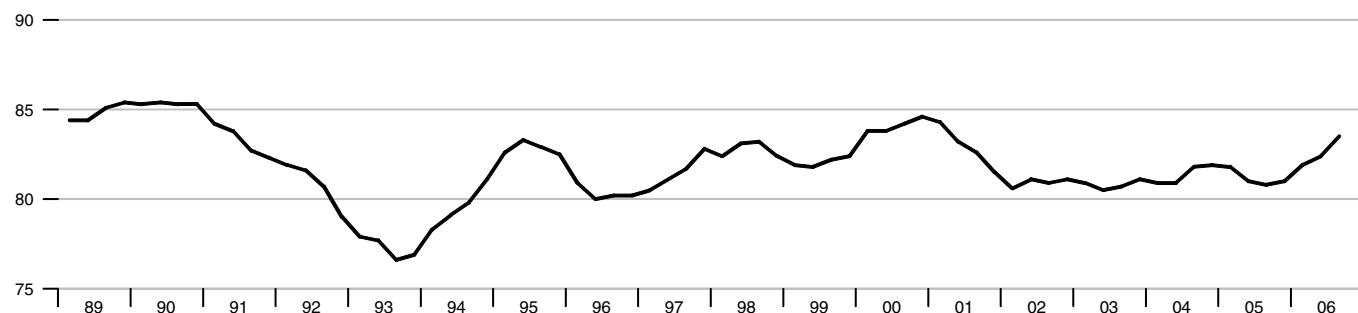
Percent change from year ago

**Retail Sales**

Percent change from year ago

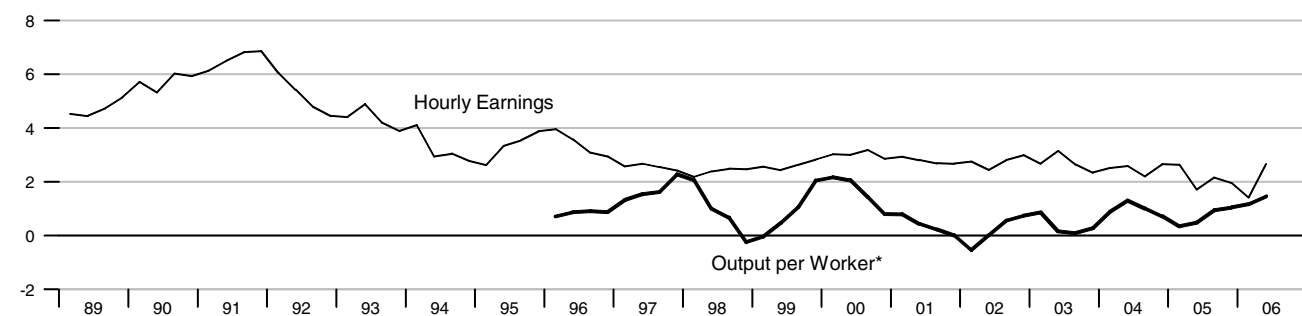
**Capacity Utilization**

Percent



Real Hourly Earnings and Output per Worker

Percent change from year ago

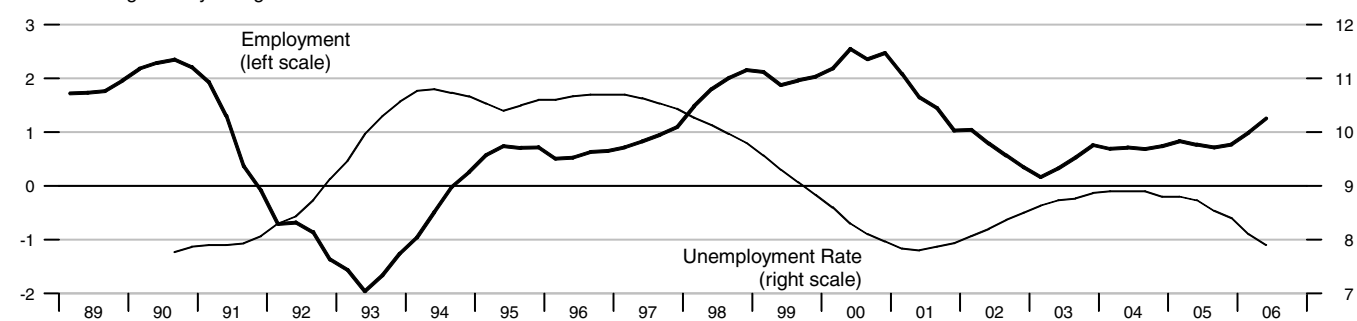


* EUROSTAT is currently revising output data. Output per worker data are available only back to 1995.

