



An E.U. Withholding Tax?

A traditional problem for governments is how to tax the investment income of private assets held abroad. From World War I through the 1980s, European governments used capital controls—taxes or restrictions on international trade in assets—to prevent capital from moving abroad to escape taxation. During the 1980s, however, the economic integration of the European Union required national governments to remove such controls. At the same time, technological progress facilitated international trade in assets. The resulting integrated market requires governments to cooperate in tax enforcement or lose the ability to tax highly mobile capital.

Since 1989, the European Union has considered plans to prevent individuals from evading taxes on interest income by investing abroad. Germans, for example, have often invested money in Luxembourg and Switzerland to avoid high domestic taxes. On May 21, 1998, the E.U. Commission proposed that member states either withhold 20 percent of interest payments to residents of other E.U. states or report the payments to the tax office of the investor's state. This withholding tax would not apply to institutional investors, whose activities are easier to track. The Council of Ministers must unanimously approve the directive before the end of 1999 to make it law. The Council has tabled the measure as a result of objections from the government of the United Kingdom.

Opponents have three main objections to the withholding tax. First, because the directive does not exempt Eurobonds—bonds denominated in a currency other than that of the country in which it is sold—the withholding tax would drive business away from E.U. financial centers, primarily London, to locations outside the European Union. For this reason, critics compare the withholding tax to the U.S. Interest Equalization Tax of 1963, which spurred the relocation of the international

bond market from New York to other financial centers like London. The second objection pertains to the complex provisions in many bonds that require issuers to compensate the holders of the bonds for any tax. Such provisions would trigger the issuer's right to repurchase the bonds at par value. Because the market prices of the bonds are greater than the values for which they may be called, such provisions would greatly benefit bond issuers at the expense of bondholders. Finally, the withholding tax may be evaded successfully by moving offshore or by using sophisticated financial instruments.

Concerned about the position of London as an international financial center, the U.K. government recently proposed two alternate changes to the directive. The first proposal suggests specifying taxable forms of interest—instead of specifying exemptions—and presumably omitting Eurobonds from the list of taxable securities. The second plan grandfathers existing bonds from the tax, exempts future bonds that are held in a major clearinghouse system—a mechanism through which banks and securities houses settle payments—and applies the withholding tax only on holdings less than € 40,000 (about \$45,000).

Critics of the U.K. position protest that these changes would make the law too easy for individual investors to circumvent. In addition, the critics dismiss the danger to the London Eurobond market, noting that the retail market—to which the tax would apply—makes up only about 10 percent of the total Eurobond market. This objection, however, ignores the ease with which financial transactions can be moved around the globe. If retail transactions move out of London, many wholesale transactions might migrate as well.

At the time of this writing—October 15, 1999—the United Kingdom still threatens to veto the withholding tax unless the measure protects the interests of the City of London. The future of tax cooperation in the European Union remains in doubt.

—Christopher J. Neely



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Conventions used in this publication:

1. Charts and tables contain data that were current through October 1999. 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 month $t-12$ and the current month t is: $[(x_t / x_{t-12}) - 1] \times 100$.
3. All data with significant seasonal patterns are seasonally adjusted.

We welcome your comments addressed to:

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Real Gross Domestic Product

Percent change

	96.3	96.4	97.1	97.2	97.3	97.4	98.1	98.2	98.3	98.4	99.1	99.2
Canada	2.18	2.43	3.22	3.90	4.30	4.37	4.03	3.21	2.40	2.80	3.15	3.73
Euro Area	1.58	1.69	1.57	2.15	2.29	2.87	3.56	2.84	2.64	1.91	1.62	1.59
France	1.18	1.54	1.20	1.69	2.05	2.99	3.54	3.75	3.37	2.88	2.33	2.07
Germany	1.11	1.32	1.75	1.55	1.47	1.43	2.97	1.80	1.85	1.19	0.58	0.62
Italy	1.18	0.37	-0.50	1.63	1.87	2.94	2.65	1.29	1.19	0.25	0.88	0.86
Japan	4.34	5.09	3.76	0.95	1.70	-0.80	-3.58	-1.84	-3.13	-3.03	0.11	1.06
United Kingdom	2.61	2.89	3.18	3.52	3.89	3.44	2.88	2.48	2.02	1.59	1.26	1.44
United States	3.55	3.92	4.14	3.62	4.15	3.83	4.16	3.62	3.49	4.25	3.95	3.89

