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## Rule of Law and Economic Growth

Gross domestic product per capita, adjusted for differences in purchasing power, varies widely among countries. In fact, a United Nations report shows that in 2001, real (that is, purchasing-power adjusted) GDP per capita ranged between a high of 53,780 (Luxembourg) and a low of 470 (Sierra Leone), as measured in U.S. dollars.<sup>1</sup> What explains these cross-country differences in real GDP per capita? Why are some countries wealthier than others?

Admittedly, there are large differences in countries' endowments with natural resources; however, an abundance of natural resources (or lack thereof) cannot fully explain the state of a country's economic development. Japan, for instance, has few natural resources. Yet, it is one of the richest countries in the world. A country's ability to accumulate physical and human capital, and the efficiency with which it turns its capital and natural resources into goods and services, seems to be a key factor. But what explains these cross-country differences in economic activity?

In an influential article, La Porta et al.<sup>2</sup> argue that countries adhering to common law generally have the strongest legal protection for investors, followed by countries adhering to civil law adopted from the German and Scandinavian legal traditions; countries rooted in French civil law offer the weakest legal protection. A notable difference between these two legal systems is that common law, which is of English origin, gives priority to jurisprudence over codified doctrine, while the opposite holds for civil law, which originates from ancient Rome. Legal systems that provide strong legal protection for investors have permitted the development of sophisticated financial markets, which enhances the economy's ability to bear risk. This ability to spread risk over a multitude of investors is critical for entrepreneurship and economic growth.

But differences in the legal system are only part of the story. Actual enforcement of the law is also important. Corruption renders codified law ineffective. By weakening property rights, corruption deprives investors of compensation for risk taking and increases uncertainty about potential investment payoffs. This decreases the incentive to invest, which in turn dampens economic growth.

There are also unwritten rules that allow economic agents to trust one another. Trust is critical where matters are too complex to be written into law or where enforcing these laws is too costly. In fact, many contracts in the business world are implicit (and, hence, not enforceable) rather than explicit. Yet, the contracting parties abide by these implied agreements because reputation is valuable. In a recent speech about corporate governance and financial market malfeasance, Federal Reserve Chairman Alan Greenspan argued that trust and reputation were so valuable to 19th century bankers and companies that the penalties for breaking this trust were severe enough to make economic commerce, to a large extent, self-regulating.<sup>3</sup>

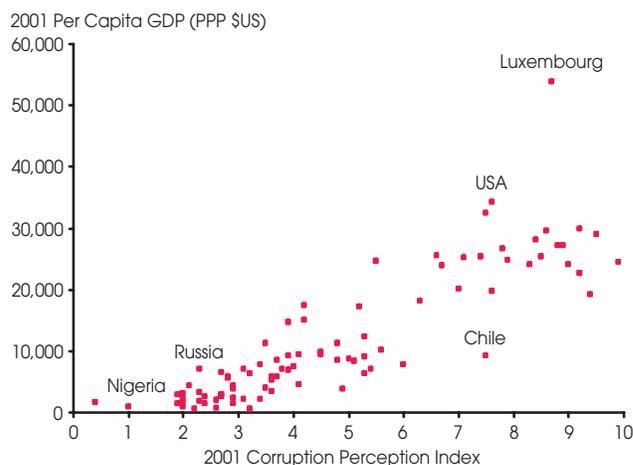
The chart shows that countries with less corruption (that is, a *higher* value on the corruption perception index) tend to have higher levels of GDP per capita. The correlation between the two variables is 0.87, which is statistically significant. Of course, while correlation is not evidence of causation, there is little doubt that corruption depresses economic activity.

—Jason Higbee and Frank A. Schmid

<sup>1</sup> United Nations Human Development Report 2003, <http://hdr.undp.org/reports/global/2003>.

<sup>2</sup> La Porta, Rafael; Lopez-de-Silanes, Florencio; Shleifer, Andrei; Vishny, Robert W. "Law and Finance." *Journal of Political Economy*, December 1988, 106(6), pp. 1113-55.

<sup>3</sup> Alan Greenspan (2004) "Capitalizing Reputation," <http://www.federalreserve.gov/boarddocs/speeches/2004/20040416/default.htm>.



SOURCES: United Nations Human Development Report 2003, <http://hdr.undp.org/reports/global/2003>. Global Corruption Report 2001, <http://www.globalcorruptionreport.org>.

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## Conventions used in this publication:

1. Charts and tables contain data that were current through July 2004. 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.

Beginning with this issue, the interest rate on long-term public and semi-public sector bonds for France has been replaced with the rate on 10-year benchmark bonds. The real effective exchange rate for Canada, the euro area, Japan, the United Kingdom, and the United States; capacity utilization for Japan; and the stock exchange index for Canada, the euro area, France, Germany, Italy, Japan, the United Kingdom, and the United States have been re-indexed to the year 2000.

Dear Reader,

Thank you for reading *International Economic Trends*. Please assist us in providing you with the most useful international economic data by offering your comments and suggestions for how the publication could be improved. Such feedback can be sent to one of the following addresses:

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Editor, *International Economic Trends*  
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Please keep in mind that technical limitations preclude us from adding more pages to the publication. So, 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

	01.2	01.3	01.4	02.1	02.2	02.3	02.4	03.1	03.2	03.3	03.4	04.1
Canada	2.10	0.69	1.41	2.41	3.16	4.37	3.83	3.15	2.00	1.31	1.66	1.57
Euro Area	1.65	1.52	0.73	0.51	0.92	0.91	1.15	0.72	0.14	0.35	0.69	1.32
France	2.22	2.47	0.46	0.75	1.36	0.86	1.39	0.77	-0.09	0.37	1.08	1.71
Germany	0.83	0.71	0.51	-0.18	0.12	0.42	0.52	0.08	-0.34	-0.26	0.06	0.74
Italy	1.98	1.18	0.78	0.00	0.39	0.39	0.78	0.78	0.00	0.77	0.38	0.77
Japan	1.13	-0.35	-2.24	-3.14	-0.87	0.97	1.81	2.46	2.20	1.83	3.48	4.97
United Kingdom	2.35	2.13	2.15	1.67	1.52	1.95	1.94	1.81	2.13	2.16	2.87	3.42
United States	0.19	-0.02	-0.04	1.17	1.81	2.99	2.80	2.13	2.42	3.60	4.32	4.82

**Nominal Gross Domestic Product**

Percent change from year ago

	01.2	01.3	01.4	02.1	02.2	02.3	02.4	03.1	03.2	03.3	03.4	04.1
Canada	4.46	0.92	-0.41	0.55	3.24	6.12	8.13	8.32	4.61	4.31	3.90	3.36
Euro Area	4.11	3.84	3.61	3.29	3.41	3.67	3.45	2.69	2.25	2.44	2.67	3.33
France	3.79	4.47	2.62	3.40	3.92	3.25	3.63	2.38	1.34	1.67	2.49	3.36
Germany	2.14	1.61	2.57	1.70	1.66	2.42	1.45	0.91	0.63	0.93	1.04	1.68
Italy	4.47	3.74	4.41	3.32	2.96	3.93	3.57	3.22	3.51	3.79	3.13	4.05
Japan	-0.66	-1.80	-3.35	-3.65	-1.96	-0.37	0.15	-0.56	-0.03	-0.41	0.69	2.45
United Kingdom	4.76	4.24	5.32	4.37	4.68	6.00	4.98	5.26	5.03	5.17	5.89	5.94
United States	2.70	2.37	2.41	3.04	3.37	4.42	4.22	3.94	4.01	5.36	6.01	6.66

**Consumer Price Index**

Percent change from year ago

	01.3	01.4	02.1	02.2	02.3	02.4	03.1	03.2	03.3	03.4	04.1	04.2
Canada	2.68	1.14	1.52	1.33	2.33	3.81	4.45	2.81	2.12	1.72	0.86	.
Euro Area	2.38	2.08	2.57	2.05	2.14	2.31	2.27	1.96	2.02	2.06	1.71	2.25
France	1.94	1.54	2.31	1.68	1.72	2.04	2.33	1.86	2.09	2.39	2.00	2.63
Germany	2.11	1.49	1.95	1.14	1.09	1.21	1.09	0.86	1.04	1.19	1.03	1.90
Italy	2.20	2.20	2.59	2.33	2.64	2.86	2.85	2.88	2.88	2.68	2.33	2.31
Japan	-0.79	-0.98	-1.41	-0.91	-0.83	-0.52	-0.24	-0.24	-0.24	-0.30	-0.14	.
United Kingdom	1.81	1.06	1.18	1.24	1.54	2.57	3.02	3.04	2.93	2.66	2.56	.
United States	2.70	1.84	1.23	1.30	1.61	2.24	2.88	2.15	2.18	1.87	1.80	2.84

**Employment**

Percent change from year ago

	01.3	01.4	02.1	02.2	02.3	02.4	03.1	03.2	03.3	03.4	04.1	04.2
Canada	1.10	0.44	1.01	1.79	2.73	3.36	3.14	2.29	1.52	1.73	1.56	1.89
Euro Area	1.14	0.86	0.76	0.63	0.47	0.29	0.11	0.12	0.16	0.23	0.24	.
France	2.05	1.63	0.98	0.66	0.42	0.22	-0.13	-0.18	-0.34	-0.23	-0.04	.
Germany	0.21	-0.12	-0.21	-0.47	-0.71	-1.12	-1.46	-1.32	-0.97	-0.62	-0.37	.
Italy	1.26	0.94	1.16	1.53	1.30	1.02	0.43	0.50	0.28	0.53	0.60	.
Japan	-0.81	-1.30	-1.46	-1.57	-1.00	-1.07	-0.80	0.08	-0.05	-0.13	0.25	.
United Kingdom	0.90	0.85	0.78	0.27	0.11	0.02	-0.13	0.22	0.25	0.43	0.59	.
United States	0.04	-0.80	-1.19	-0.54	0.09	0.32	0.95	0.93	0.56	1.23	0.75	0.88

**Unemployment Rate**

Percent

	01.3	01.4	02.1	02.2	02.3	02.4	03.1	03.2	03.3	03.4	04.1	04.2
Canada	7.15	7.65	7.86	7.63	7.54	7.56	7.45	7.73	7.88	7.49	7.41	.
Euro Area	8.00	8.10	8.23	8.37	8.53	8.67	8.77	8.90	8.90	8.90	8.90	.
France	8.34	8.40	8.57	8.86	9.05	9.09	9.21	9.35	9.41	9.47	9.44	.
Germany	7.90	8.15	8.28	8.51	8.77	9.10	9.51	9.73	9.70	9.63	9.66	.
Italy	9.43	9.21	9.03	9.03	9.00	8.93	8.84	8.65	8.56	8.50	.	.
Japan	5.11	5.36	5.29	5.37	5.42	5.44	5.38	5.38	5.17	5.07	4.90	.
United Kingdom	5.05	5.08	5.07	5.13	5.19	5.04	5.05	4.97	4.95	4.85	4.69	.
United States	4.82	5.55	5.68	5.84	5.74	5.88	5.83	6.14	6.13	5.86	5.64	5.58

**Reserve Money**

Percent change from year ago

	01.3	01.4	02.1	02.2	02.3	02.4	03.1	03.2	03.3	03.4	04.1	04.2
Canada	7.25	4.29	7.35	5.13	7.95	5.76	2.23	3.29	0.91	1.09	1.86	.
Japan	14.15	17.39	32.38	27.01	21.40	19.95	10.69	19.82	20.80	13.50	11.78	4.15
United Kingdom	6.97	7.74	8.03	8.89	8.20	7.20	6.20	7.69	7.89	7.46	7.18	.
United States	7.56	8.50	9.78	10.08	7.80	7.35	6.85	6.54	5.87	5.80	4.71	4.41

**Narrow Money**

Percent change from year ago

	01.3	01.4	02.1	02.2	02.3	02.4	03.1	03.2	03.3	03.4	04.1	04.2
Canada	7.94	13.75	14.52	13.88	15.84	9.33	6.76	8.22	8.86	6.55	9.63	.
Euro Area	7.85	9.11	6.51	6.92	8.08	9.79	11.82	11.04	10.64	9.54	10.49	.
Japan	10.90	14.86	23.53	30.71	30.19	25.57	14.90	4.94	5.64	4.27	4.08	.
United Kingdom	10.00	9.76	9.11	8.18	8.23	8.27	8.82	8.85	9.08	9.81	9.83	.
United States	16.91	20.42	18.09	13.88	11.47	8.61	7.76	7.79	8.54	5.23	3.84	4.85

**Broad Money**

Percent change from year ago

	01.3	01.4	02.1	02.2	02.3	02.4	03.1	03.2	03.3	03.4	04.1	04.2
Canada	4.26	5.73	5.98	6.04	7.17	6.00	5.48	6.09	6.26	5.23	5.66	.
Euro Area	7.01	8.61	7.33	6.69	6.89	6.69	7.67	8.04	7.03	6.44	5.95	.
Japan	3.07	3.42	3.62	3.31	3.19	2.36	1.70	1.75	1.88	1.56	1.82	.
United Kingdom	8.11	6.63	5.61	5.82	5.65	6.99	6.02	6.40	5.01	5.65	7.60	.
United States	9.26	10.17	9.24	7.45	6.99	6.69	6.58	7.80	7.75	5.27	4.39	4.72

**Short-Term Interest Rates**

Percent

	01.3	01.4	02.1	02.2	02.3	02.4	03.1	03.2	03.3	03.4	04.1	04.2
Canada	3.49	2.12	2.24	2.78	2.90	2.86	3.20	3.22	2.72	2.70	2.16	2.10
Euro Area	4.27	3.44	3.36	3.44	3.36	3.11	2.68	2.37	2.14	2.15	2.06	2.08
Japan	0.04	0.04	0.12	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	.
United Kingdom	4.92	4.09	4.01	4.10	3.95	3.92	3.73	3.57	3.50	3.86	4.11	.
United States	3.34	2.06	1.82	1.83	1.76	1.49	1.26	1.17	1.07	1.10	1.05	1.25

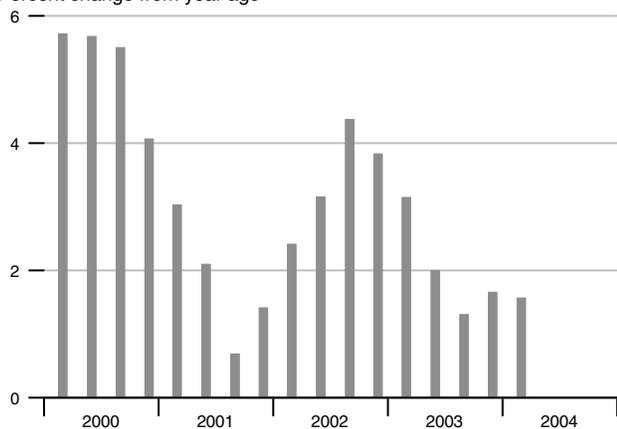
**Long-Term Interest Rates**

Percent

	01.3	01.4	02.1	02.2	02.3	02.4	03.1	03.2	03.3	03.4	04.1	04.2
Canada	5.56	5.26	5.45	5.57	5.11	5.06	4.97	4.66	4.79	4.79	4.43	4.78
Euro Area	5.12	4.82	5.14	5.25	4.76	4.54	4.15	3.96	4.16	4.37	4.15	.
France	5.01	4.72	5.05	5.20	4.70	4.49	4.11	3.93	4.13	4.34	4.11	.
Germany	4.87	4.60	5.00	5.13	4.63	4.43	4.07	3.87	4.10	4.30	4.06	4.22
Italy	5.27	4.94	5.25	5.36	4.85	4.68	4.24	4.16	4.33	4.45	4.28	4.46
Japan	1.36	1.35	1.41	1.28	1.11	0.89	0.70	0.53	1.17	1.38	1.31	1.59
United Kingdom	5.05	4.79	5.05	5.22	4.74	4.61	4.32	4.27	4.55	4.94	4.77	.
United States	5.59	5.44	5.70	5.72	5.09	4.92	4.77	4.44	5.01	5.00	4.71	5.22