Labor Force Indicators

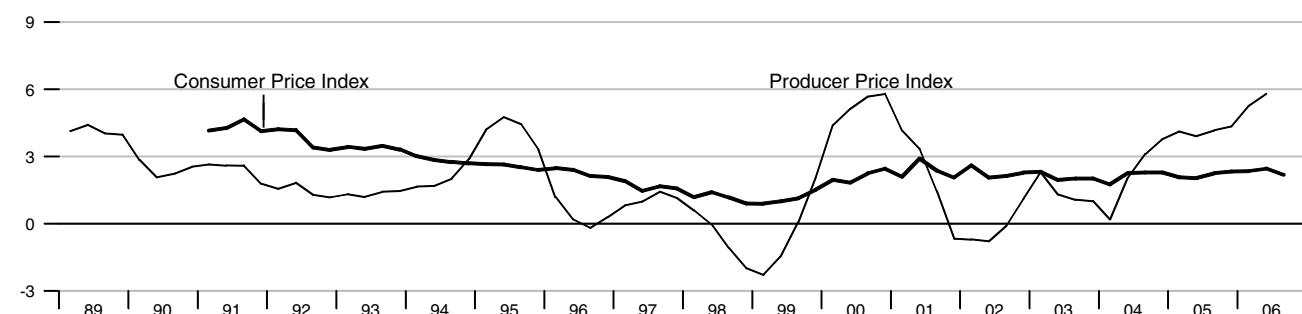
Percent change from year ago

Percent



Inflation

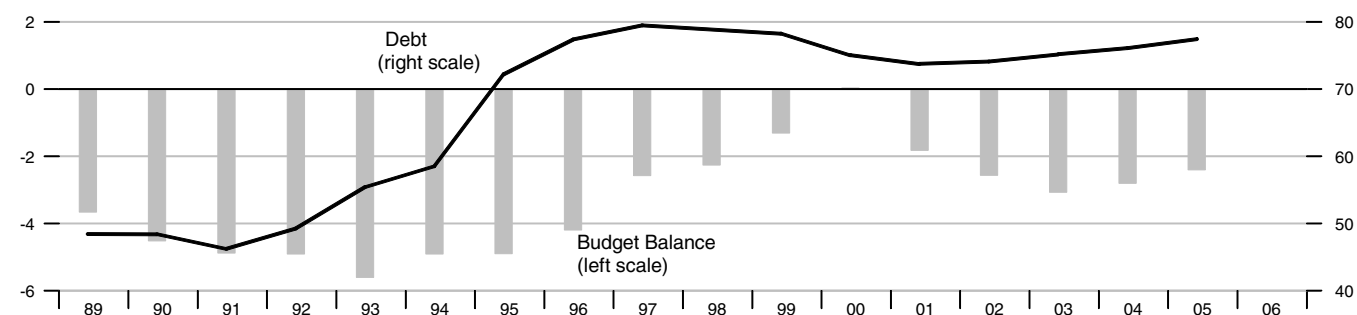
Percent change from year ago



Government Debt and Budget Balance

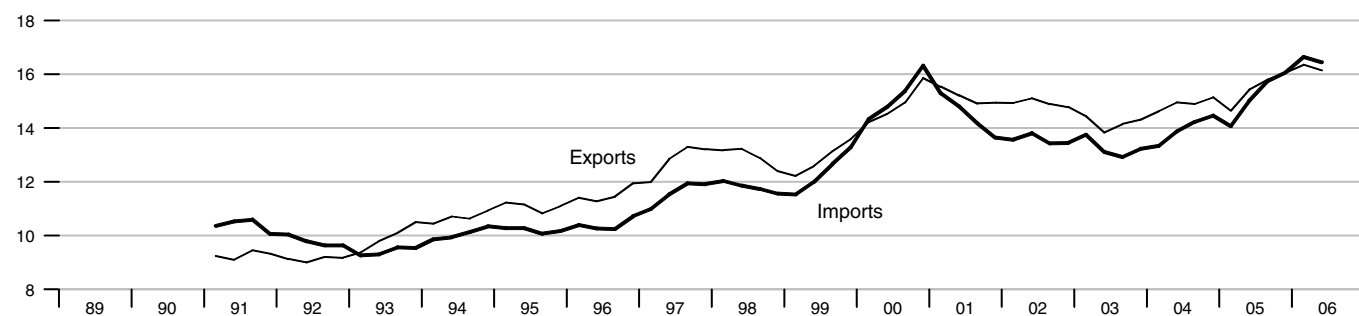
Percent of GDP, annual data

Percent of GDP, annual data



International Trade - Goods

Percent of GDP



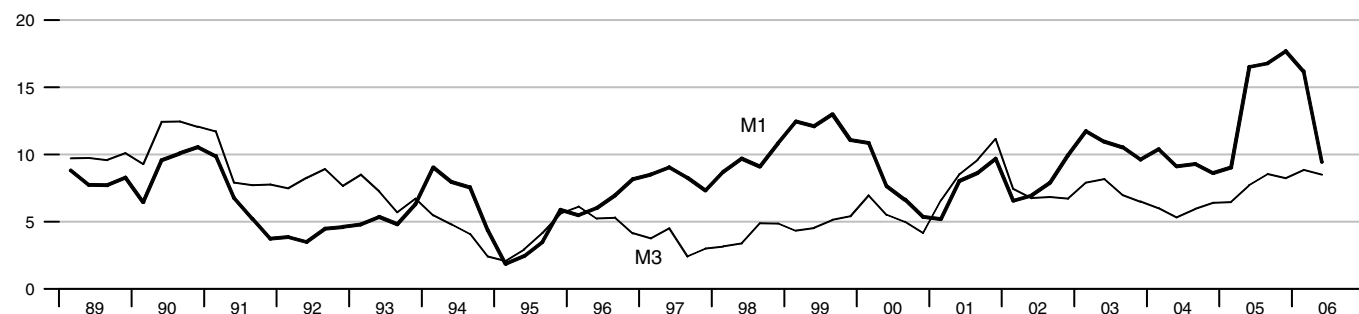
Real Effective Exchange Rate

Index 2000 = 100



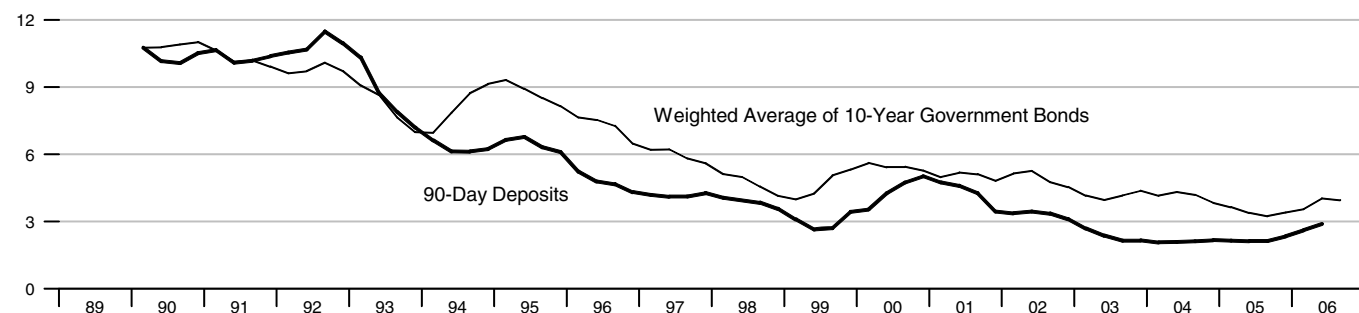
Monetary Aggregates

Percent change from year ago



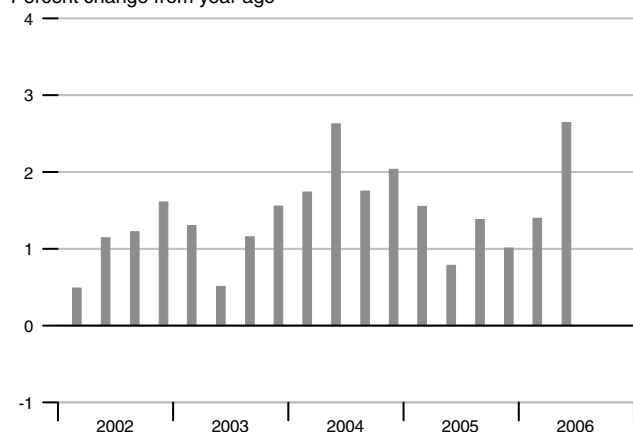
Interest Rates

Percent



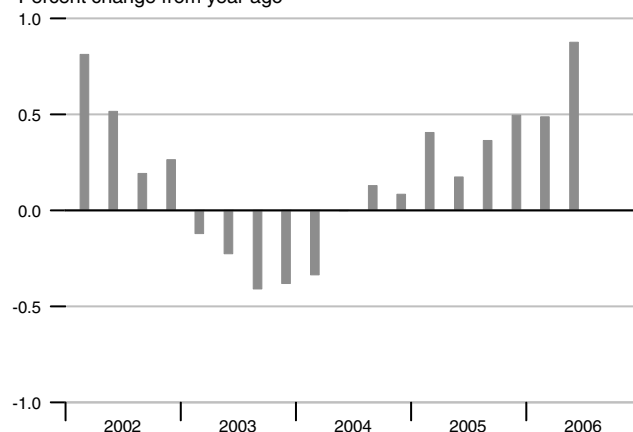
Real GDP

Percent change from year ago



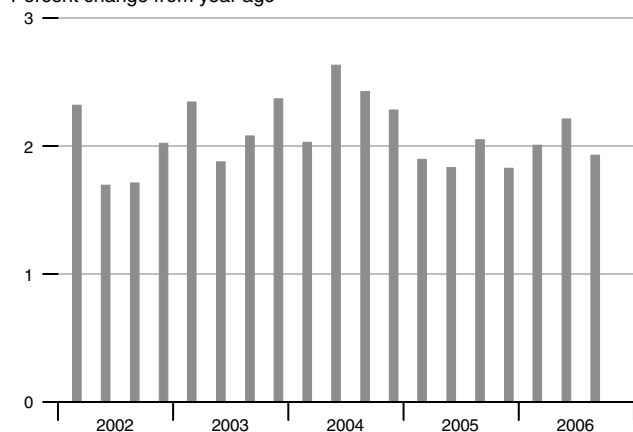
Employment

Percent change from year ago



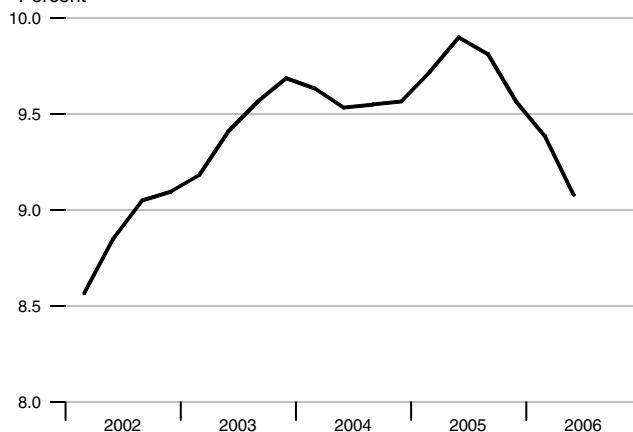
Consumer Price Index

Percent change from year ago



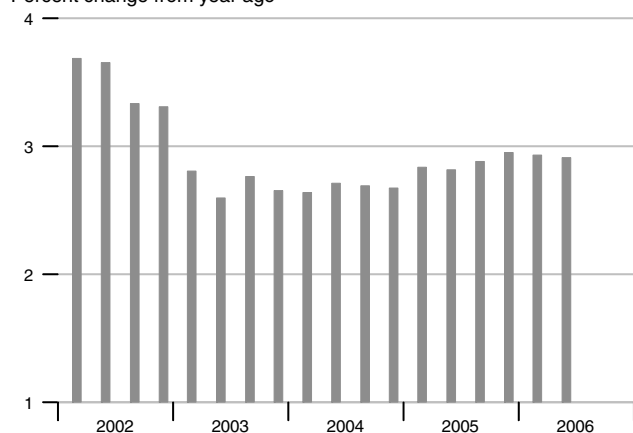
Unemployment Rate

Percent



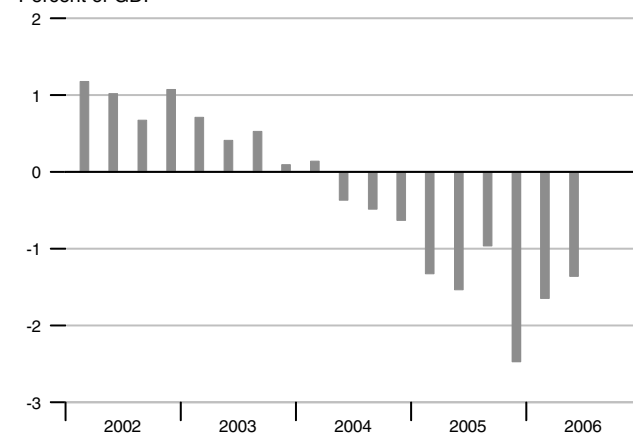
Real Hourly Earnings

Percent change from year ago



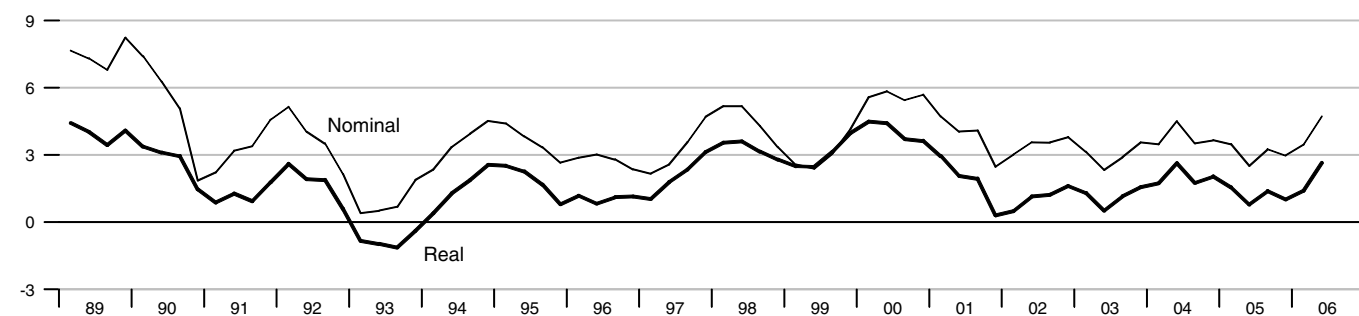
Current Account Balance

Percent of GDP

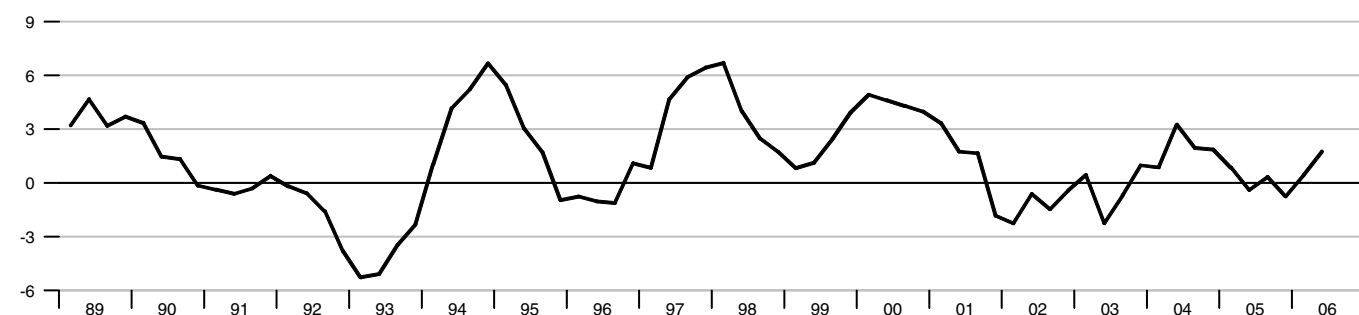


GDP

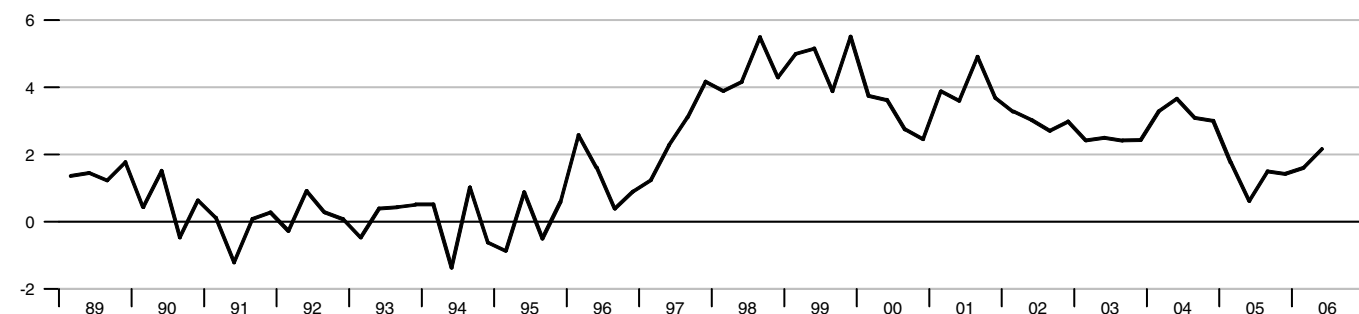
Percent change from year ago

**Industrial Production**

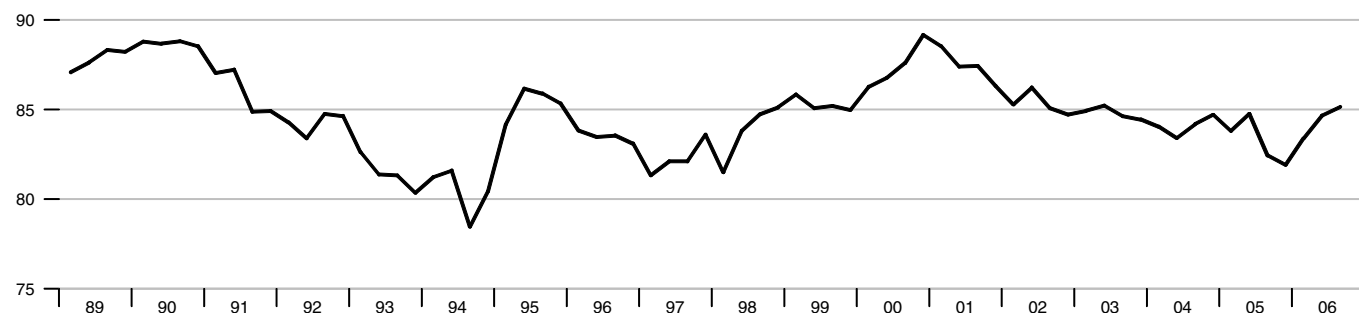
Percent change from year ago

**Retail Sales**

Percent change from year ago

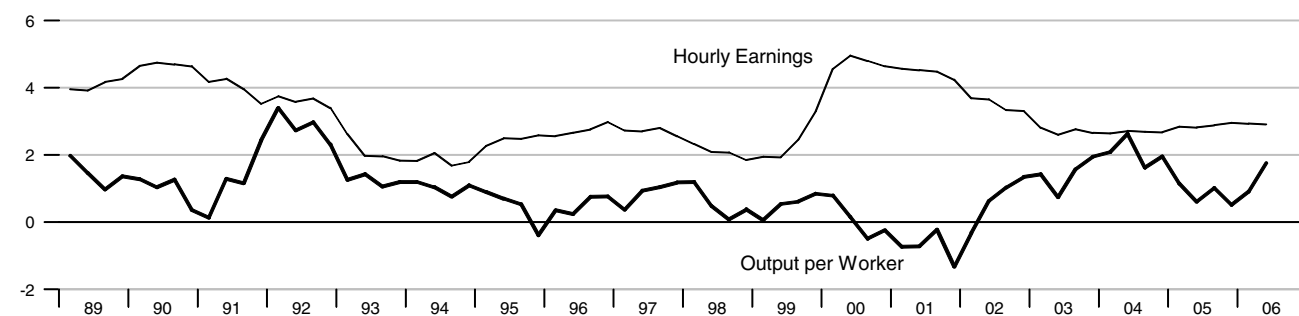
**Capacity Utilization**

Percent



Real Hourly Earnings and Output per Worker

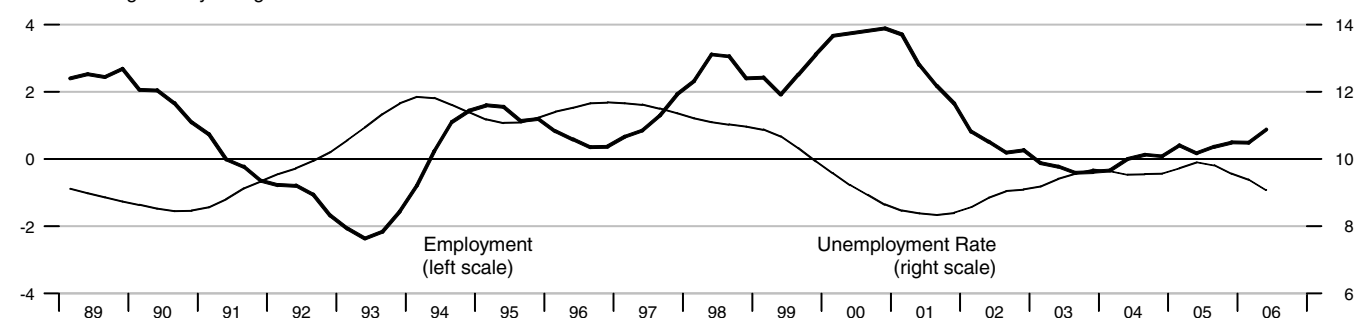
Percent change from year ago



Labor Force Indicators

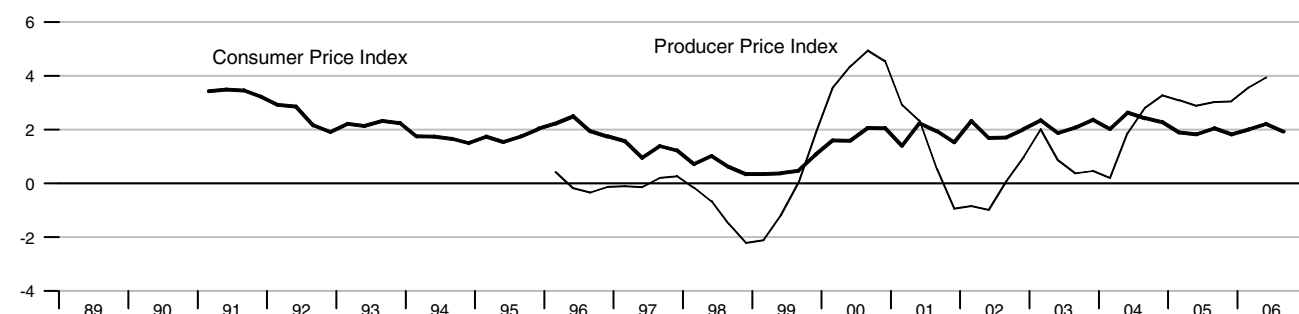
Percent change from year ago

Percent



Inflation

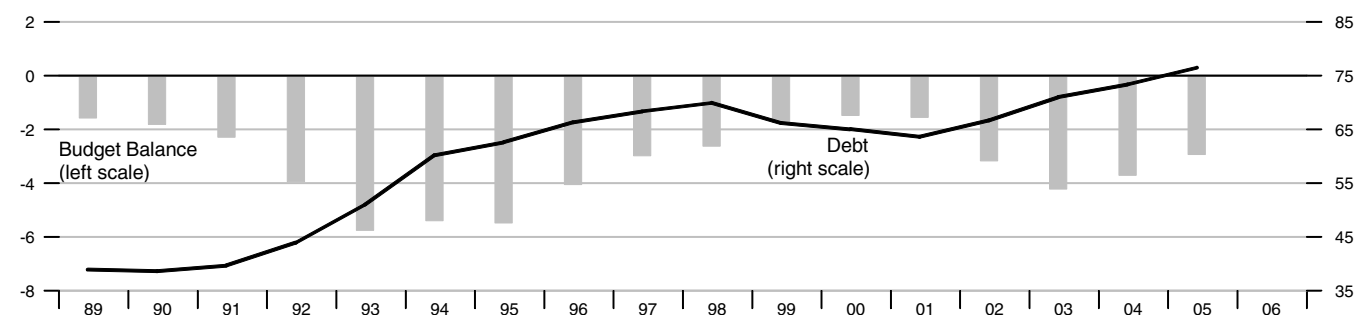
Percent change from year ago



Government Debt and Budget Balance