Nominal Gross Domestic Product

Percent change

	96.3	96.4	97.1	97.2	97.3	97.4	98.1	98.2	98.3	98.4	99.1	99.2
Canada	3.70	4.41	5.36	5.00	4.73	4.14	3.42	2.88	1.62	2.07	3.48	4.74
Euro Area	4.07	3.46	1.85	1.99	1.65	2.79	4.00	3.77	4.20	3.90	4.03	3.55
France	2.58	2.78	2.35	3.21	3.57	4.41	4.82	4.67	4.13	3.67	2.82	2.45
Germany	1.77	2.30	2.52	2.46	2.20	2.21	3.70	2.77	3.05	2.48	2.01	1.62
Italy	5.61	4.22	2.20	4.47	4.64	5.23	6.09	4.15	3.77	2.90	2.79	2.10
Japan	2.52	2.83	2.75	1.15	1.99	-0.00	-2.33	-1.67	-3.20	-3.00	-0.54	0.25
United Kingdom	6.23	6.06	6.34	6.31	6.48	6.98	5.50	5.67	5.10	3.61	3.37	3.21
United States	5.46	5.77	6.13	5.69	6.07	5.58	5.40	4.68	4.49	5.17	5.06	5.13

Consumer Price Index

Percent change

	96.4	97.1	97.2	97.3	97.4	98.1	98.2	98.3	98.4	99.1	99.2	99.3
Canada	2.03	2.10	1.61	1.74	1.03	1.03	0.99	0.87	1.08	0.80	1.60	.
Euro Area	1.95	1.84	1.36	1.60	1.51	1.11	1.34	1.11	0.80	0.86	0.97	.
France	1.69	1.49	0.89	1.25	1.17	0.86	1.07	0.73	0.36	0.27	0.36	.
Germany	1.44	1.82	1.52	2.22	2.03	1.23	1.39	0.67	0.43	0.27	0.48	.
Italy	2.95	2.50	1.89	1.83	1.97	2.02	2.05	2.05	1.74	1.39	1.45	.
Japan	0.54	0.59	1.98	2.13	2.13	1.98	0.32	-0.20	0.52	-0.09	-0.28	.
United Kingdom	2.60	2.68	2.69	3.49	3.65	3.41	4.02	3.32	2.94	2.20	1.42	.
United States	3.18	2.90	2.36	2.16	1.89	1.50	1.62	1.62	1.48	1.73	2.09	2.32

Employment Growth

Percent change

	96.4	97.1	97.2	97.3	97.4	98.1	98.2	98.3	98.4	99.1	99.2	99.3
Canada	1.31	0.94	1.73	2.48	2.46	2.96	2.72	2.25	3.23	3.34	2.62	2.51
Euro Area	0.36	0.39	0.50	0.71	1.07	1.51	1.68	1.74	1.70	.	.	.
France	0.03	0.28	0.58	1.07	1.55	1.93	2.19	2.30	1.96	1.91	1.77	.
Germany	-1.56	-1.57	-1.52	-1.35	-0.89	-0.49	-0.22	0.29	0.52	.	.	.
Italy	-0.28	-0.52	-0.02	0.15	0.61	0.82	0.49	0.77	0.75	0.83	.	.
Japan	0.84	1.63	1.41	0.66	0.74	0.02	-0.73	-0.93	-0.87	-1.24	-1.09	.
United Kingdom	1.70	2.14	2.44	2.36	2.70	2.73	1.90	2.04	1.25	0.81	0.97	.
United States	2.06	2.40	2.42	2.11	2.06	1.82	1.49	1.20	1.34	1.71	1.49	1.52