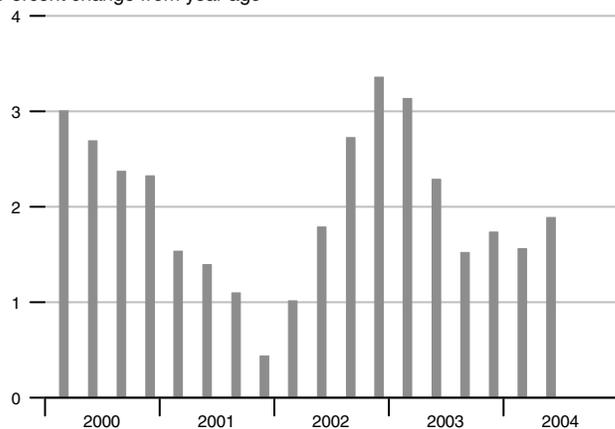
**Real GDP**

Percent change from year ago



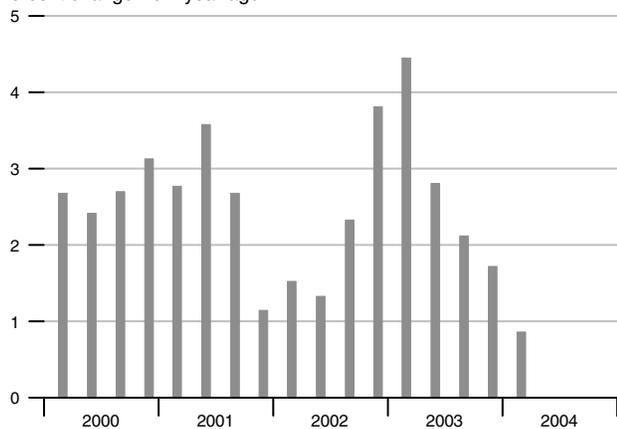
**Employment**

Percent change from year ago



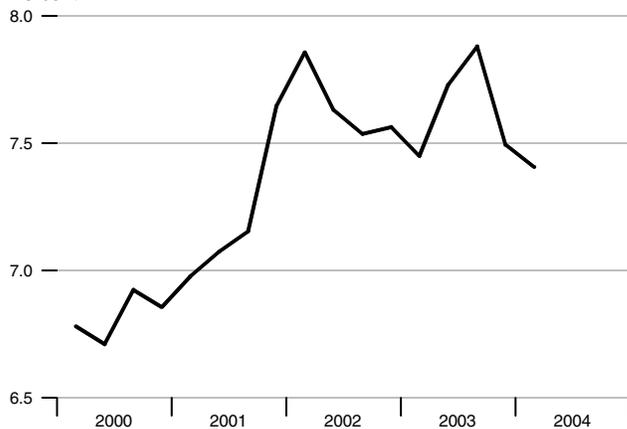
**Consumer Price Index**

Percent change from year ago



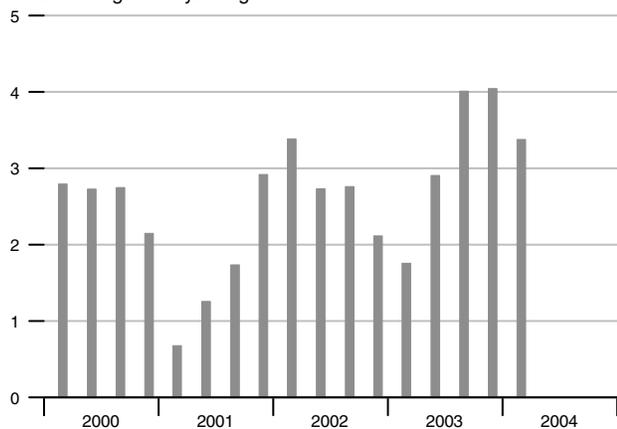
**Unemployment Rate**

Percent



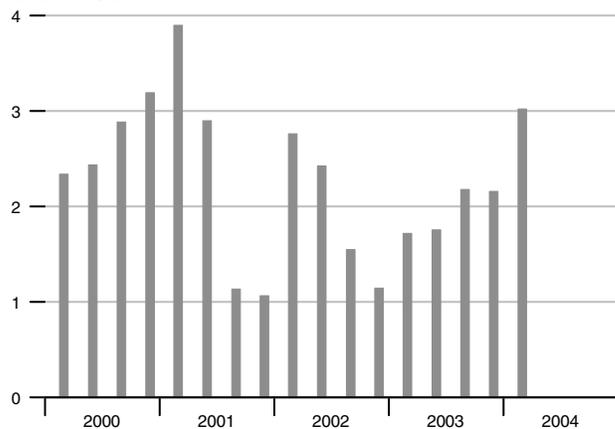
**Hourly Earnings**

Percent change from year ago



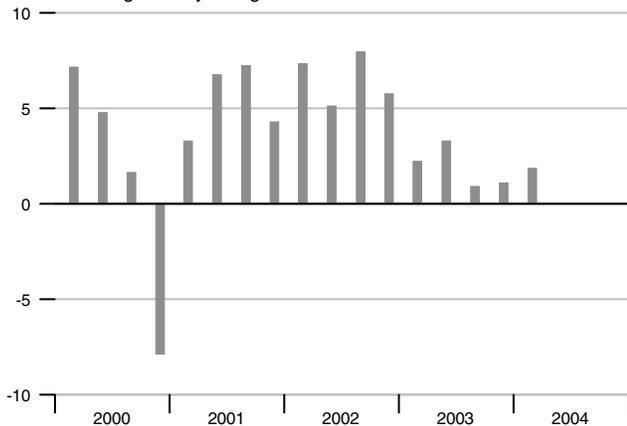
**Current Account Balance**

Percent of GDP



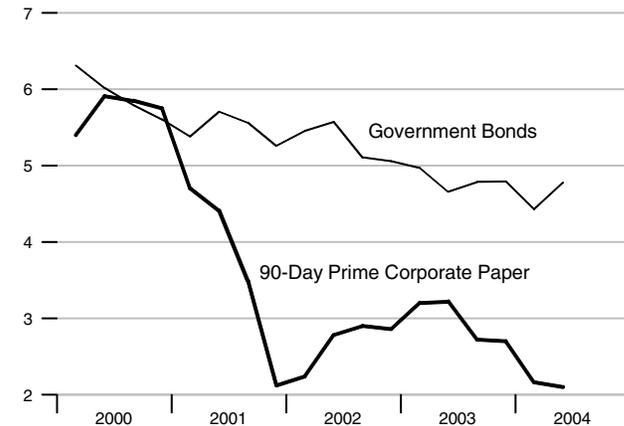
### Reserve Money

Percent change from year ago



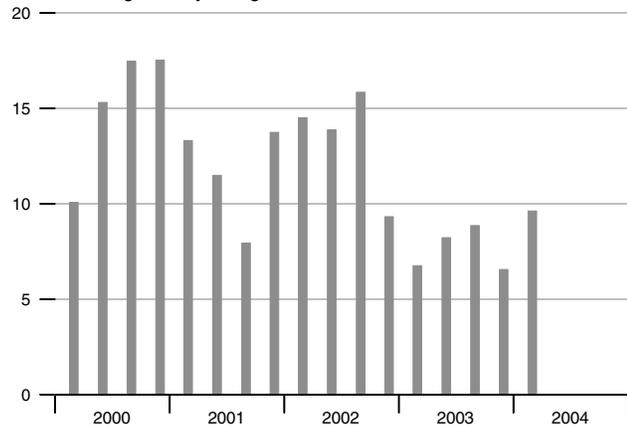
### Interest Rates

Percent



### M1

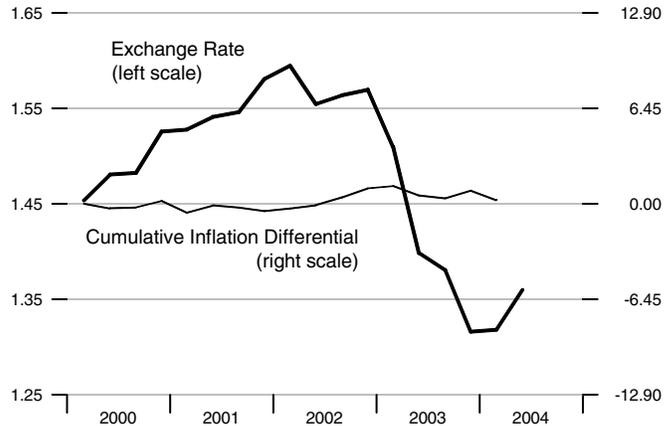
Percent change from year ago



### Exchange Rate and Inflation Differential

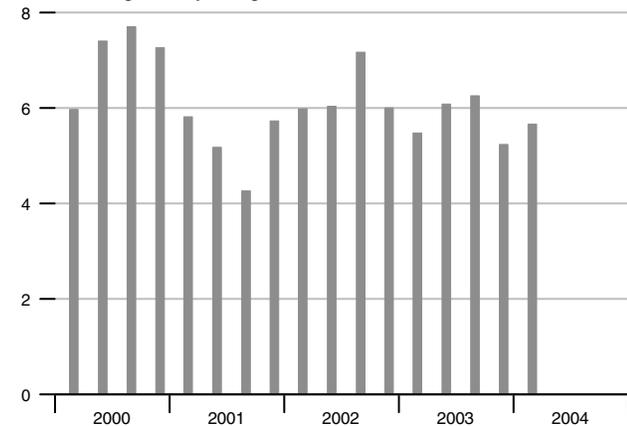
C\$/US\$

Percent



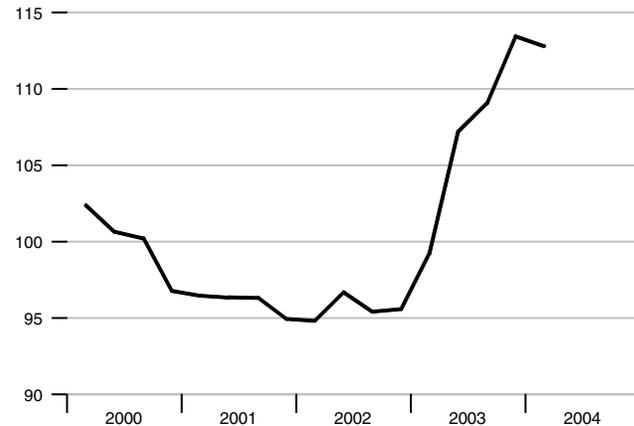
### M2

Percent change from year ago



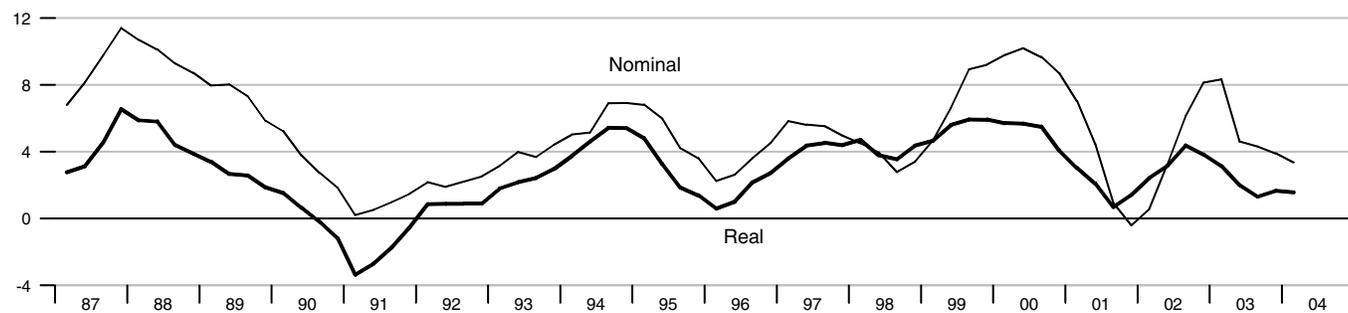
### Real Effective Exchange Rate

Index 2000 = 100



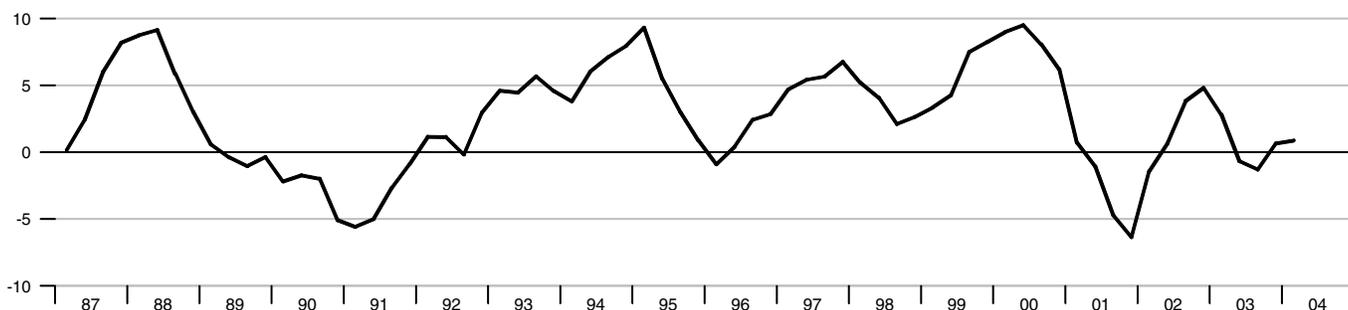
**GDP**

Percent change from year ago



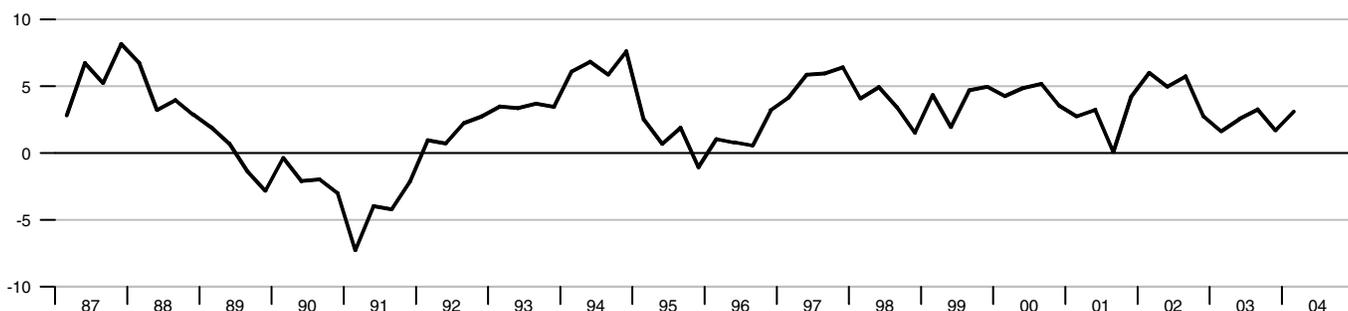
**Industrial Production**

Percent change from year ago



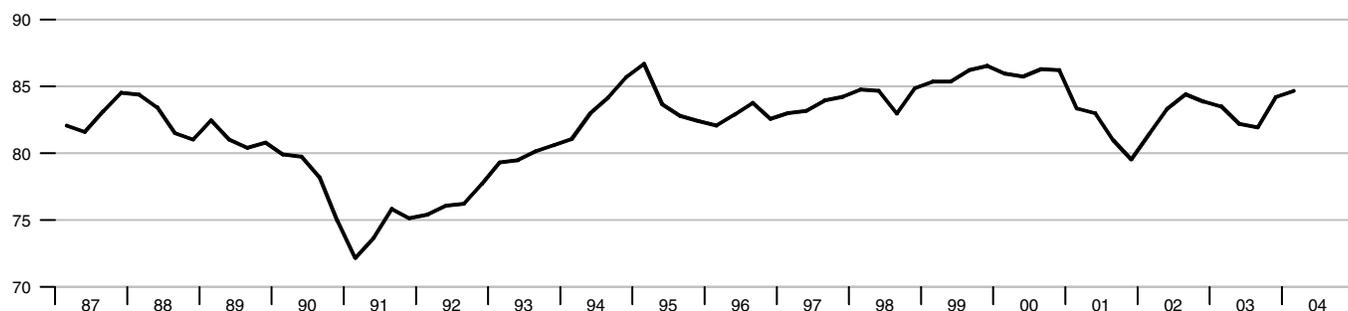
**Retail Sales**

Percent change from year ago



**Capacity Utilization**

Percent



### Hourly Earnings and Output per Worker

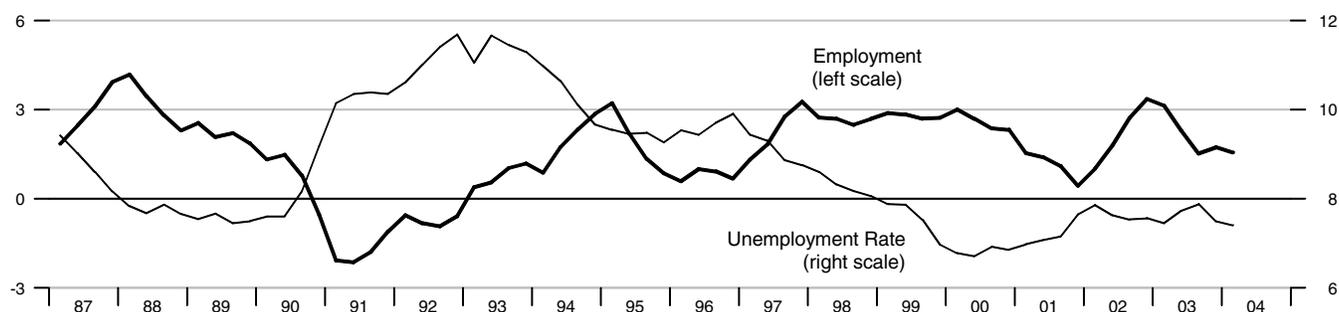
Percent change from year ago



### Labor Force Indicators

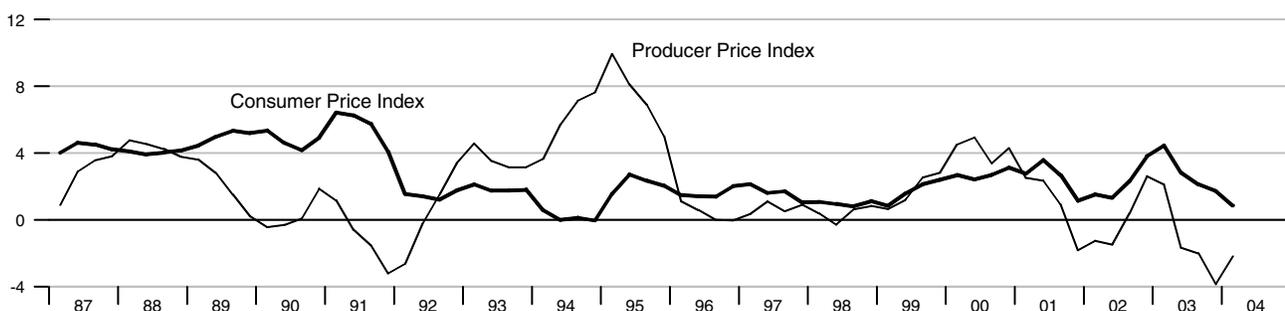
Percent change from year ago

Percent



### Inflation

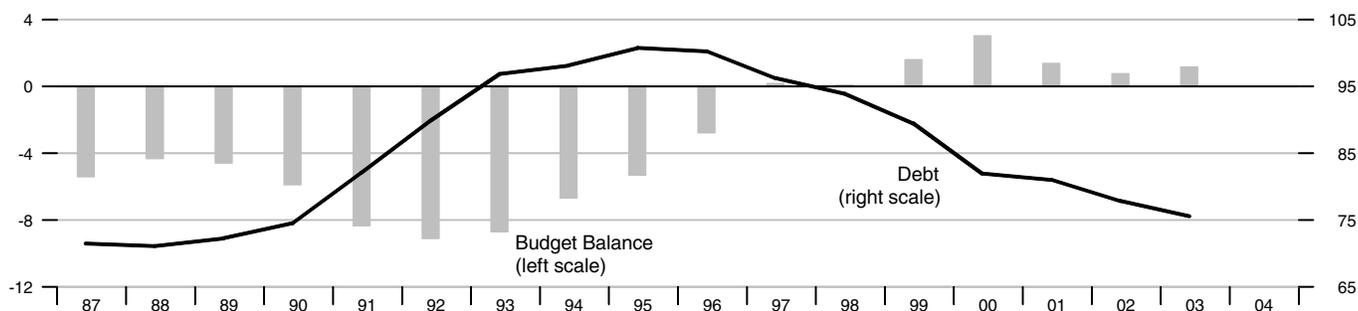
Percent change from year ago



### Government Debt and Budget Balance

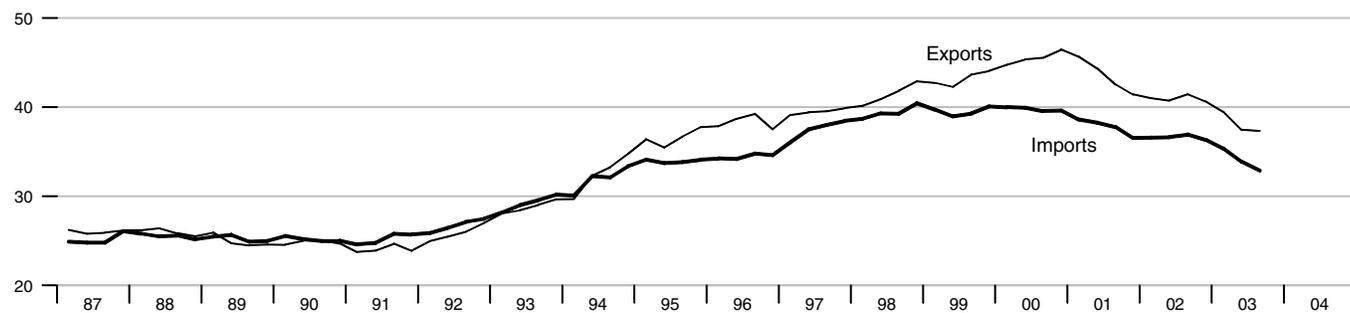
Percent of GDP, annual data

Percent of GDP, annual data



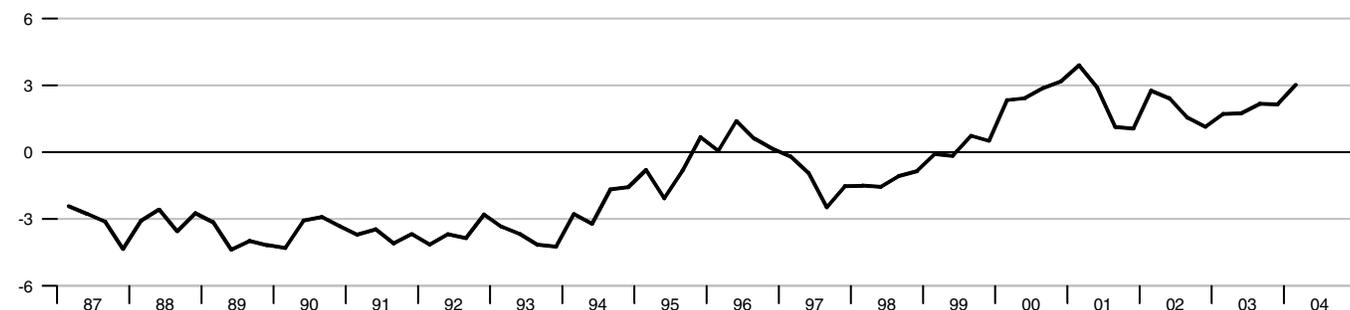
**International Trade - Goods and Services**

Percent of GDP



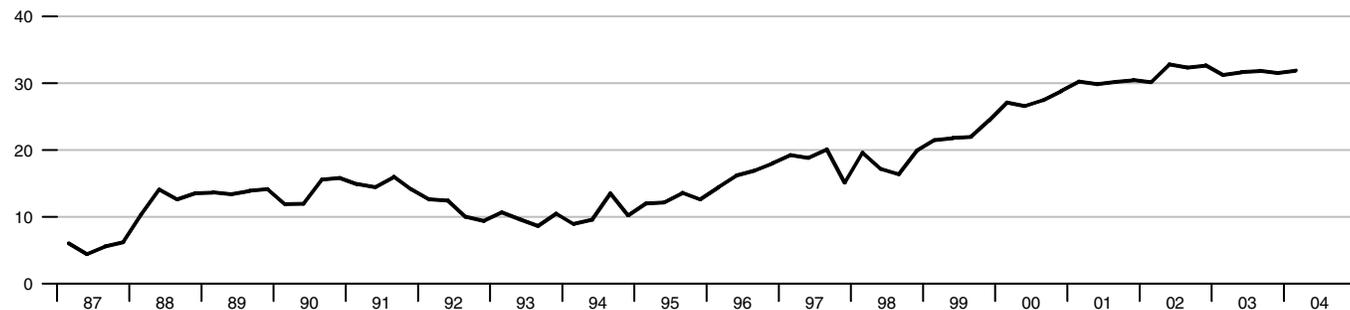
**Current Account Balance**

Percent of GDP



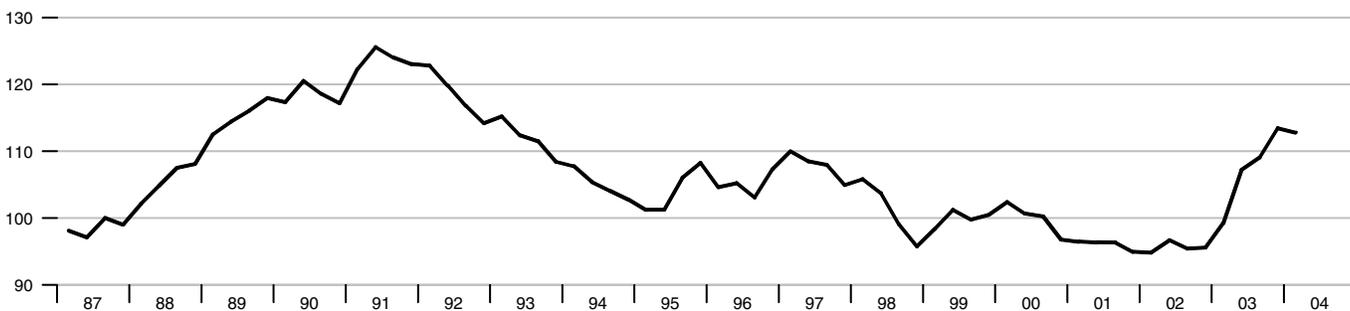
**Foreign Exchange Reserves**

Billions of US\$



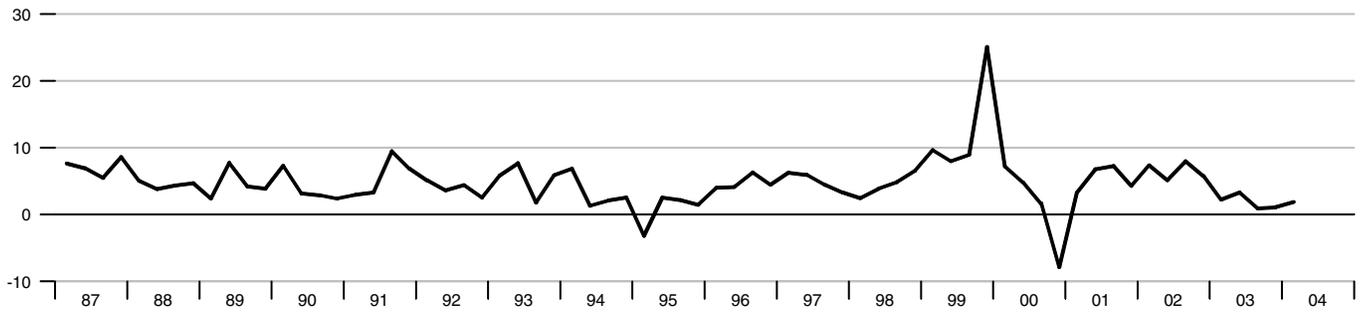
**Real Effective Exchange Rate**

Index 2000 = 100



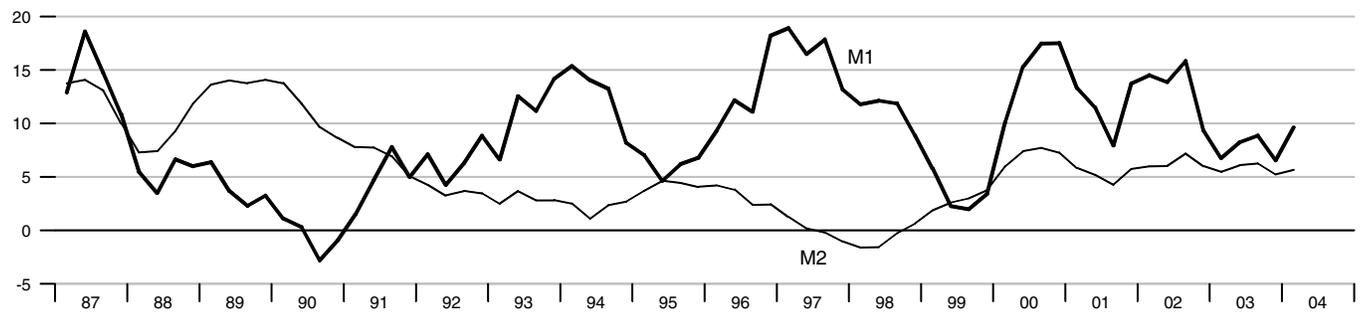
**Reserve Money**

Percent change from year ago



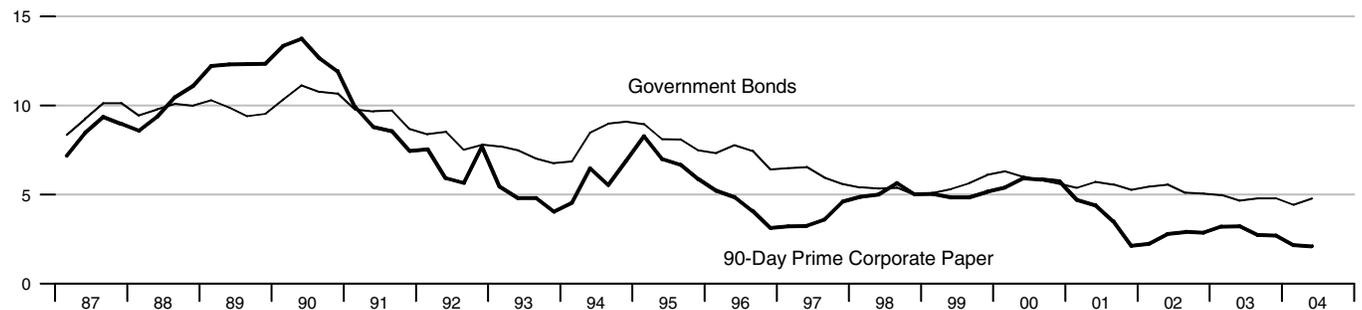
**Monetary Aggregates**

Percent change from year ago



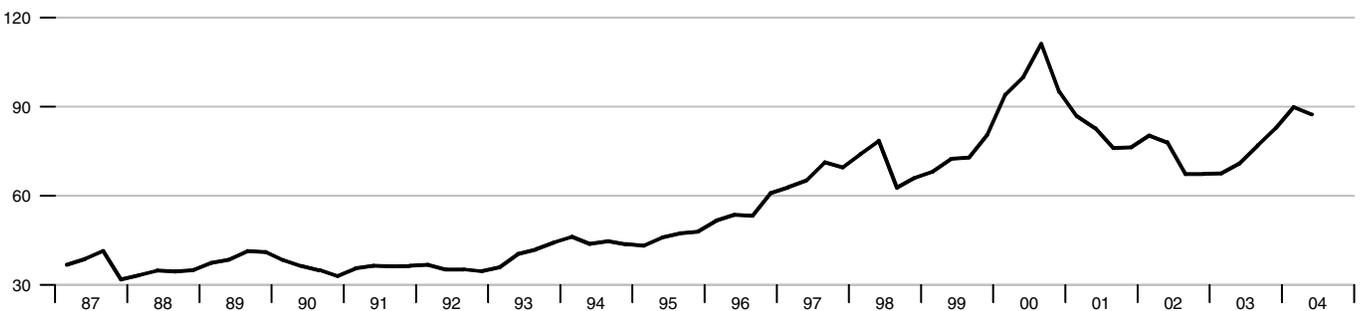
**Interest Rates**

Percent



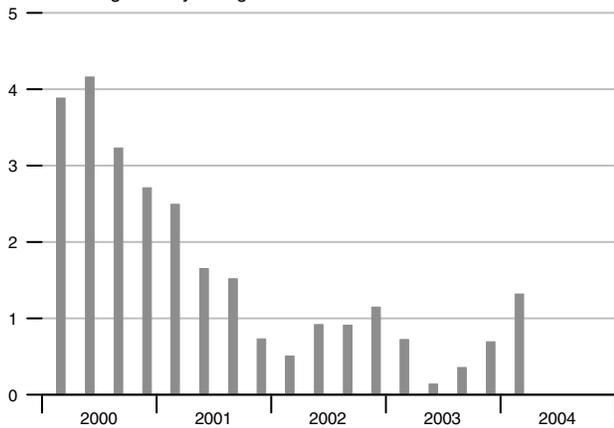
**Stock Exchange Index - Toronto Stock Exchange**

2000 = 100



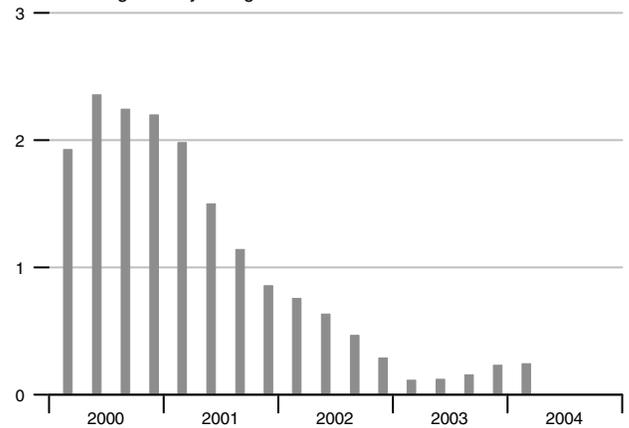
**Real GDP**

Percent change from year ago



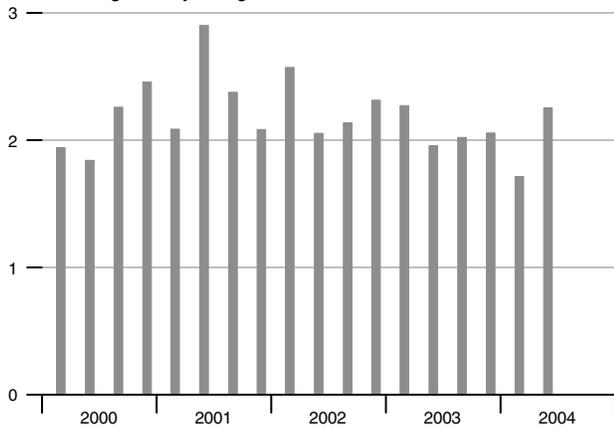
**Employment**

Percent change from year ago



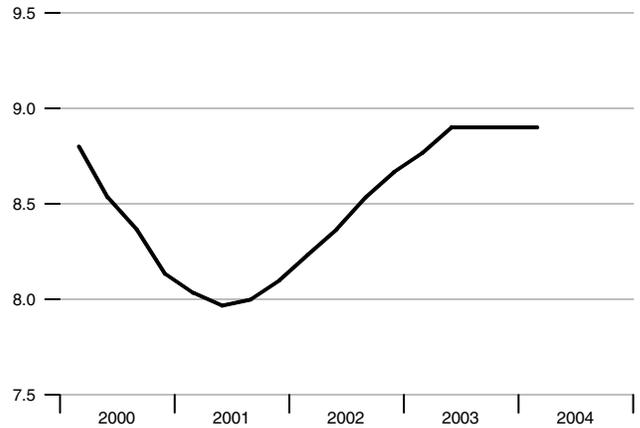
**Consumer Price Index**

Percent change from year ago



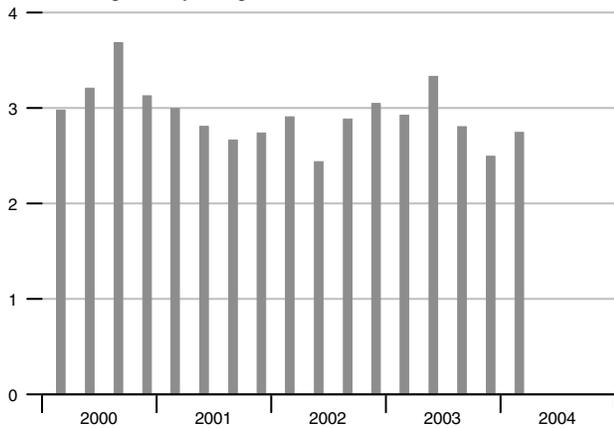
**Unemployment Rate**

Percent



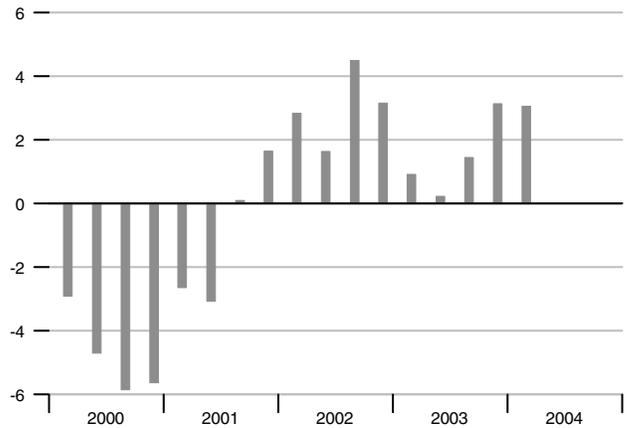
**Hourly Earnings**

Percent change from year ago



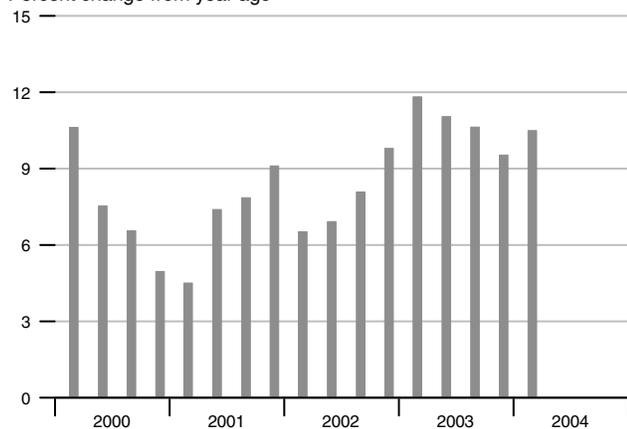
**Current Account Balance**

Percent of GDP



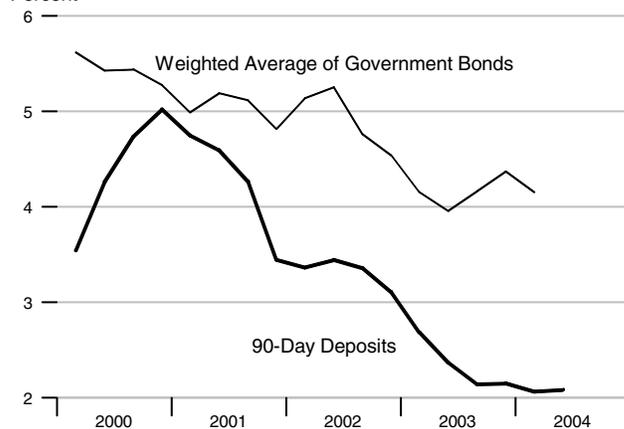
**M1**

Percent change from year ago



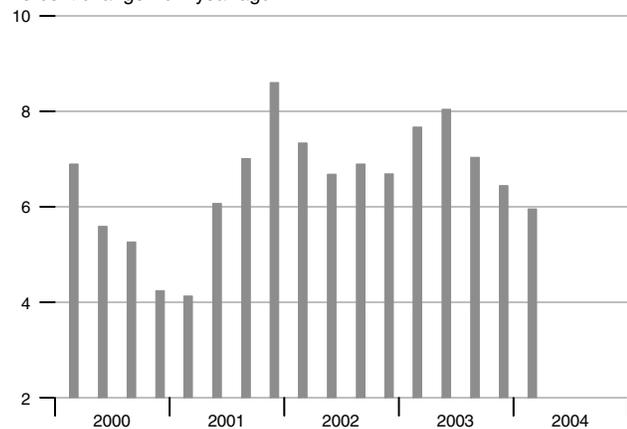
**Interest Rates**

Percent

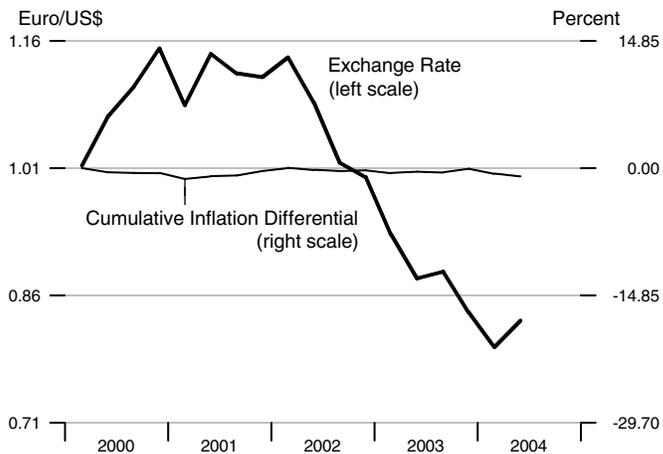


**M3**

Percent change from year ago

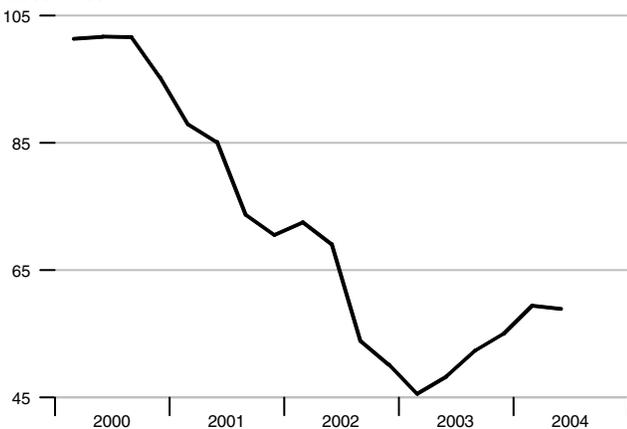


**Exchange Rate and Inflation Differential**



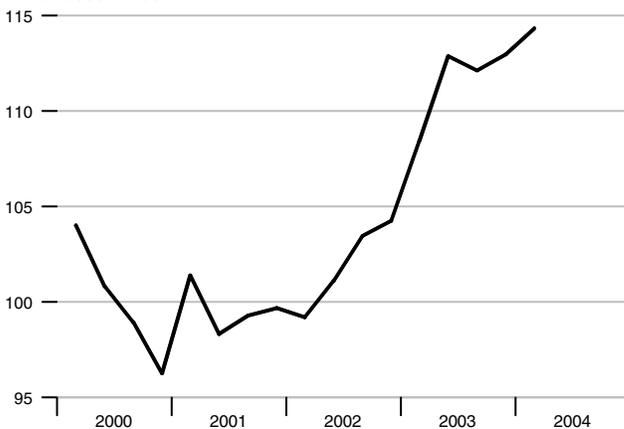
**Stock Exchange Index - Dow Jones EURO STOXX<sup>SM</sup>**