Percent of GDP, annual data

Percent of GDP, annual data

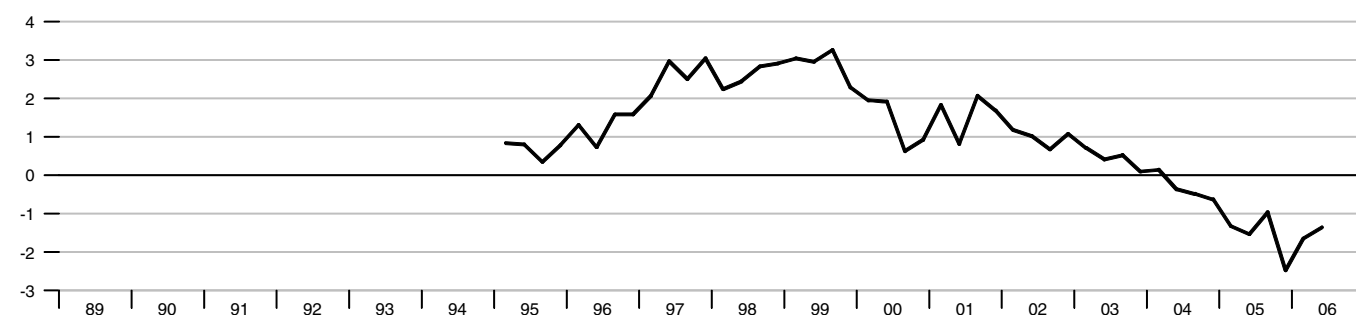


International Trade - Goods and Services

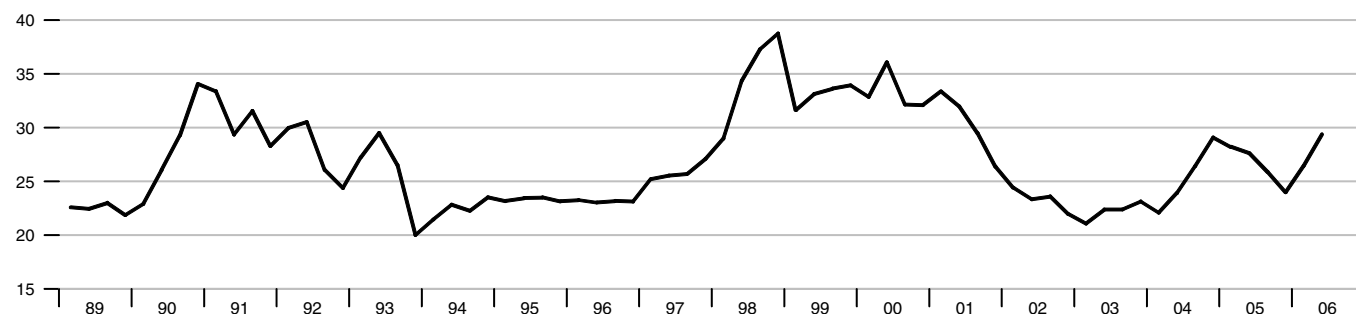
Percent of GDP

**Current Account Balance**

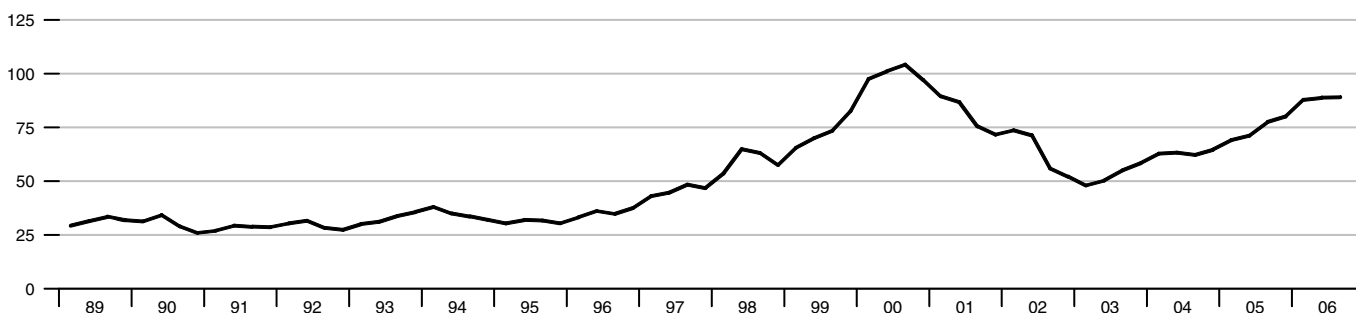
Percent of GDP

**Foreign Exchange Reserves**

Billions of US\$

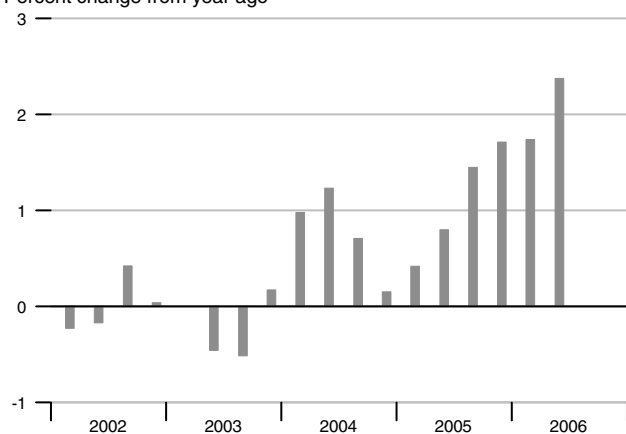
**Stock Exchange Index - SBF 250**

2000 = 100



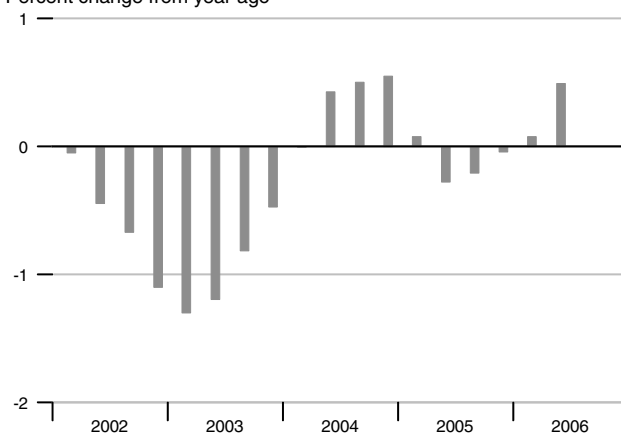
Real GDP

Percent change from year ago



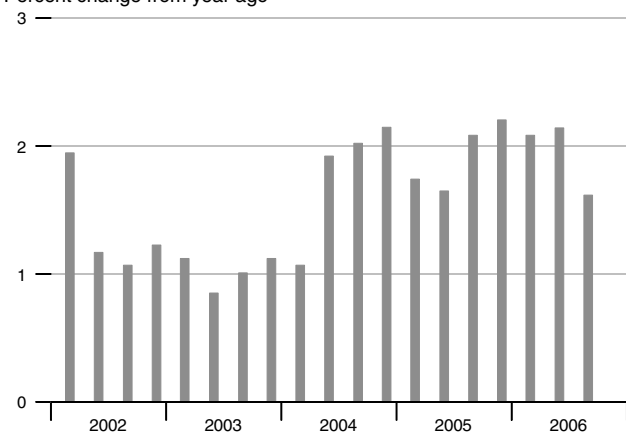
Employment

Percent change from year ago



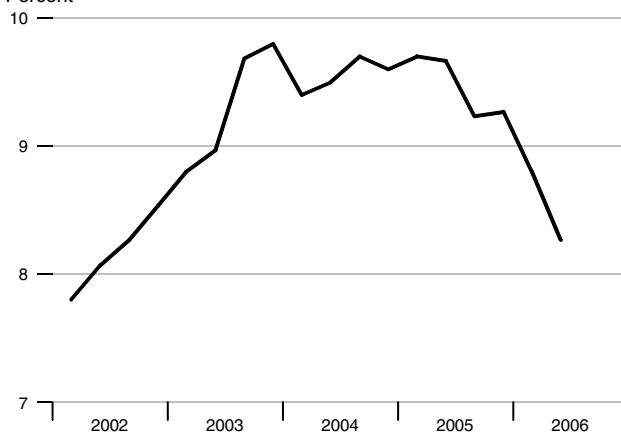
Consumer Price Index

Percent change from year ago



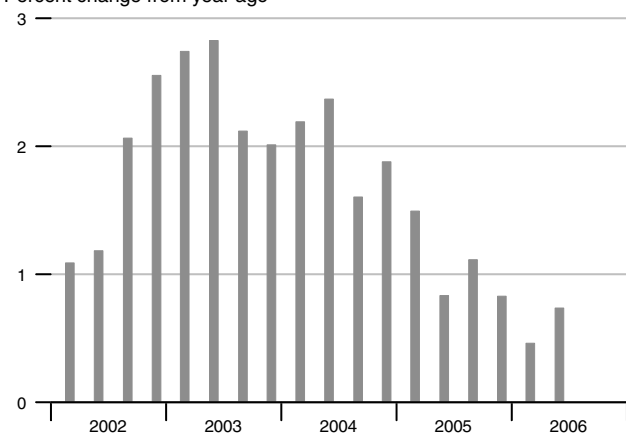
Unemployment Rate

Percent



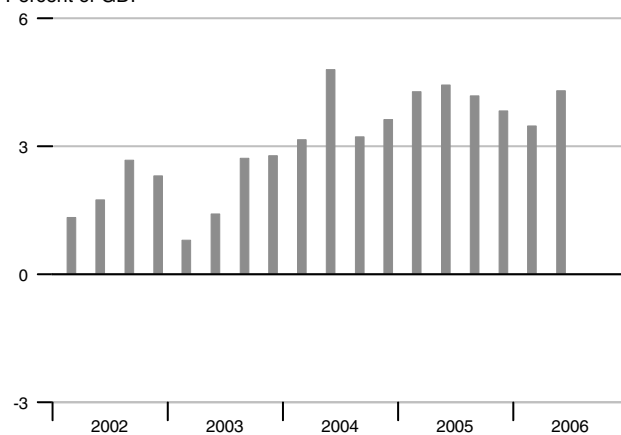
Real Hourly Earnings

Percent change from year ago



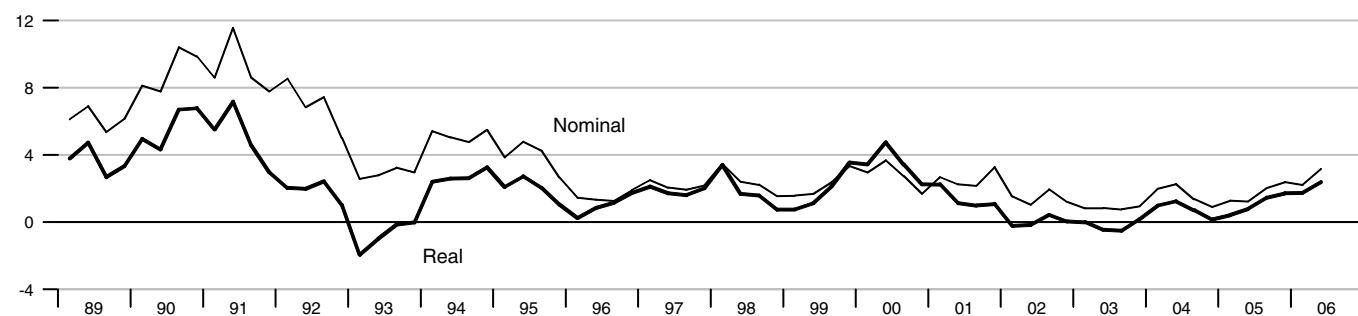
Current Account Balance

Percent of GDP



GDP

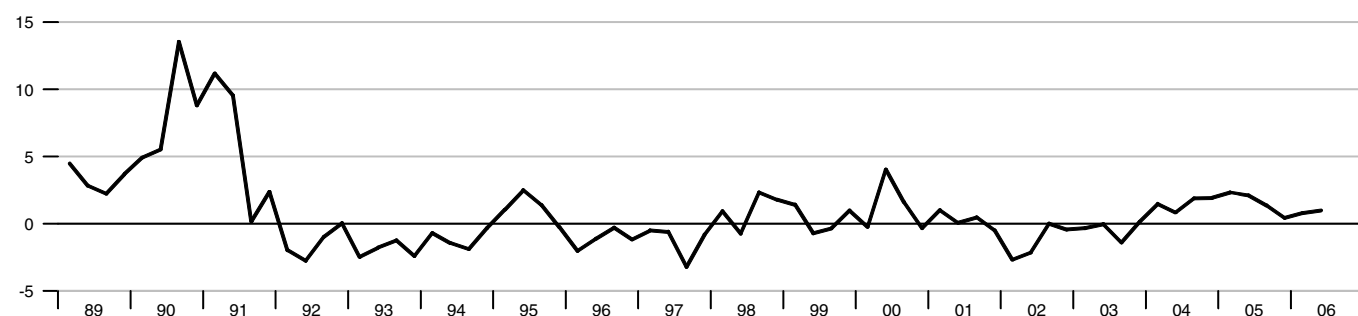
Percent change from year ago

**Industrial Production**

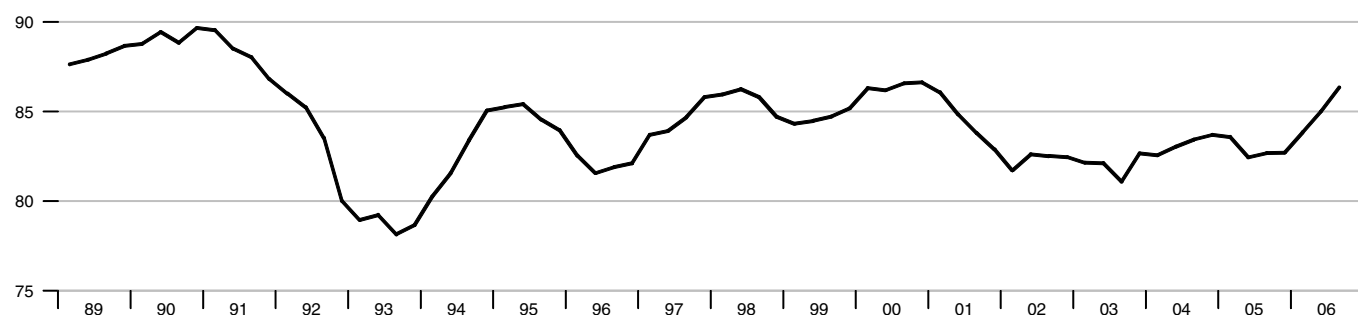
Percent change from year ago

**Retail Sales**

Percent change from year ago

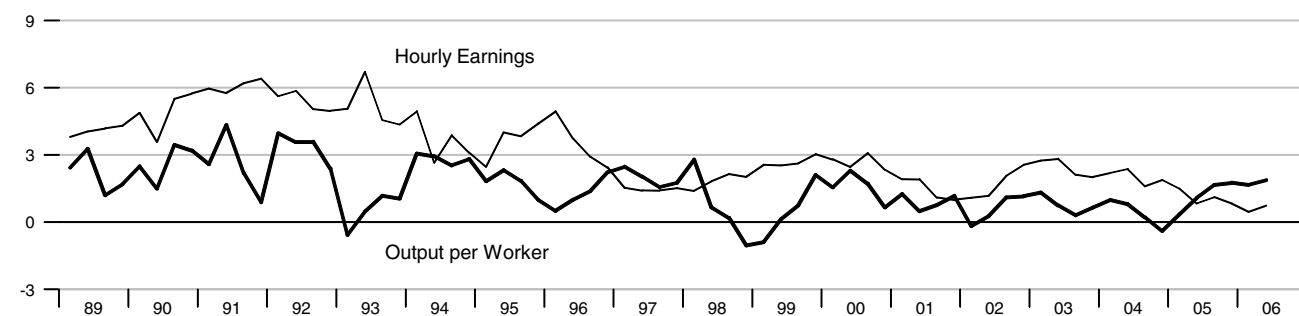
**Capacity Utilization**

Percent



Real Hourly Earnings and Output per Worker

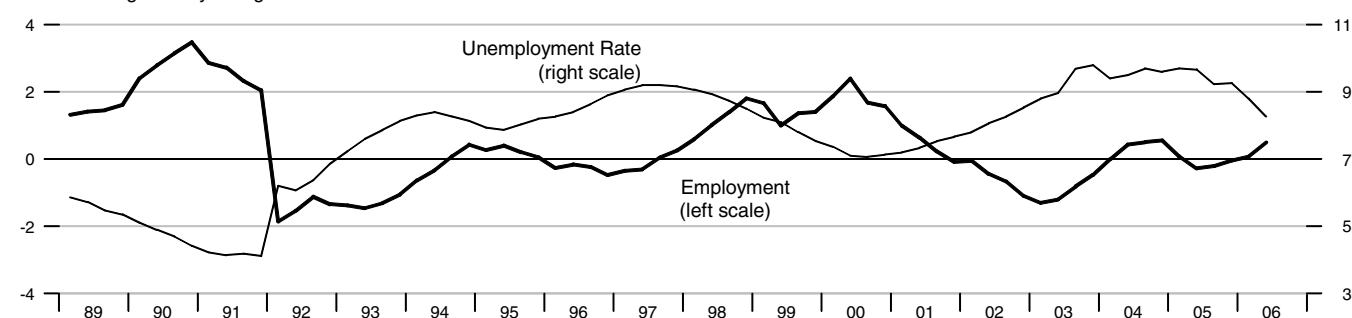
Percent change from year ago



Labor Force Indicators

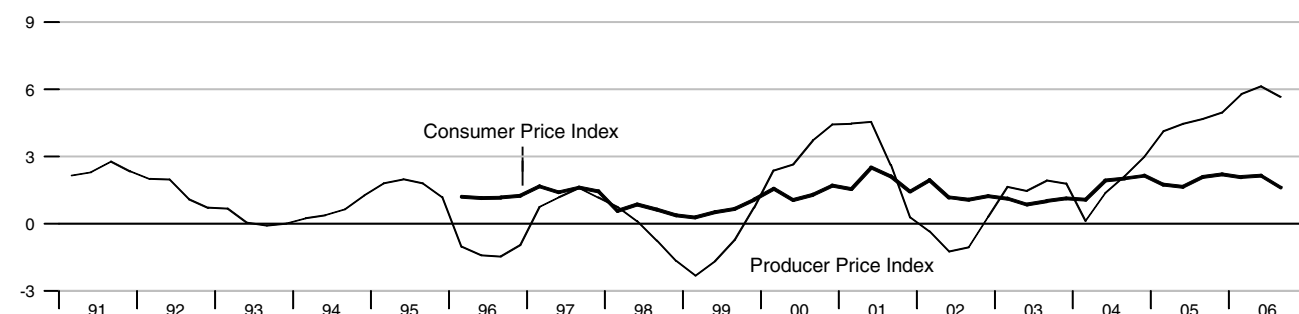
Percent change from year ago

Percent



Inflation

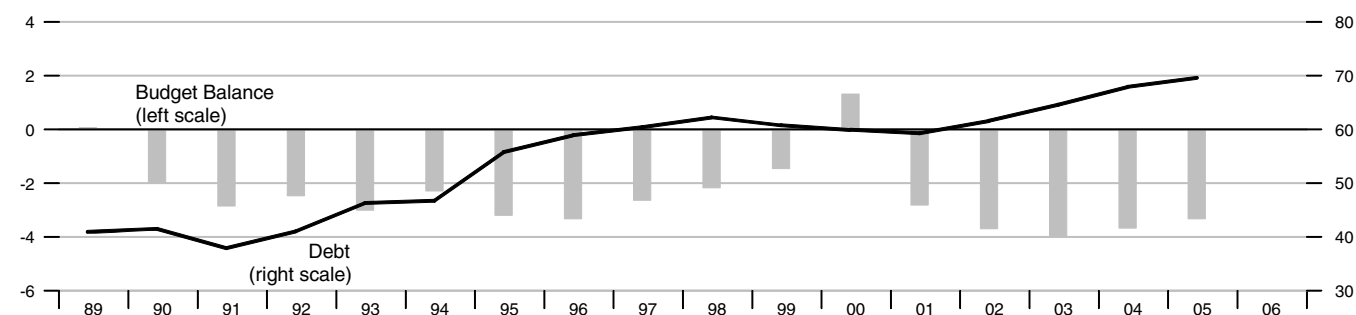
Percent change from year ago



Government Debt and Budget Balance

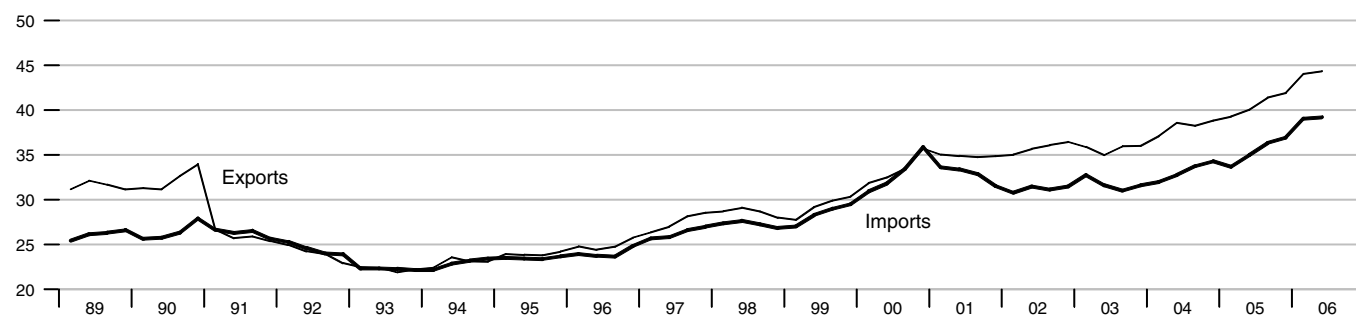
Percent of GDP, annual data

Percent of GDP, annual data

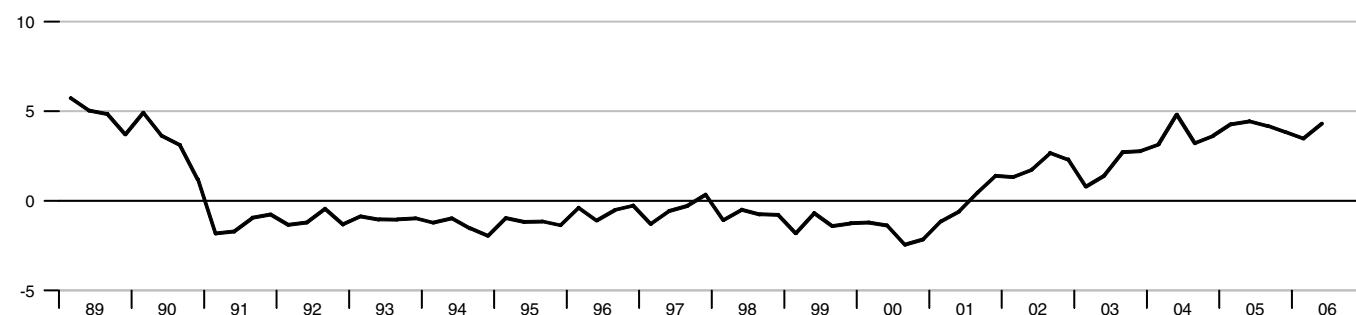


International Trade - Goods and Services

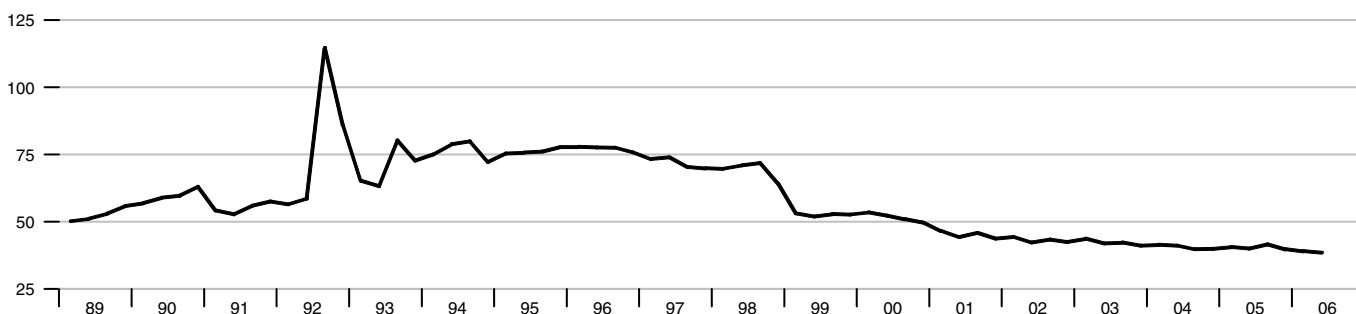
Percent of GDP