Unemployment Rate

Percent

	96.3	96.4	97.1	97.2	97.3	97.4	98.1	98.2	98.3	98.4	99.1	99.2
Canada	9.80	9.90	9.60	9.30	9.00	8.90	8.70	8.40	8.30	8.00	7.80	8.00
Euro Area	11.60	11.63	11.70	11.67	11.63	11.50	11.23	11.03	10.87	10.67	10.40	10.20
France	12.43	12.43	12.38	12.43	12.35	12.17	11.90	11.70	11.70	11.60	11.40	11.20
Germany	8.90	9.20	9.70	9.90	10.10	10.10	9.80	9.50	9.30	9.20	9.00	9.10
Italy	12.00	12.00	12.20	12.10	12.10	12.10	12.10	12.30	12.40	12.20	12.00	.
Japan	3.30	3.30	3.30	3.40	3.40	3.50	3.70	4.10	4.20	4.40	4.60	4.80
United Kingdom	8.10	7.90	7.40	7.30	6.90	6.60	6.40	6.30	6.30	6.30	6.30	6.10
United States	5.30	5.30	5.30	4.90	4.90	4.70	4.70	4.40	4.50	4.40	4.30	4.30

Reserve Money Growth

Percent change

	96.3	96.4	97.1	97.2	97.3	97.4	98.1	98.2	98.3	98.4	99.1	99.2
Canada	6.19	4.73	6.42	5.60	4.22	3.75	2.55	3.58	4.56	7.02	9.62	7.82
Euro Area	.	.	.	.	.	.	.	.	.	.	.	.
Japan	7.97	7.11	7.12	6.77	7.08	8.61	9.09	8.96	8.48	6.60	4.27	.
United Kingdom	7.29	7.13	6.54	6.08	5.72	6.58	6.86	5.81	5.72	5.22	5.37	6.65
United States	2.81	3.35	4.56	4.80	5.05	5.90	6.04	5.95	6.38	6.87	7.60	8.72

Narrow Money Growth

Percent change

	96.4	97.1	97.2	97.3	97.4	98.1	98.2	98.3	98.4	99.1	99.2	99.3
Canada	16.35	17.17	14.89	16.87	12.36	11.60	12.48	12.91	9.92	6.05	1.37	.
Euro Area	8.14	8.35	8.38	9.37	8.17	8.74	10.29	8.48	7.46	12.71	11.66	.
Japan	10.59	9.20	8.39	7.90	9.19	8.63	7.79	8.38	6.24	8.43	12.04	.
United Kingdom	5.23	6.18	7.44	5.10	5.20	4.13	2.90	5.63	6.30	6.41	7.32	.
United States	6.85	6.71	6.45	7.22	8.26	9.31	11.04	11.77	14.11	14.31	13.29	11.92

Broad Money Growth

Percent change

	96.4	97.1	97.2	97.3	97.4	98.1	98.2	98.3	98.4	99.1	99.2	99.3
Canada	2.44	0.98	-0.19	-0.60	-1.52	-1.14	-0.95	0.67	1.56	2.04	2.59	.
Euro Area	4.54	3.71	4.00	4.27	4.24	4.76	5.03	4.63	4.88	5.39	5.58	.
Japan	2.90	2.57	2.85	3.06	3.78	4.51	4.02	4.45	4.38	4.72	3.99	.
United Kingdom	9.65	11.22	11.41	5.85	5.71	4.42	3.83	8.76	8.33	6.51	5.50	.
United States	4.56	4.50	4.46	5.10	5.74	6.48	7.19	7.32	8.46	8.37	7.89	7.40

Short-Term Interest Rates

Percent

	96.4	97.1	97.2	97.3	97.4	98.1	98.2	98.3	98.4	99.1	99.2	99.3
Canada	3.19	3.14	3.31	3.58	4.11	4.81	4.96	5.25	5.13	5.00	4.70	.
Euro Area	4.15	4.06	3.97	4.02	4.16	3.96	3.86	3.78	3.44	3.09	2.64	2.70
Japan	0.52	0.55	0.58	0.61	0.66	0.95	0.62	0.67	0.62	0.49	0.11	0.09
United Kingdom	6.19	6.24	6.49	7.10	7.47	7.47	7.49	7.58	6.79	5.50	5.20	5.19
United States	5.41	5.44	5.69	5.60	5.73	5.55	5.59	5.53	5.20	4.90	4.98	5.38