2000 = 100



**Real Effective Exchange Rate**

Index 2000 = 100



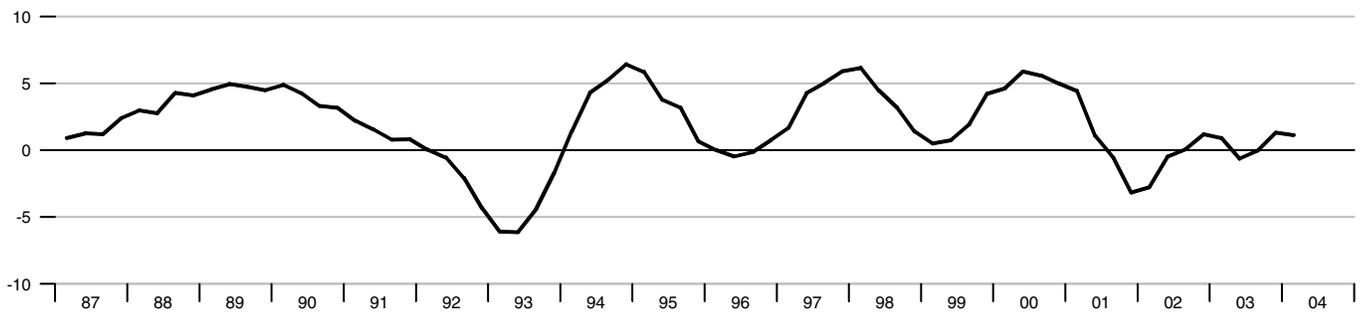
**GDP**

Percent change from year ago



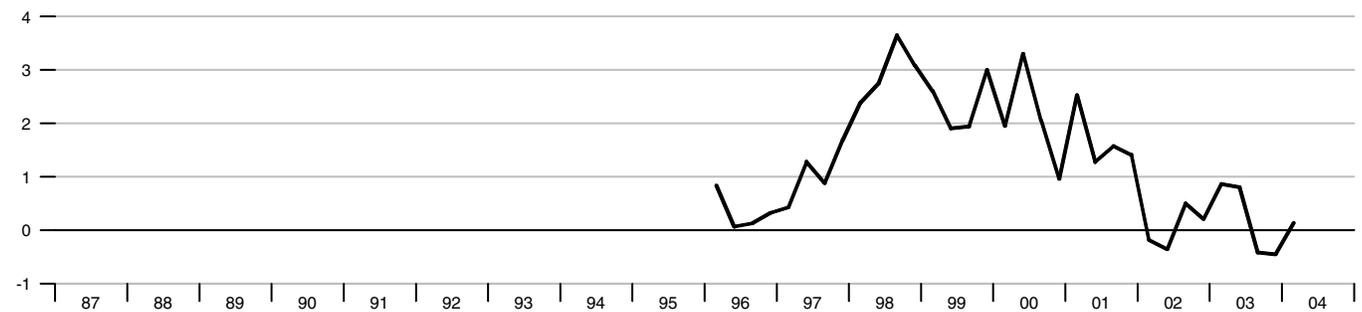
**Industrial Production**

Percent change from year ago



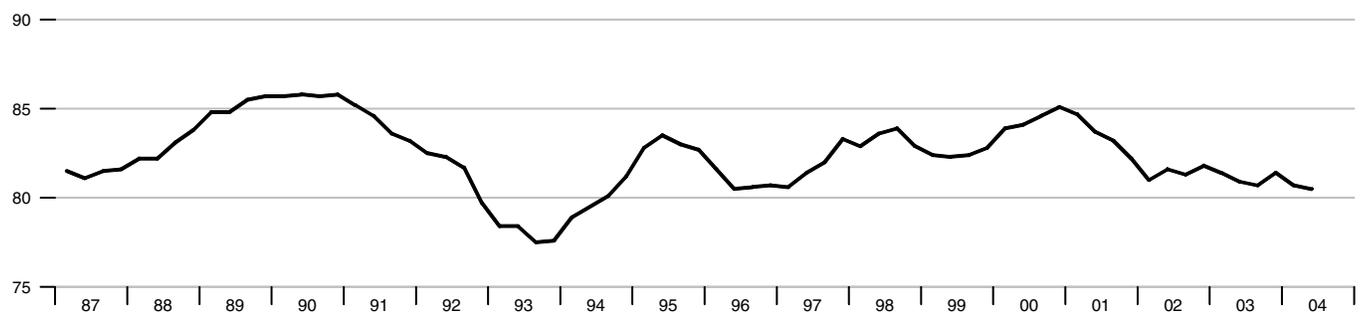
**Retail Sales**

Percent change from year ago

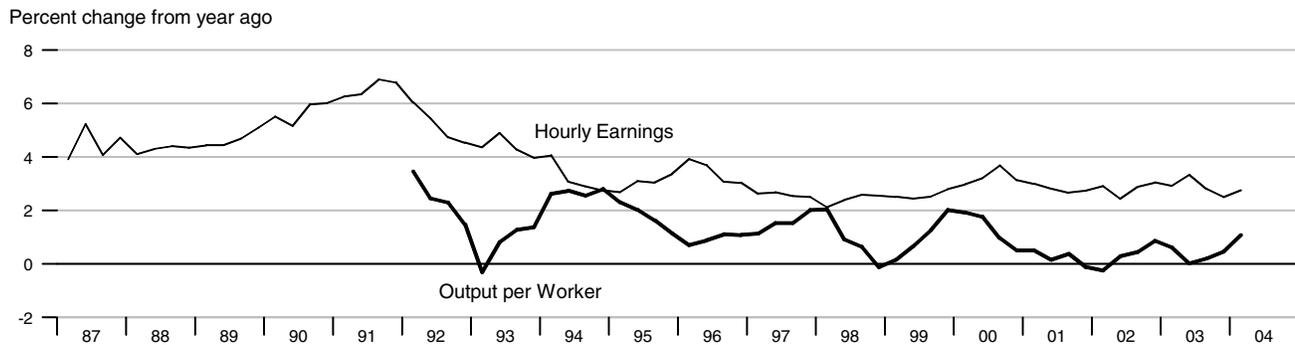


**Capacity Utilization**

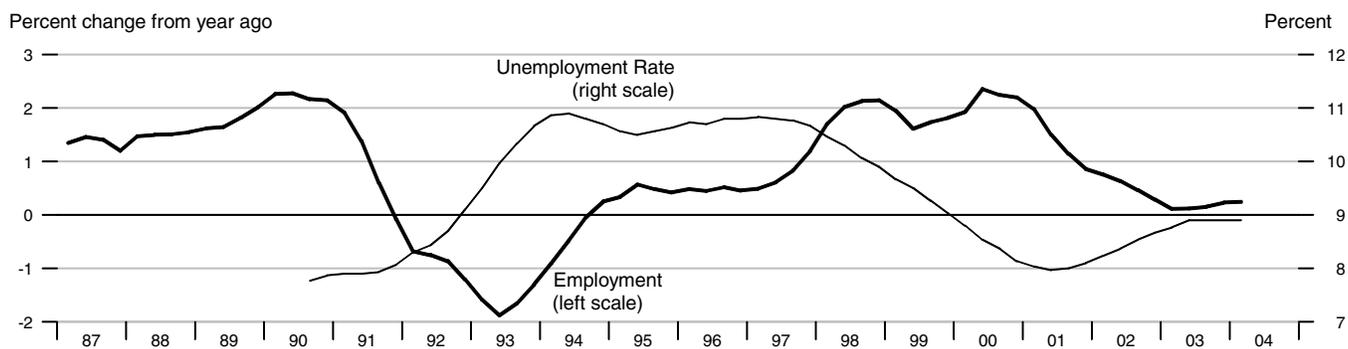
Percent



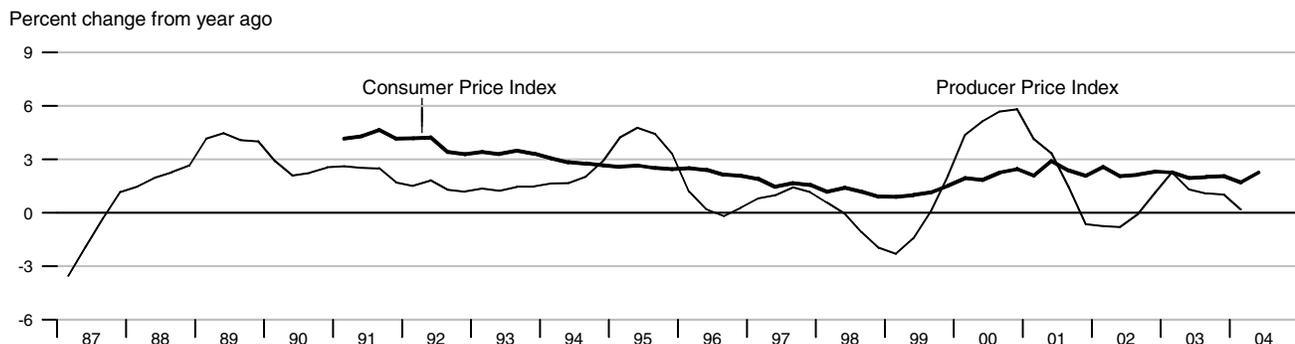
### Hourly Earnings and Output per Worker



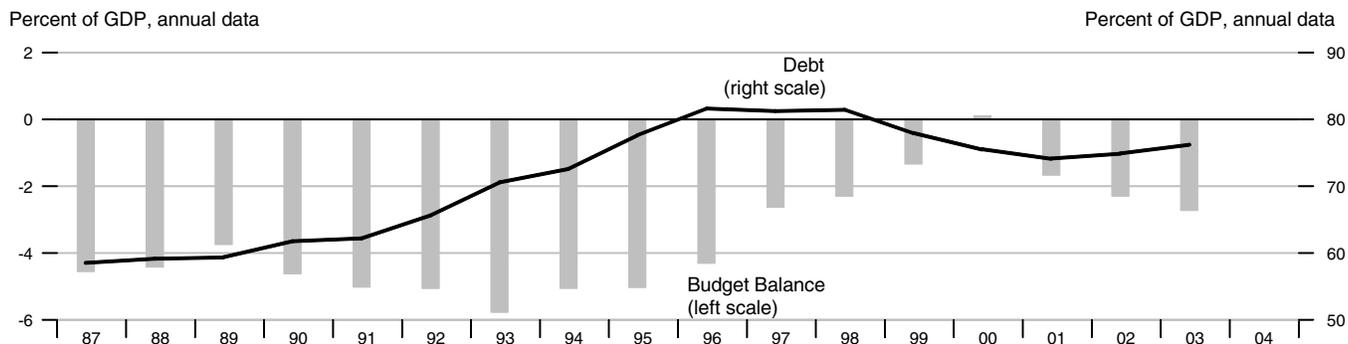
### Labor Force Indicators



### Inflation

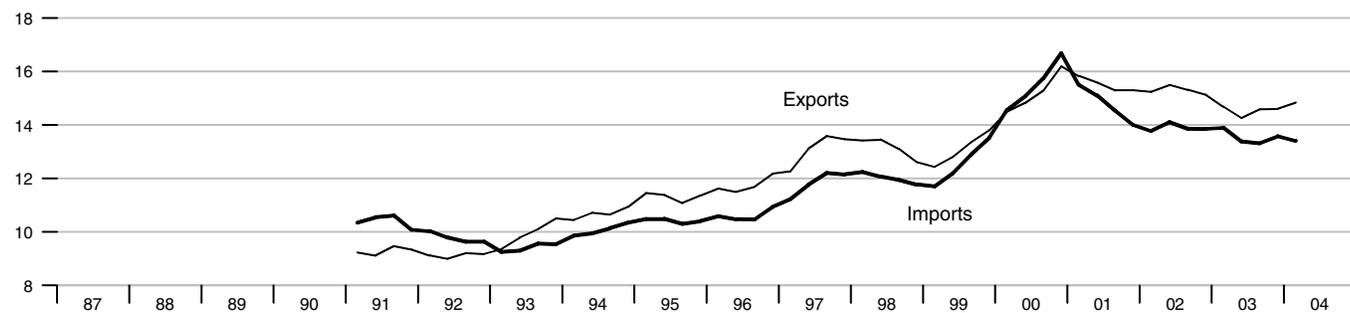


### Government Debt and Budget Balance



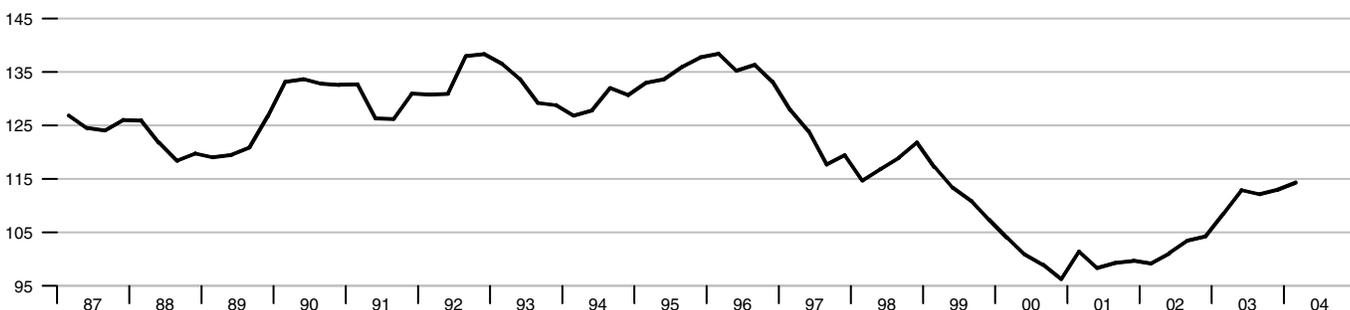
**International Trade - Goods**

Percent of GDP



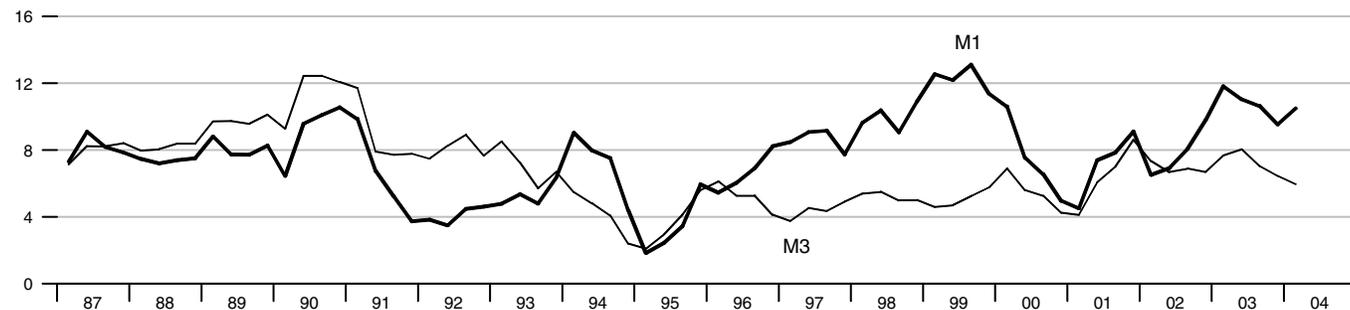
**Real Effective Exchange Rate**

Index 2000 = 100



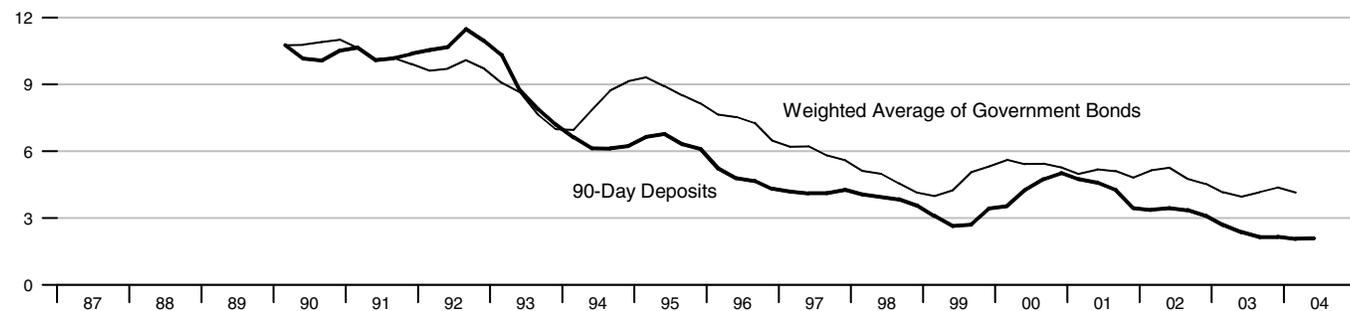
**Monetary Aggregates**

Percent change from year ago



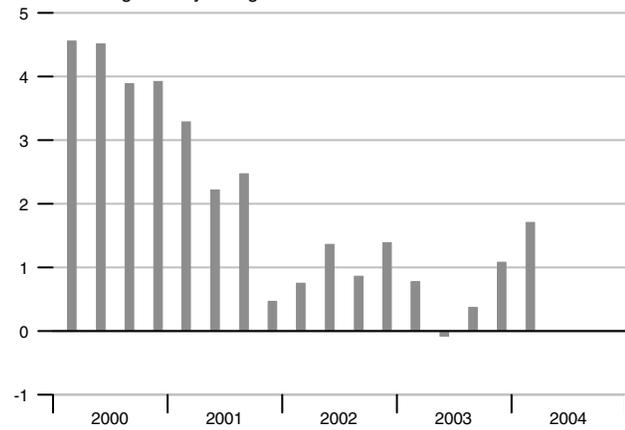
**Interest Rates**

Percent



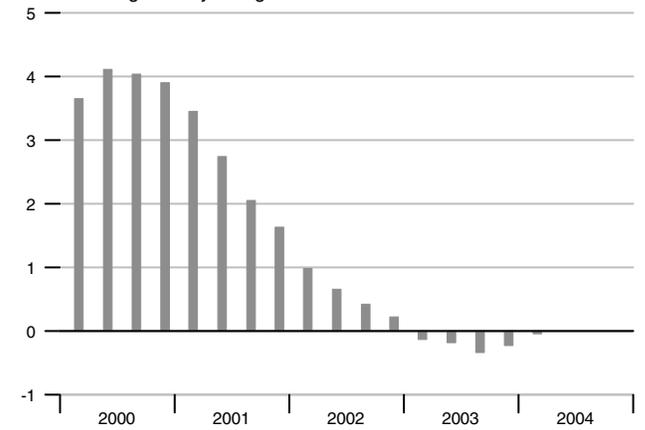
**Real GDP**

Percent change from year ago



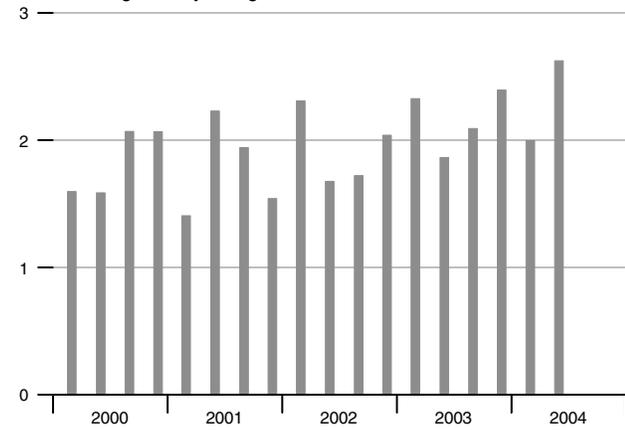
**Employment**

Percent change from year ago



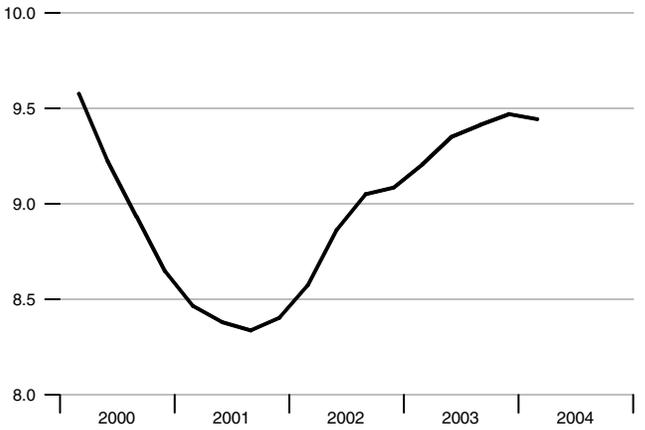
**Consumer Price Index**

Percent change from year ago



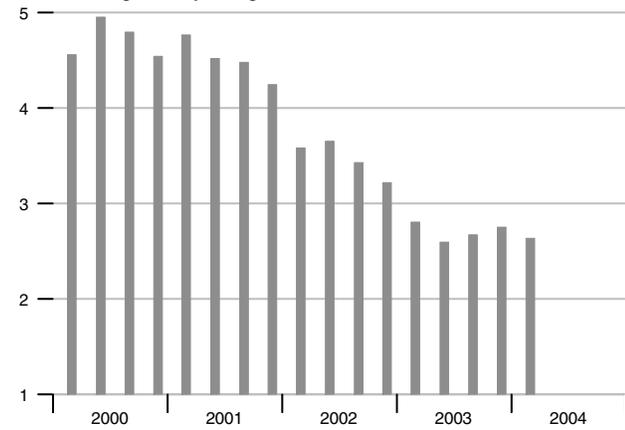
**Unemployment Rate**

Percent



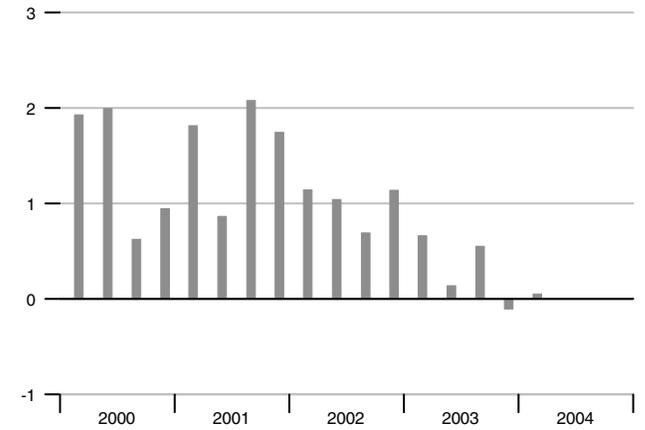
**Hourly Earnings**

Percent change from year ago



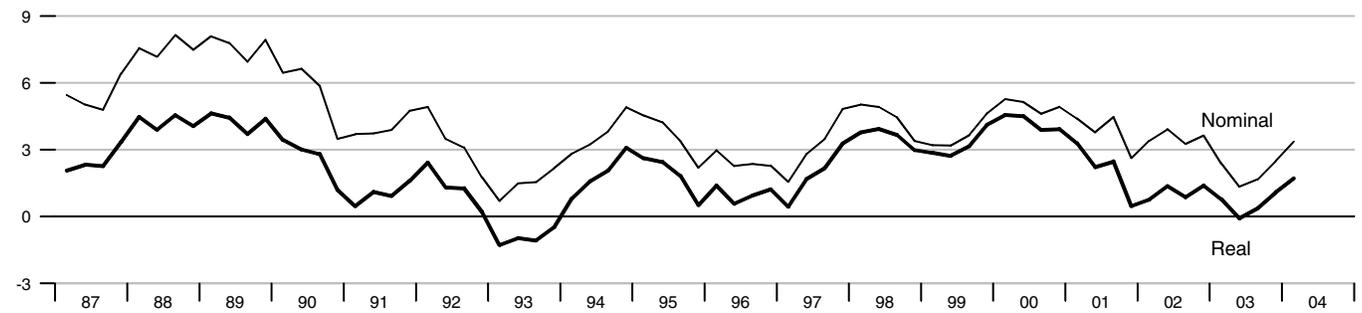
**Current Account Balance**

Percent of GDP



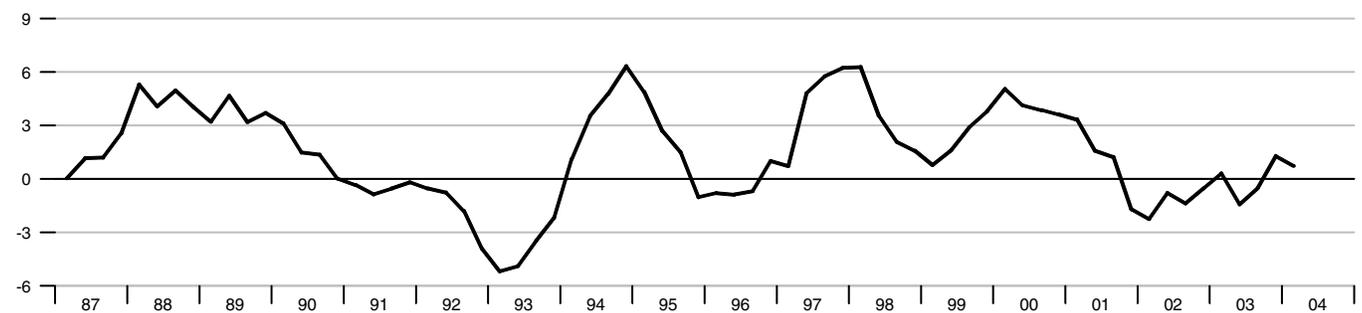
**GDP**

Percent change from year ago



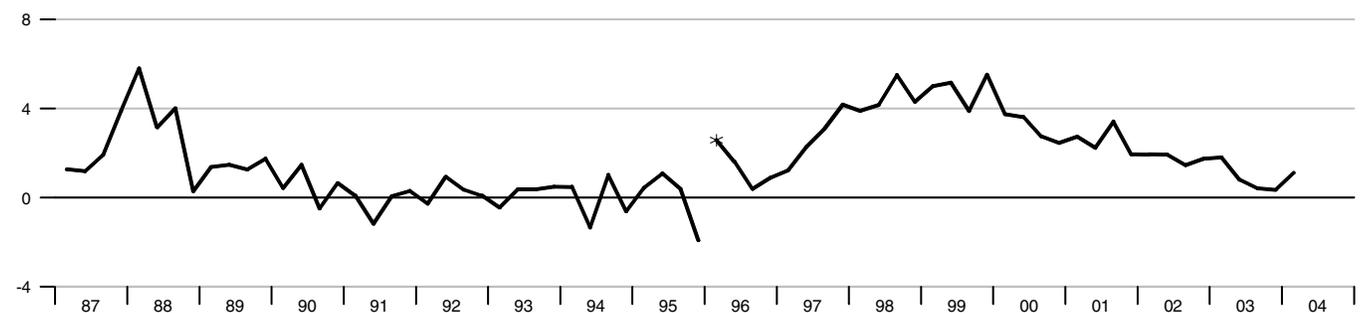
**Industrial Production**

Percent change from year ago



**Retail Sales**

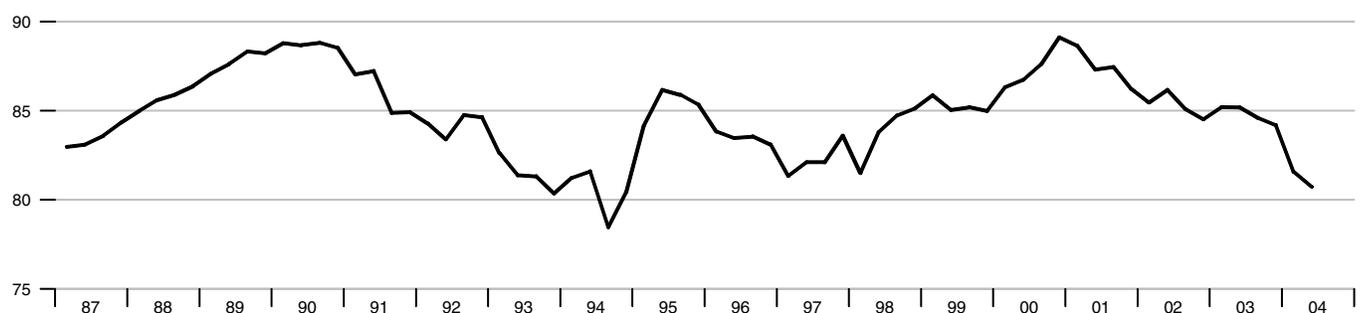
Percent change from year ago



\*Data prior to 1996 may not be strictly comparable with later figures (see Sources).

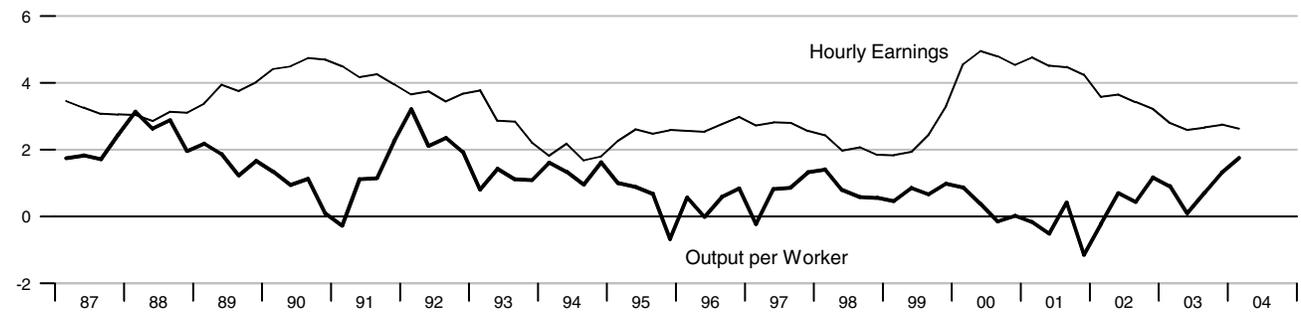
**Capacity Utilization**

Percent



### Hourly Earnings and Output per Worker

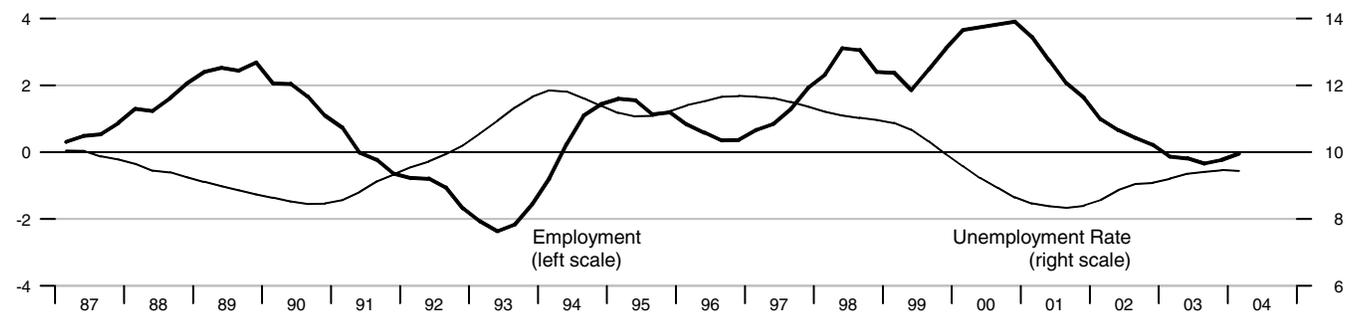
Percent change from year ago



### Labor Force Indicators

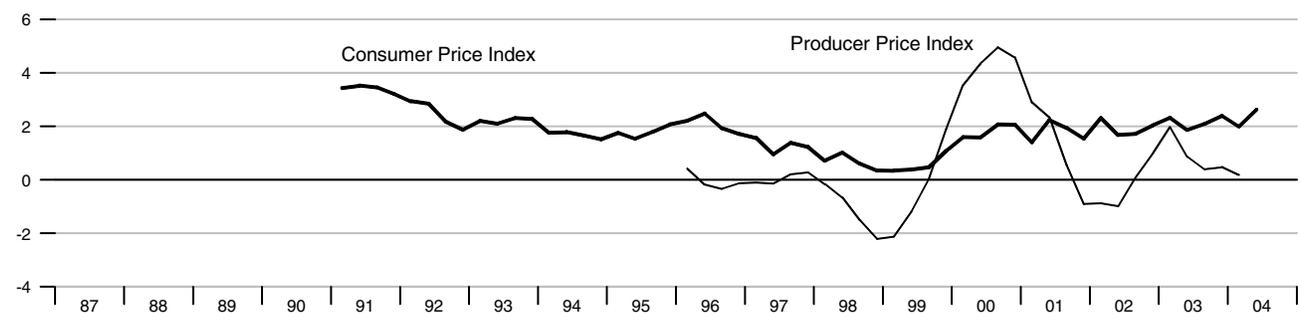
Percent change from year ago

Percent



### Inflation

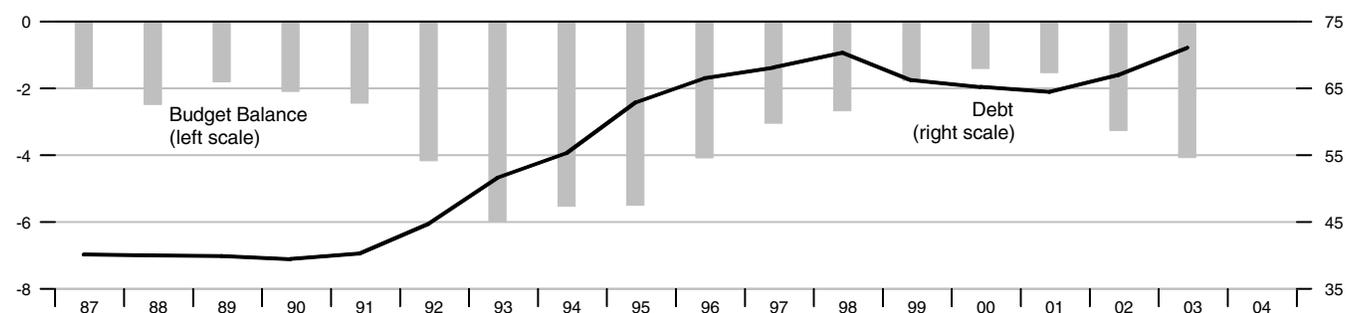
Percent change from year ago



### Government Debt and Budget Balance

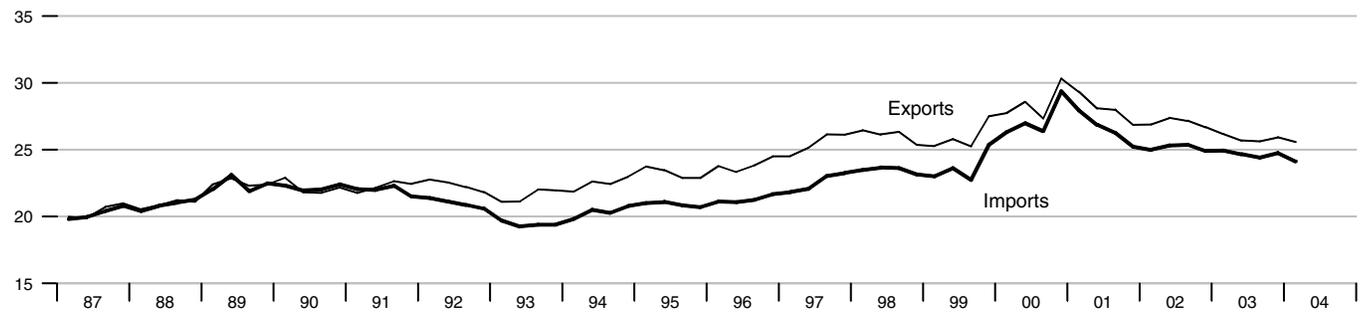
Percent of GDP, annual data

Percent of GDP, annual data



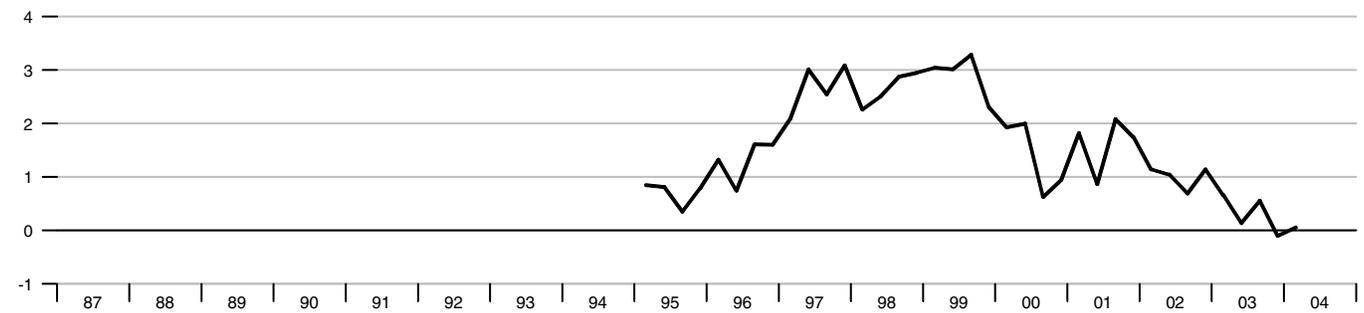
**International Trade - Goods and Services**