**Current Account Balance**

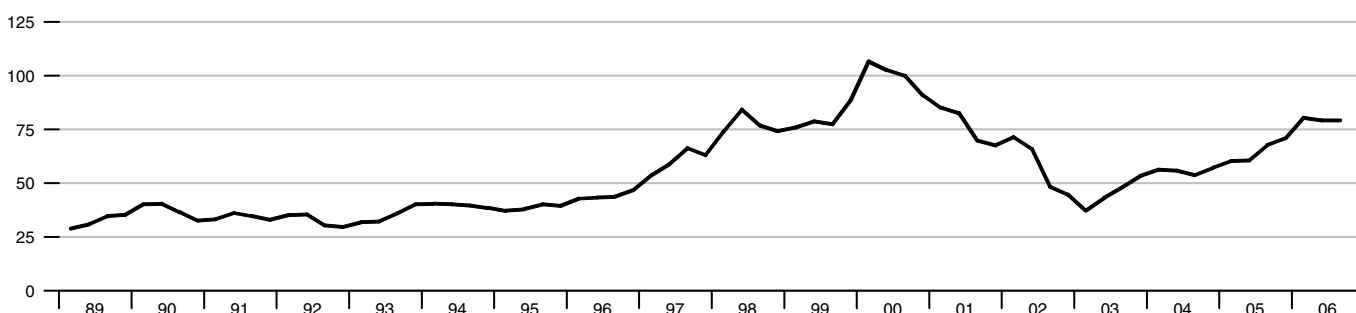
Percent of GDP

**Foreign Exchange Reserves**

Billions of US\$

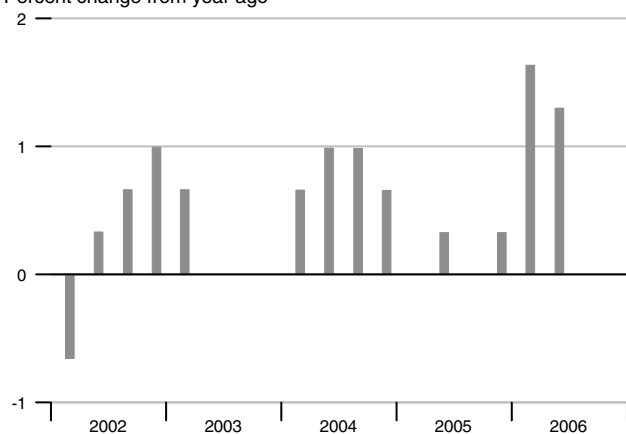
**Stock Exchange Index - CDAX**

2000 = 100



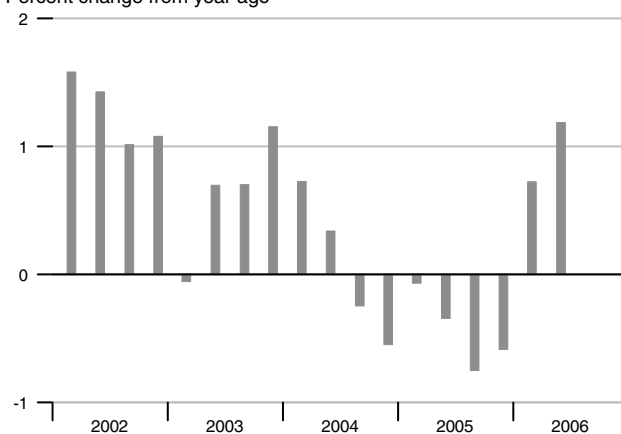
Real GDP

Percent change from year ago



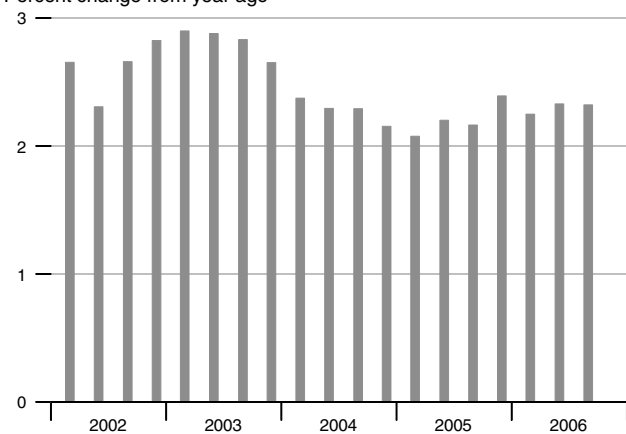
Employment

Percent change from year ago



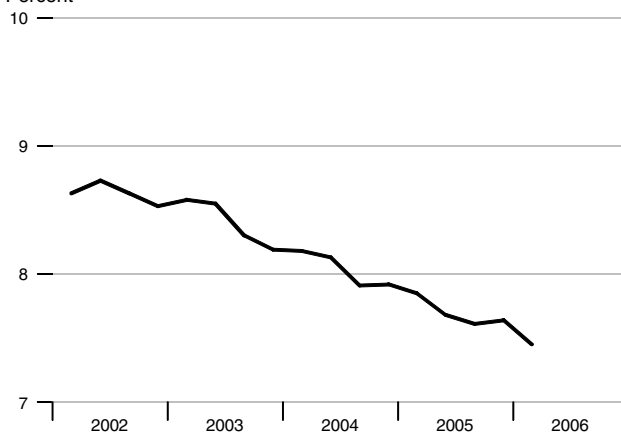
Consumer Price Index

Percent change from year ago



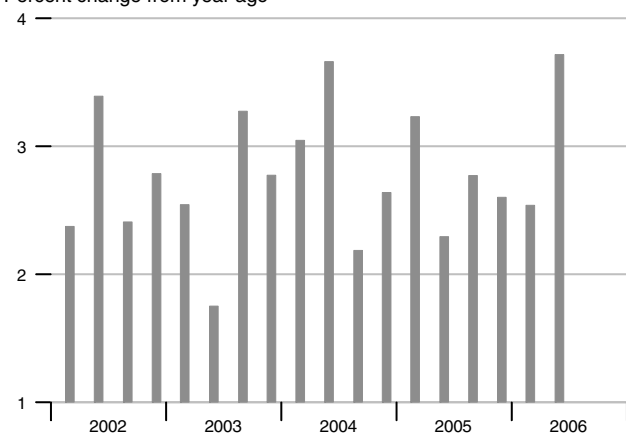
Unemployment Rate

Percent



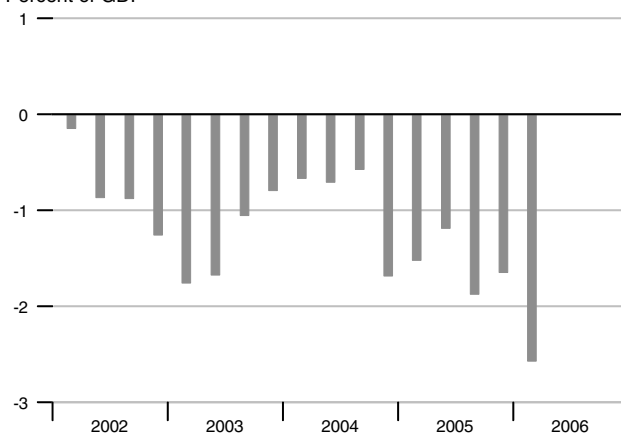
Real Hourly Earnings

Percent change from year ago



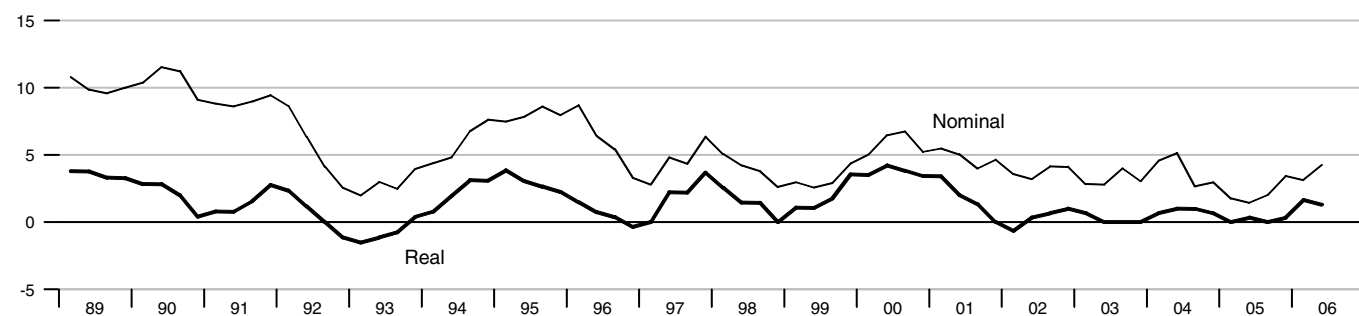
Current Account Balance

Percent of GDP

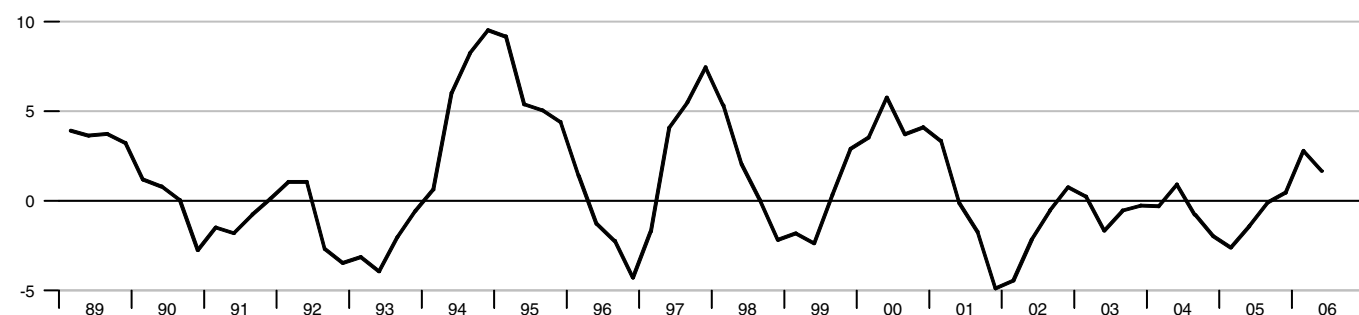


GDP

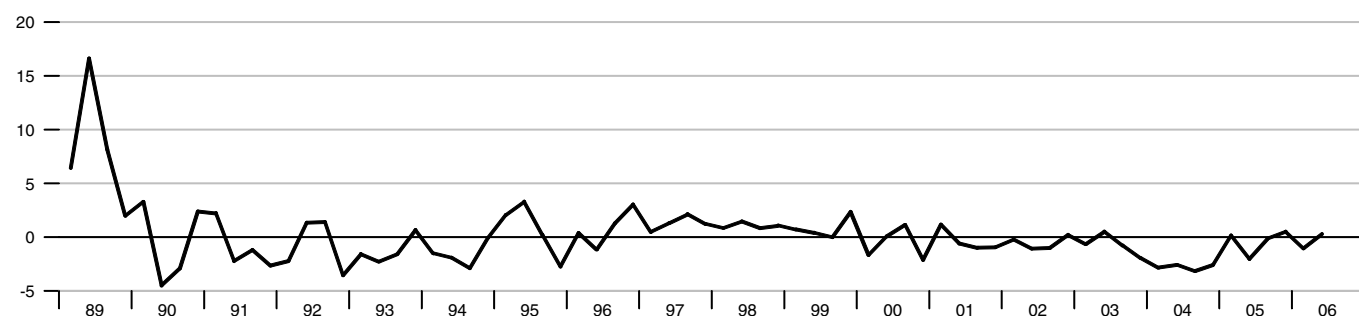
Percent change from year ago

**Industrial Production**

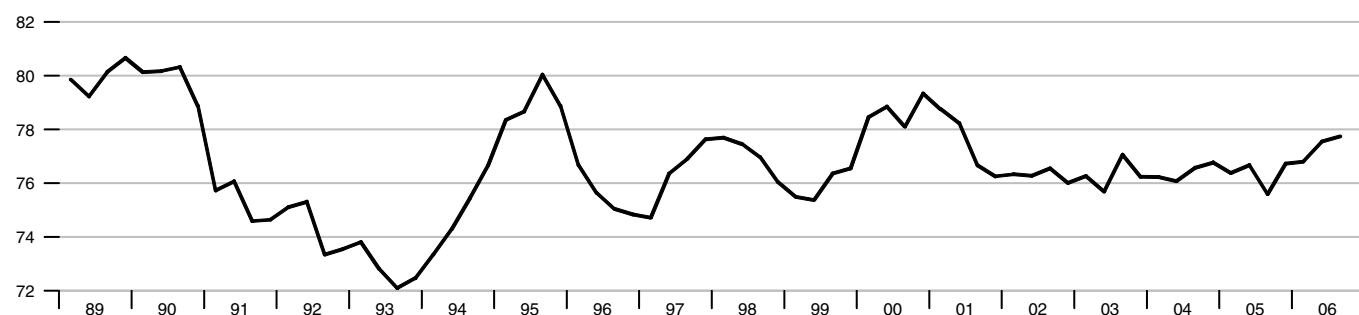
Percent change from year ago

**Retail Sales**

Percent change from year ago

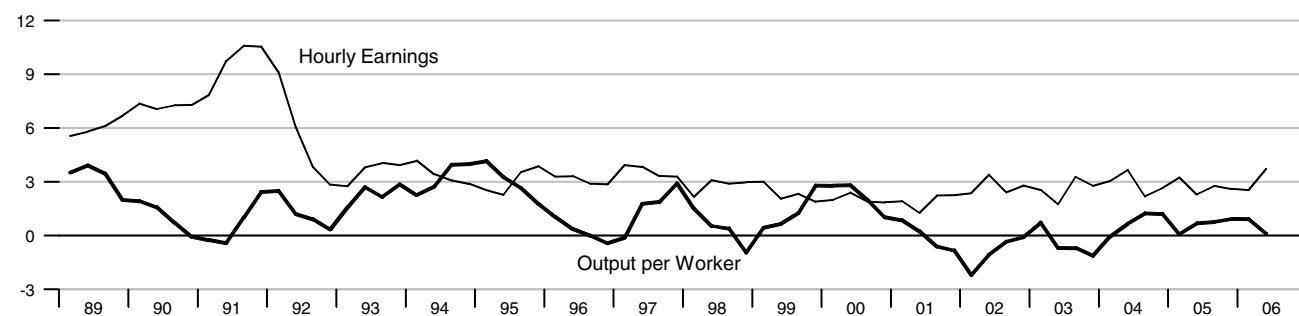
**Capacity Utilization**

Percent



Real Hourly Earnings and Output per Worker

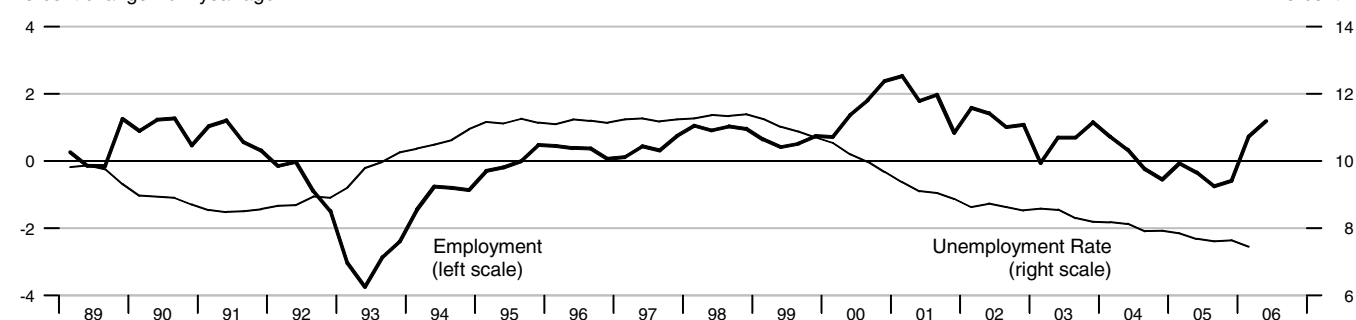
Percent change from year ago



Labor Force Indicators

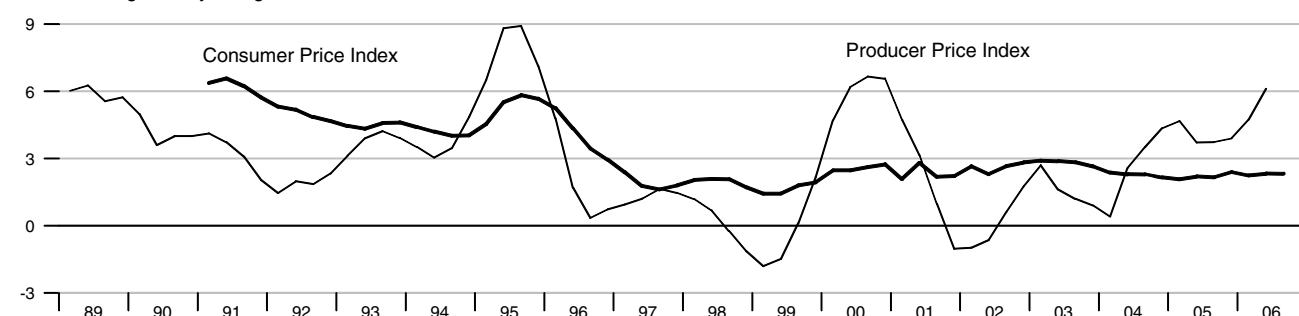
Percent change from year ago

Percent



Inflation

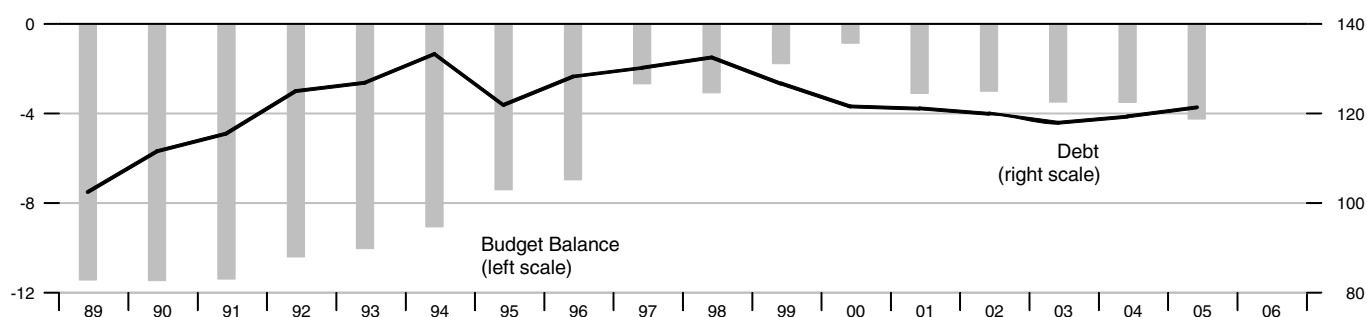
Percent change from year ago



Government Debt and Budget Balance

Percent of GDP, annual data

Percent of GDP, annual data



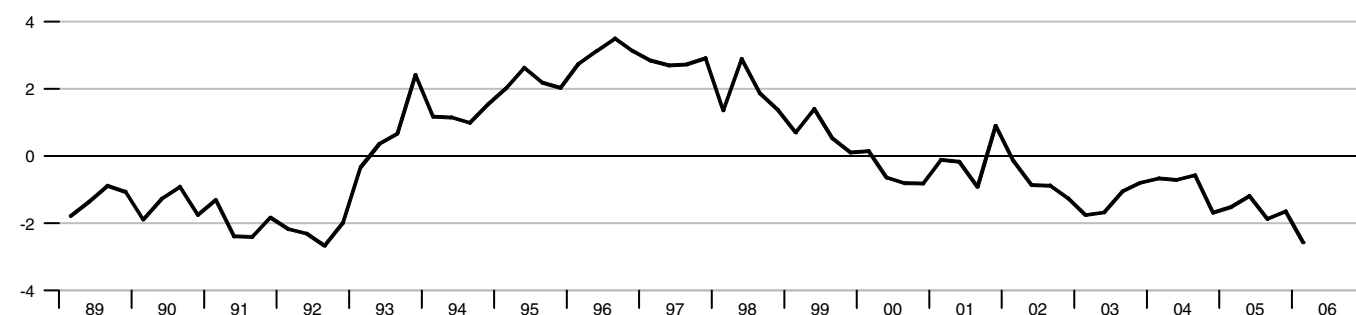
International Trade - Goods and Services

Percent of GDP



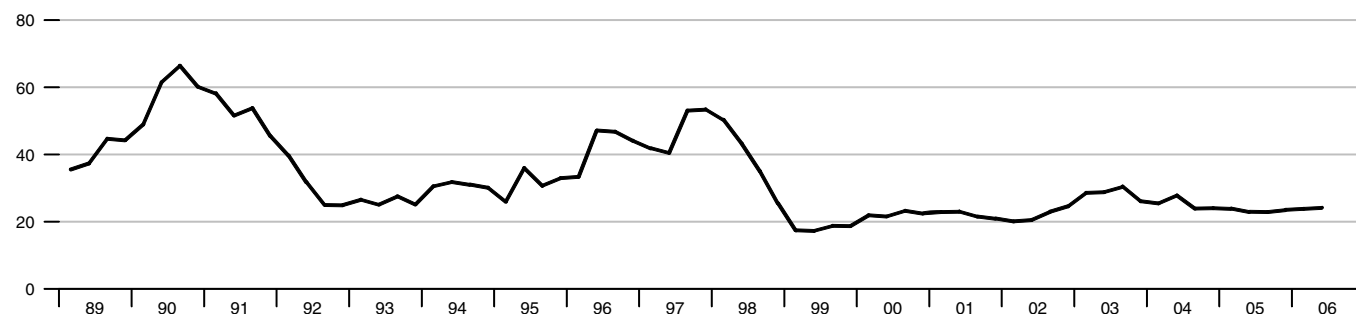
Current Account Balance

Percent of GDP



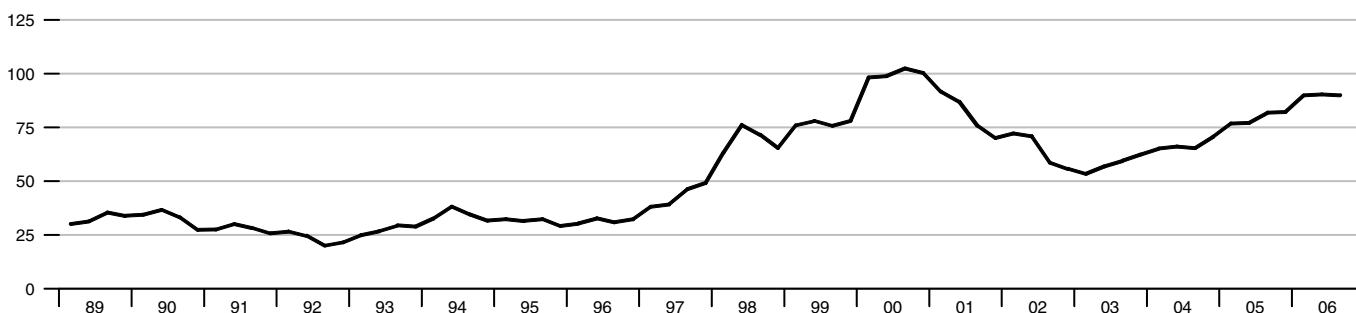
Foreign Exchange Reserves

Billions of US\$



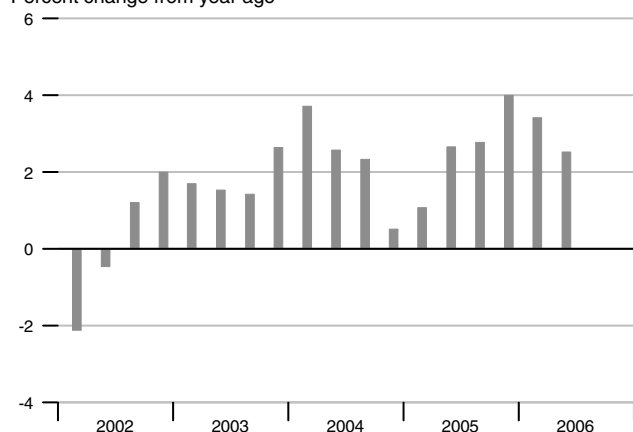
Stock Exchange Index - Milan Stock Exchange