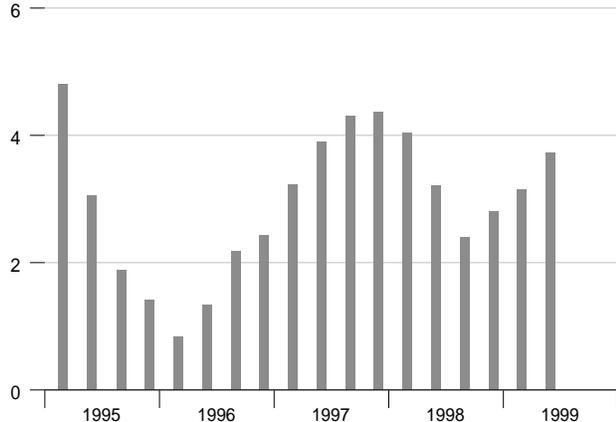
Long-Term Interest Rates

Percent

	96.4	97.1	97.2	97.3	97.4	98.1	98.2	98.3	98.4	99.1	99.2	99.3
Canada	6.76	6.88	6.87	6.26	5.85	5.61	5.49	5.50	5.21	5.24	5.49	5.77
Euro Area	6.47	6.20	6.22	5.86	5.66	5.12	4.99	4.56	4.15	3.99	4.26	5.05
France	5.91	5.63	5.85	5.57	5.64	5.14	5.04	4.64	4.45	4.31	4.55	.
Germany	5.90	5.70	5.80	5.60	5.50	5.00	4.90	4.40	4.00	3.90	4.10	4.90
Italy	7.85	7.42	7.36	6.51	6.02	5.34	5.14	4.76	4.32	4.09	4.36	5.14
Japan	2.58	2.38	2.38	2.10	1.68	1.65	1.36	1.13	1.02	1.84	1.39	1.79
United Kingdom	7.57	7.40	7.31	6.97	6.49	6.02	5.78	5.47	4.80	4.47	4.89	5.45
United States	6.68	6.89	7.00	6.58	6.20	5.94	5.92	5.58	5.32	5.60	6.04	6.34