Percent of GDP



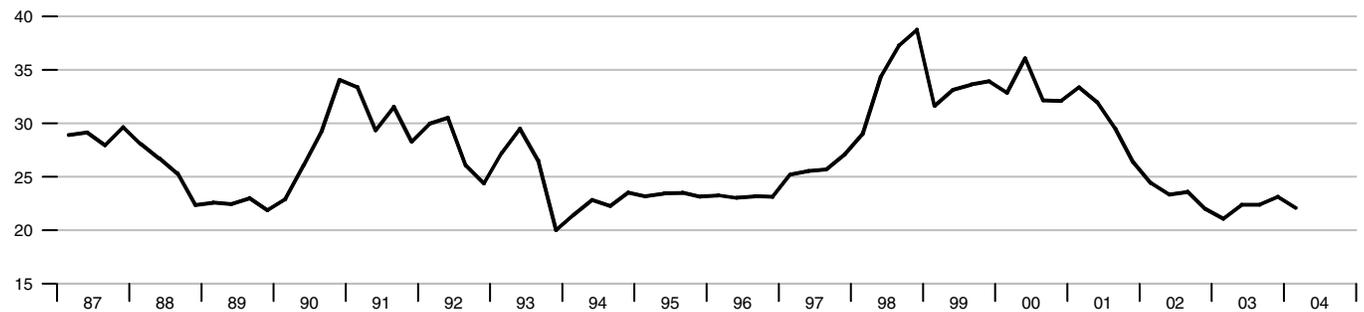
**Current Account Balance**

Percent of GDP



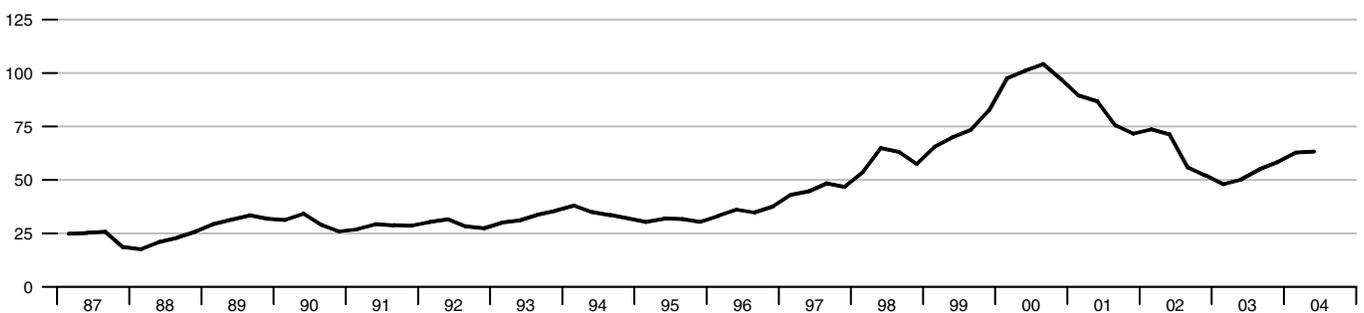
**Foreign Exchange Reserves**

Billions of US\$



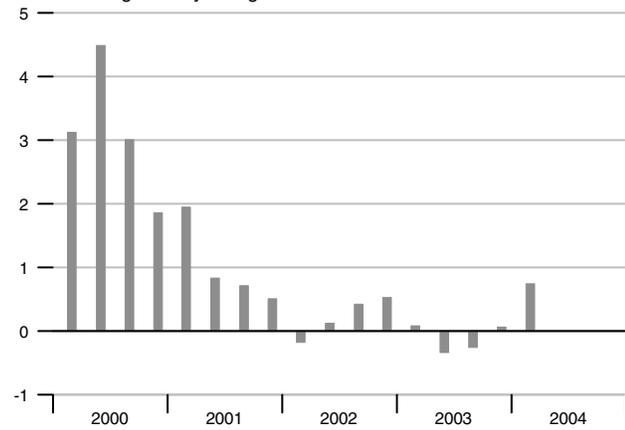
**Stock Exchange Index - SBF 250**

2000 = 100



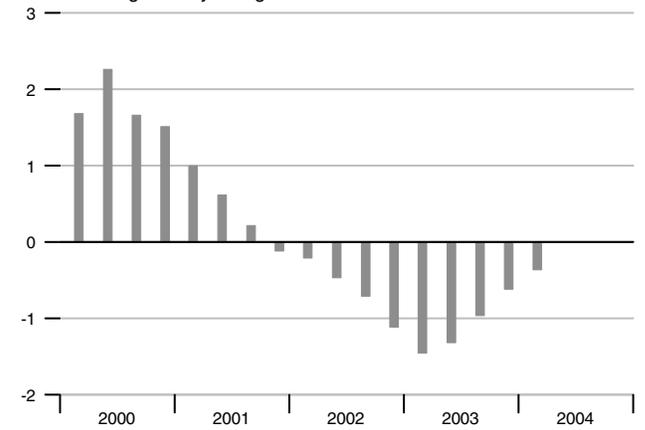
**Real GDP**

Percent change from year ago



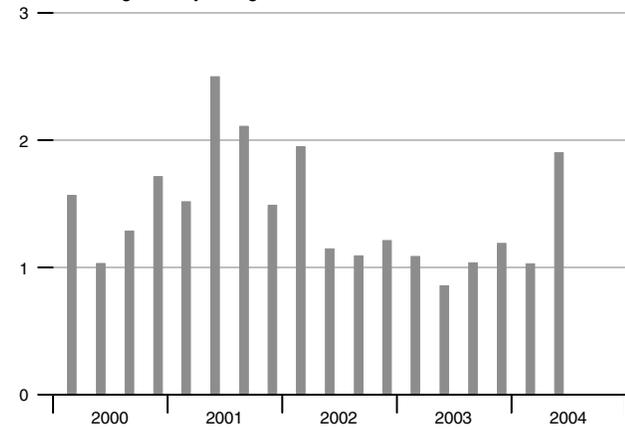
**Employment**

Percent change from year ago



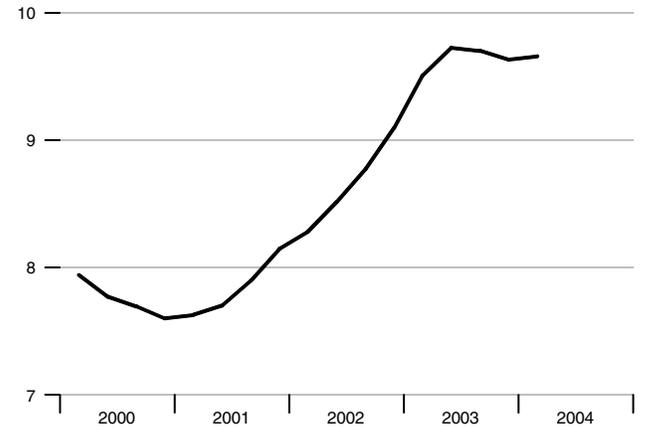
**Consumer Price Index**

Percent change from year ago



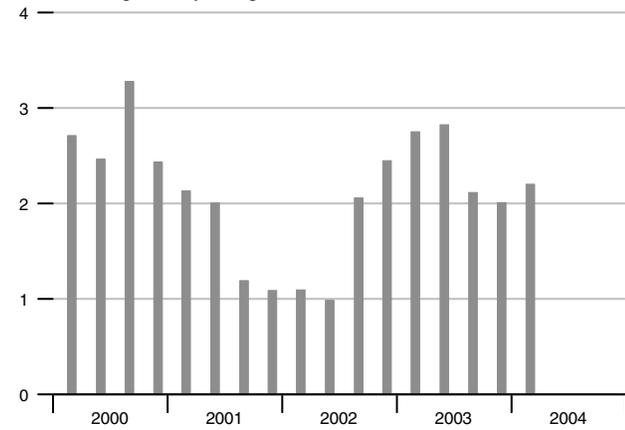
**Unemployment Rate**

Percent



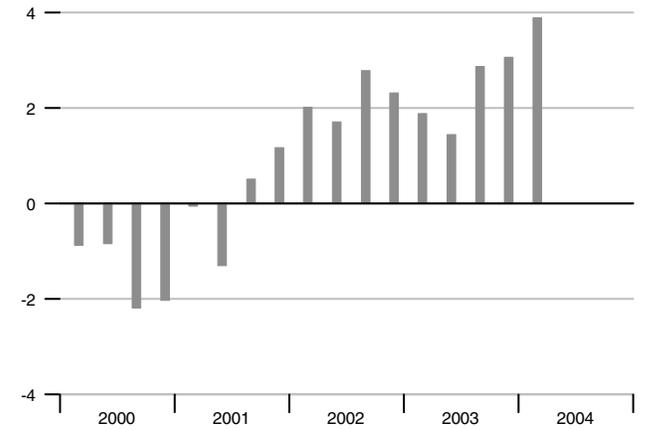
**Hourly Earnings**

Percent change from year ago



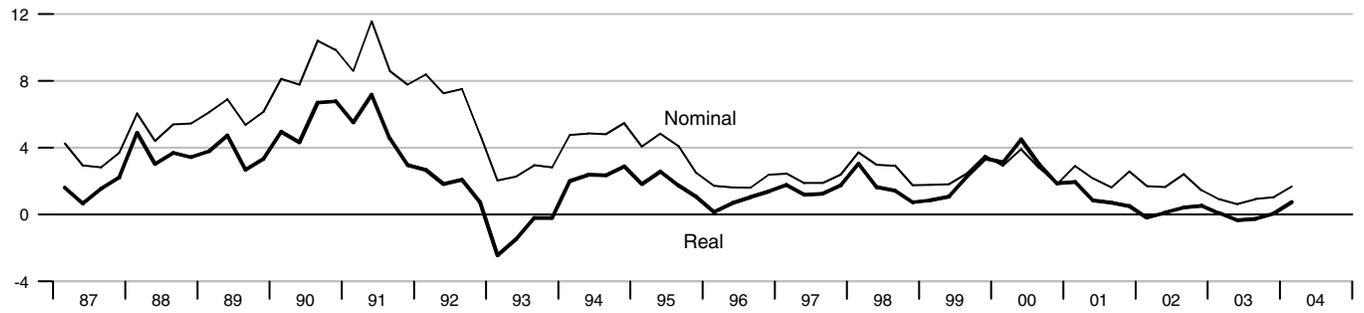
**Current Account Balance**

Percent of GDP



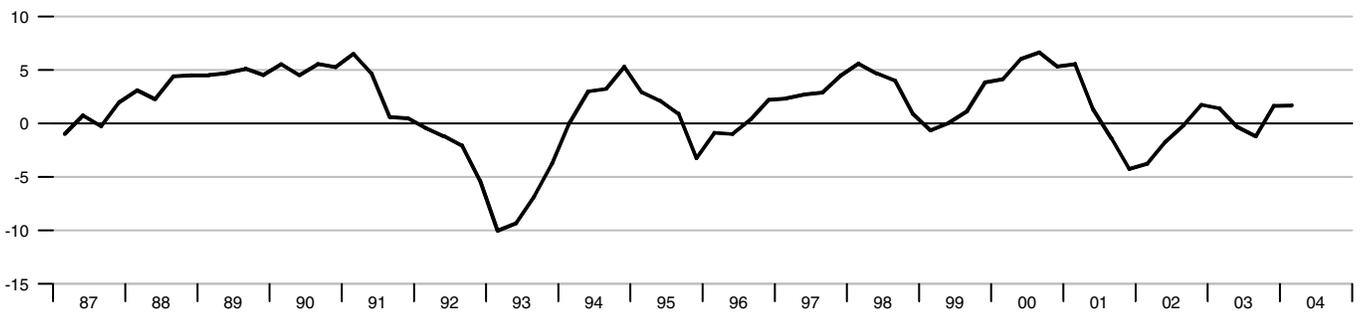
**GDP**

Percent change from year ago



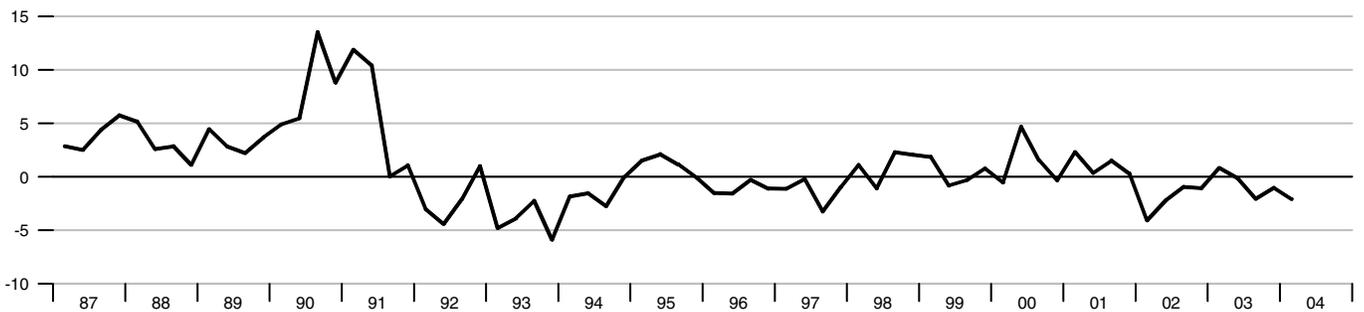
**Industrial Production**

Percent change from year ago



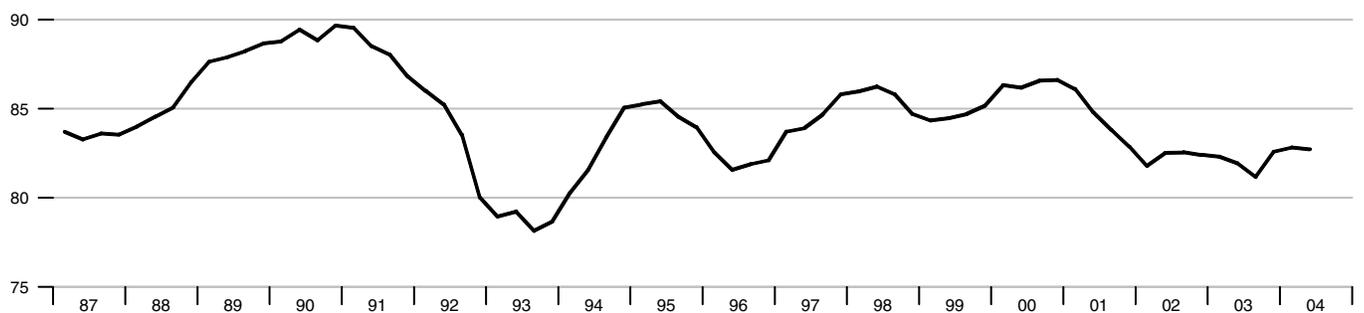
**Retail Sales**

Percent change from year ago



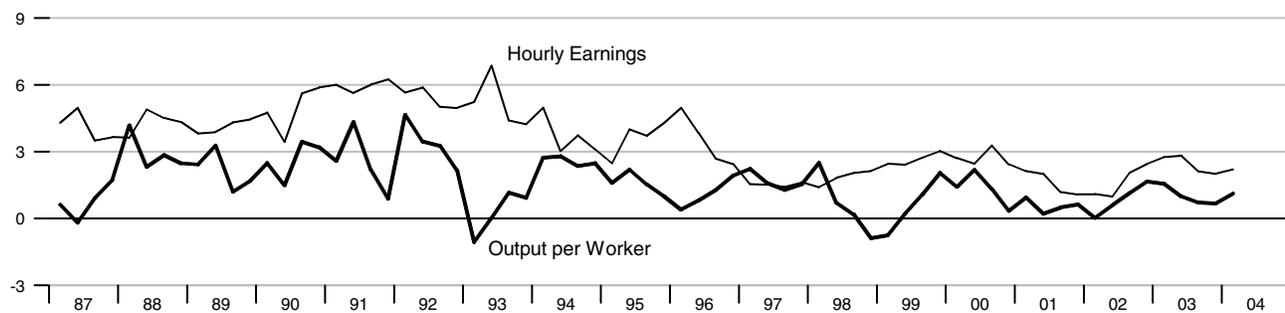
**Capacity Utilization**

Percent



### Hourly Earnings and Output per Worker

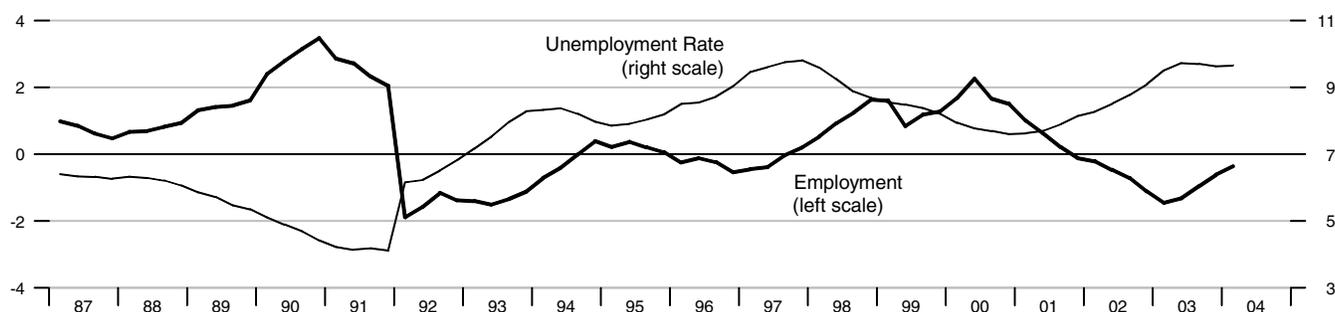
Percent change from year ago



### Labor Force Indicators

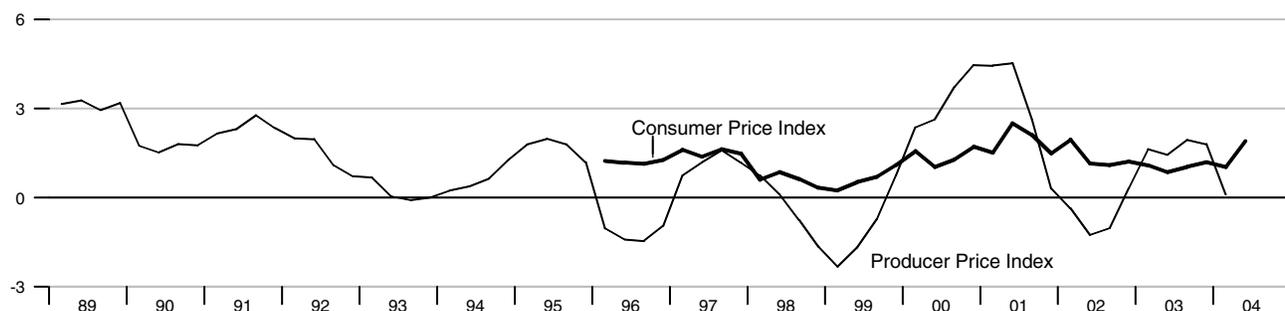
Percent change from year ago

Percent



### Inflation

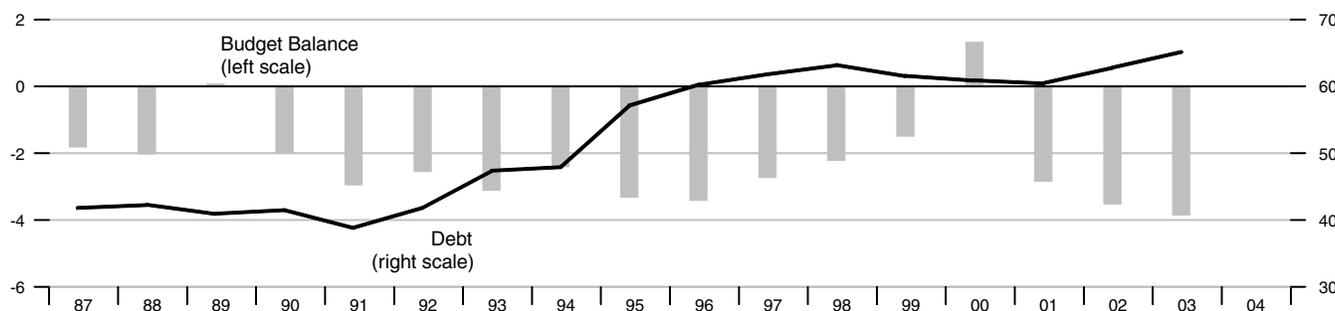
Percent change from year ago



### Government Debt and Budget Balance

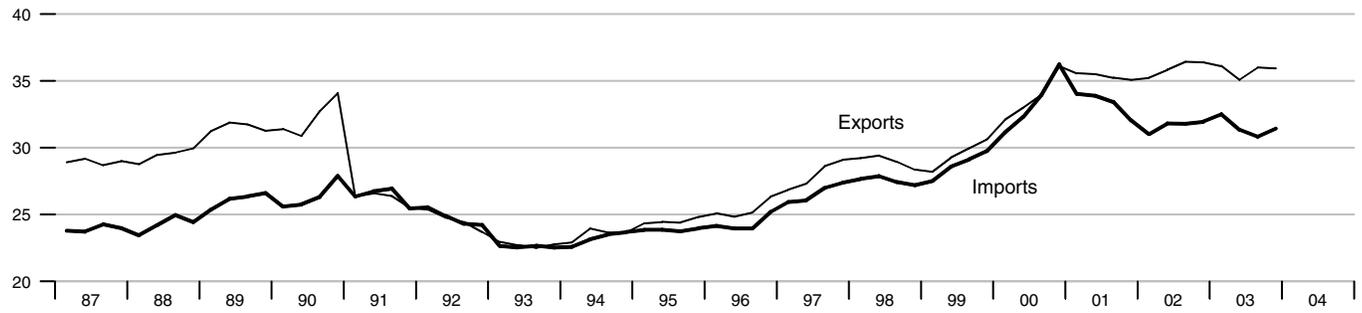
Percent of GDP, annual data

Percent of GDP, annual data



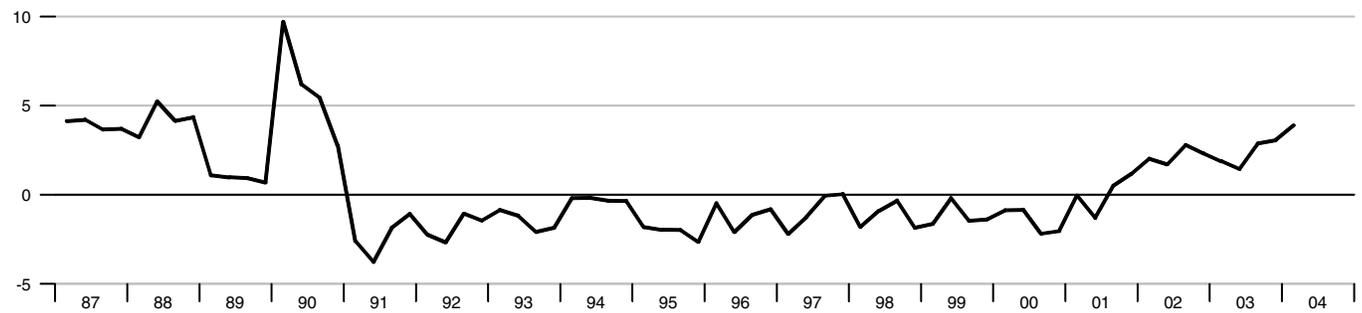
**International Trade - Goods and Services**