2000 = 100



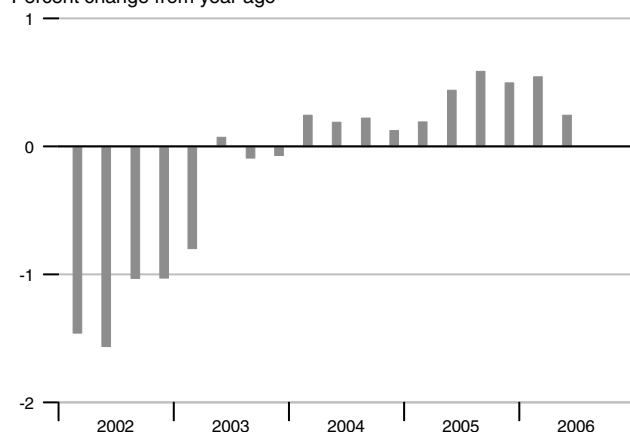
Real GDP

Percent change from year ago



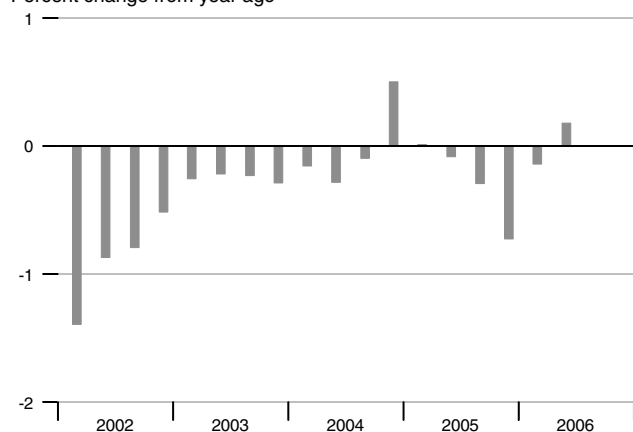
Employment

Percent change from year ago



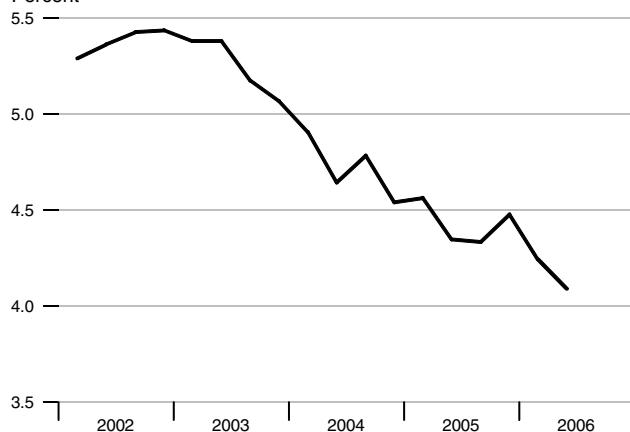
Consumer Price Index

Percent change from year ago



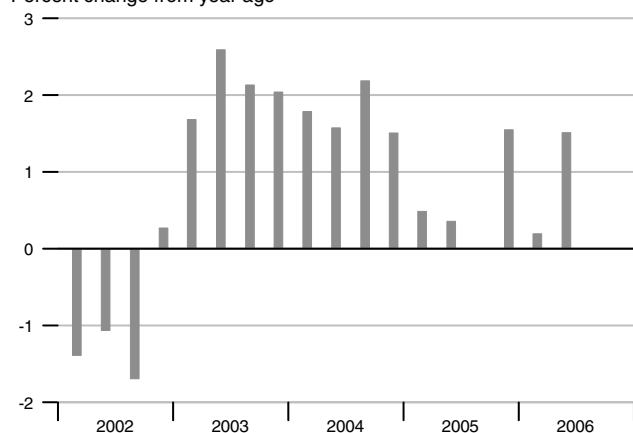
Unemployment Rate

Percent



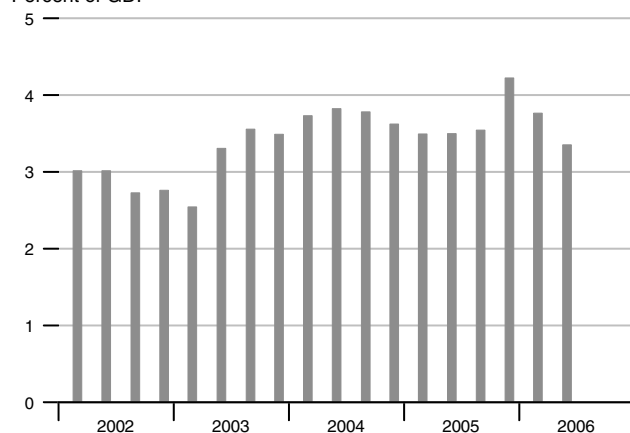
Real Monthly Earnings

Percent change from year ago



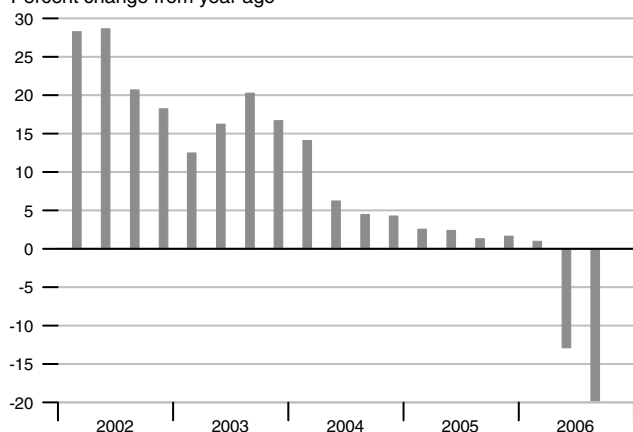
Current Account Balance

Percent of GDP



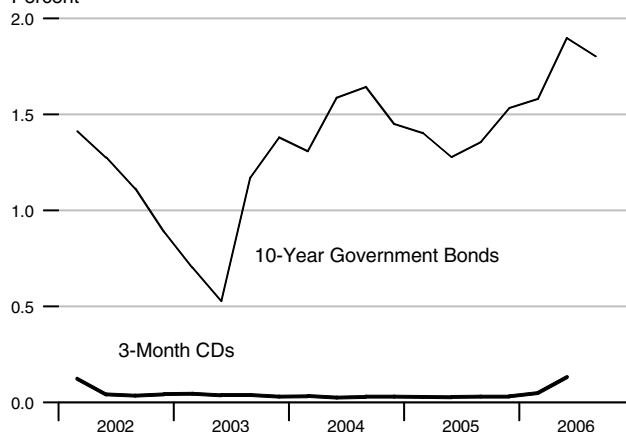
Adjusted Monetary Base

Percent change from year ago



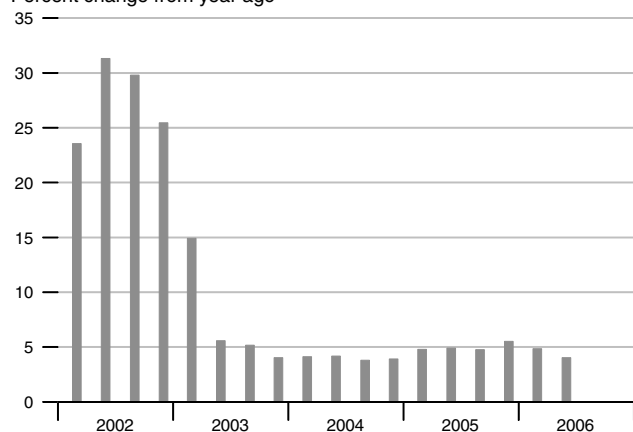
Interest Rates

Percent



M1

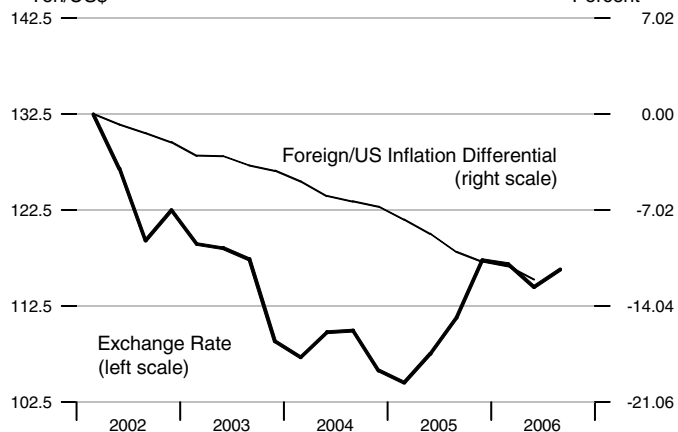
Percent change from year ago



Exchange Rate and Inflation Differential

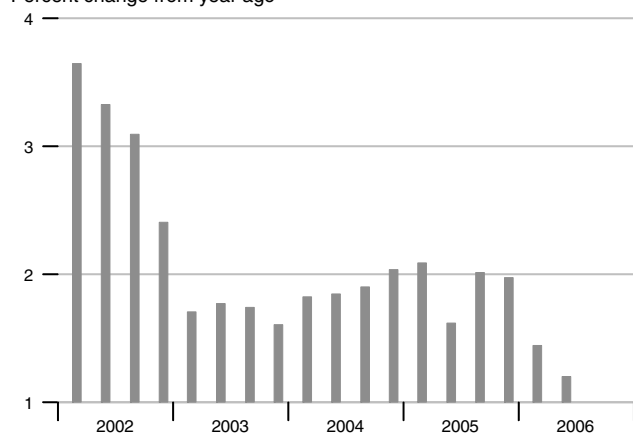
Yen/US\$

Percent



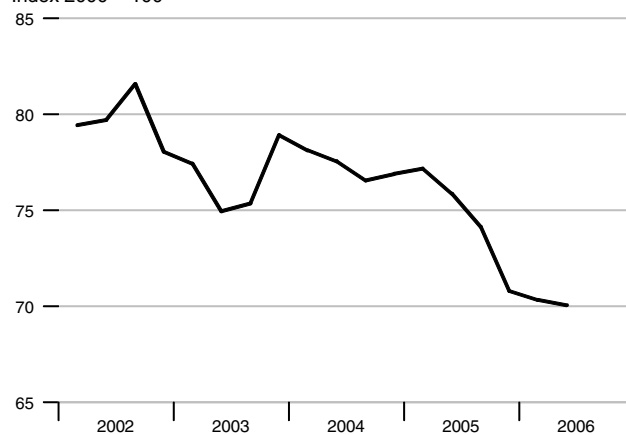
M2

Percent change from year ago



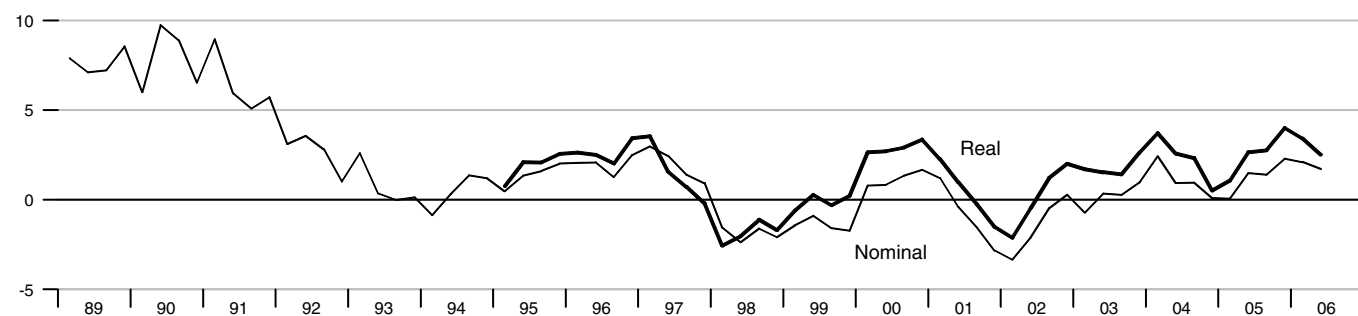
Real Effective Exchange Rate

Index 2000 = 100

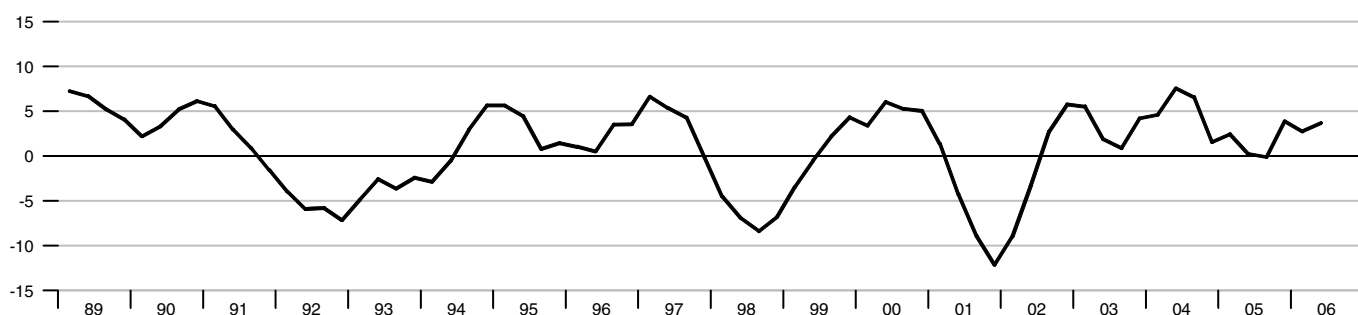


GDP

Percent change from year ago

**Industrial Production**

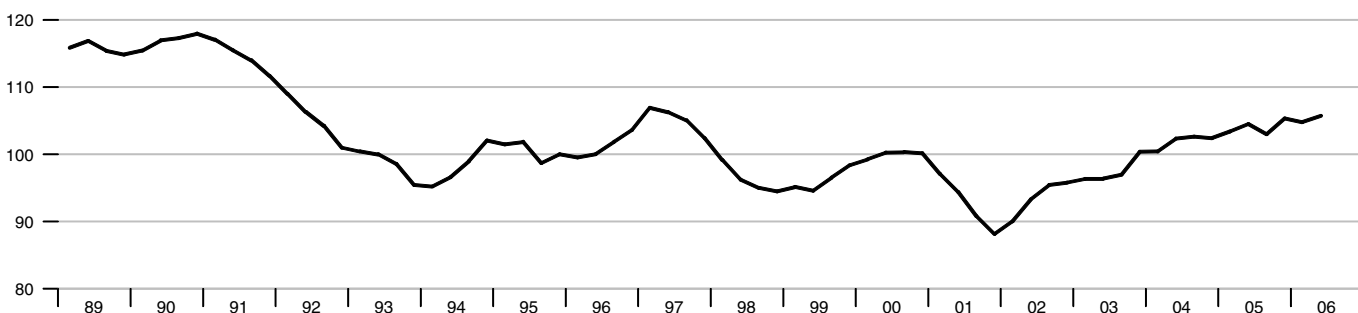
Percent change from year ago

**Retail Sales**

Percent change from year ago

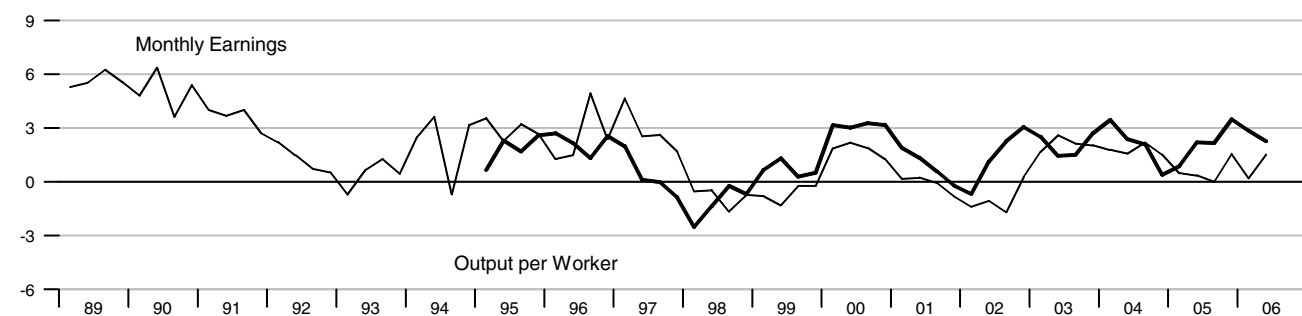
**Capacity Utilization**

2000 = 100



Real Monthly Earnings and Output per Worker

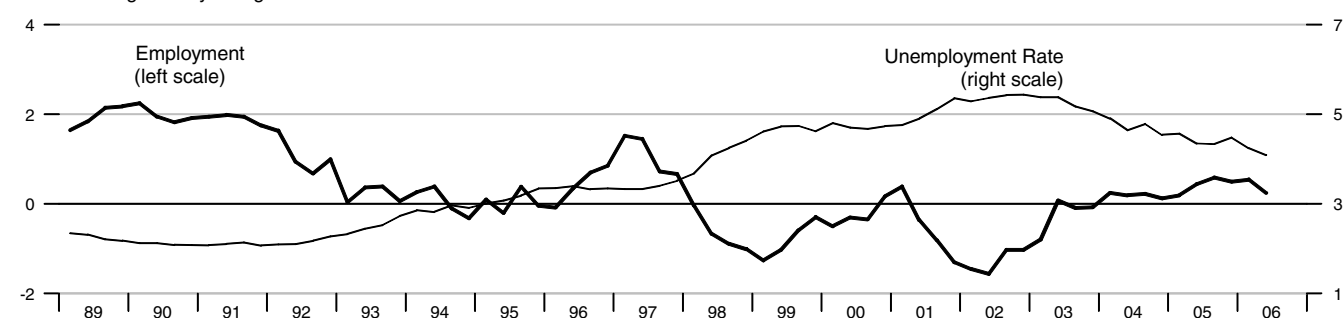
Percent change from year ago



Labor Force Indicators

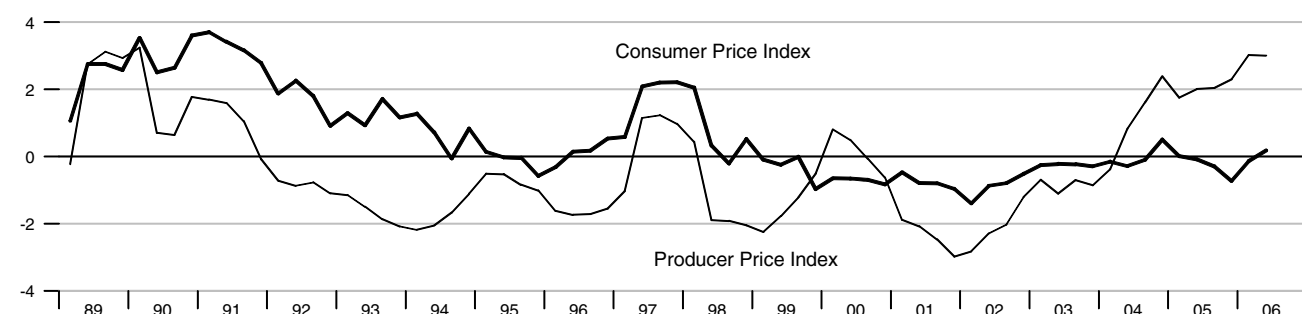
Percent change from year ago

Percent



Inflation

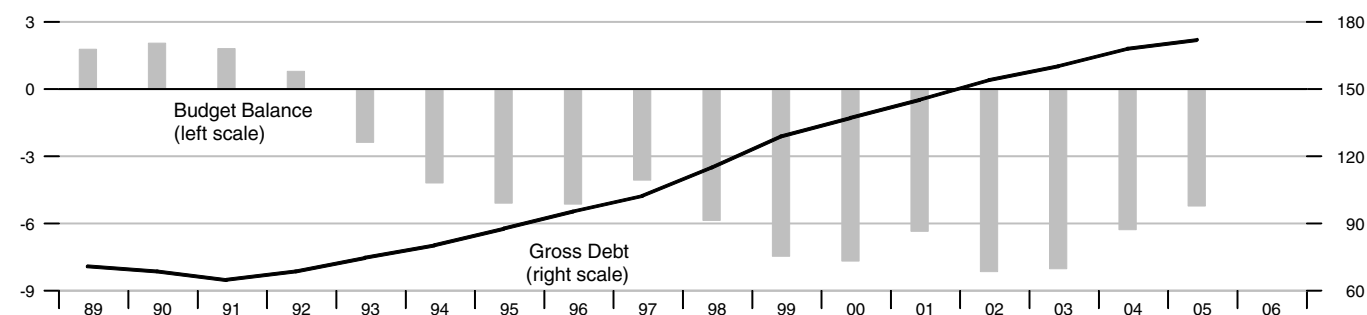
Percent change from year ago



Government Debt and Budget Balance

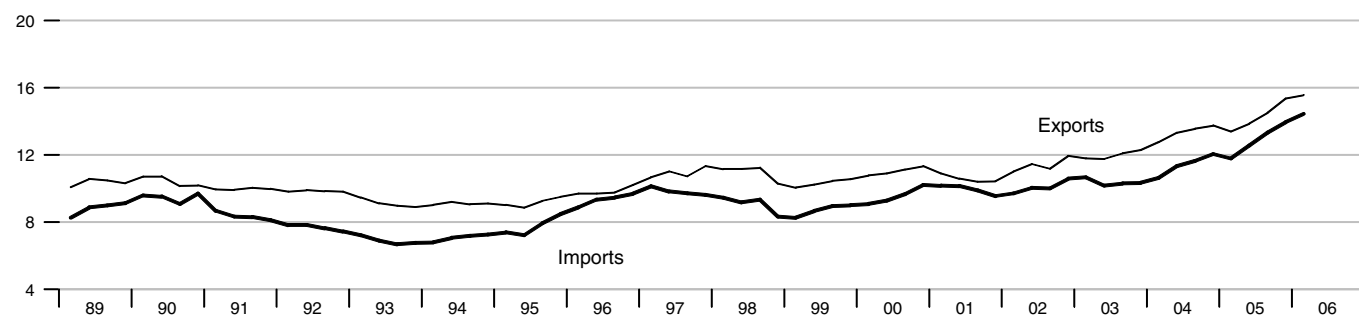
Percent of GDP, annual data

Percent of GDP, annual data



International Trade - Goods and Services

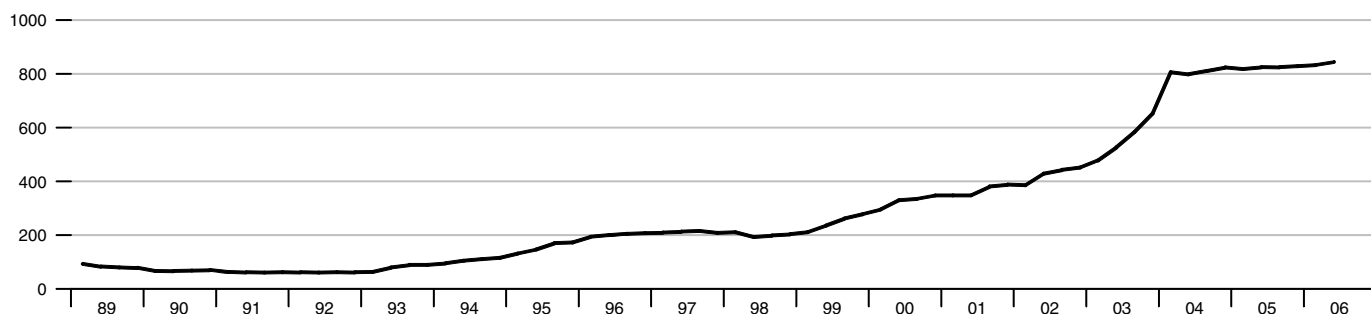
Percent of GDP

**Current Account Balance**

Percent of GDP

**Foreign Exchange Reserves**

Billions of US\$

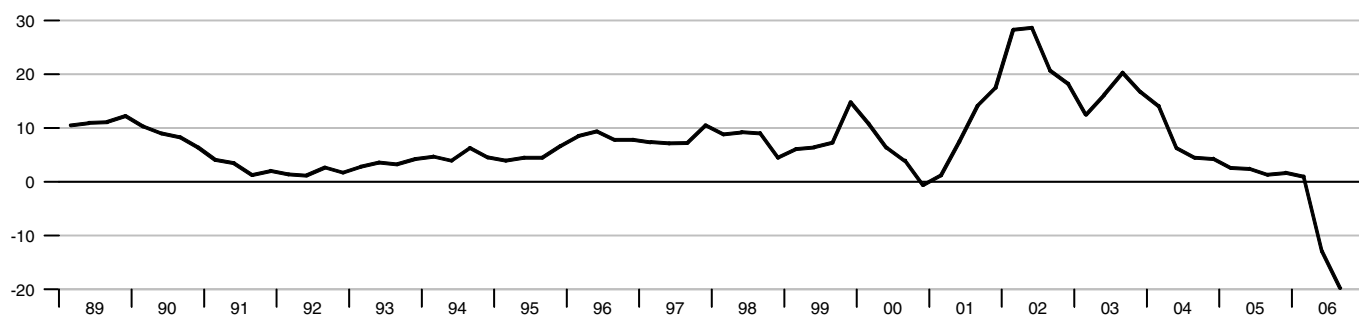
**Real Effective Exchange Rate**

Index 2000 = 100



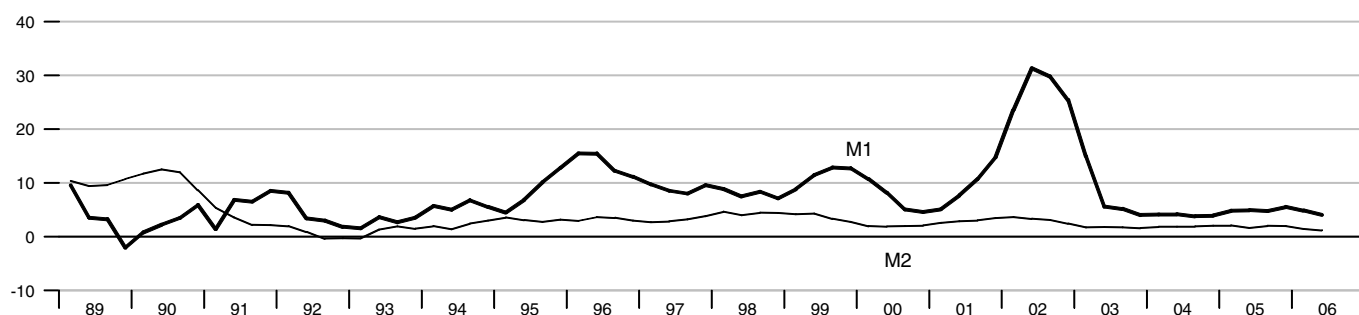
Adjusted Monetary Base

Percent change from year ago



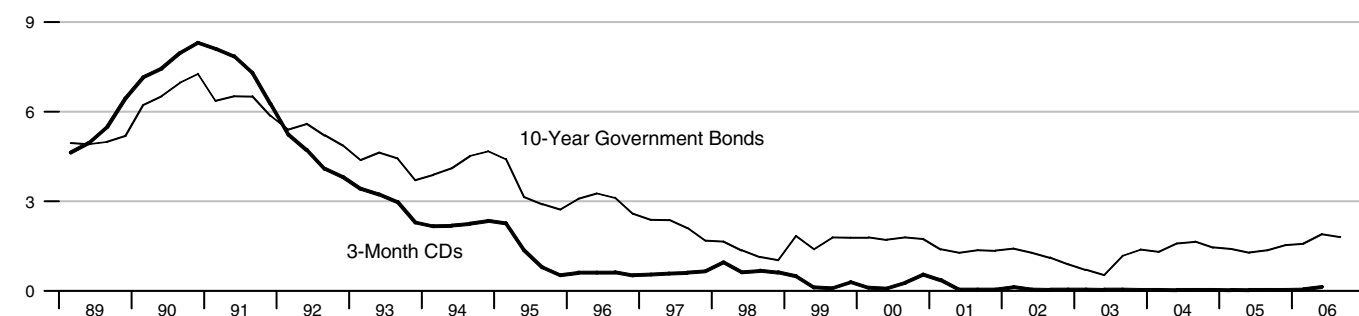
Monetary Aggregates

Percent change from year ago



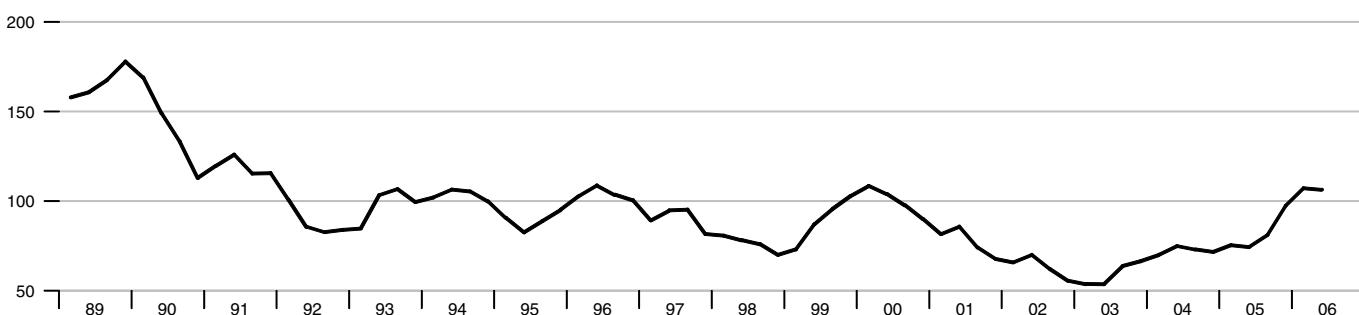
Interest Rates

Percent



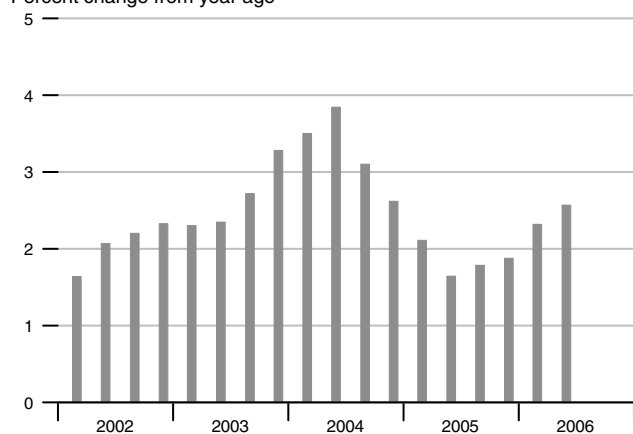
Stock Exchange Index - Tokyo Stock Exchange