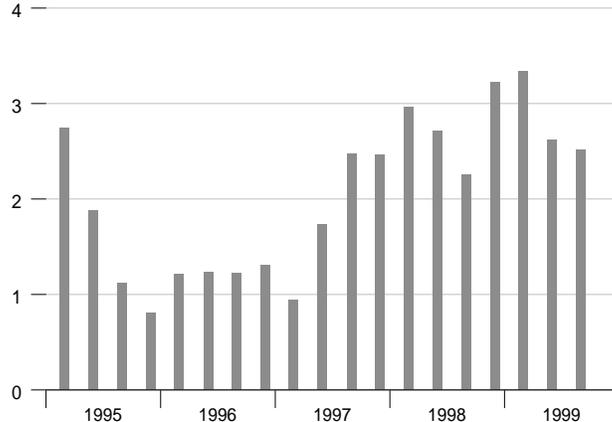
Real GDP Growth

Percent change
6



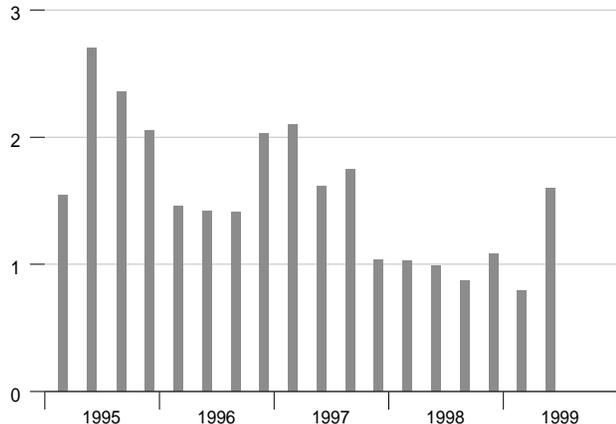
Employment Growth

Percent change
4



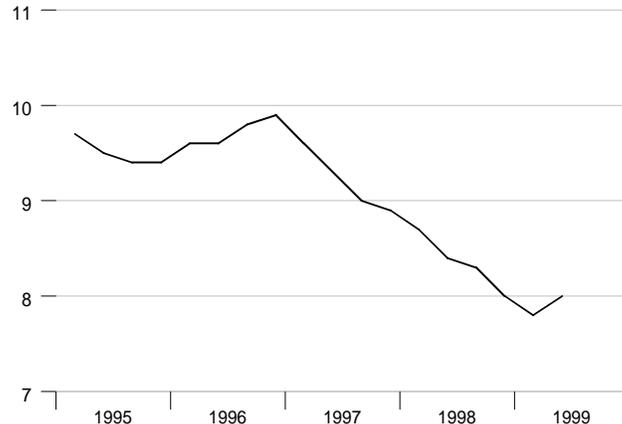
Consumer Price Index

Percent change
3



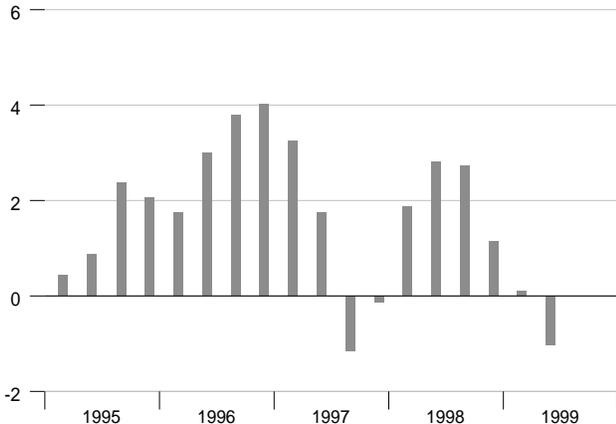
Unemployment Rate

Percent
11



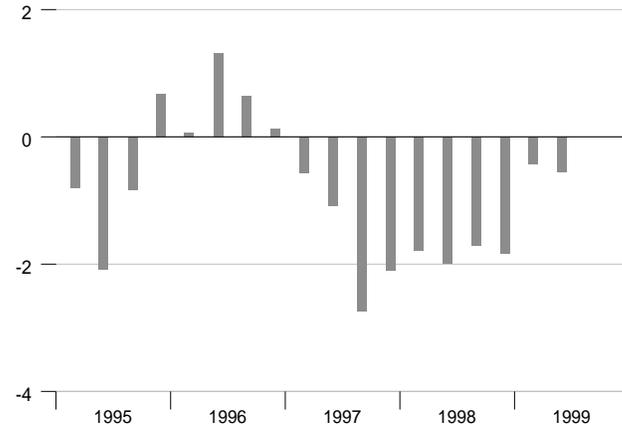