Percent of GDP



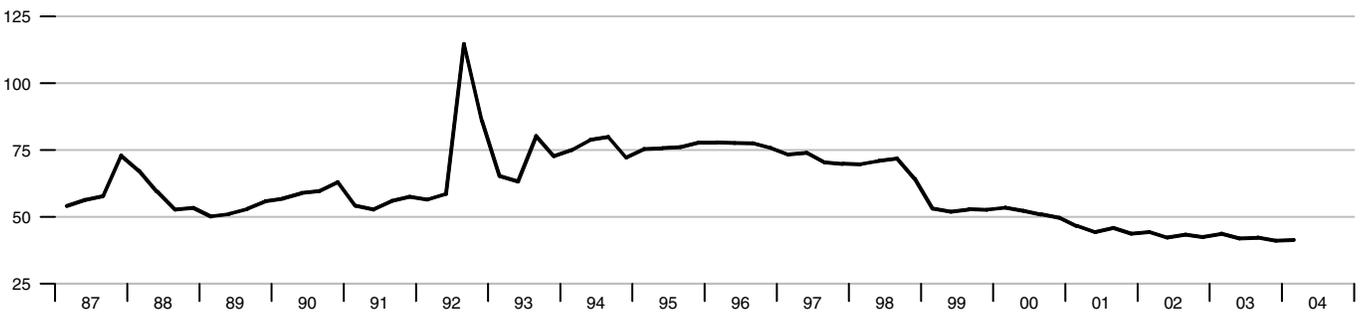
**Current Account Balance**

Percent of GDP



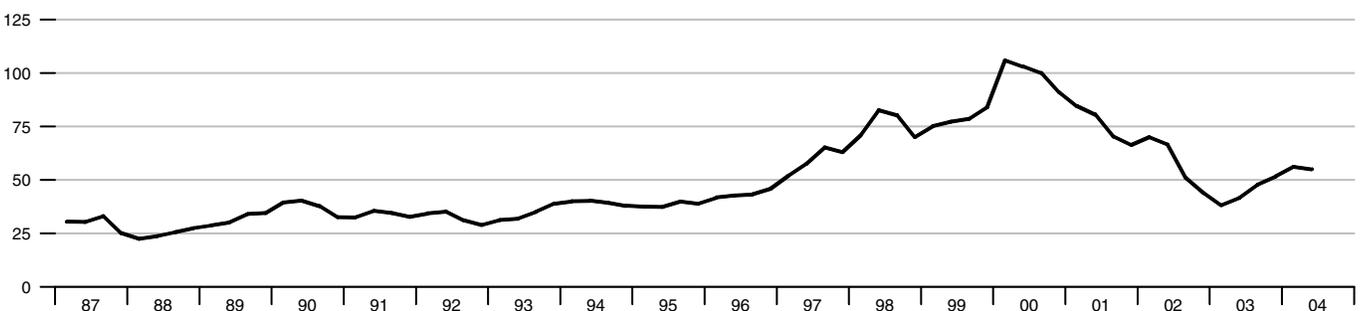
**Foreign Exchange Reserves**

Billions of US\$



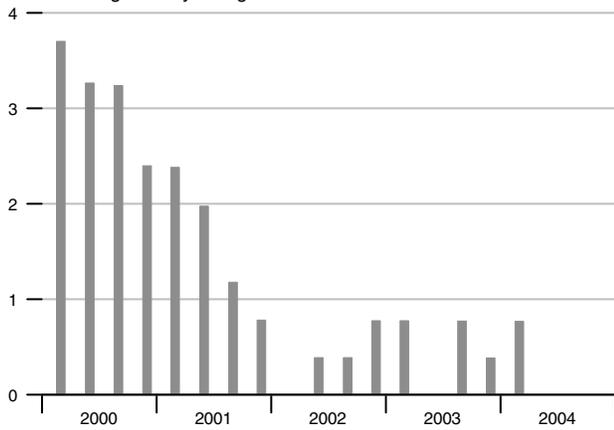
**Stock Exchange Index - CDAX**

2000 = 100



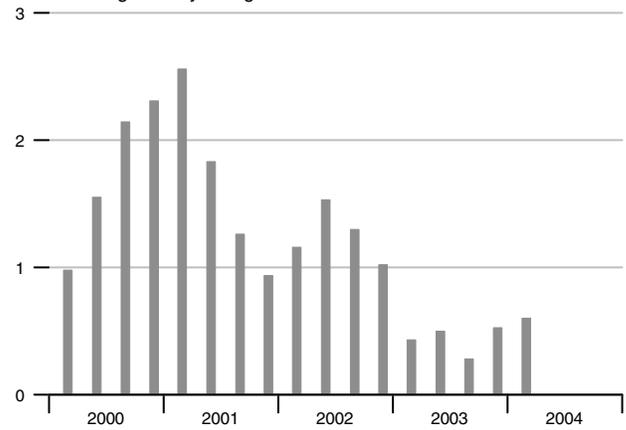
**Real GDP**

Percent change from year ago



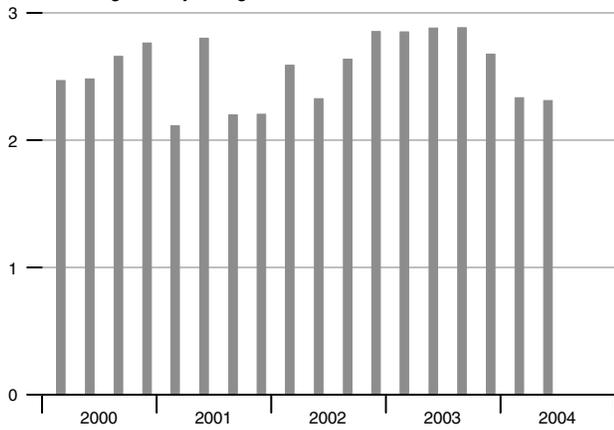
**Employment**

Percent change from year ago



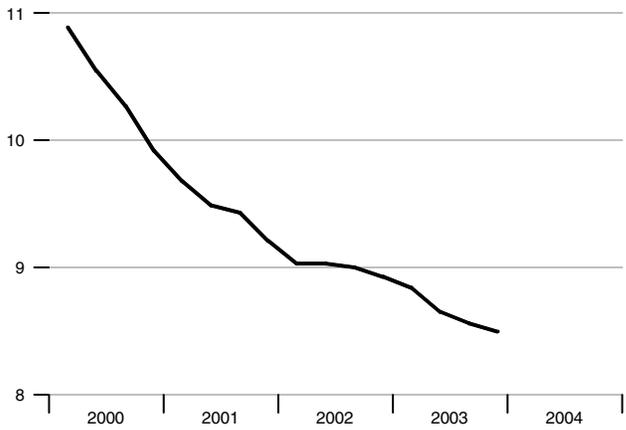
**Consumer Price Index**

Percent change from year ago



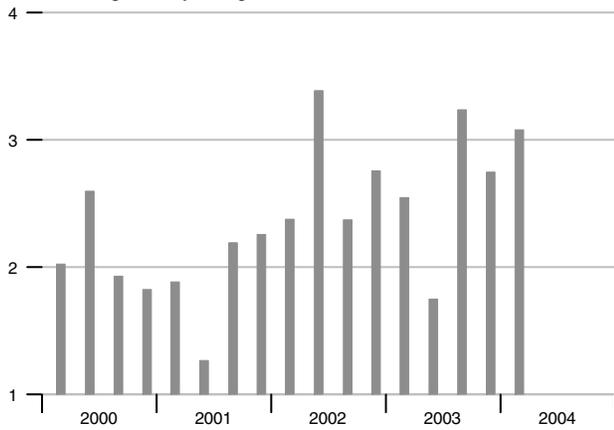
**Unemployment Rate**

Percent



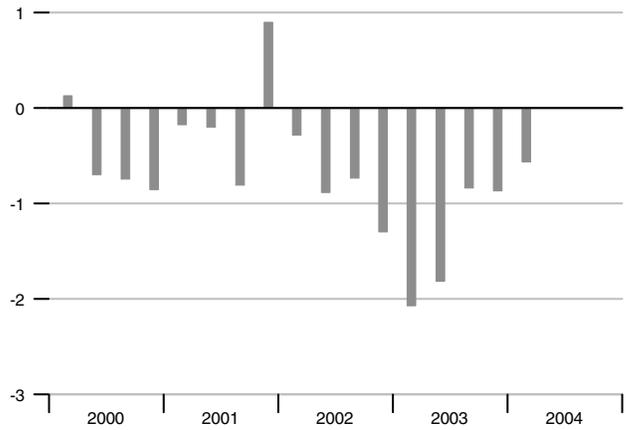
**Hourly Earnings**

Percent change from year ago



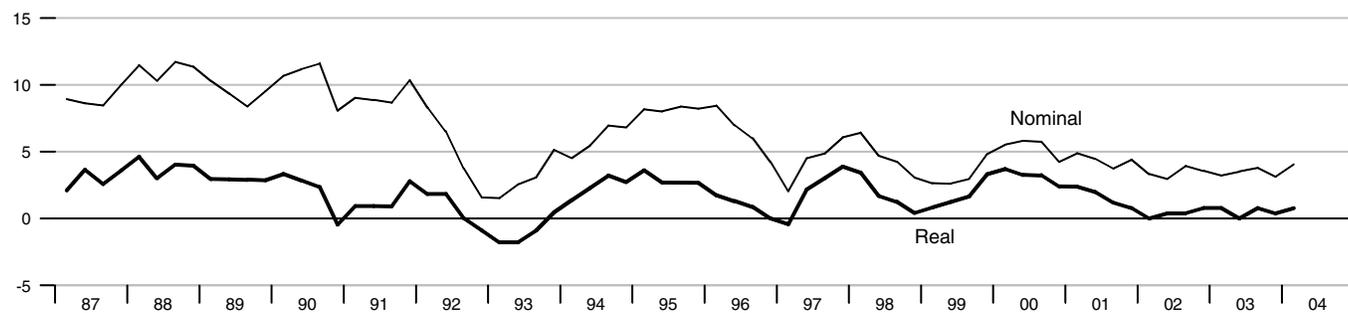
**Current Account Balance**

Percent of GDP



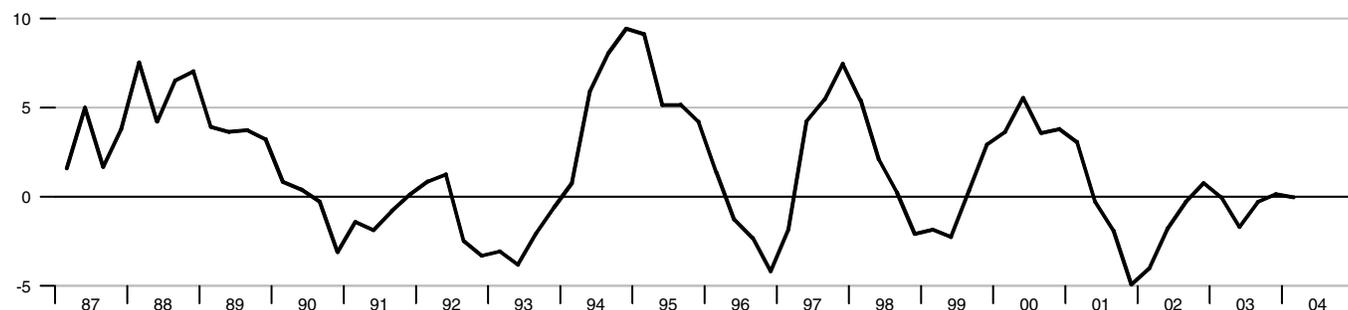
**GDP**

Percent change from year ago



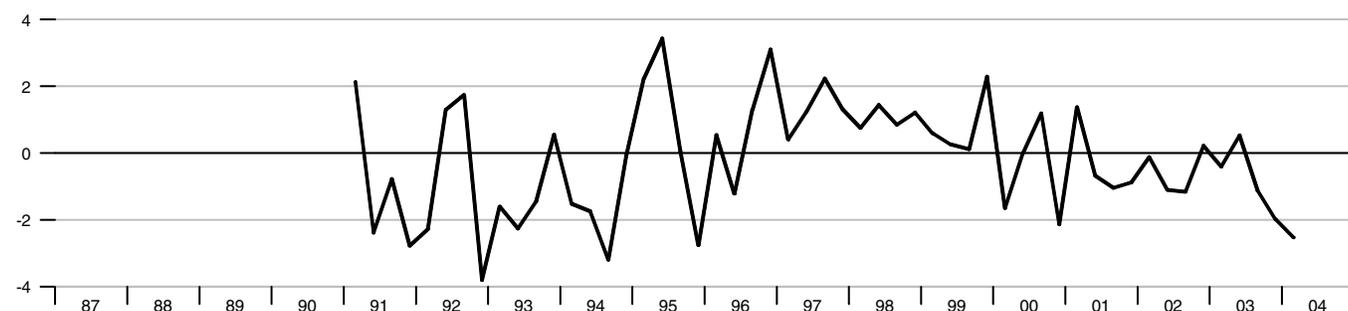
**Industrial Production**

Percent change from year ago



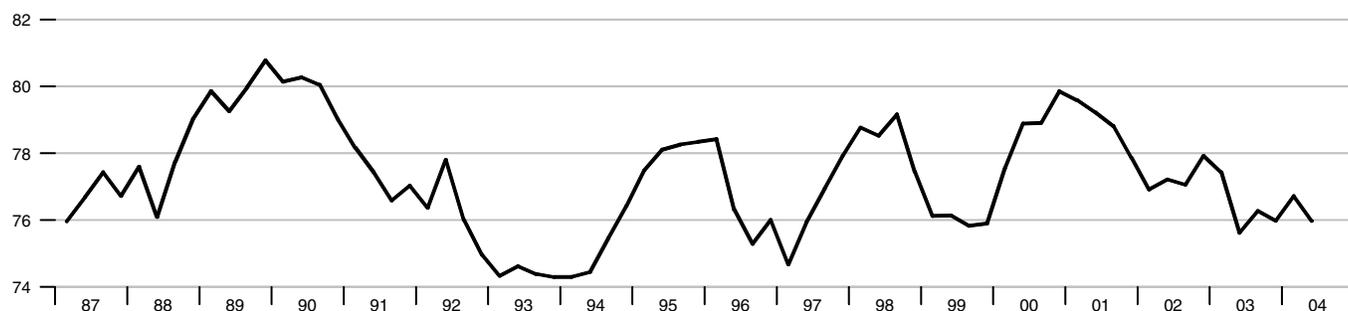
**Retail Sales**

Percent change from year ago



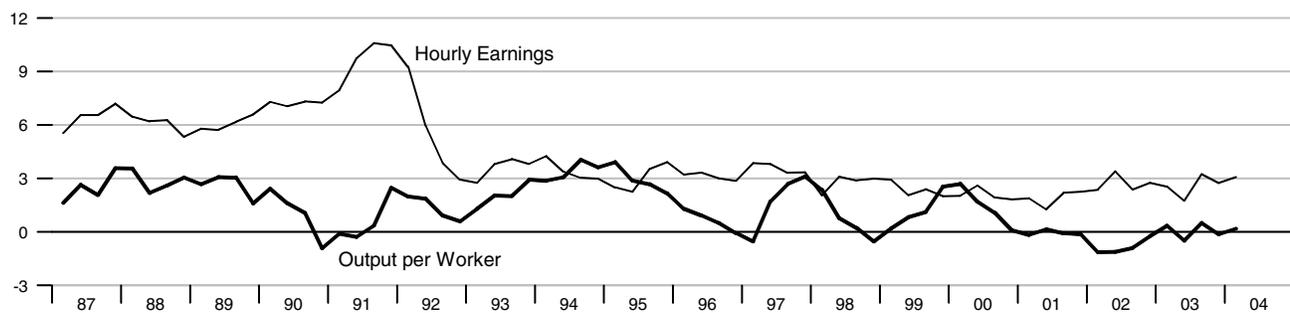
**Capacity Utilization**

Percent



### Hourly Earnings and Output per Worker

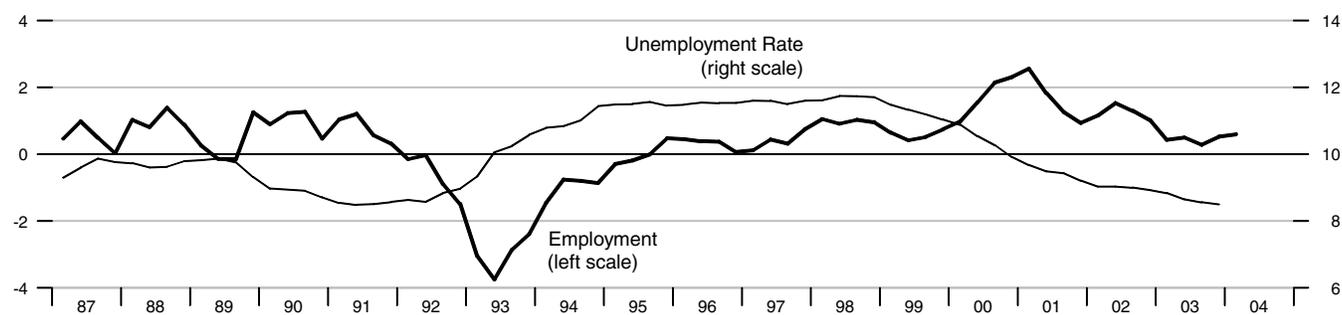
Percent change from year ago



### Labor Force Indicators

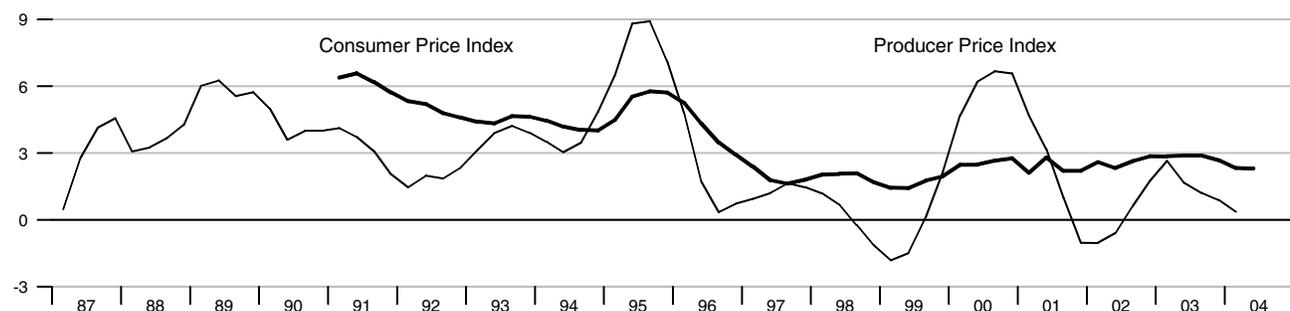
Percent change from year ago

Percent



### Inflation

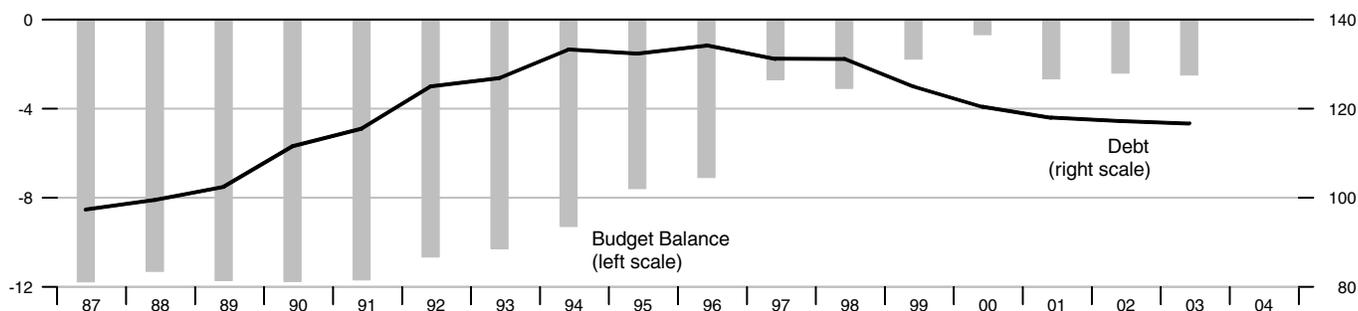
Percent change from year ago



### Government Debt and Budget Balance

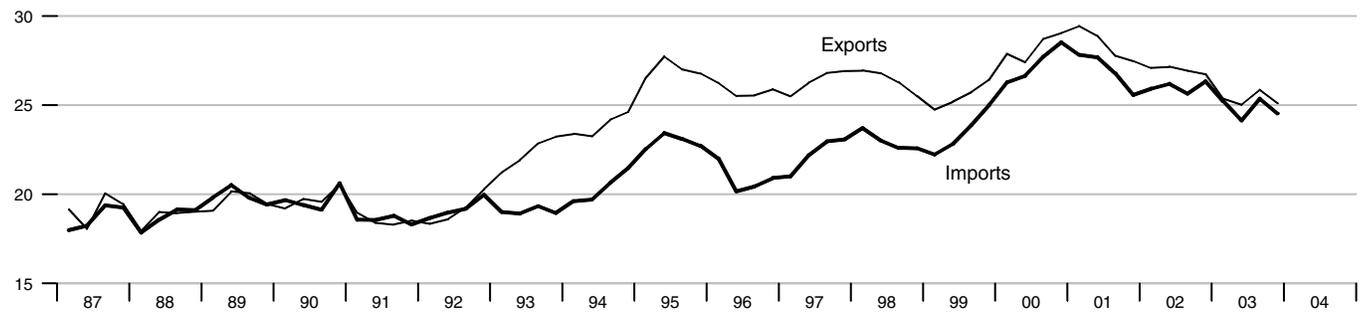
Percent of GDP, annual data

Percent of GDP, annual data



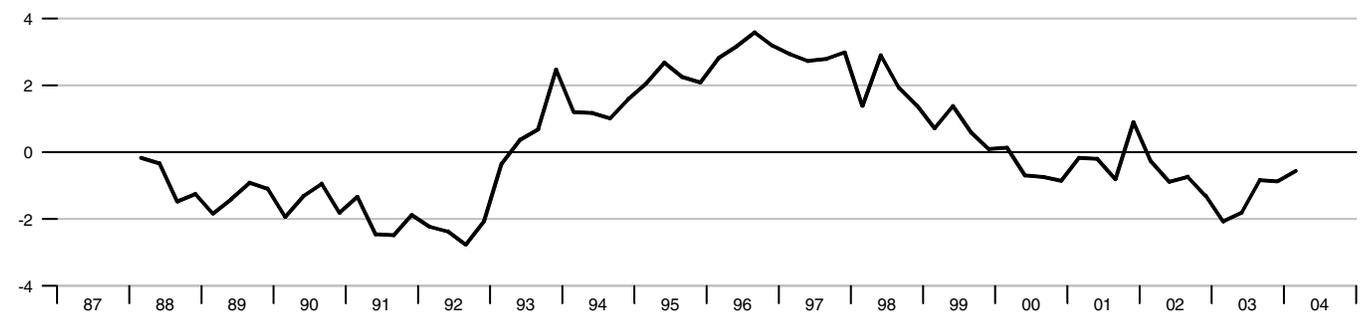
**International Trade - Goods and Services**

Percent of GDP



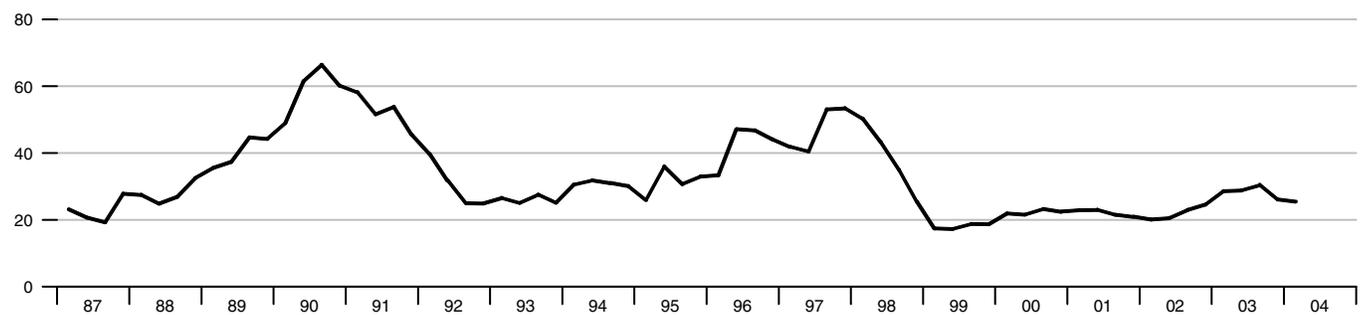
**Current Account Balance**

Percent of GDP



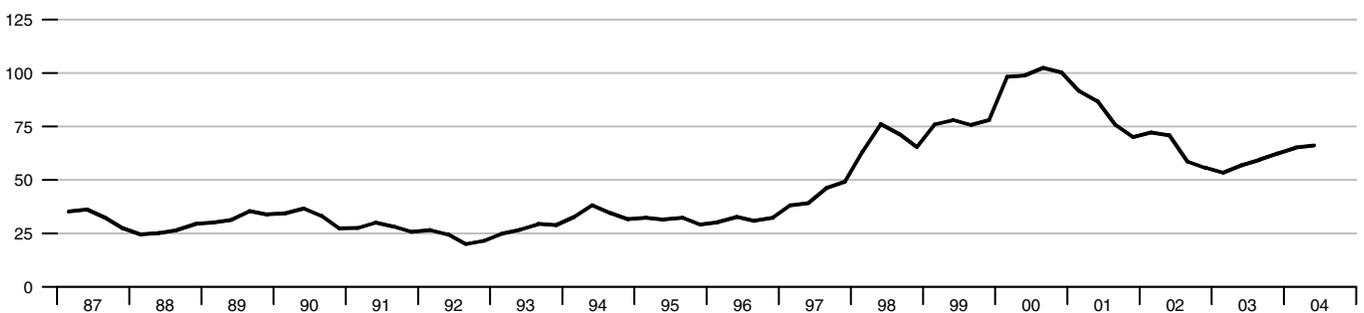
**Foreign Exchange Reserves**

Billions of US\$



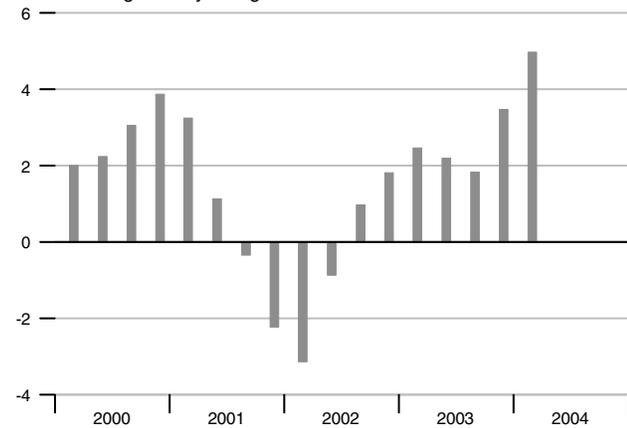
**Stock Exchange Index - Milan Stock Exchange**