2000 = 100



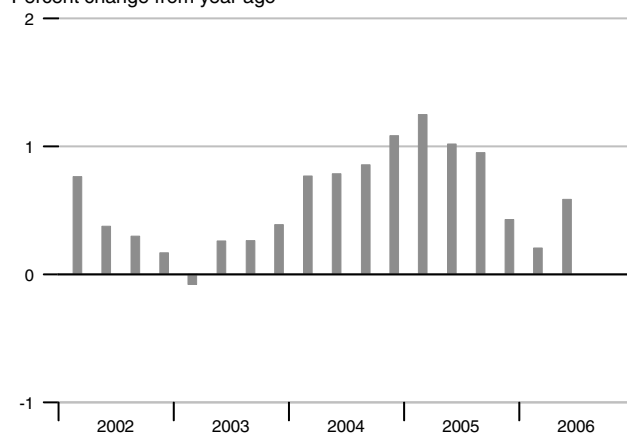
Real GDP

Percent change from year ago



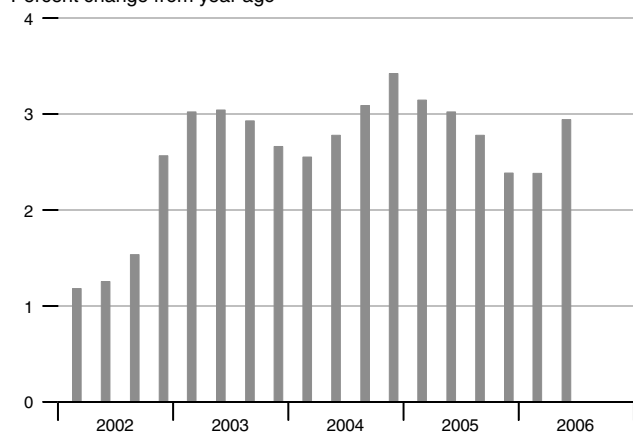
Employment

Percent change from year ago



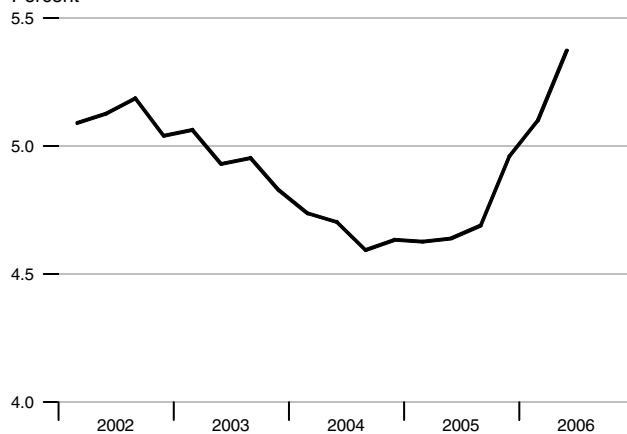
Consumer Price Index

Percent change from year ago



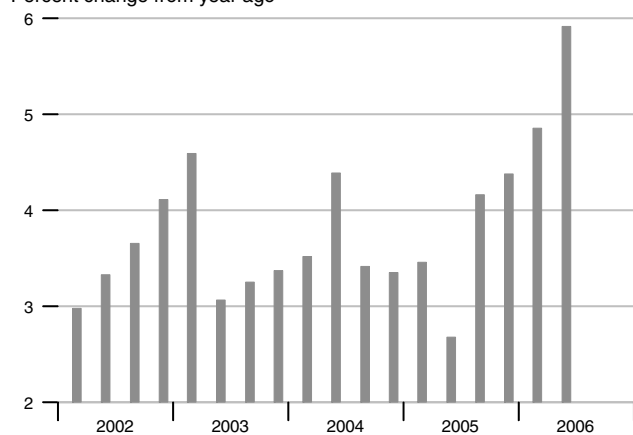
Unemployment Rate

Percent



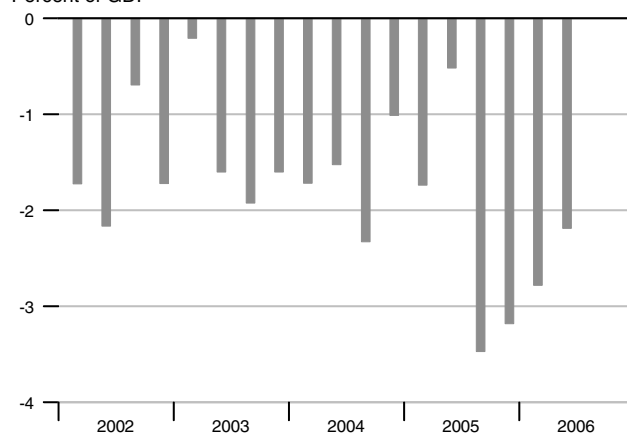
Real Weekly Earnings

Percent change from year ago



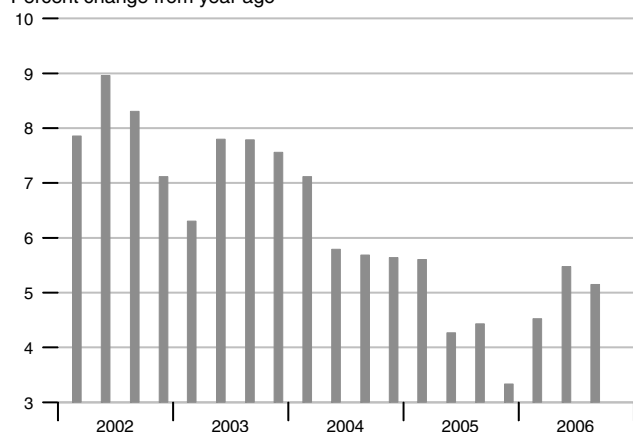
Current Account Balance

Percent of GDP



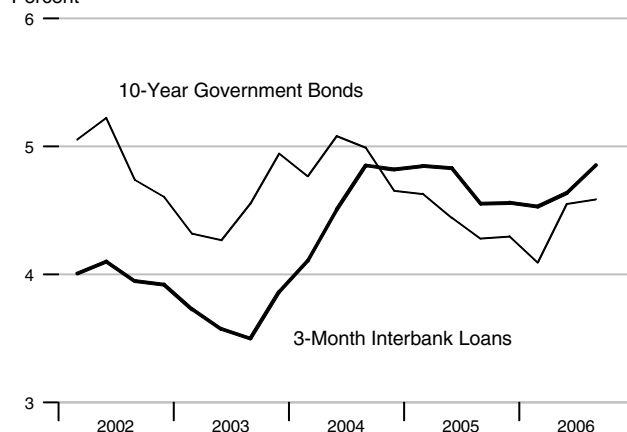
Notes and Coins in Circulation

Percent change from year ago



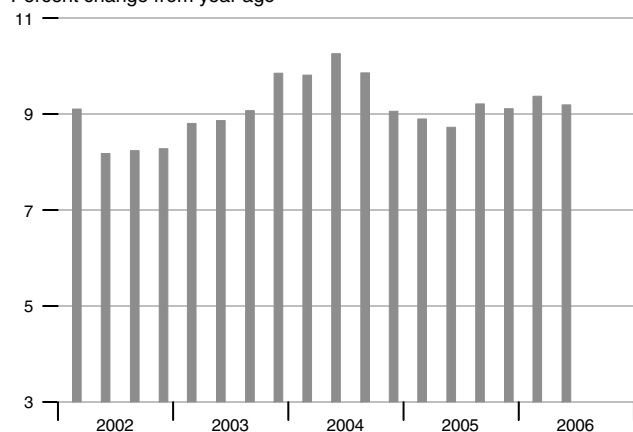
Interest Rates

Percent



M2

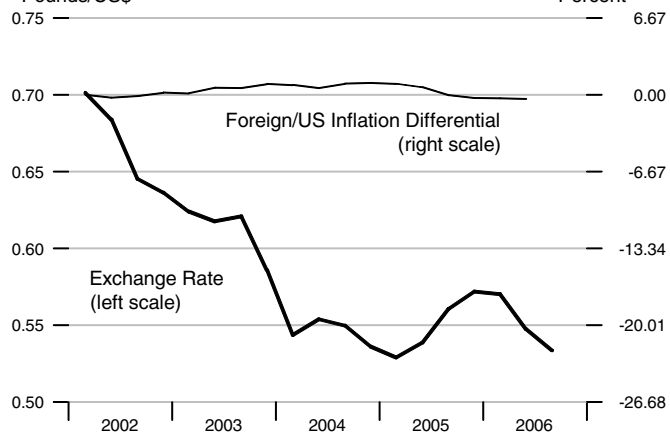
Percent change from year ago



Exchange Rate and Inflation Differential

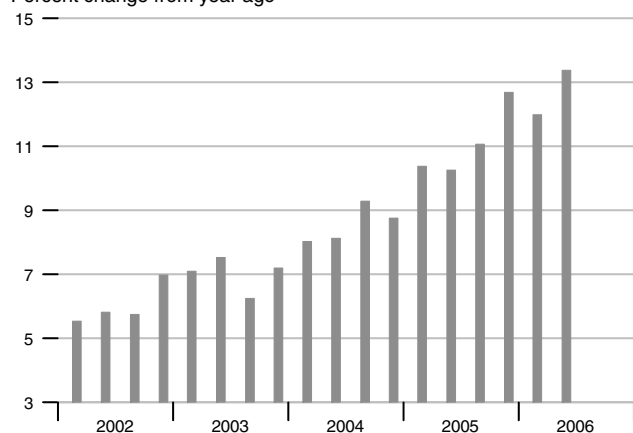
Pounds/US\$

Percent



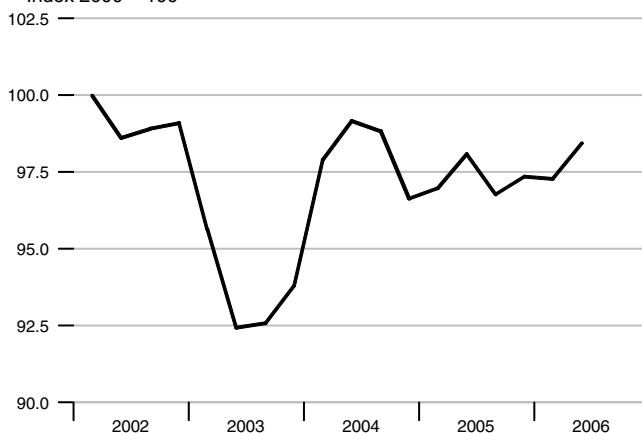
M4

Percent change from year ago



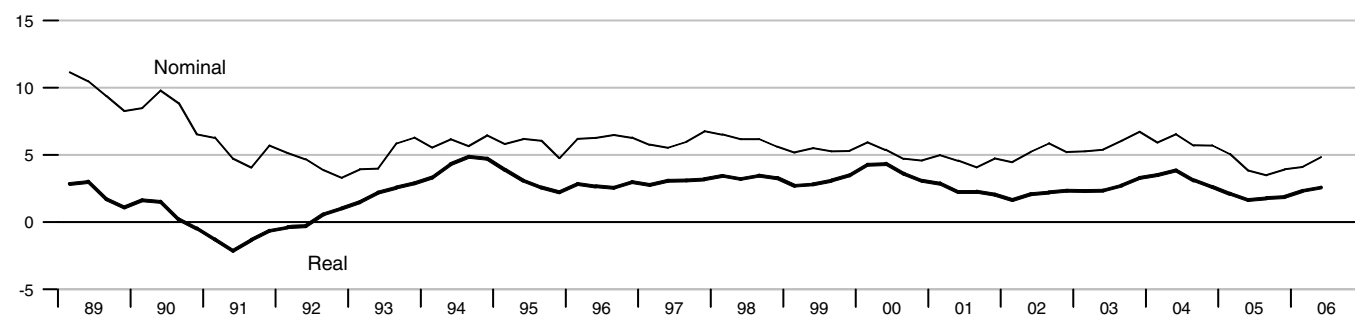
Real Effective Exchange Rate

Index 2000 = 100

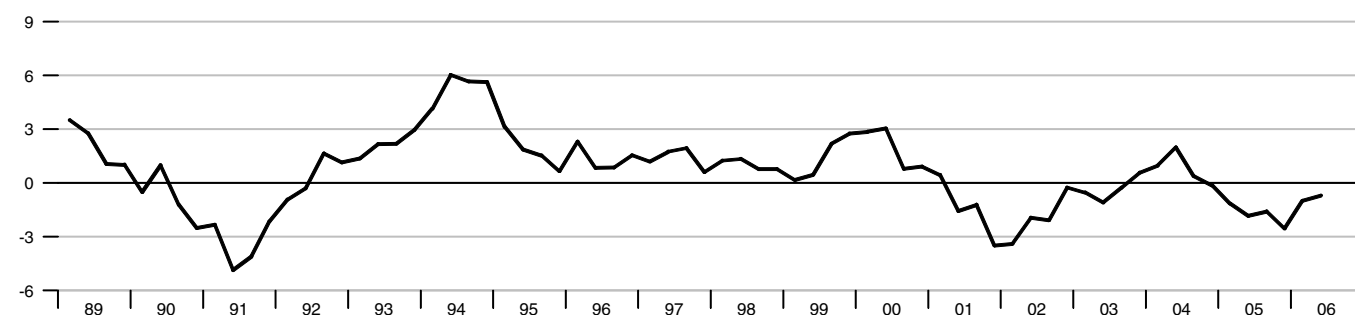


GDP

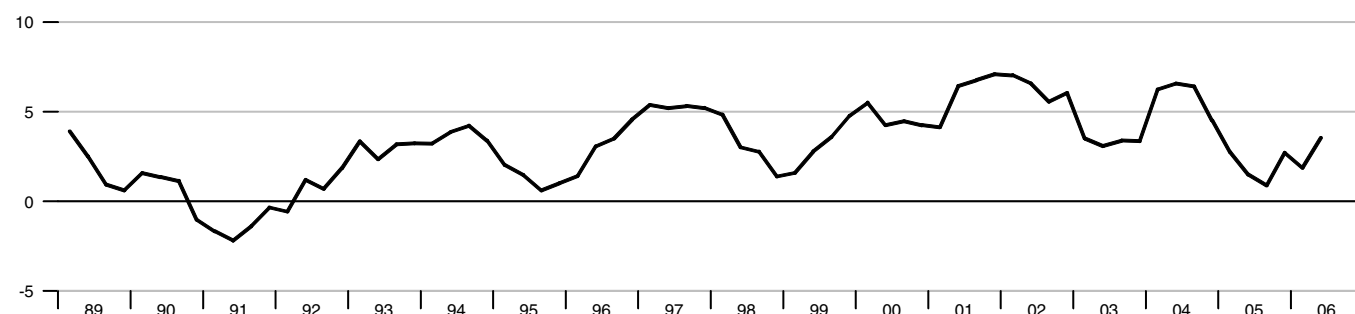
Percent change from year ago

**Industrial Production**

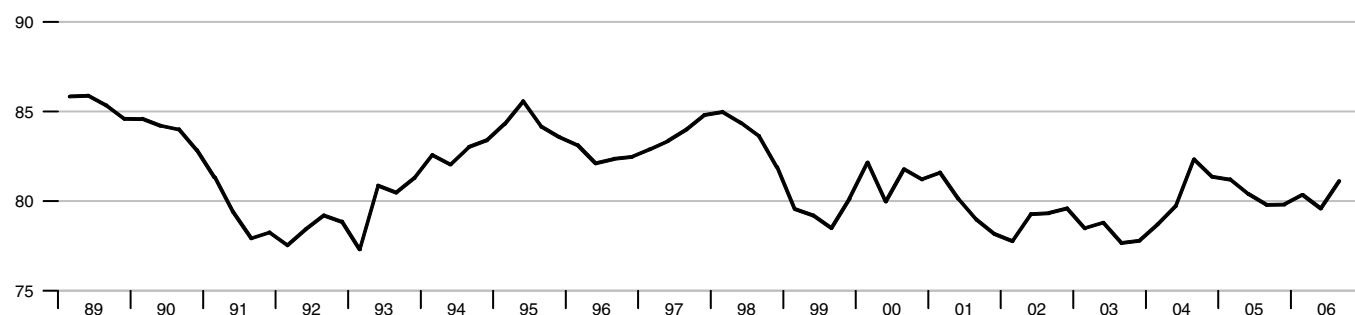
Percent change from year ago

**Retail Sales**

Percent change from year ago

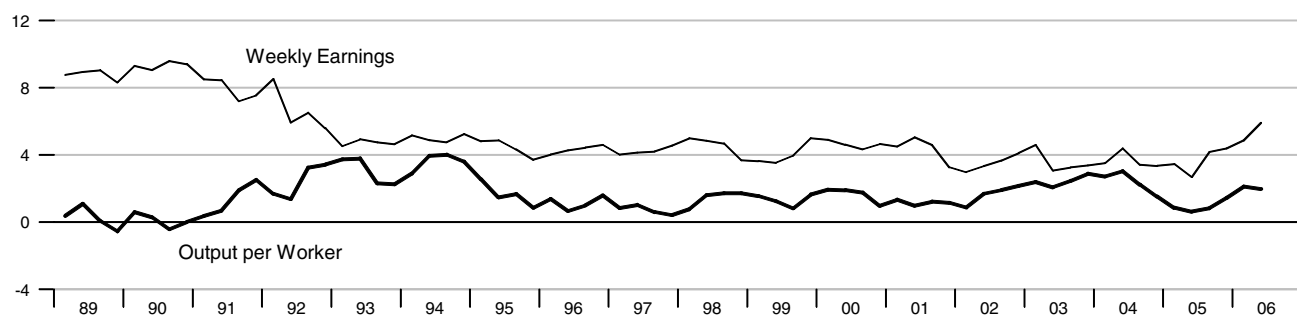
**Capacity Utilization**

Percent



Real Weekly Earnings and Output per Worker

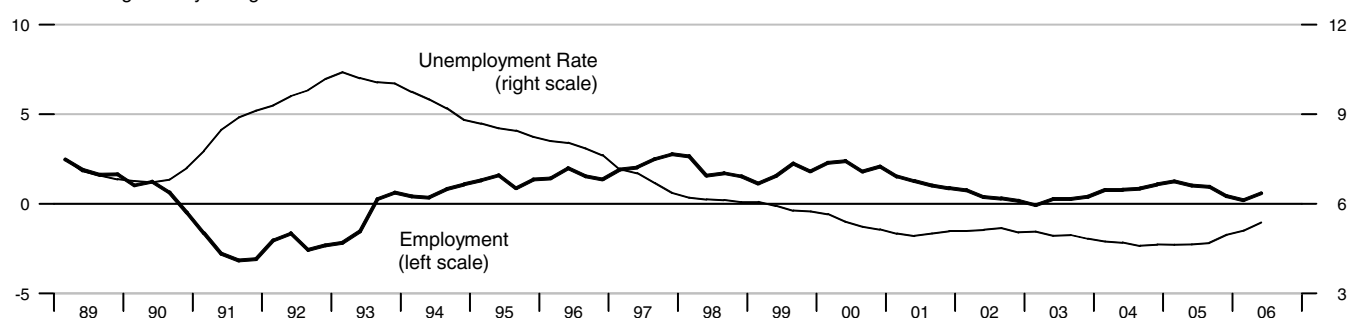
Percent change from year ago



Labor Force Indicators

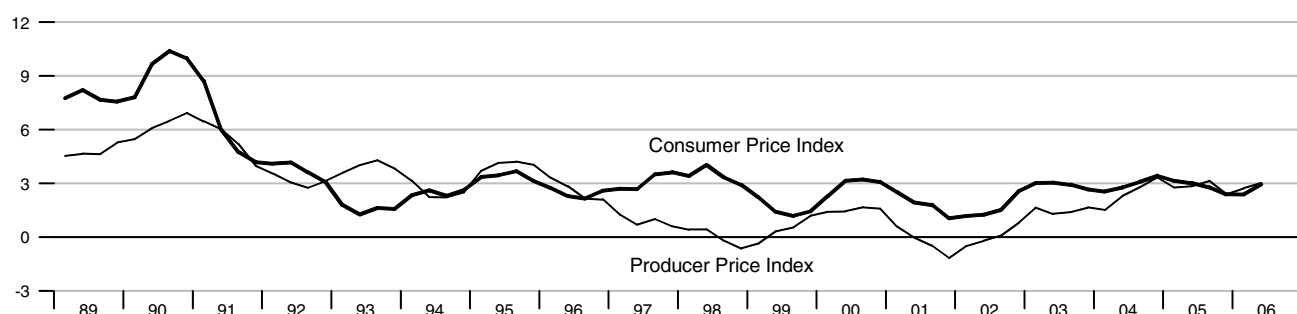
Percent change from year ago

Percent



Inflation

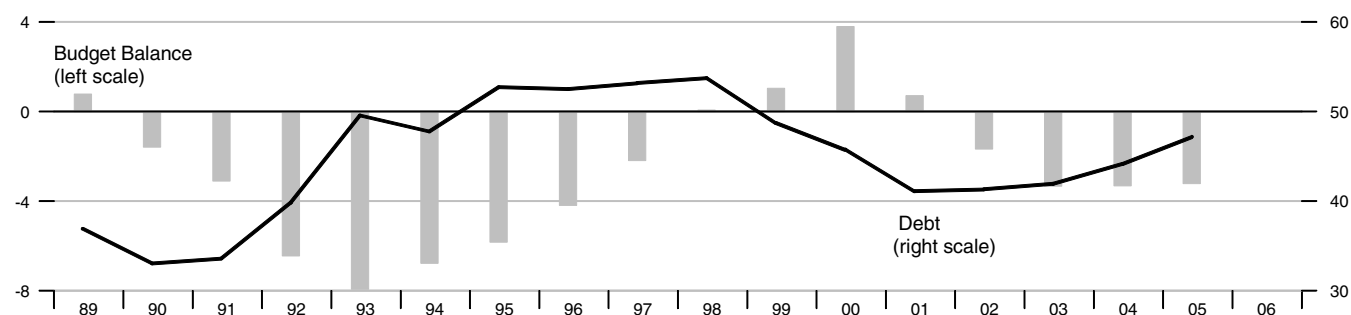
Percent change from year ago