Hourly Earnings

Percent change
6

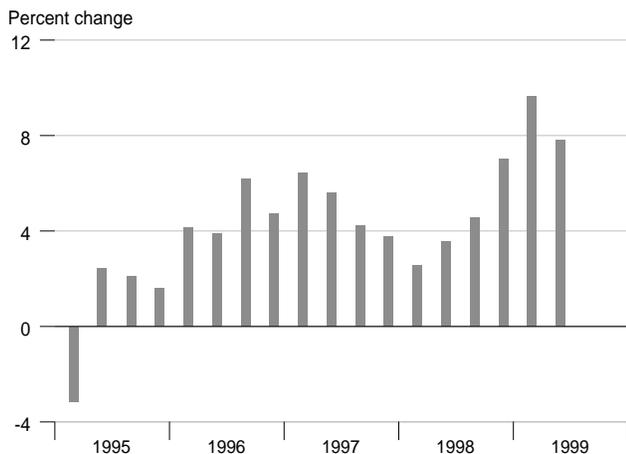


Current Account Balance

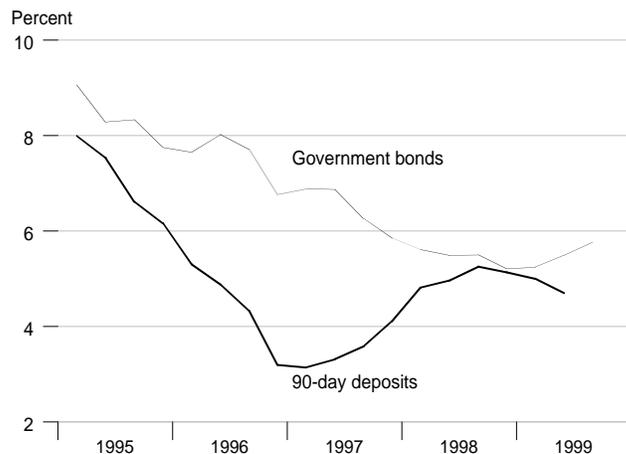
Percent of GDP
2



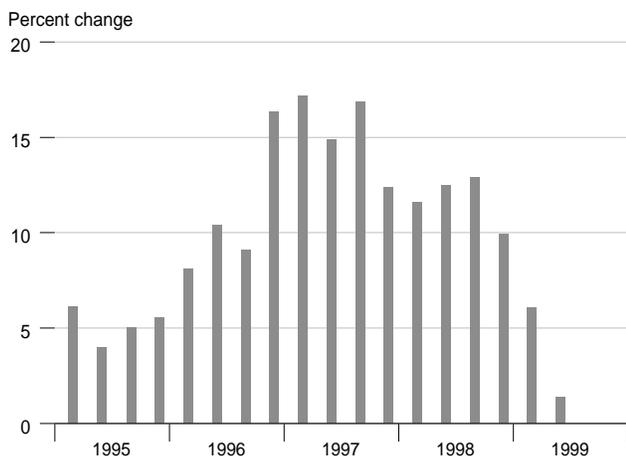
Reserve Money Growth



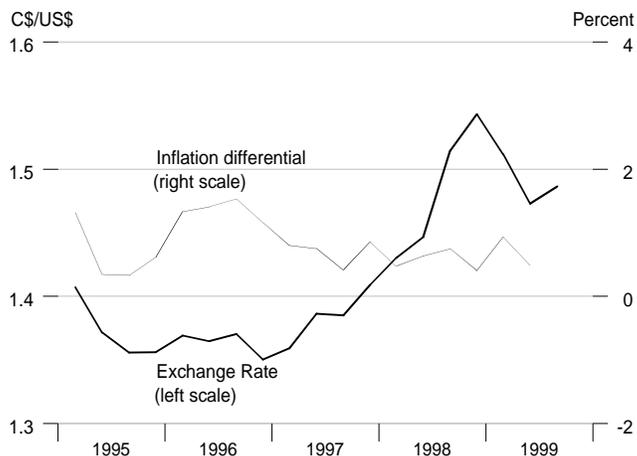
Interest Rates



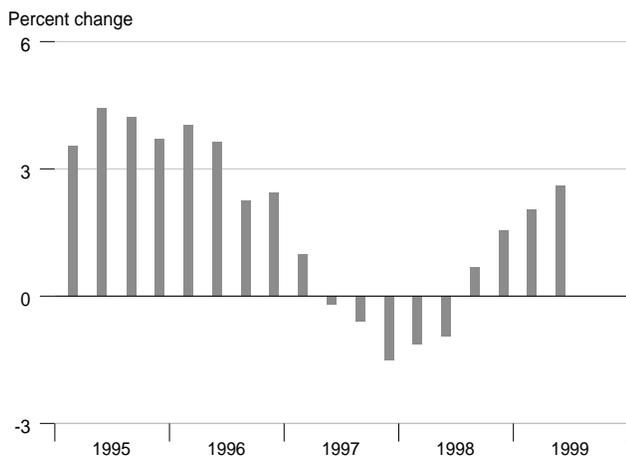
M1 Growth



Exchange Rate and Inflation Differential