2000 = 100



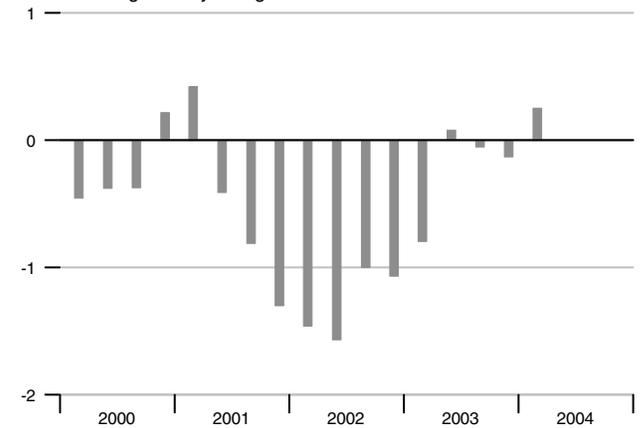
**Real GDP**

Percent change from year ago



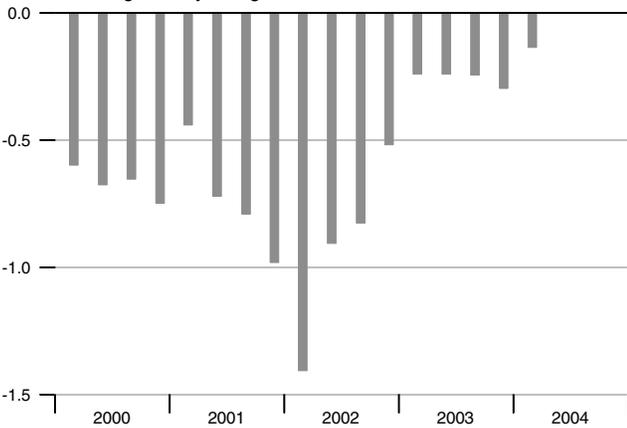
**Employment**

Percent change from year ago



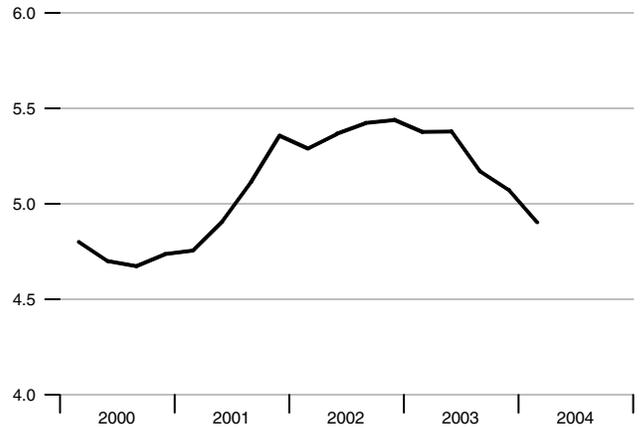
**Consumer Price Index**

Percent change from year ago



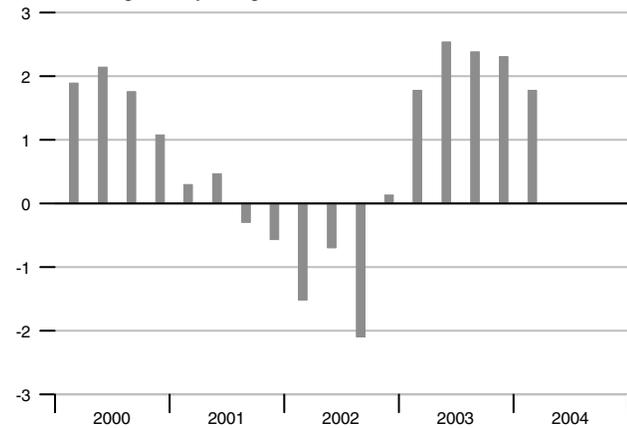
**Unemployment Rate**

Percent



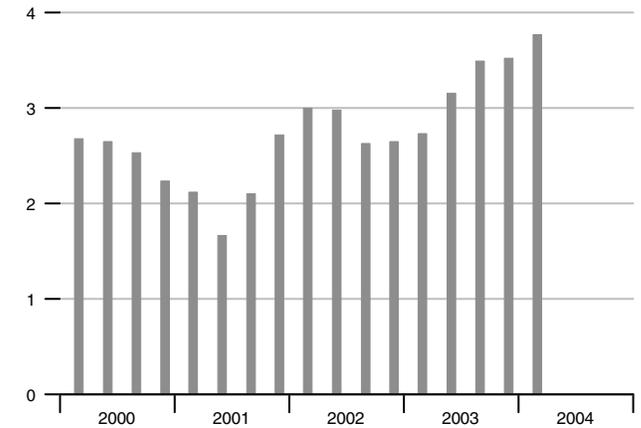
**Monthly Earnings**

Percent change from year ago

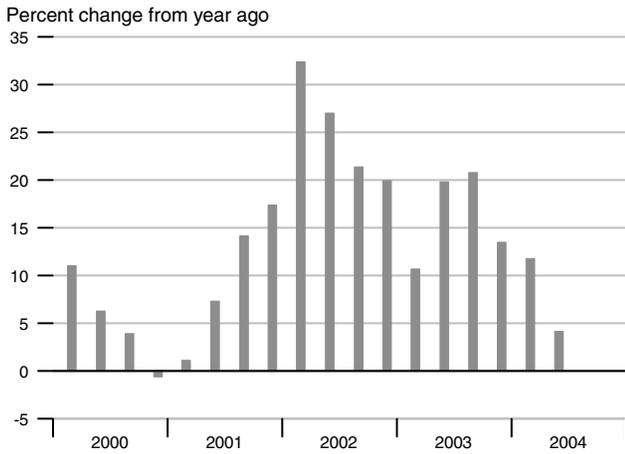


**Current Account Balance**

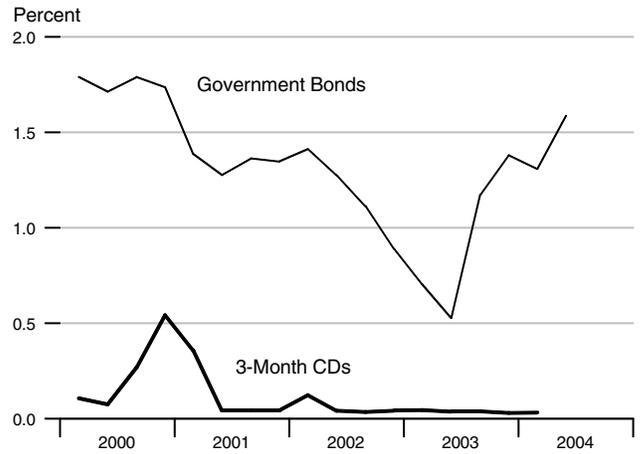
Percent of GDP



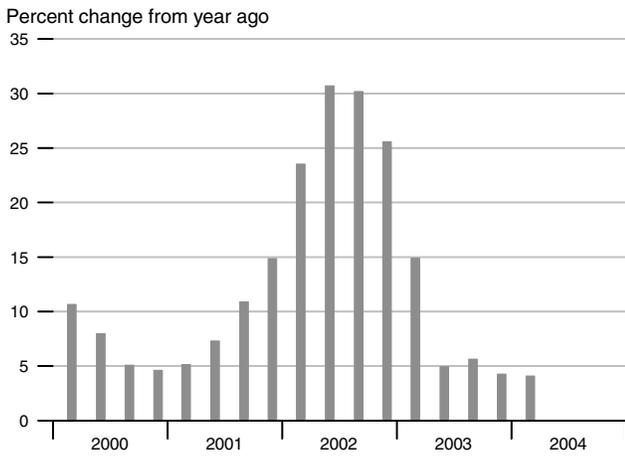
**Adjusted Monetary Base**



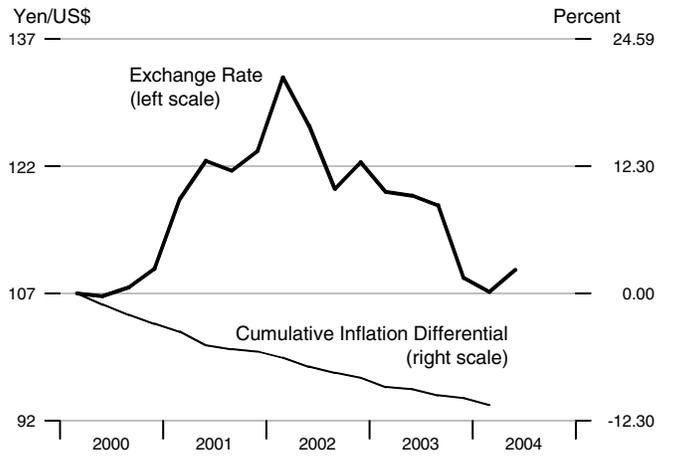
**Interest Rates**



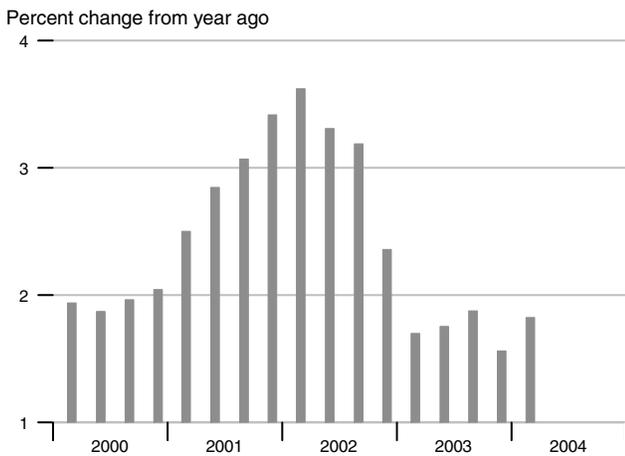
**M1**



**Exchange Rate and Inflation Differential**



**M2**

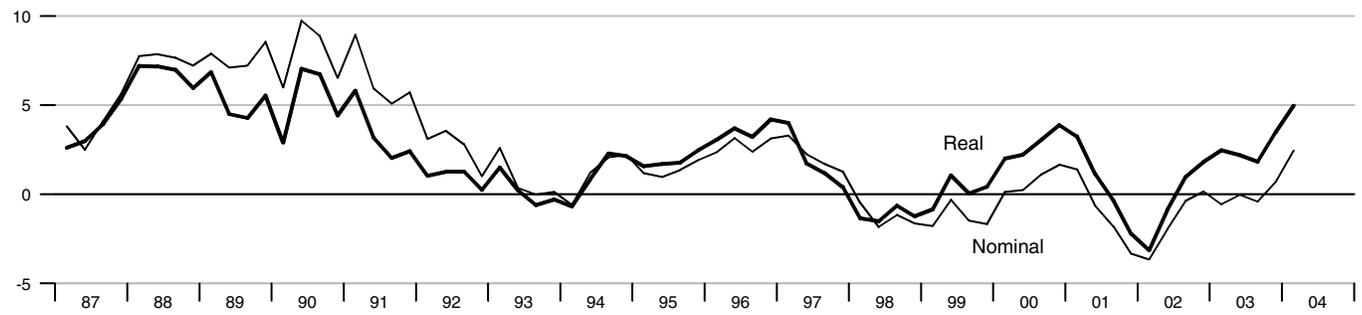


**Real Effective Exchange Rate**



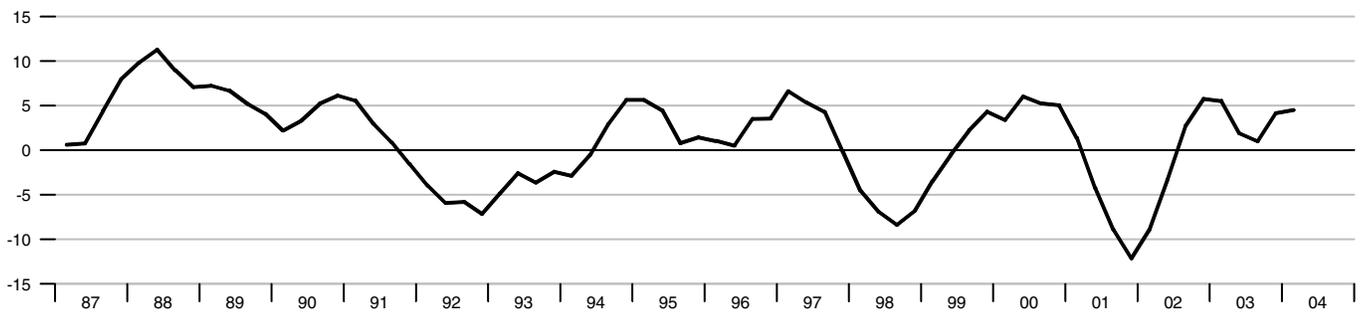
**GDP**

Percent change from year ago



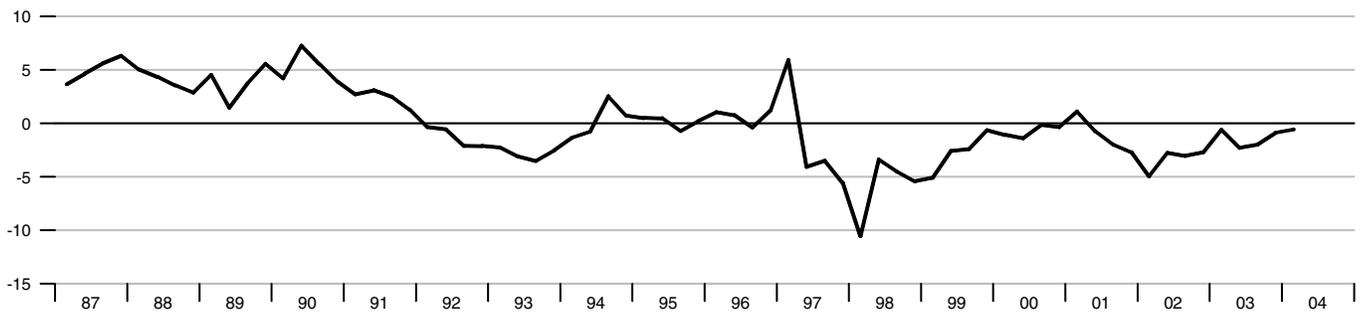
**Industrial Production**

Percent change from year ago



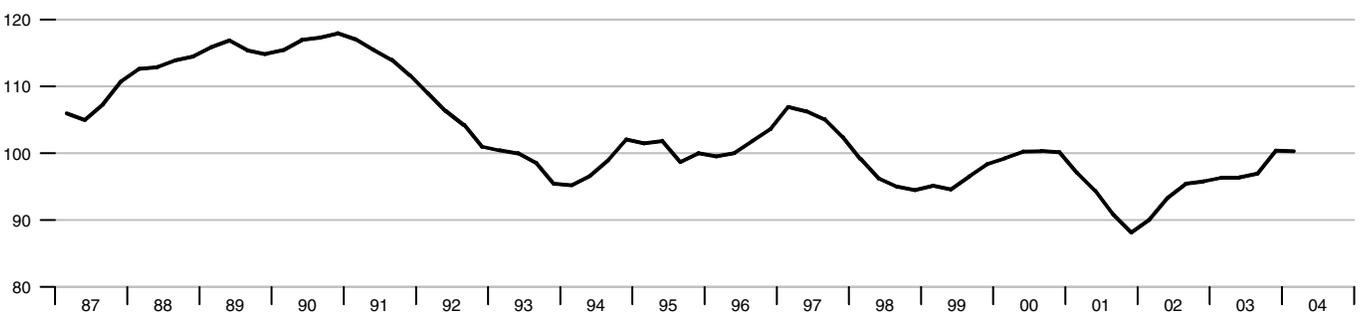
**Retail Sales**

Percent change from year ago



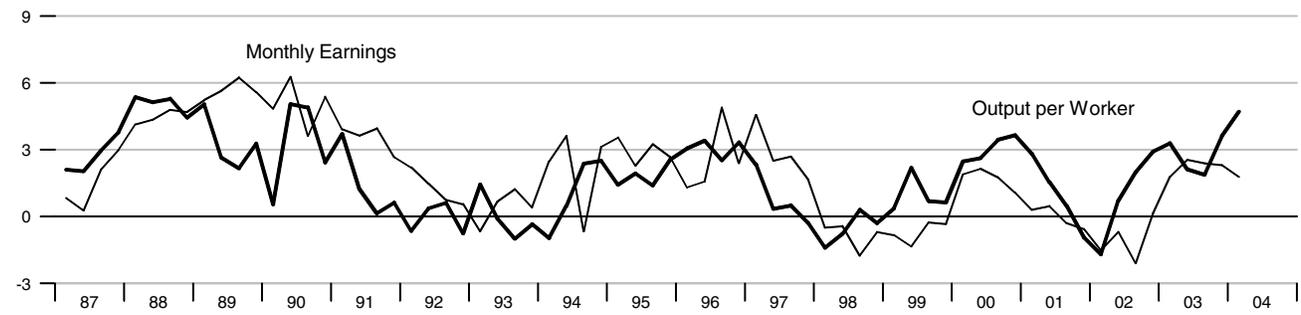
**Capacity Utilization**

2000 = 100



Monthly Earnings and Output per Worker

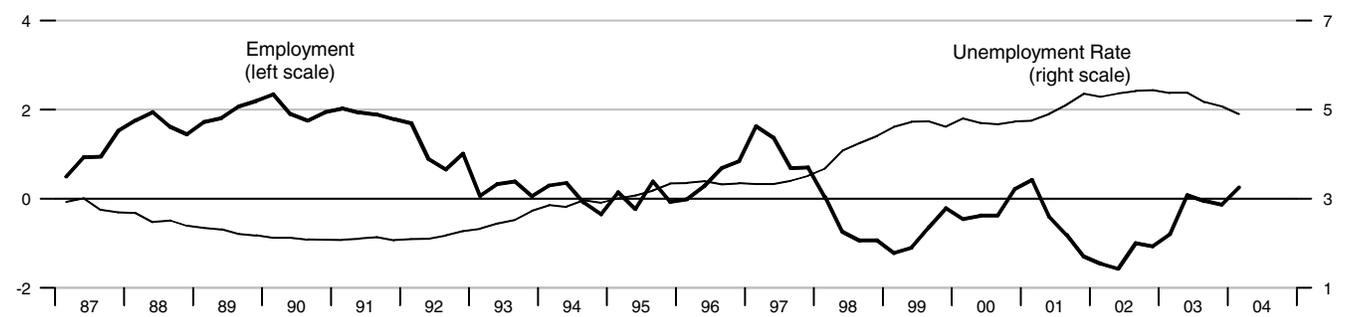
Percent change from year ago



Labor Force Indicators

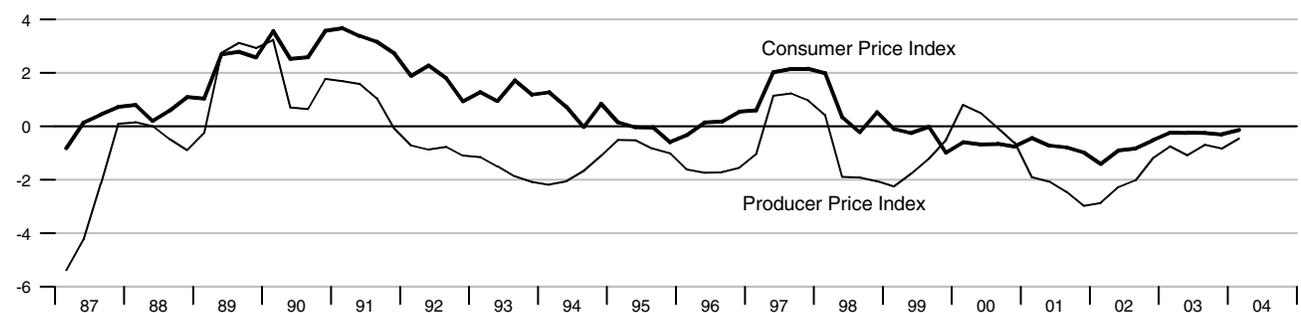
Percent change from year ago

Percent



Inflation

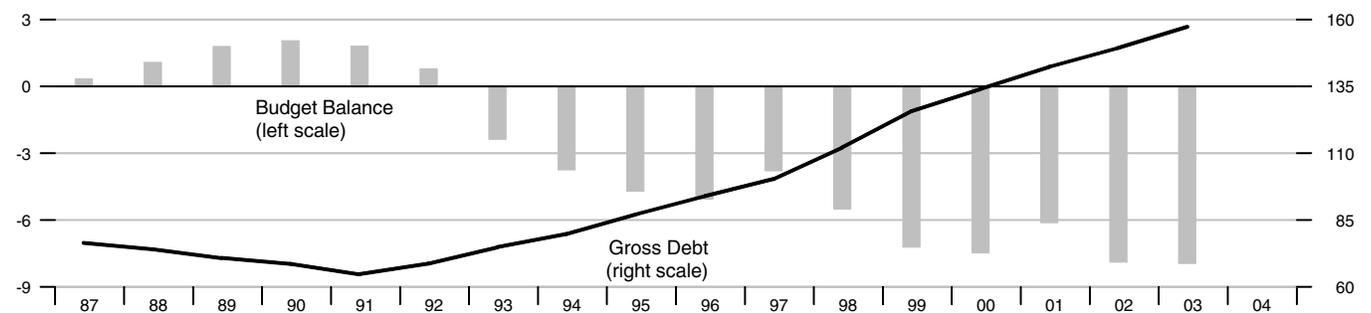
Percent change from year ago



Government Debt and Budget Balance

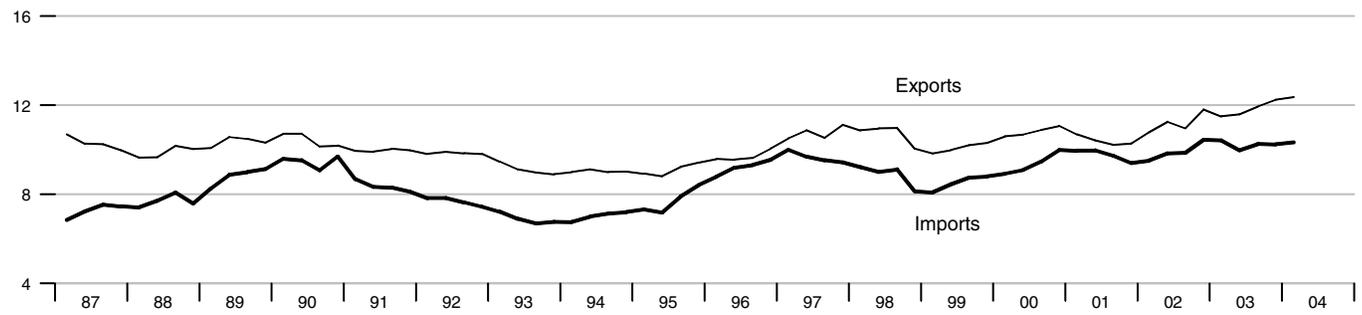
Percent of GDP, annual data

Percent of GDP, annual data



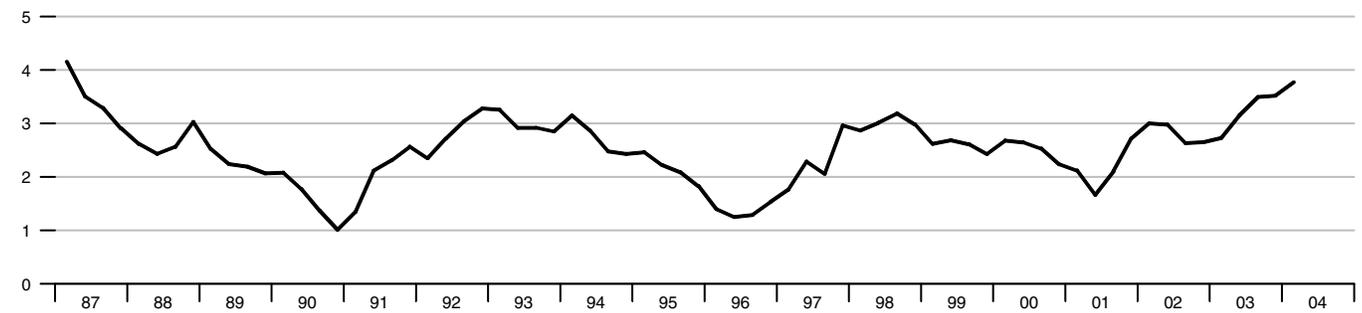
**International Trade - Goods and Services**

Percent of GDP



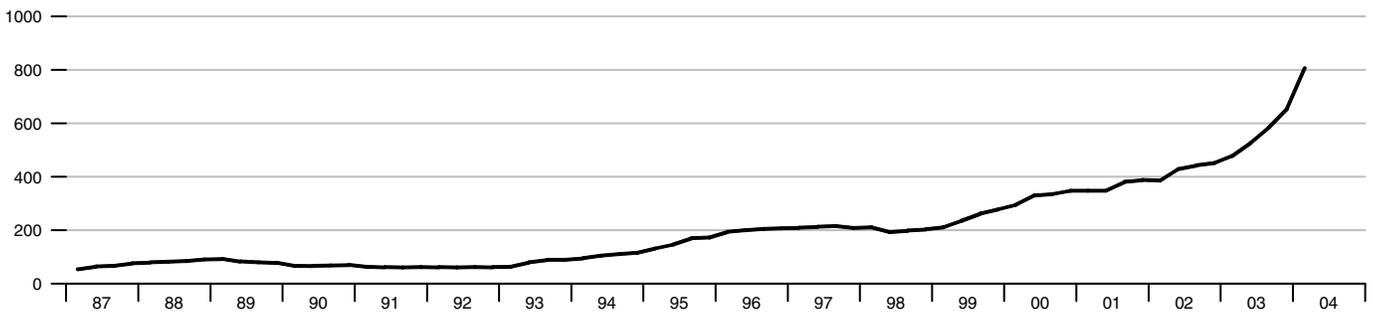
**Current Account Balance**

Percent of GDP



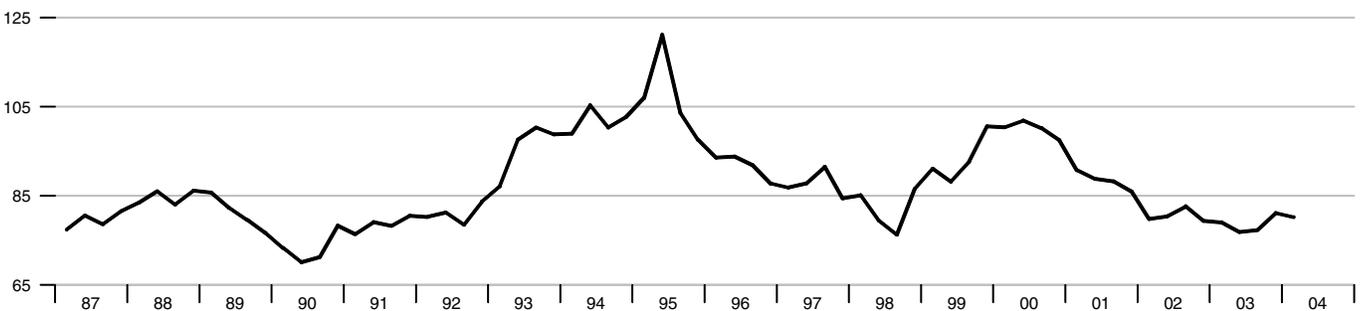
**Foreign Exchange Reserves**

Billions of US\$



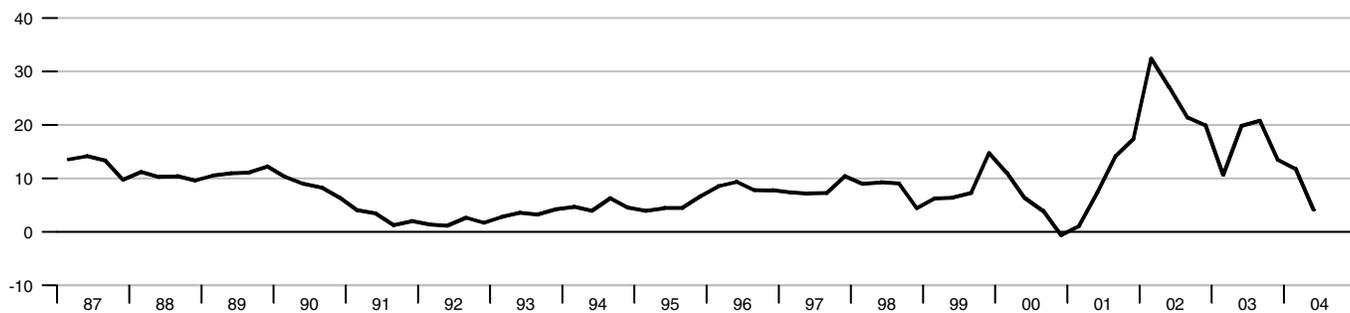
**Real Effective Exchange Rate**

Index 2000 = 100



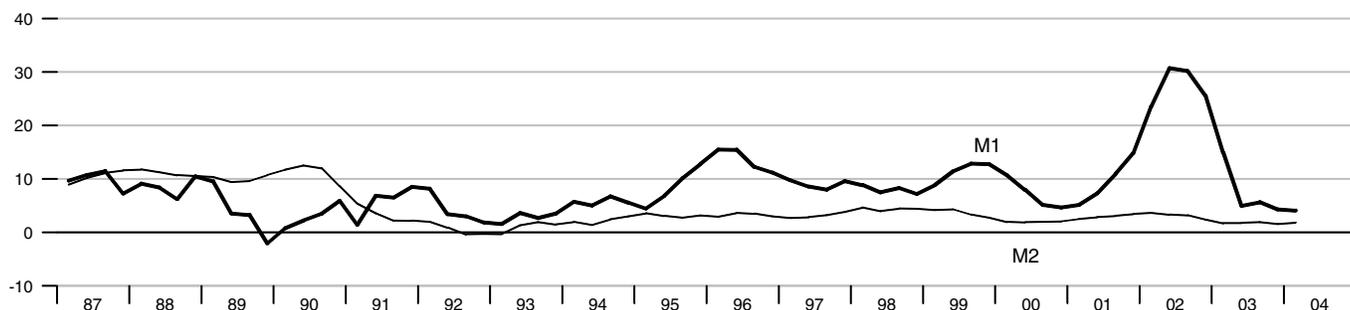
**Adjusted Monetary Base**

Percent change from year ago



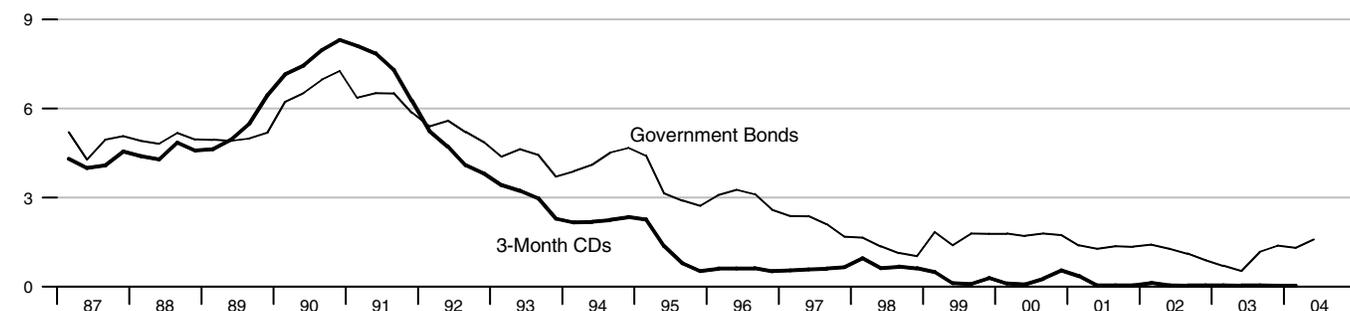
**Monetary Aggregates**

Percent change from year ago



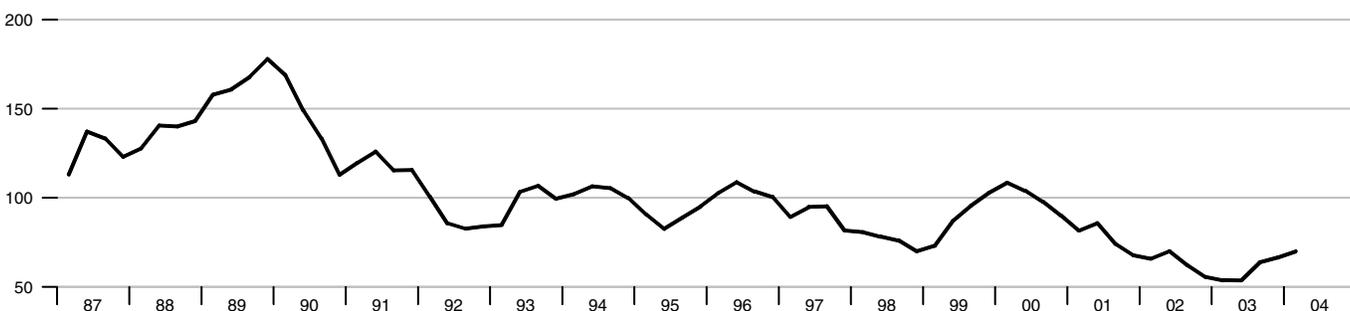
**Interest Rates**

Percent



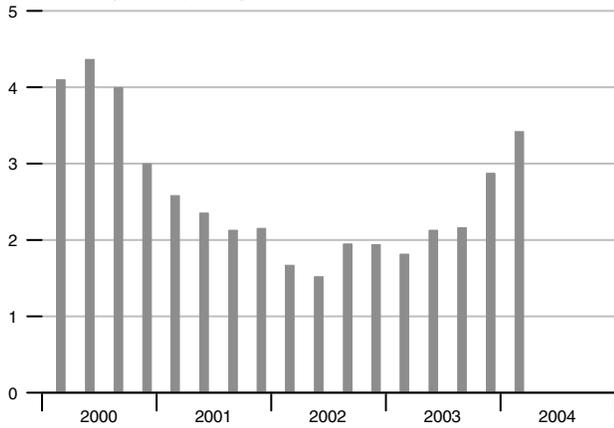
**Stock Exchange Index - Tokyo Stock Exchange**