Government Debt and Budget Balance

Percent of GDP, annual data

Percent of GDP, annual data

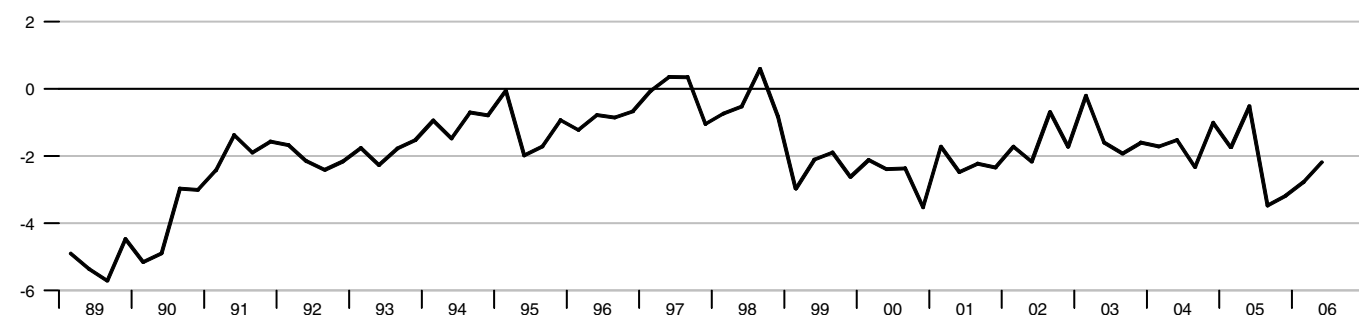


International Trade - Goods and Services

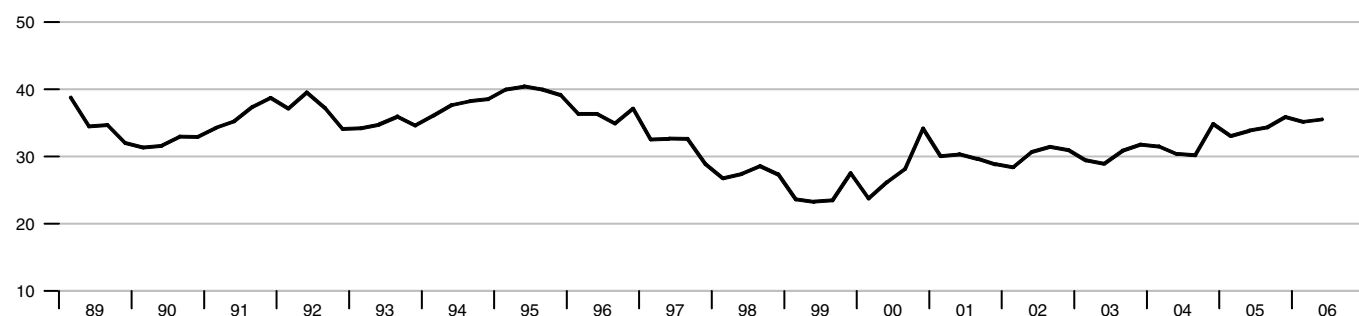
Percent of GDP

**Current Account Balance**

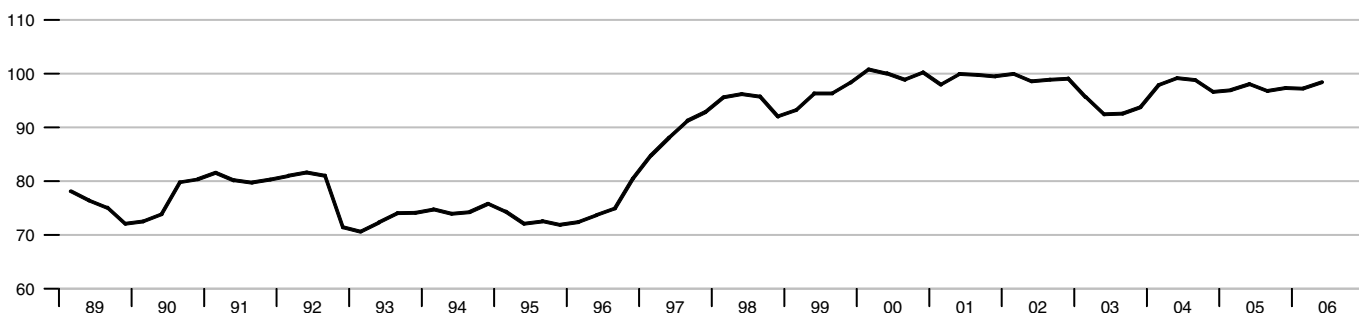
Percent of GDP

**Foreign Exchange Reserves**

Billions of US\$

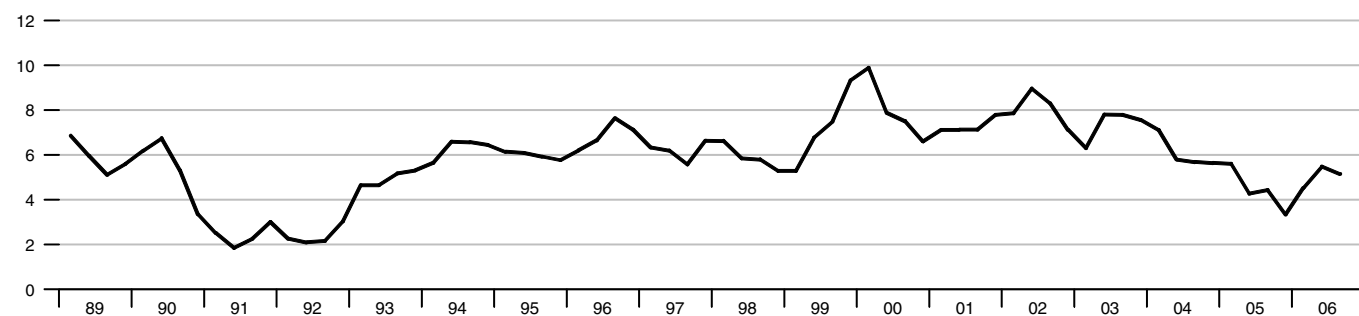
**Real Effective Exchange Rate**

Index 2000 = 100



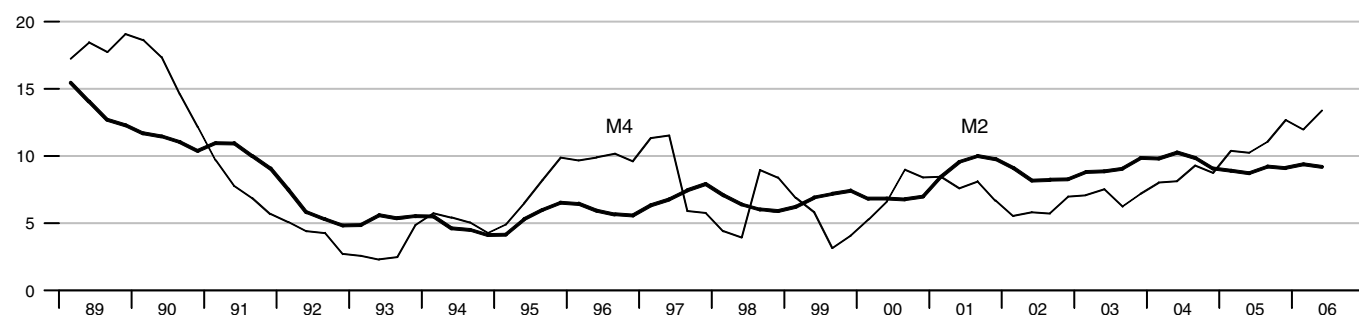
Notes and Coins in Circulation

Percent change from year ago



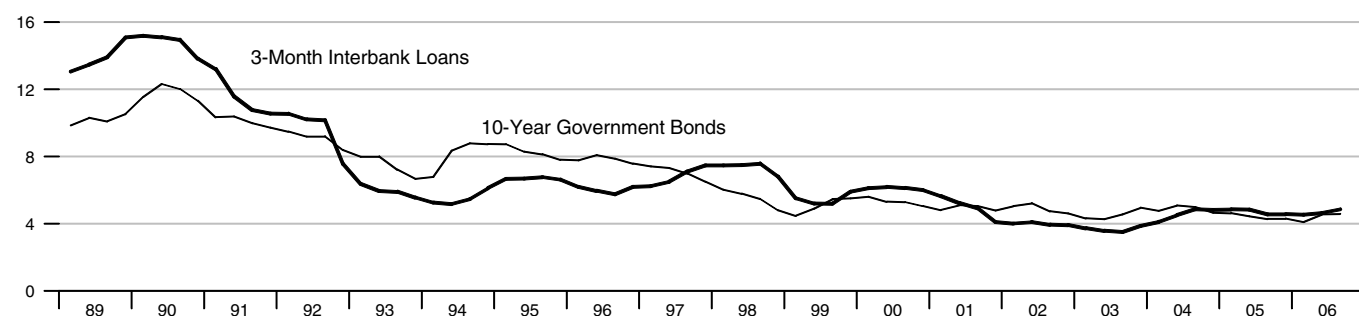
Monetary Aggregates

Percent change from year ago



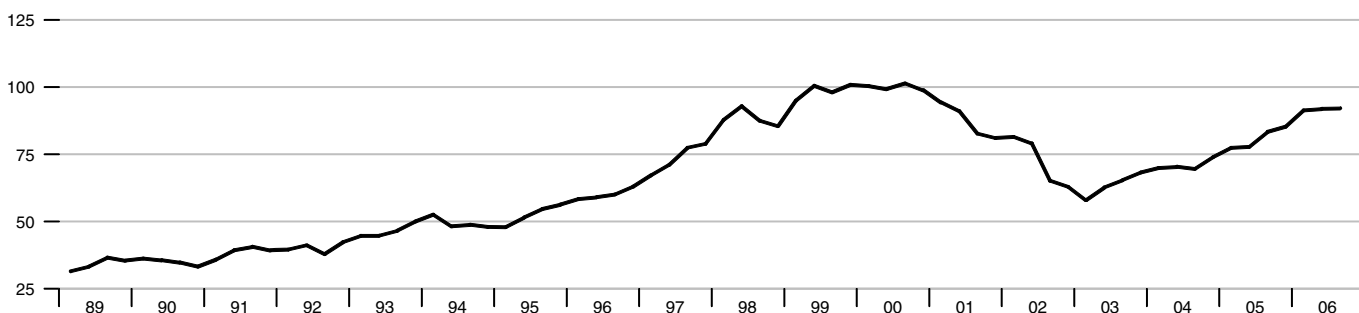
Interest Rates

Percent



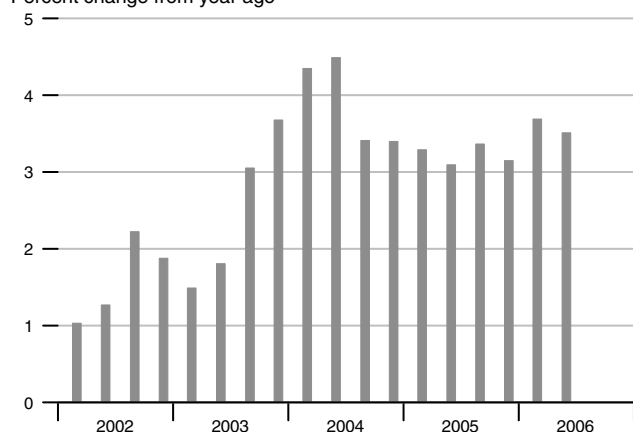
Stock Exchange Index - Financial Times Stock Exchange

2000 = 100



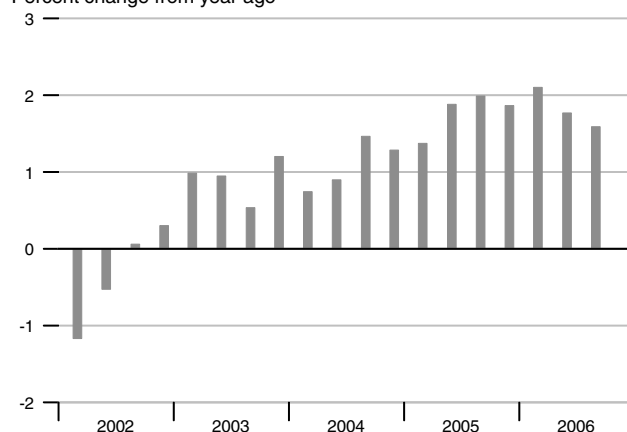
Real GDP

Percent change from year ago



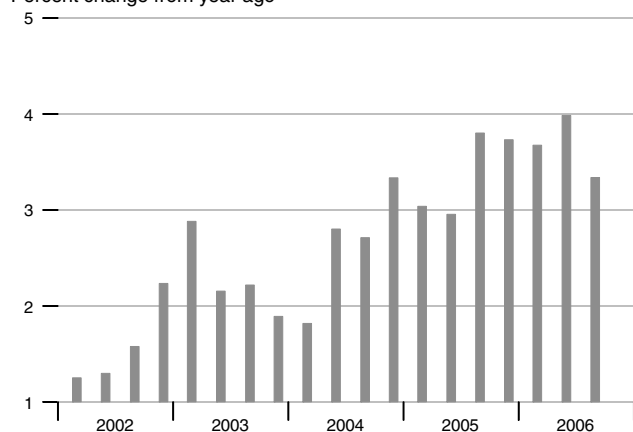
Employment

Percent change from year ago



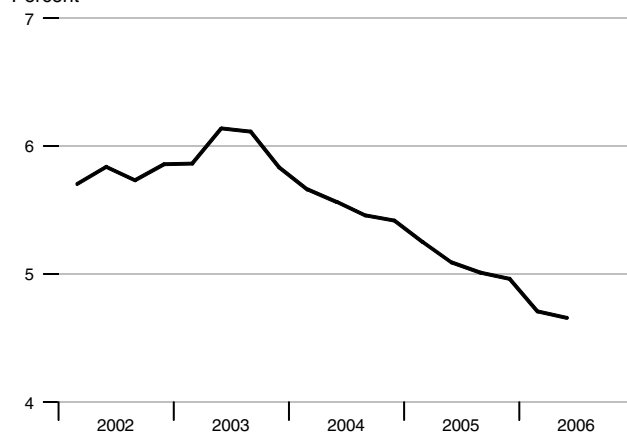
Consumer Price Index

Percent change from year ago



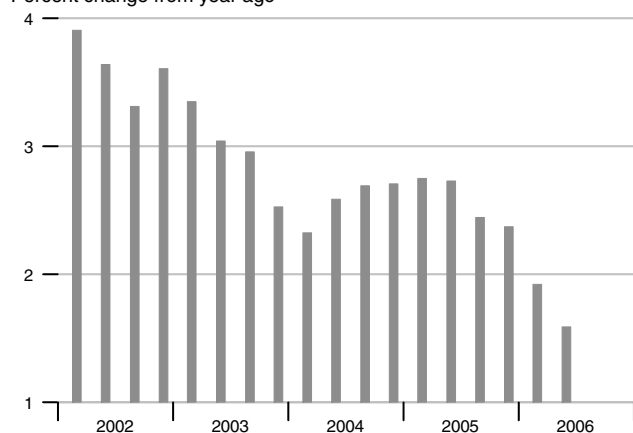
Unemployment Rate

Percent



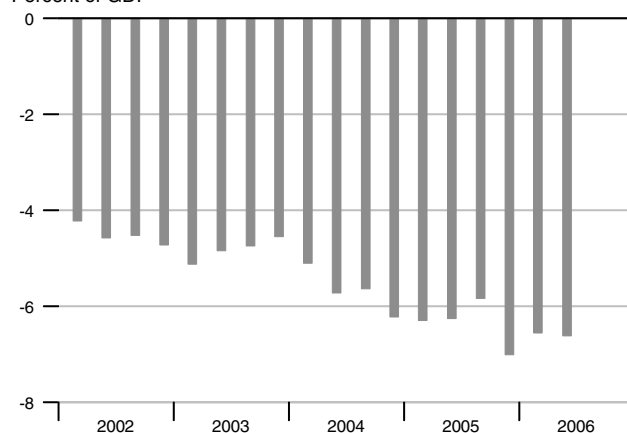
Real Hourly Earnings

Percent change from year ago



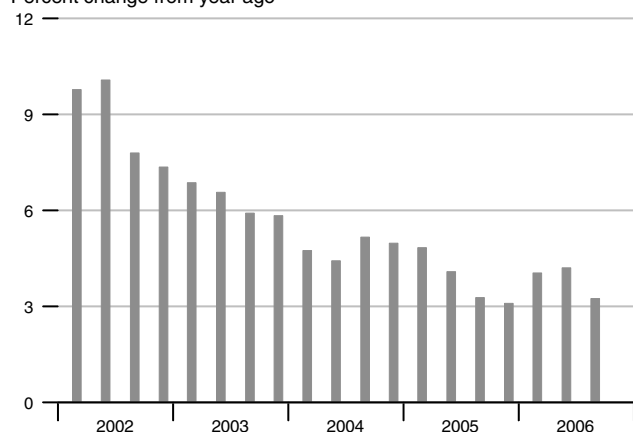
Current Account Balance

Percent of GDP

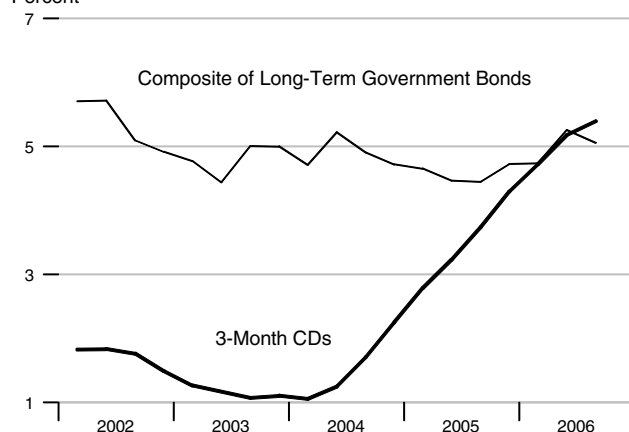


Adjusted Monetary Base

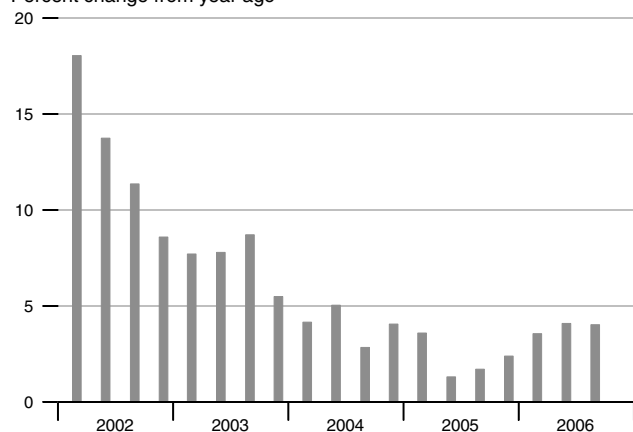
Percent change from year ago

**Interest Rates**

Percent

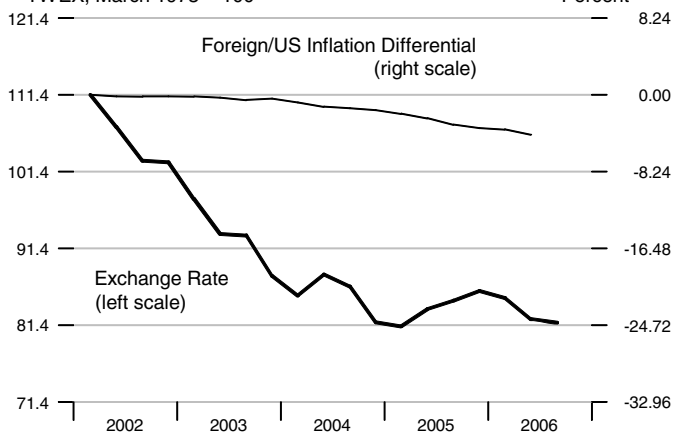
**MZM**

Percent change from year ago

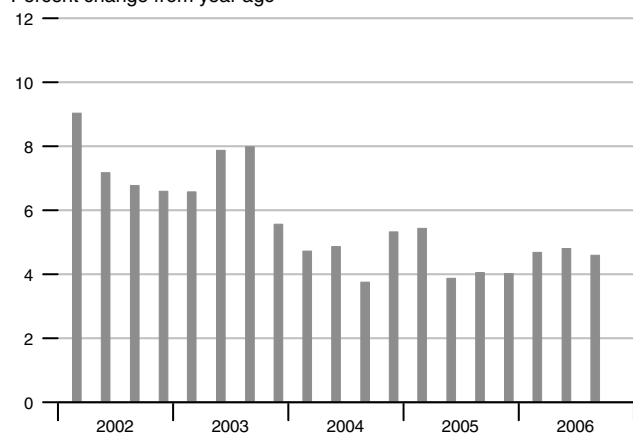
**Exchange Rate and Inflation Differential**