2000 = 100



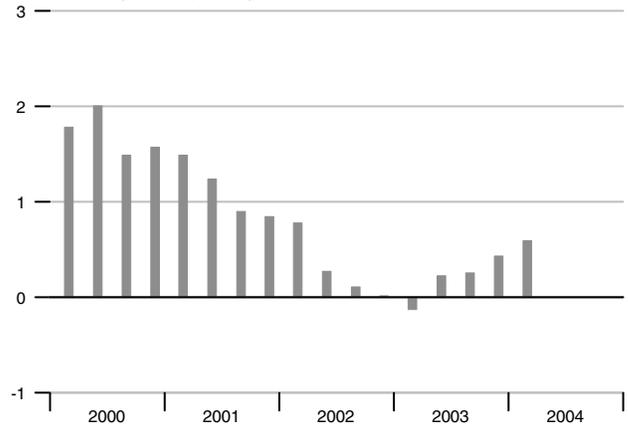
**Real GDP**

Percent change from year ago



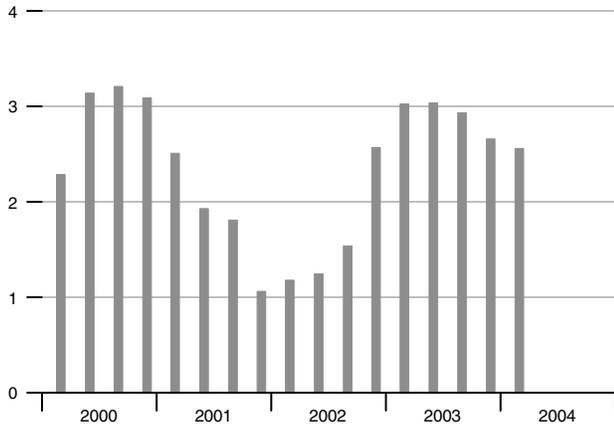
**Employment**

Percent change from year ago



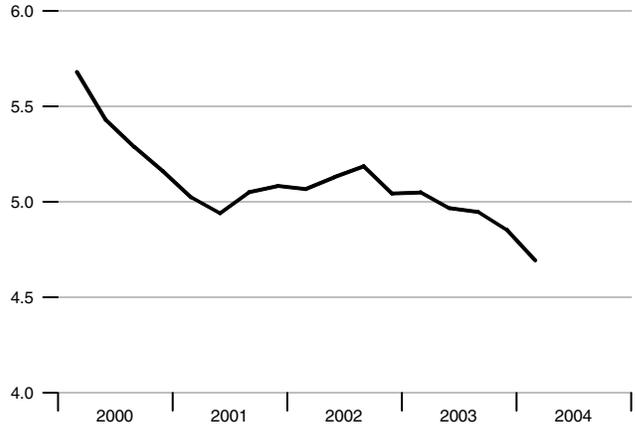
**Consumer Price Index**

Percent change from year ago



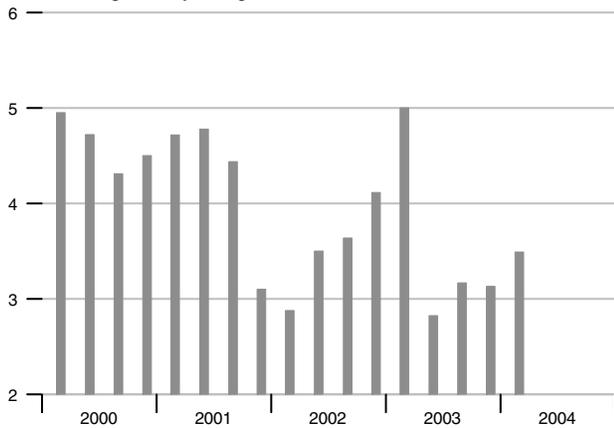
**Unemployment Rate**

Percent



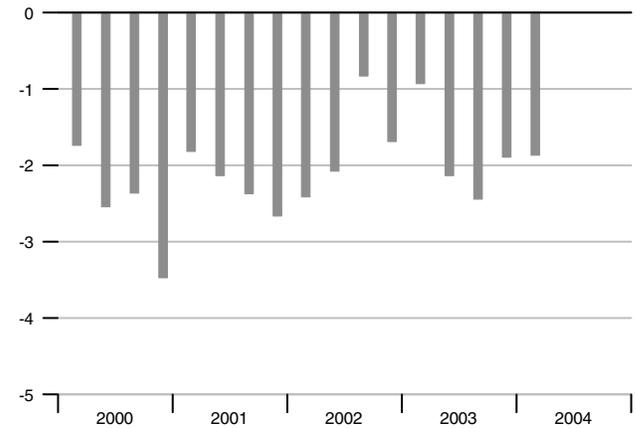
**Weekly Earnings**

Percent change from year ago



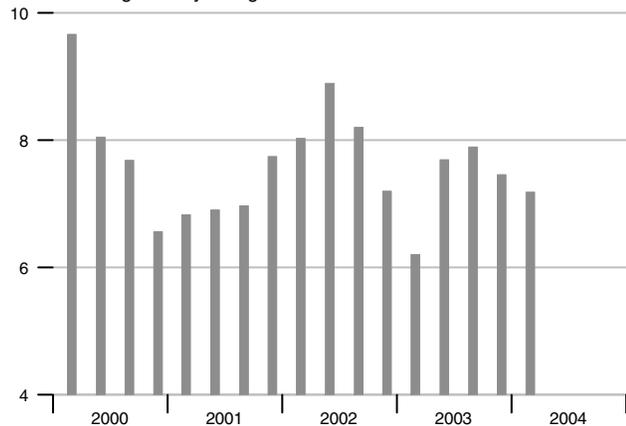
**Current Account Balance**

Percent of GDP



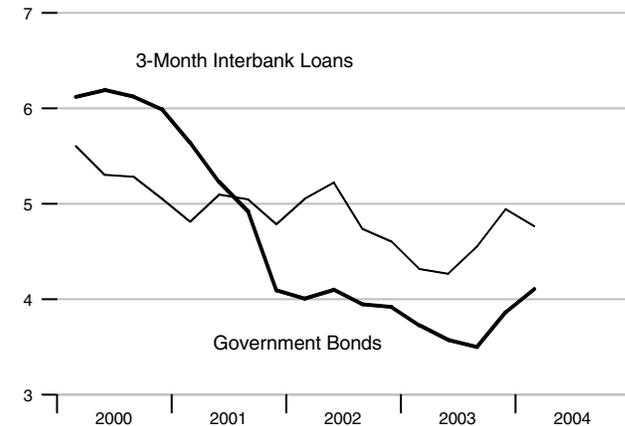
**M0**

Percent change from year ago



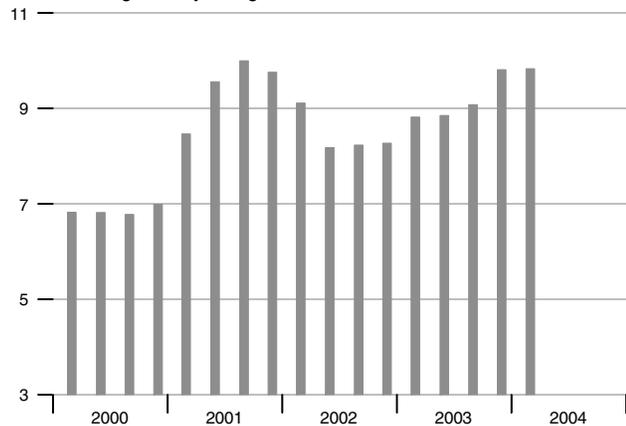
**Interest Rates**

Percent



**M2**

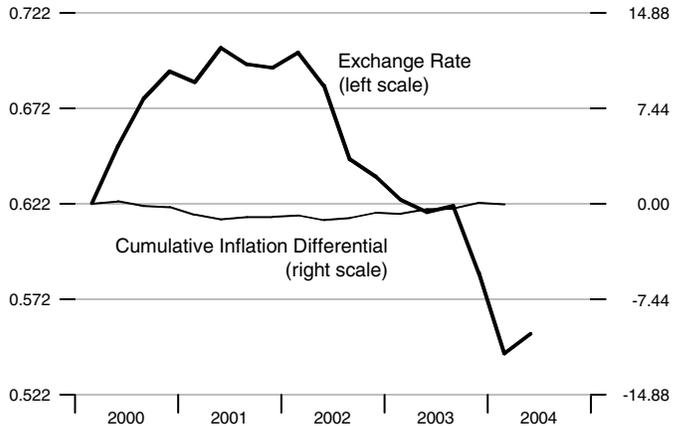
Percent change from year ago



**Exchange Rate and Inflation Differential**

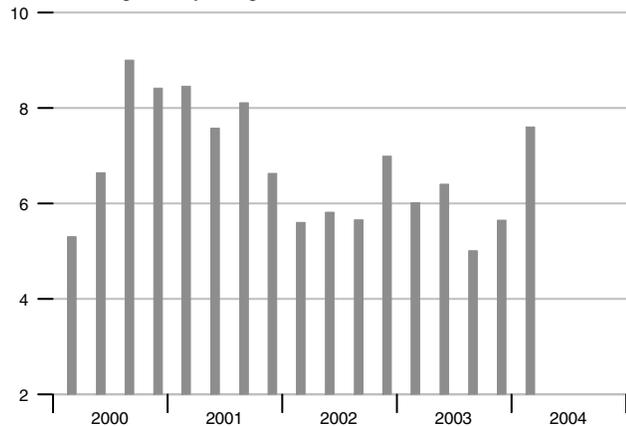
Pounds/US\$

Percent



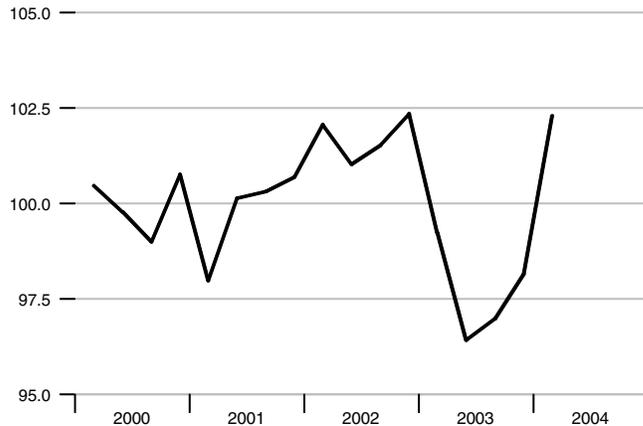
**M4**

Percent change from year ago



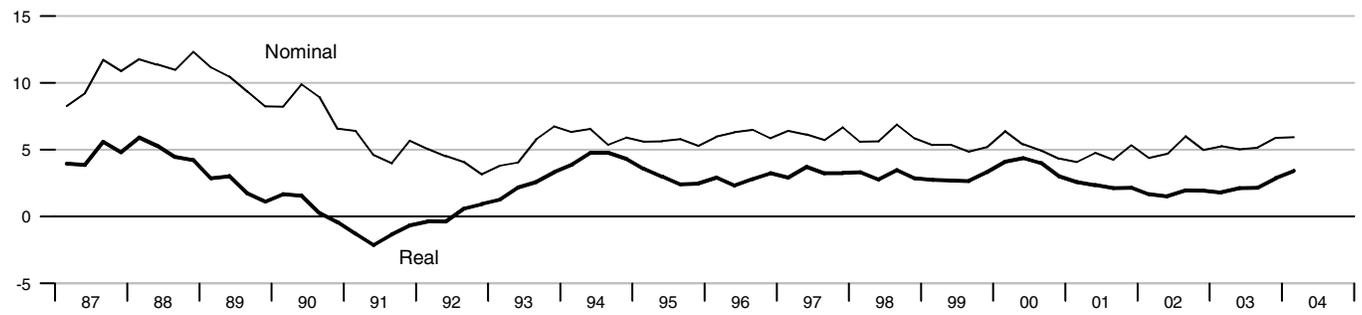
**Real Effective Exchange Rate**

Index 2000 = 100



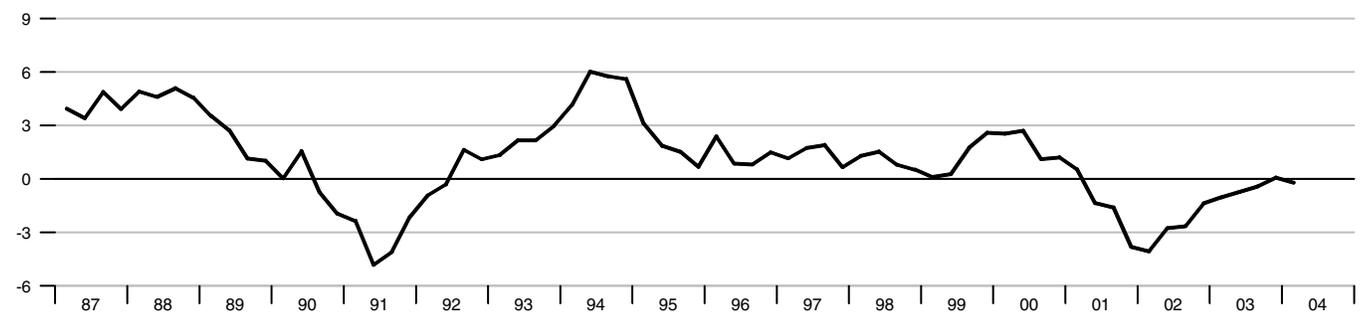
**GDP**

Percent change from year ago



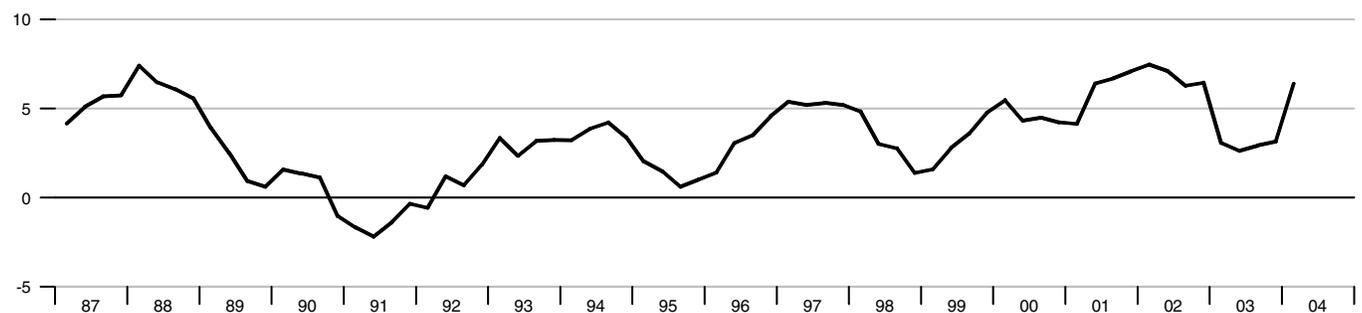
**Industrial Production**

Percent change from year ago



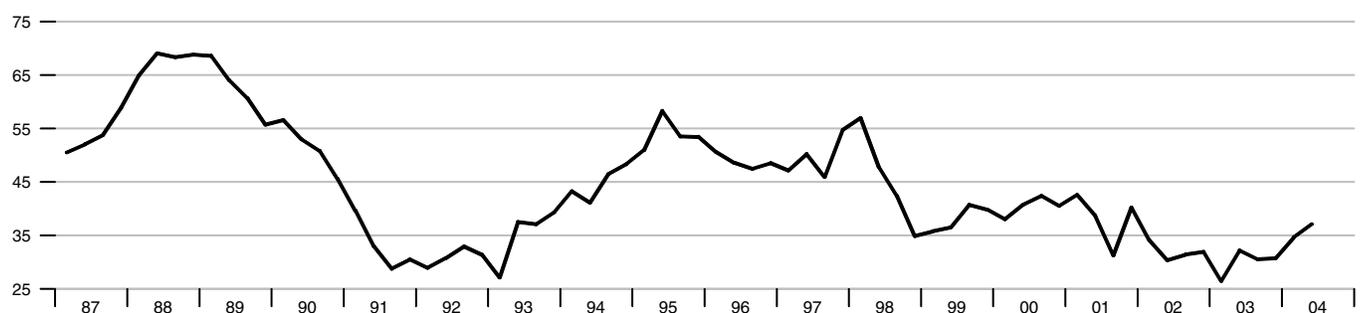
**Retail Sales**

Percent change from year ago



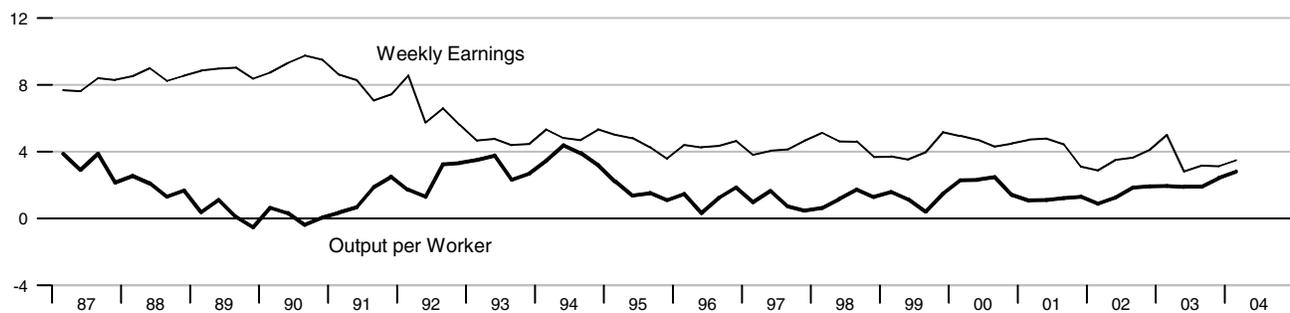
**Firms Operating at Capacity**

Percent



**Weekly Earnings and Output per Worker**

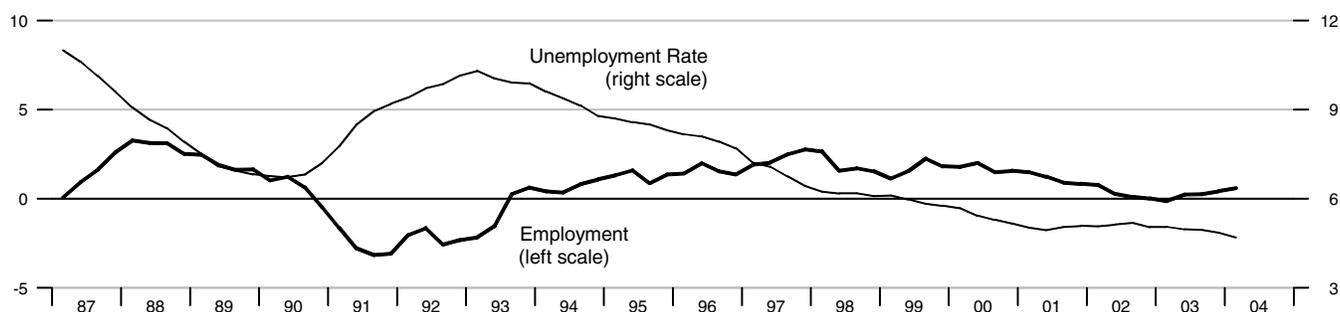
Percent change from year ago



**Labor Force Indicators**

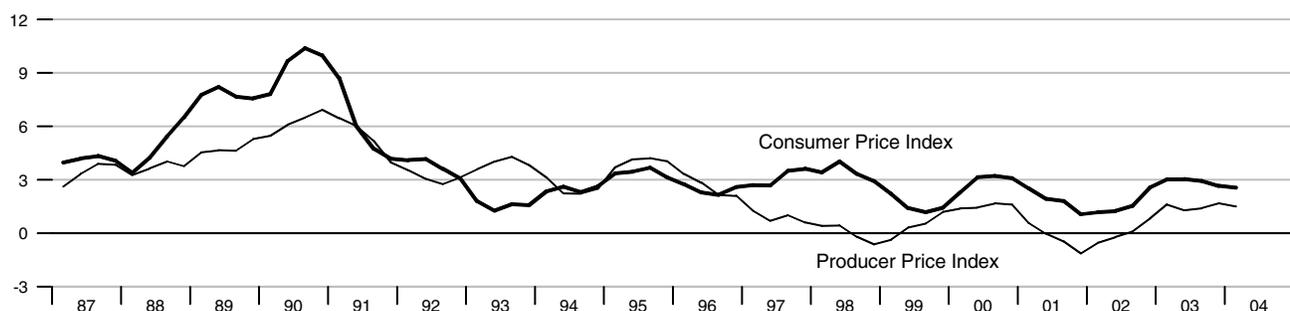
Percent change from year ago

Percent



**Inflation**

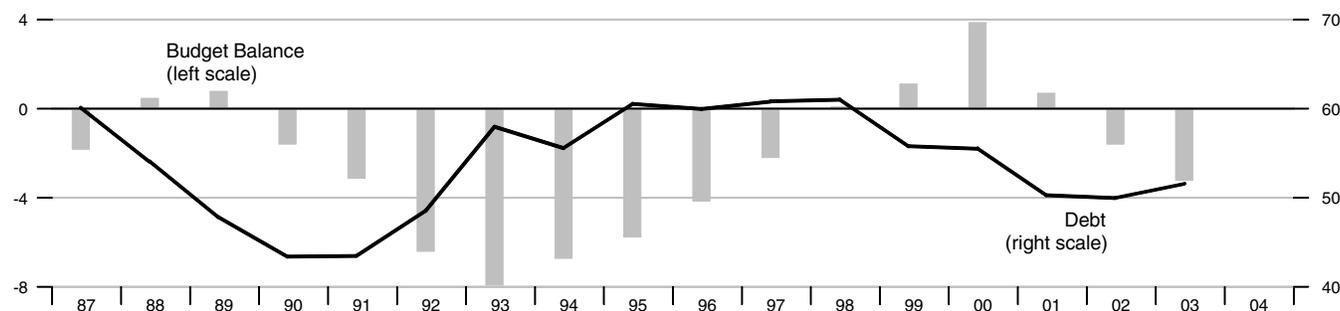
Percent change from year ago



**Government Debt and Budget Balance**

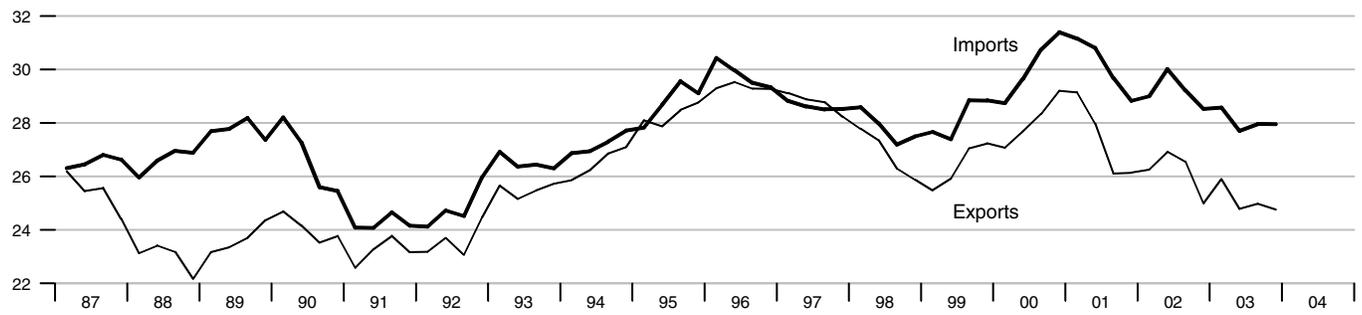
Percent of GDP, annual data

Percent of GDP, annual data



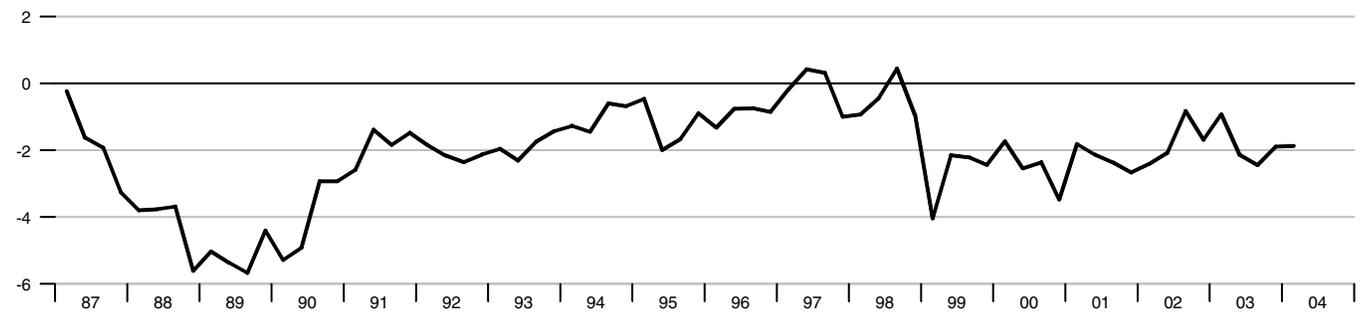
**International Trade - Goods and Services**