TWEX, March 1973 = 100

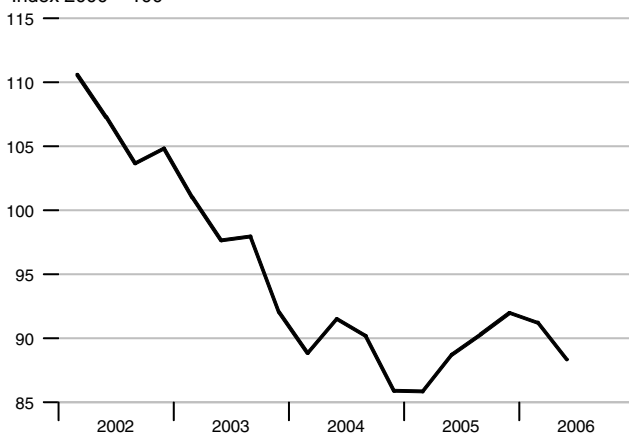
Percent

**M2**

Percent change from year ago

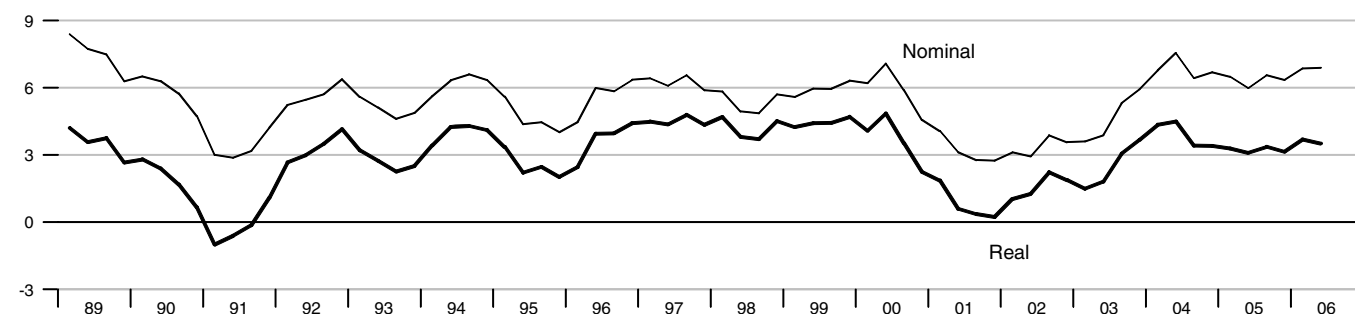
**Real Effective Exchange Rate**

Index 2000 = 100



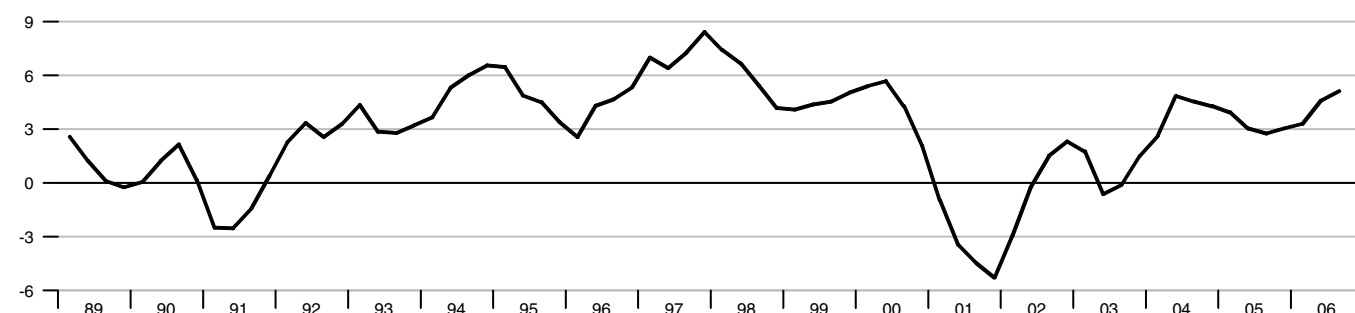
GDP

Percent change from year ago



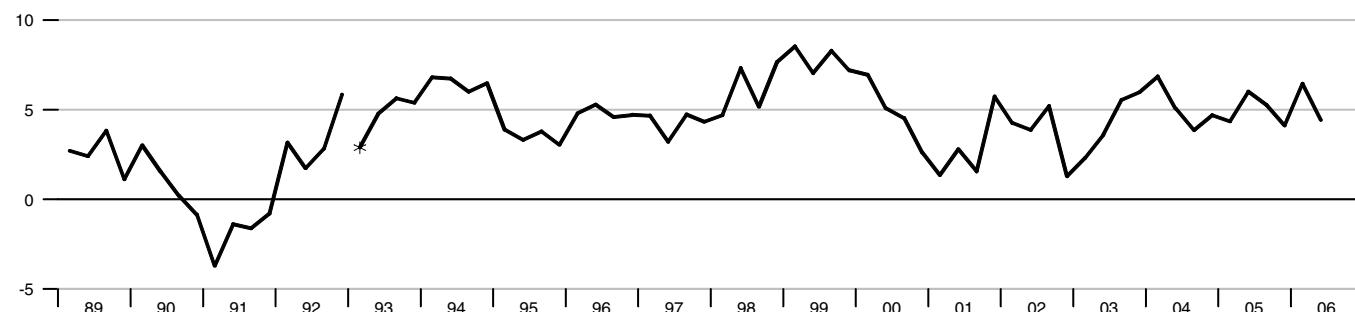
Industrial Production

Percent change from year ago



Retail Sales

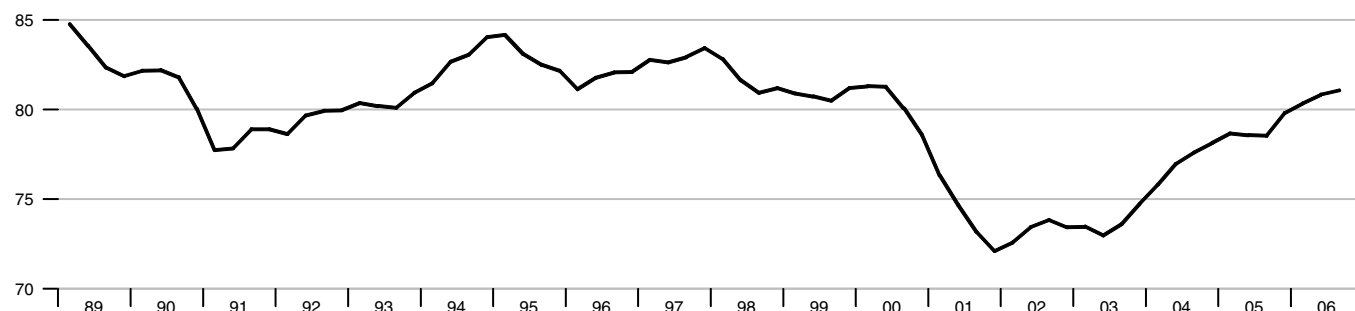
Percent change from year ago



*Data prior to 1993 may not be strictly comparable with later figures (see Notes).

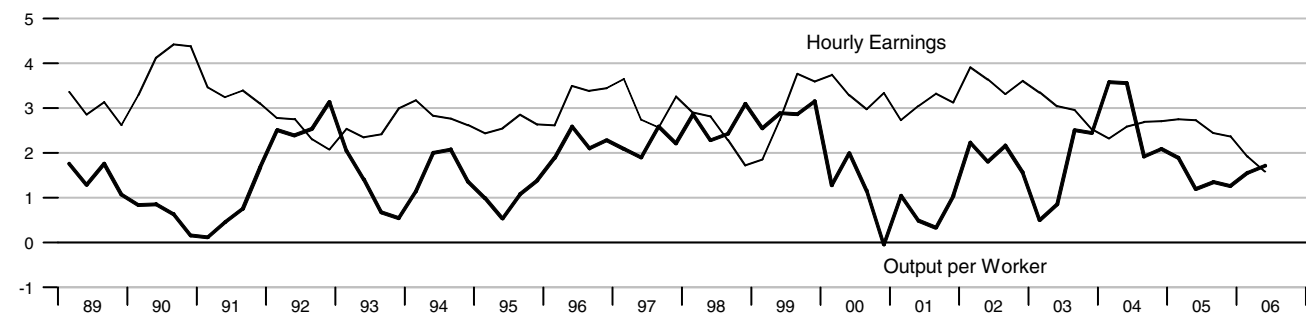
Capacity Utilization

Percent



Real Hourly Earnings and Output per Worker

Percent change from year ago



Labor Force Indicators

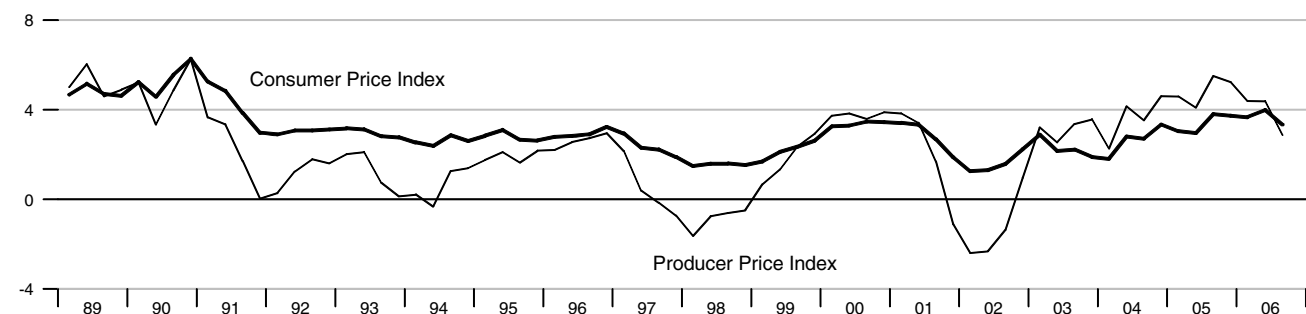
Percent change from year ago

Percent



Inflation

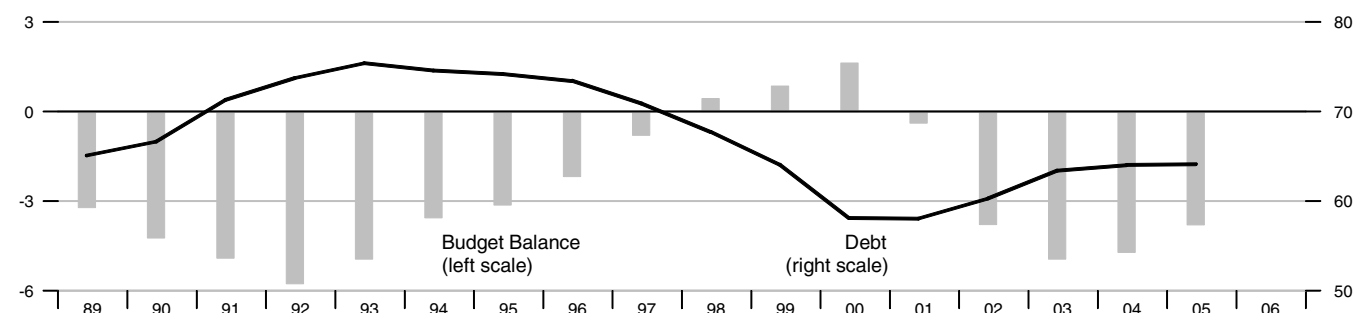
Percent change from year ago



Government Debt and Budget Balance

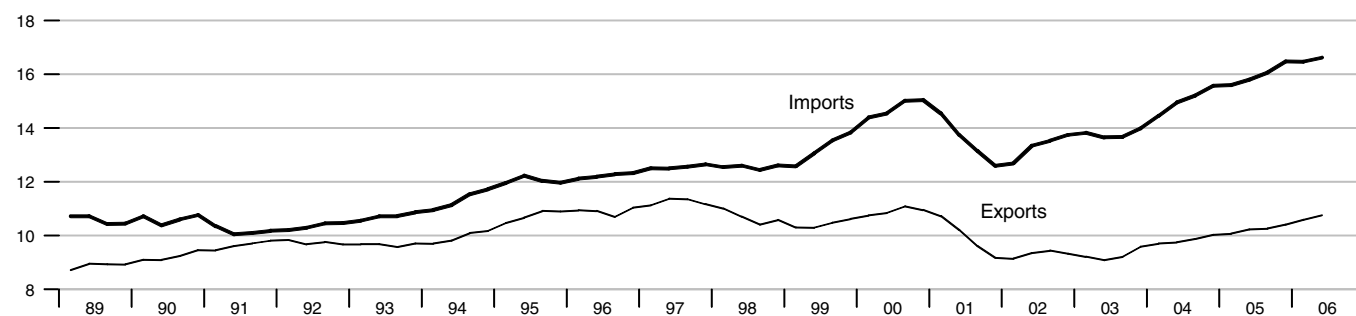
Percent of GDP, annual data

Percent of GDP, annual data

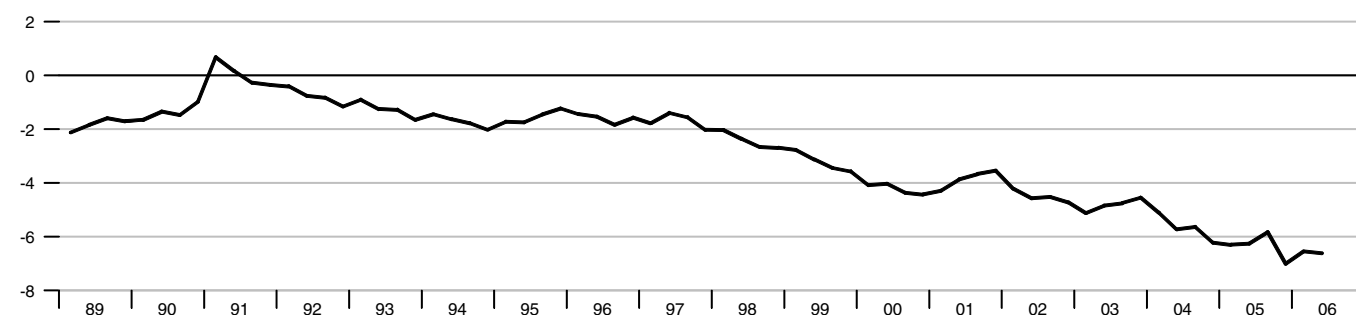


International Trade - Goods and Services

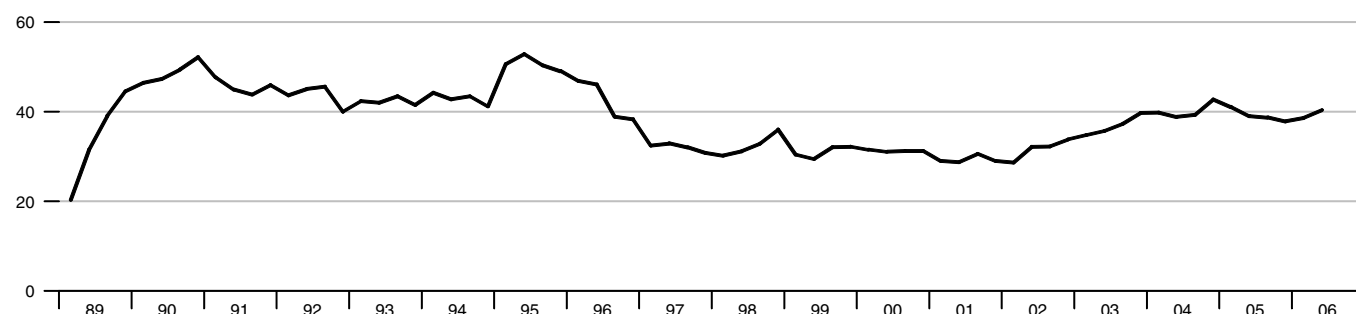
Percent of GDP

**Current Account Balance**

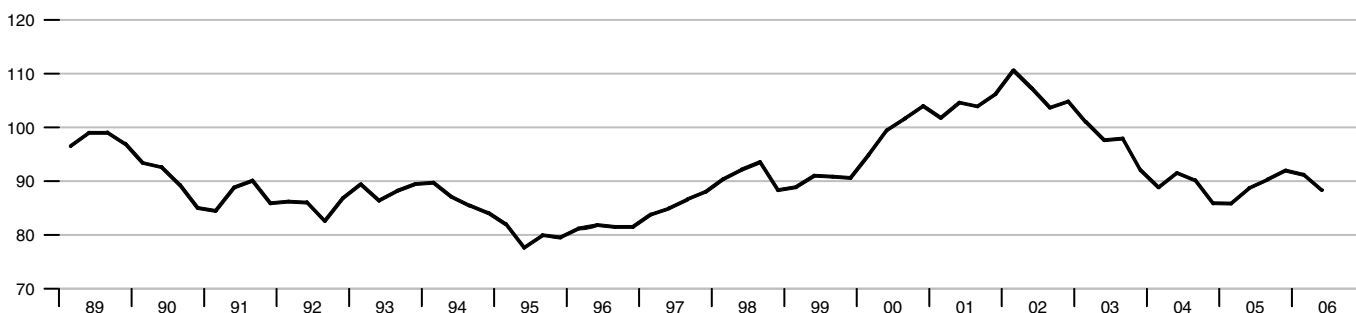
Percent of GDP

**Foreign Exchange Reserves**

Billions of US\$

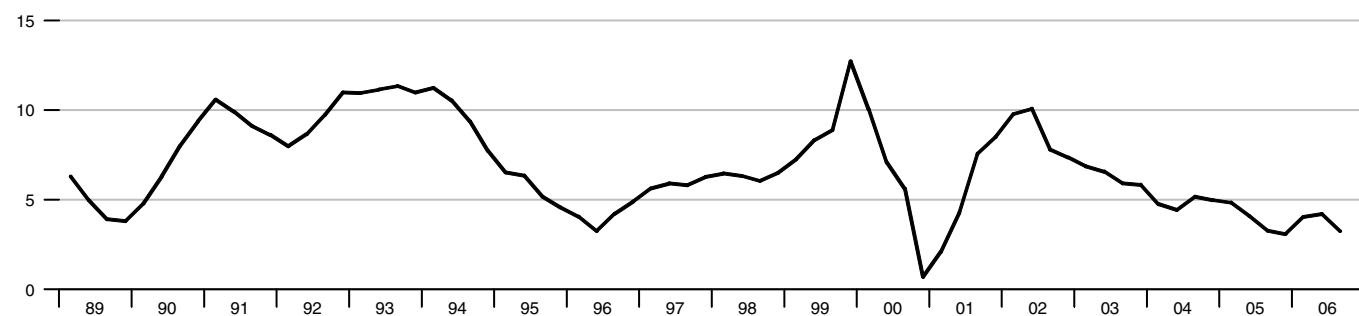
**Real Effective Exchange Rate**

Index 2000 = 100

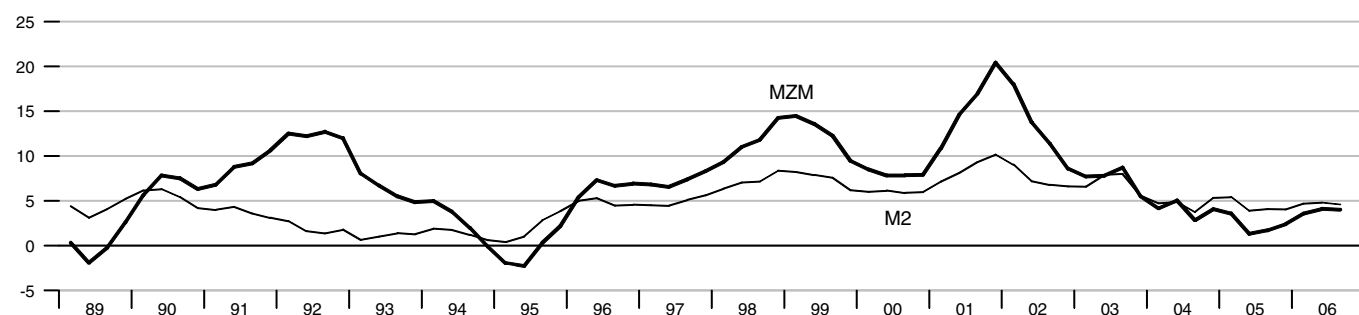


Adjusted Monetary Base

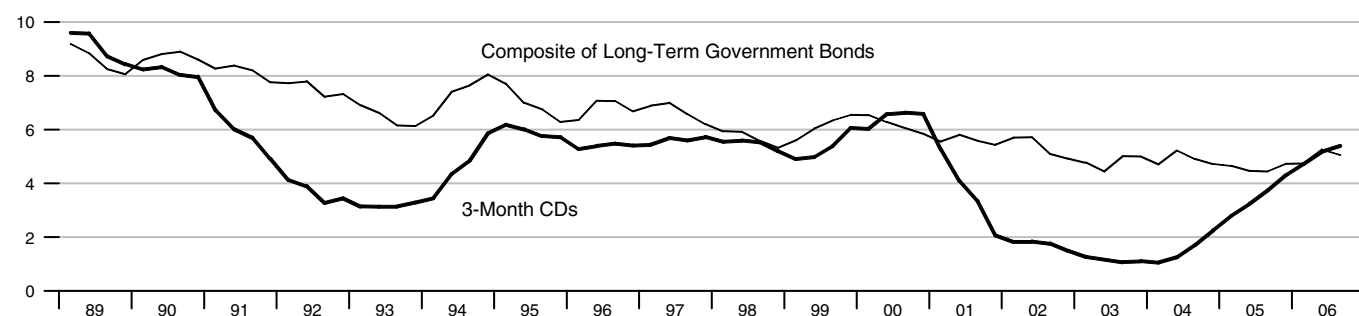
Percent change from year ago

**Monetary Aggregates**

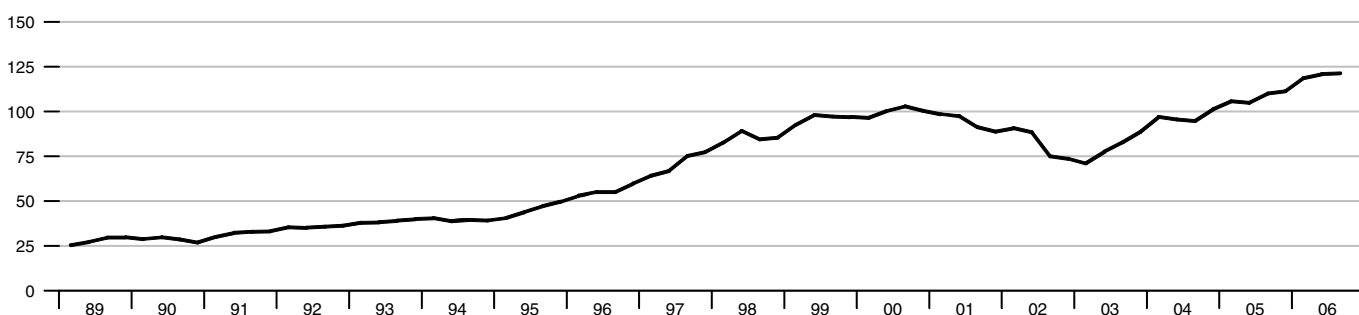
Percent change from year ago

**Interest Rates**

Percent

**Stock Exchange Index - New York Stock Exchange**

2000 = 100



Notes

Euro-Area Data: On January 1, 2001, the euro area was enlarged to include Greece as its 12th member country. Historical euro area series for capacity utilization, the consumer price index, current account balance, earnings, employment, government debt and budget balance, gross domestic product (GDP), industrial production, merchandise trade, the producer price index, and unemployment include Greece. The series for interest rates, monetary aggregates, the real effective exchange rate, retail sales, and the stock exchange index incorporate Greece starting in January 2001.

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 1990: current account balance, international trade, and unemployment.

First quarter 1991: consumer price index, GDP, industrial production, output per worker.

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.

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 2000. 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. **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:

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

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; reserve money 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

Canada: currency in circulation and chartered bank net demand deposits.
 Japan: cash, currency in circulation, and deposit money.
 Euro area: currency in circulation and overnight 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: M1 plus all checkable notice deposits and personal term 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: M1 and M2.
 BOG: exchange rate.
 IMF: foreign exchange reserves, merchandise and service trade, real effective exchange rate, and reserve money.
 OECD1: 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: 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: 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 Für 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: 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: 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: 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: 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: government debt and budget balance.
 OECD2: hourly earnings, stock exchange index, and unemployment.