Percent of GDP



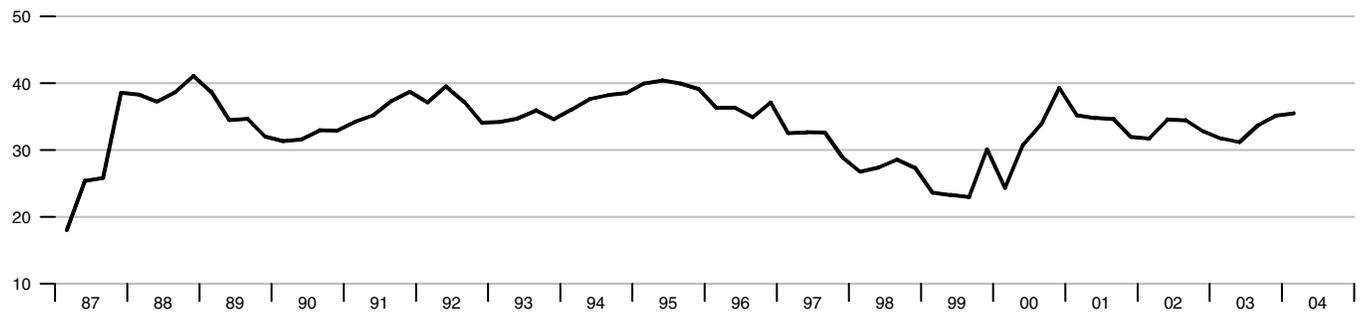
**Current Account Balance**

Percent of GDP



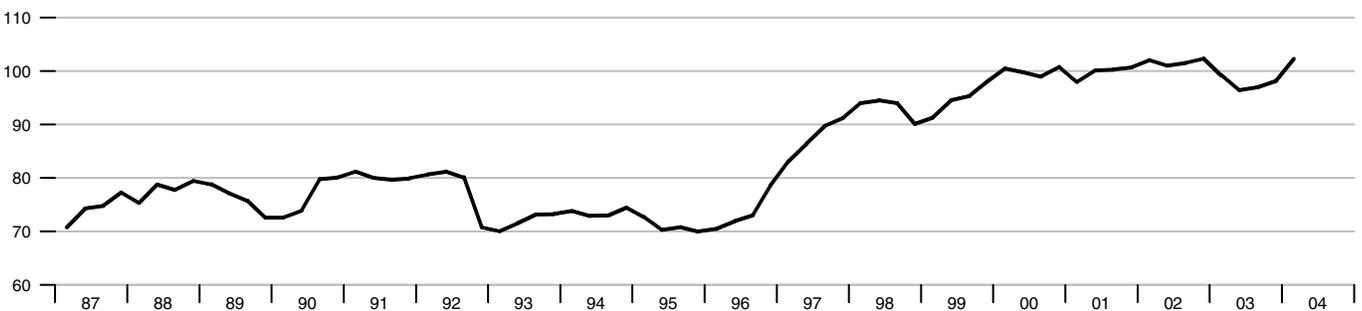
**Foreign Exchange Reserves**

Billions of US\$



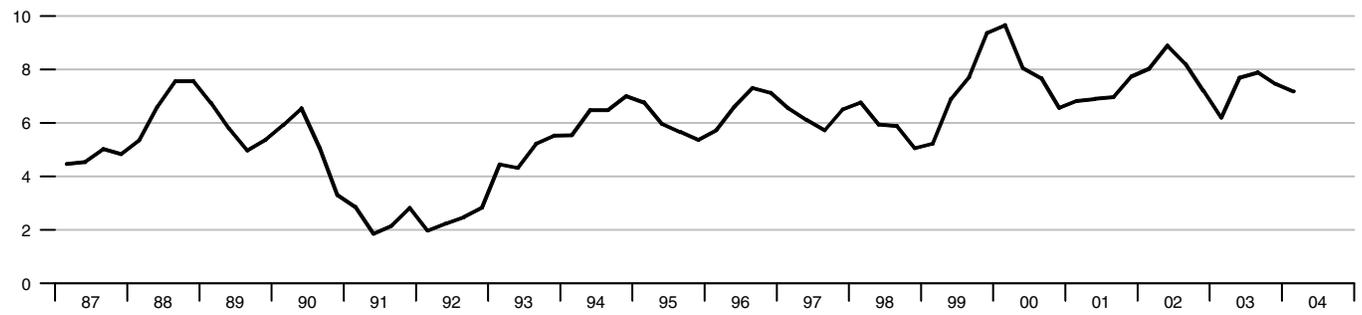
**Real Effective Exchange Rate**

Index 2000 = 100



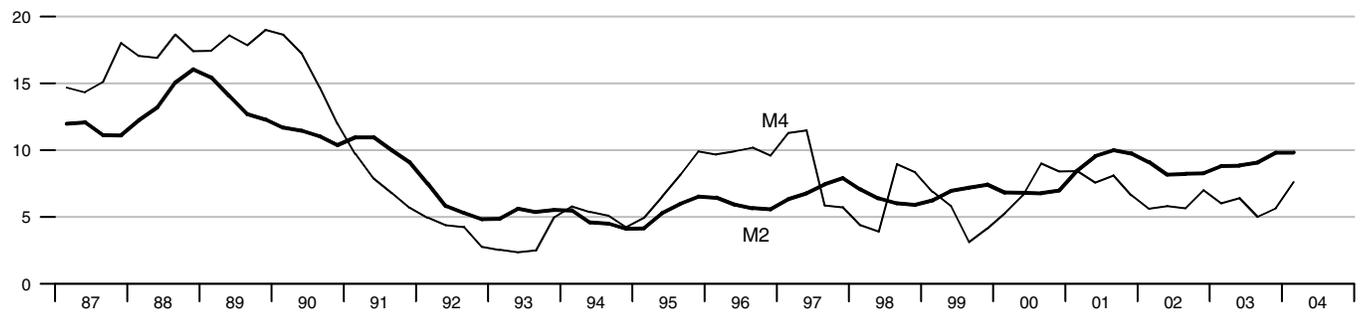
**M0**

Percent change from year ago



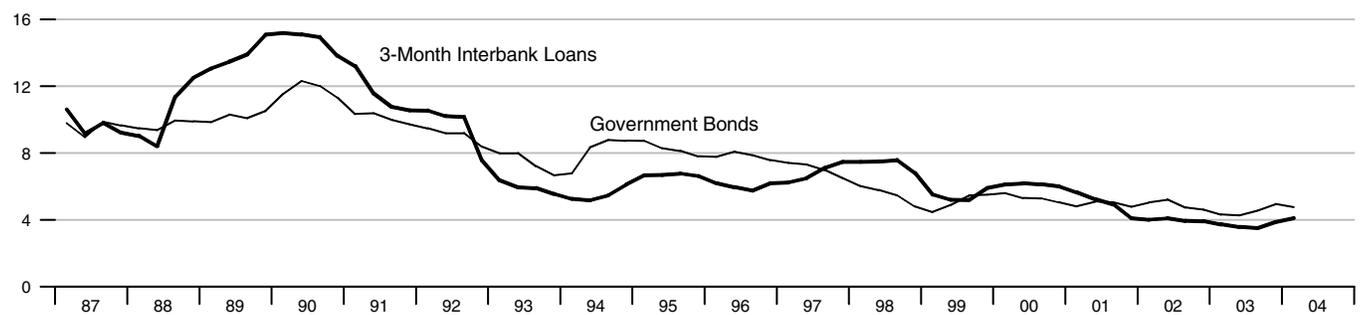
**Monetary Aggregates**

Percent change from year ago



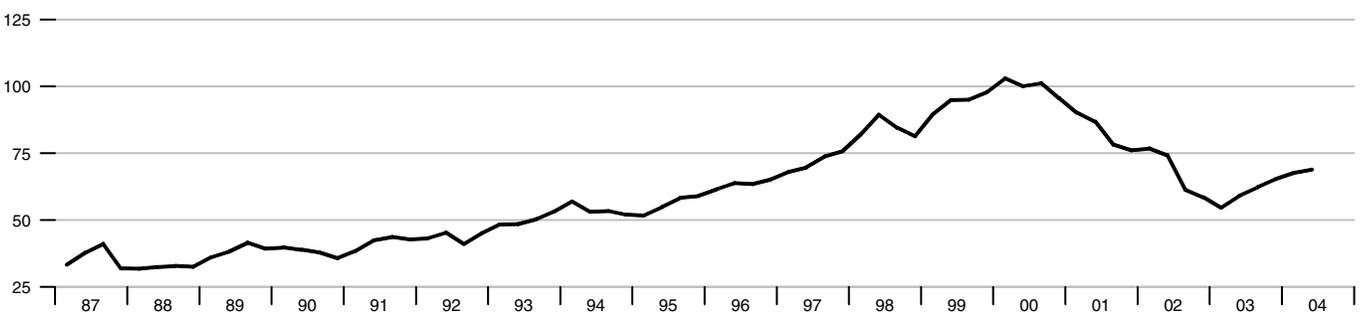
**Interest Rates**

Percent

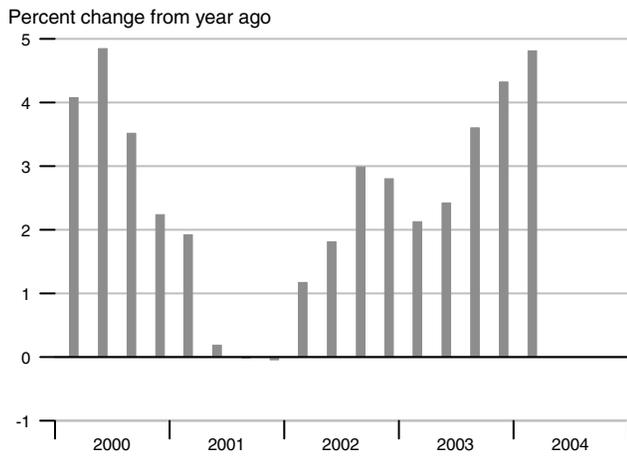


**Stock Exchange Index - Financial Times Stock Exchange**

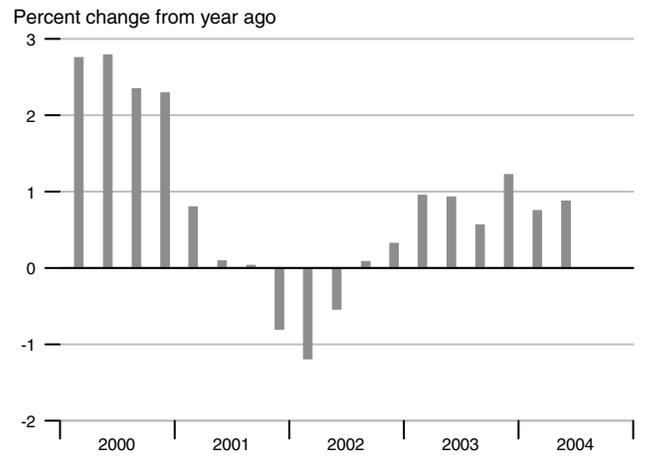
2000 = 100



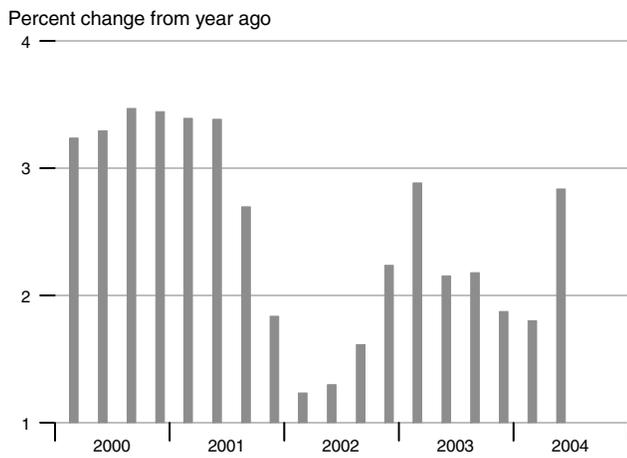
**Real GDP**



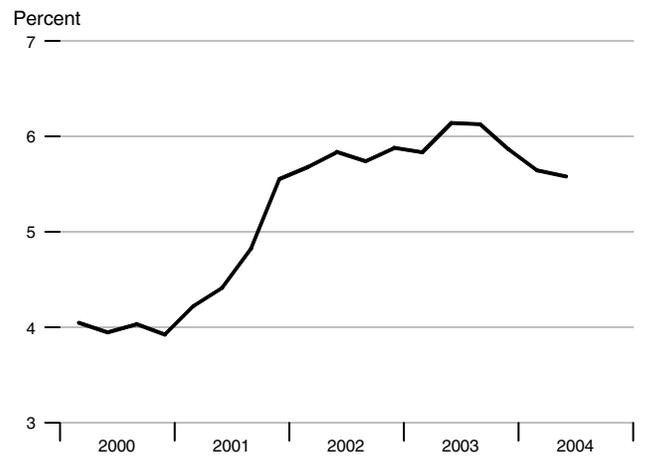
**Employment**



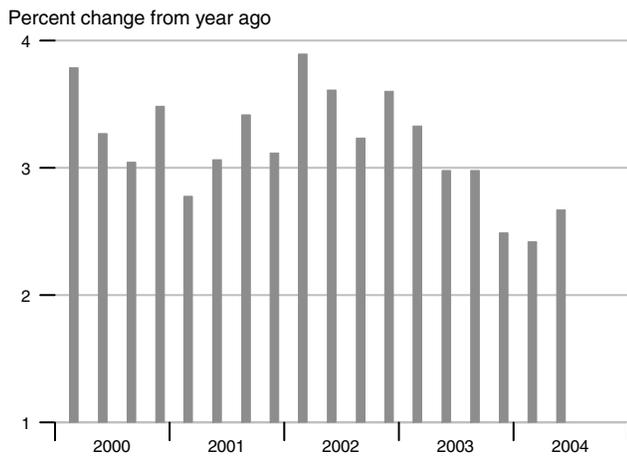
**Consumer Price Index**



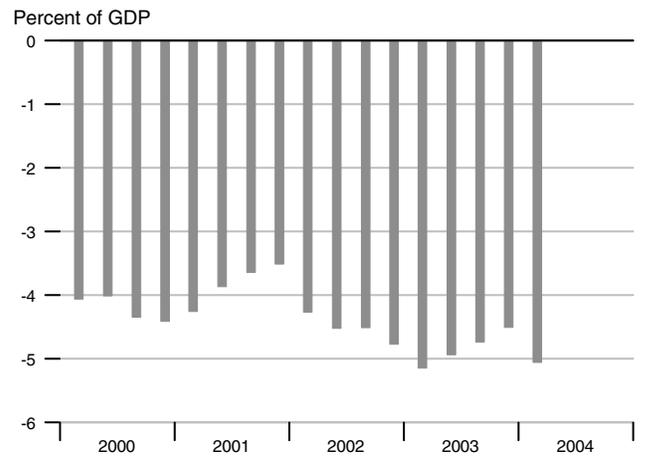
**Unemployment Rate**



**Hourly Earnings**

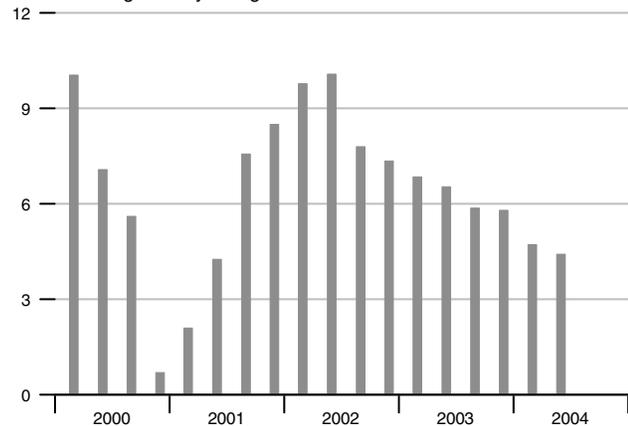


**Current Account Balance**



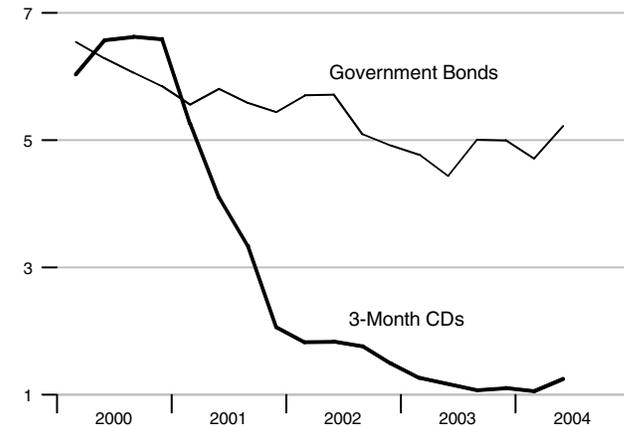
**Adjusted Monetary Base**

Percent change from year ago



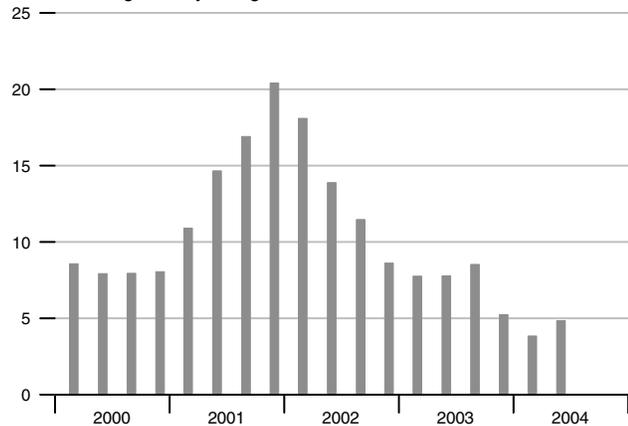
**Interest Rates**

Percent

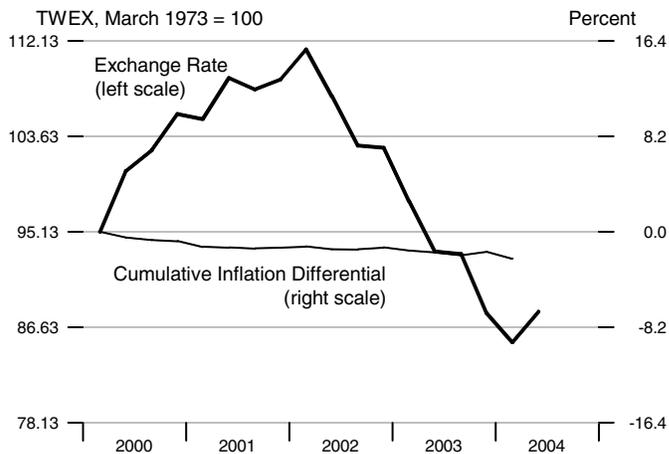


**MZM**

Percent change from year ago

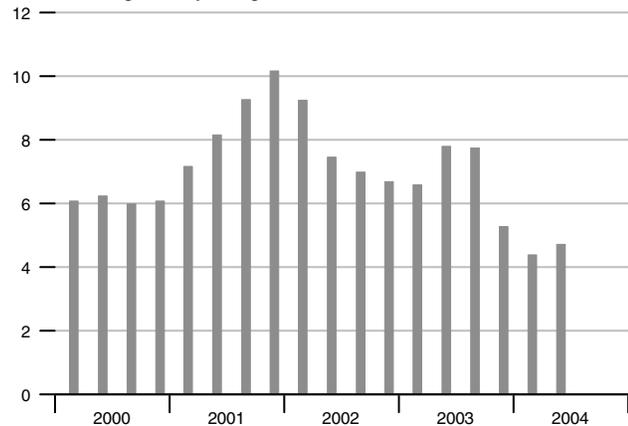


**Exchange Rate and Inflation Differential**



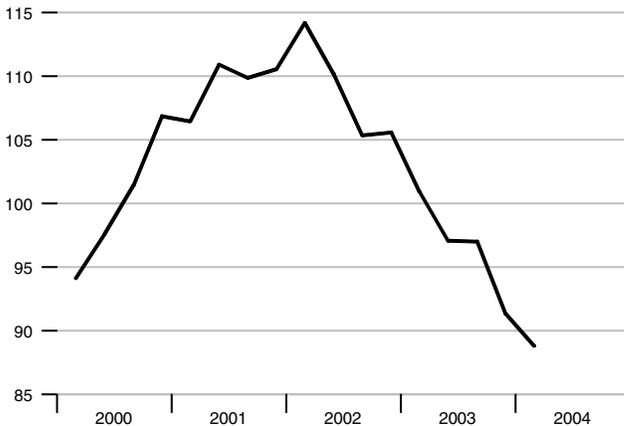
**M2**

Percent change from year ago



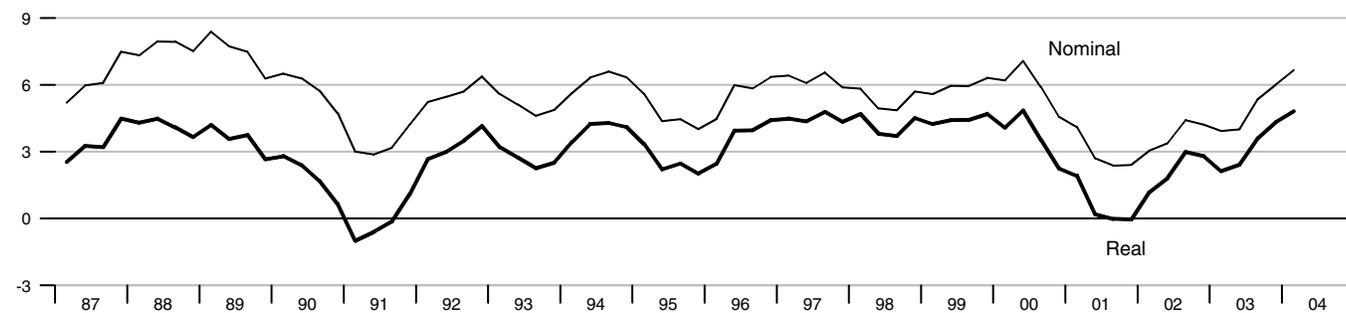
**Real Effective Exchange Rate**

Index 2000 = 100



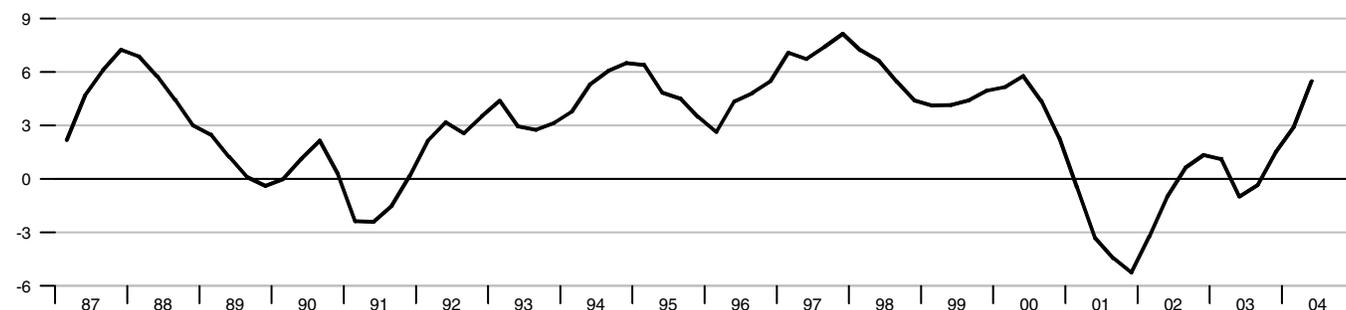
**GDP**

Percent change from year ago



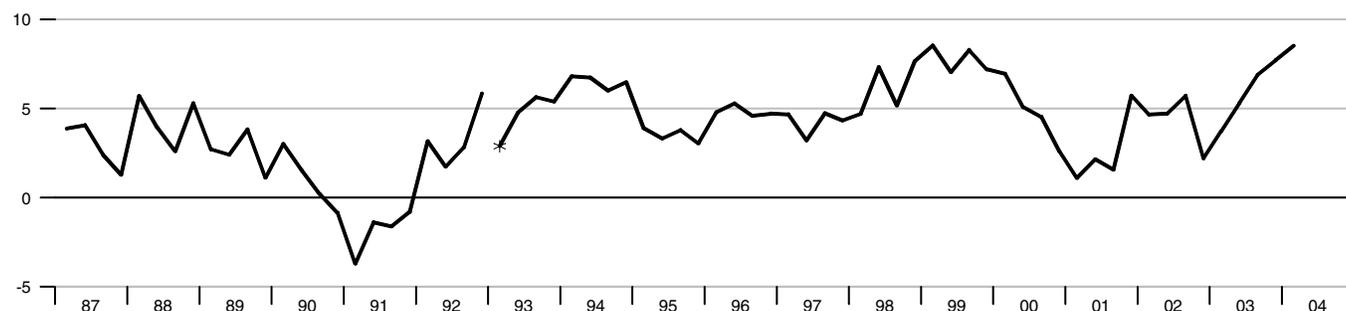
**Industrial Production**

Percent change from year ago



**Retail Sales**

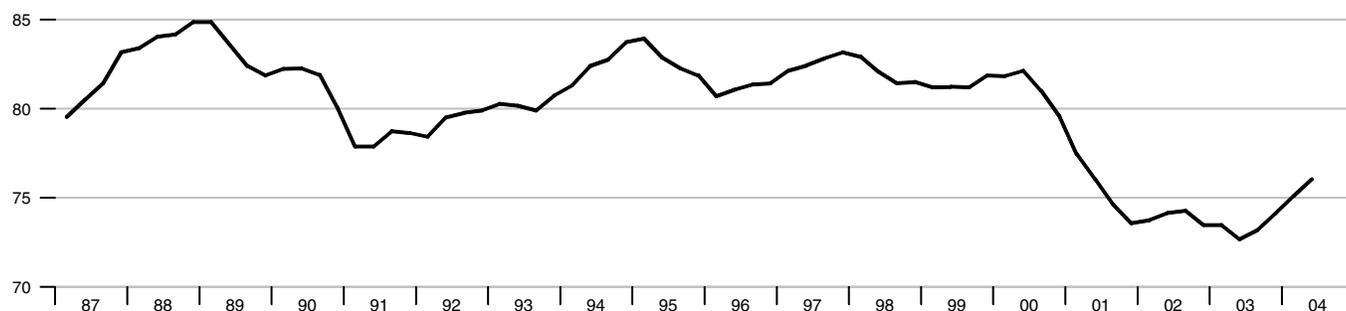
Percent change from year ago



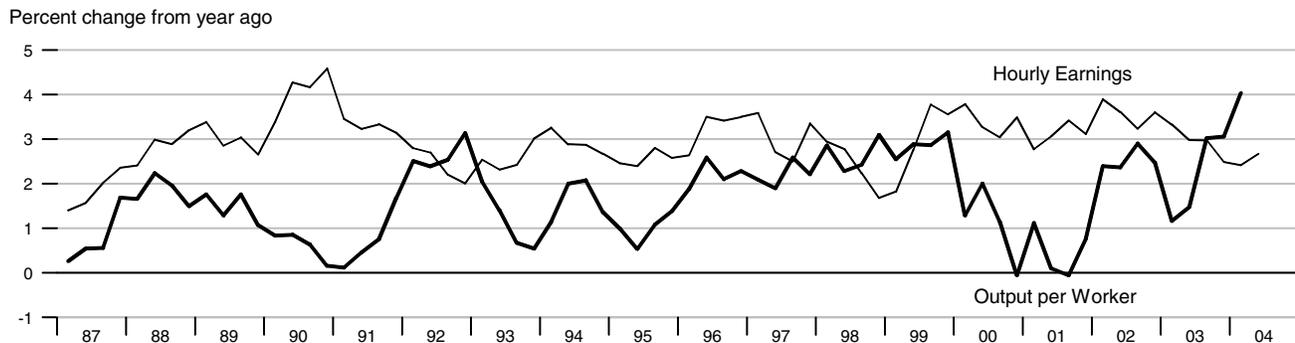
\*Data prior to 1993 may not be strictly comparable with later figures (see Notes).

**Capacity Utilization**

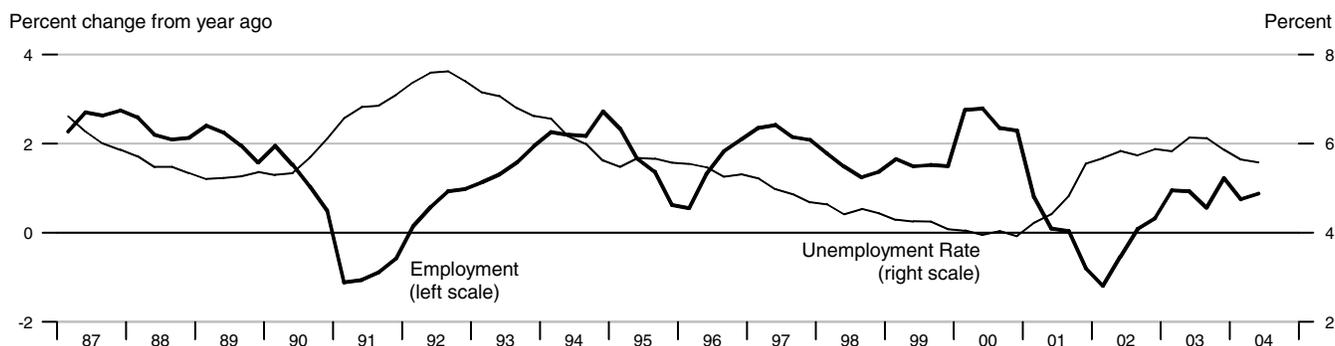
Percent



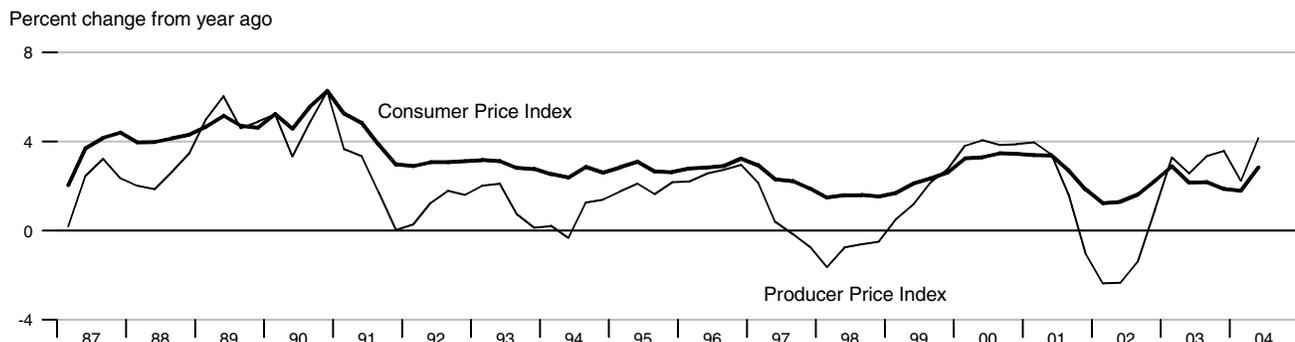
### Hourly Earnings and Output per Worker



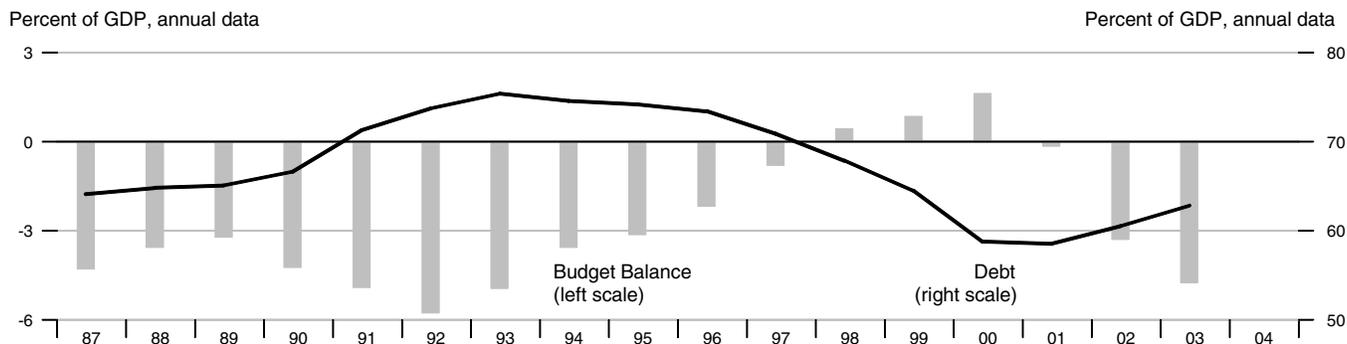
### Labor Force Indicators



### Inflation

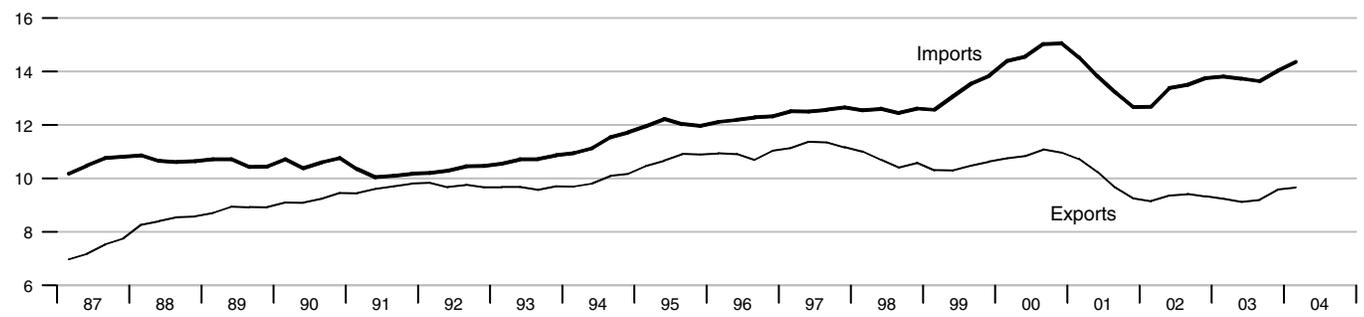


### Government Debt and Budget Balance



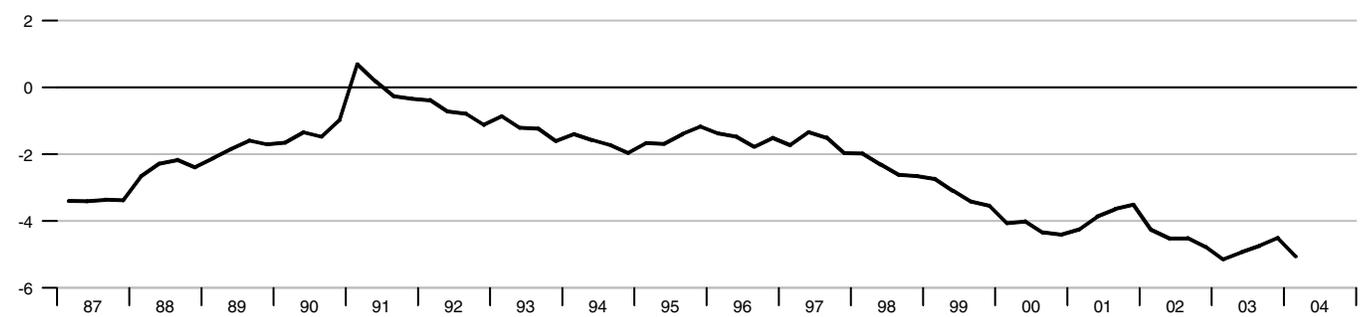
**International Trade - Goods and Services**

Percent of GDP



**Current Account Balance**

Percent of GDP



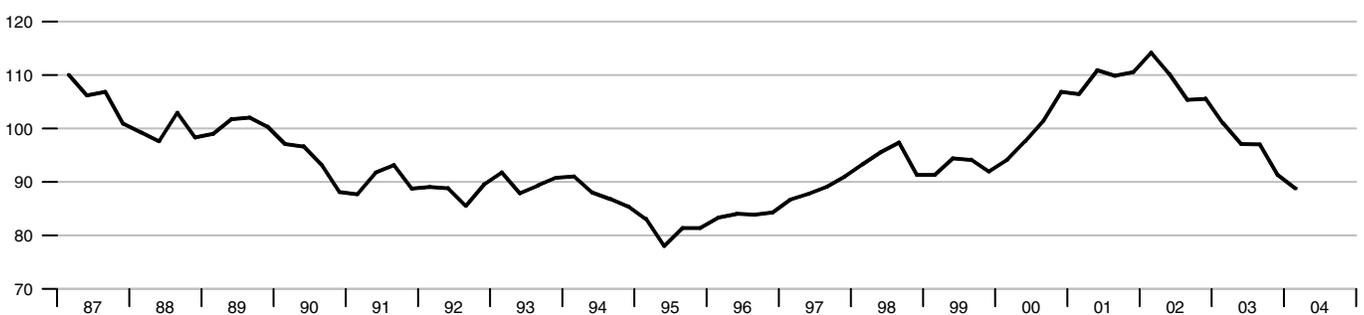
**Foreign Exchange Reserves**

Billions of US\$



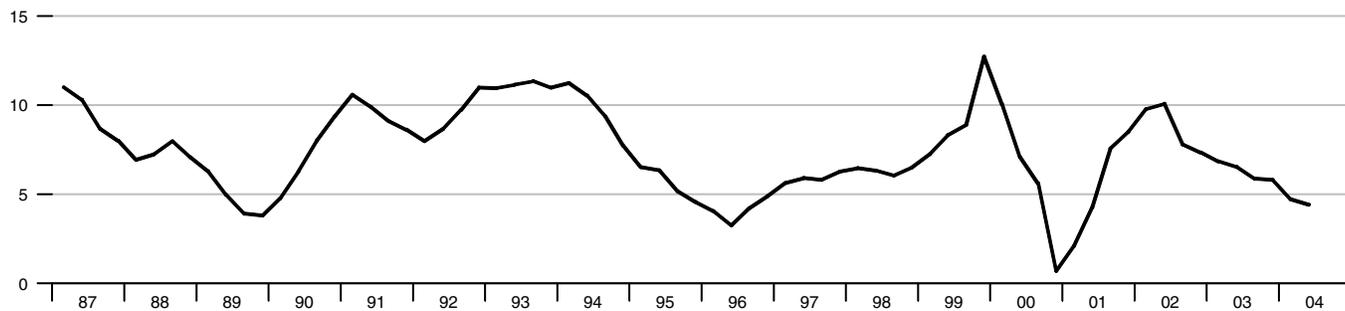
**Real Effective Exchange Rate**

Index 2000 = 100



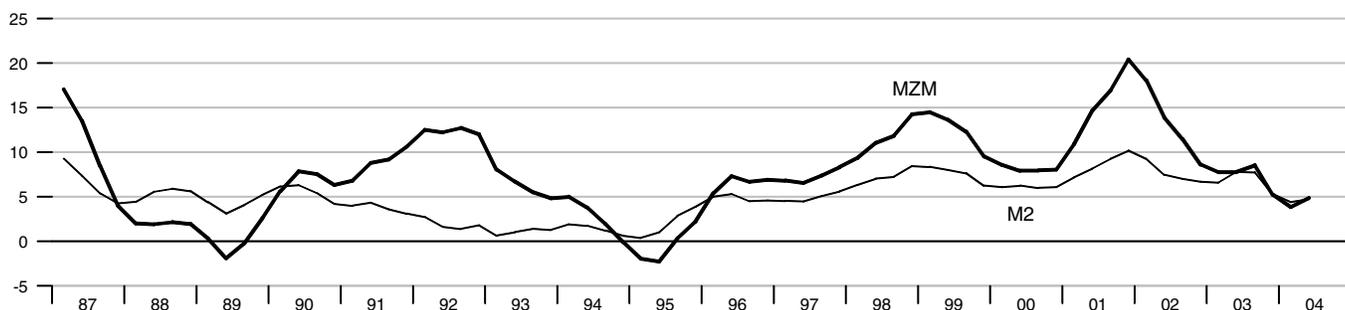
**Adjusted Monetary Base**

Percent change from year ago



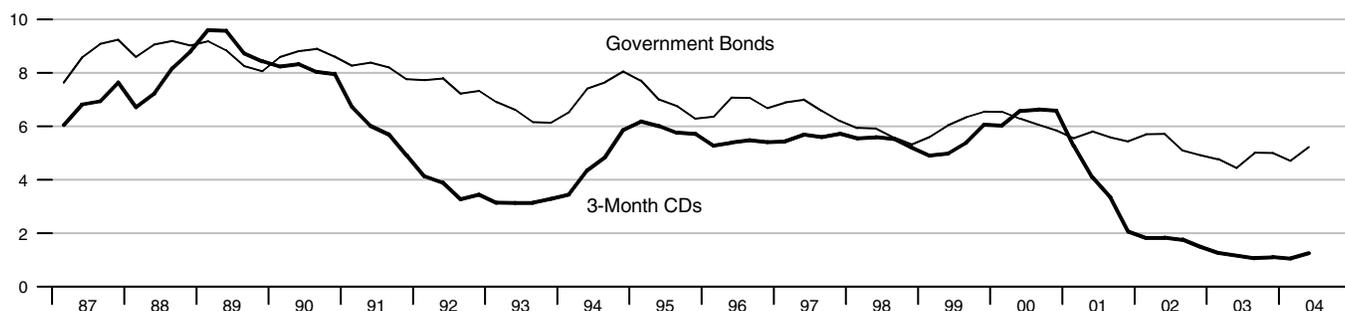
**Monetary Aggregates**

Percent change from year ago



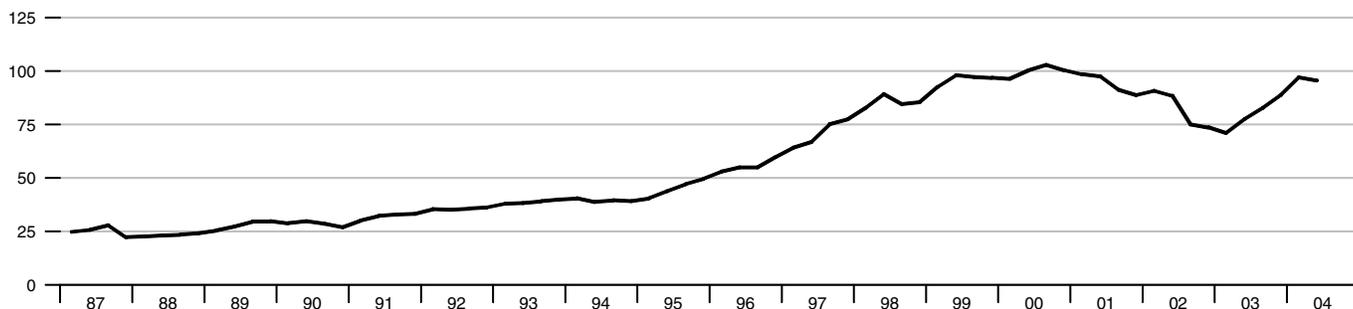
**Interest Rates**

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.

**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 1999:Q1, then the cumulative inflation differential for Japan for 2003:Q3 is as follows:

$$\text{inflation differential} = 100 \cdot \left( \frac{P_{2003Q3}^J / P_{1999Q1}^J}{P_{2003Q3}^{US} / P_{1999Q1}^{US}} - 1 \right)$$

where  $P_{2003Q3}^J$  is the Japanese CPI in the third quarter of 2003. 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.

### M0

United Kingdom: notes and coins in circulation outside the Bank of England and bankers' operational deposits at the Bank of England.

### 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, producer price index, and retail sales (starting in 1996).  
 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 (prior to 1996), 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: 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.  
 Istituto 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 M0.

**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.