M2 Growth

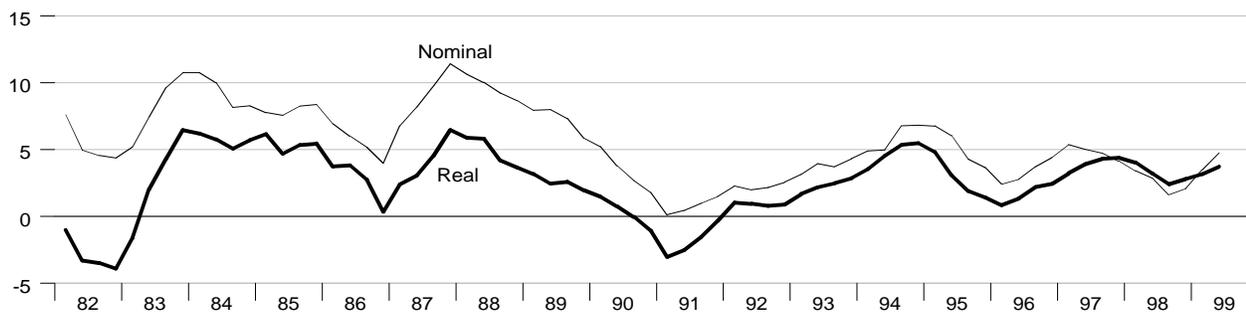


Real Effective Exchange Rate



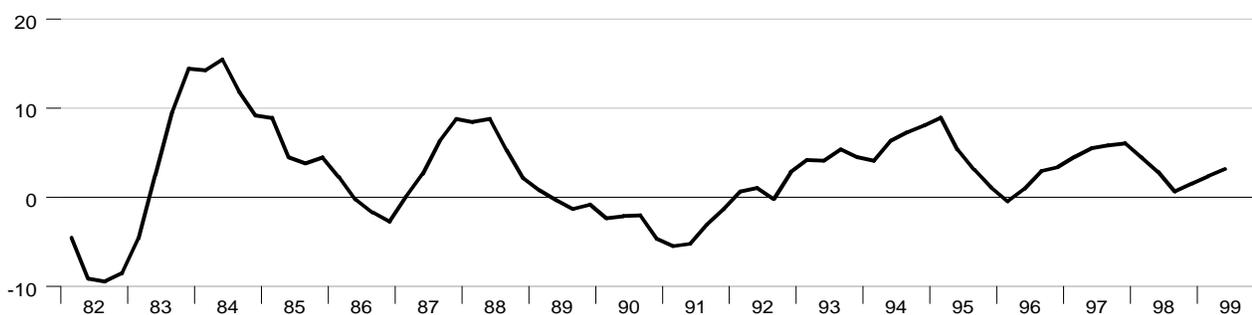
GDP Growth

Percent change



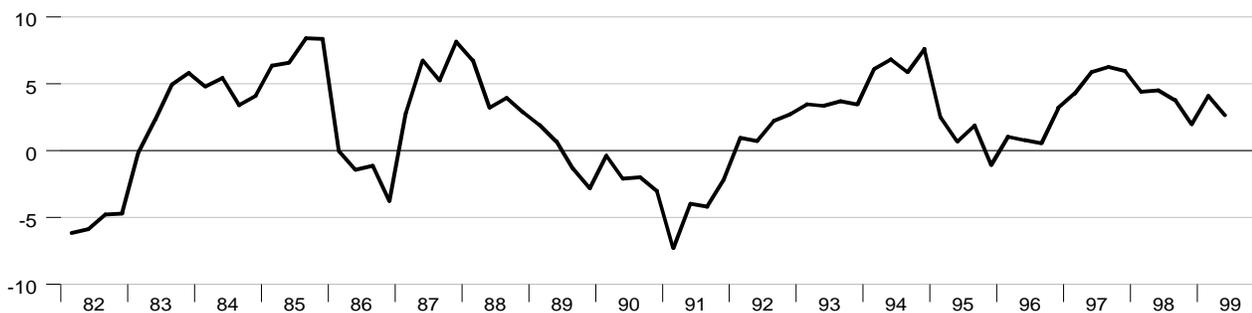
Industrial Production

Percent change



Retail Sales

Percent change

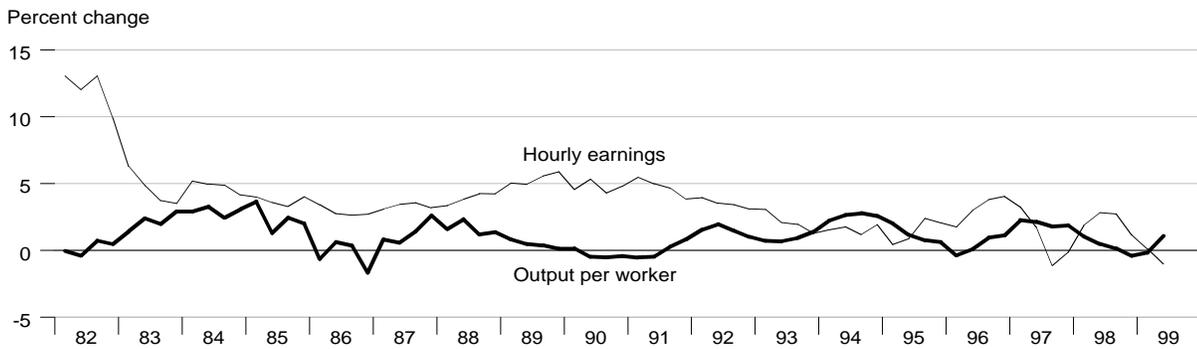


Capacity Utilization

Percent



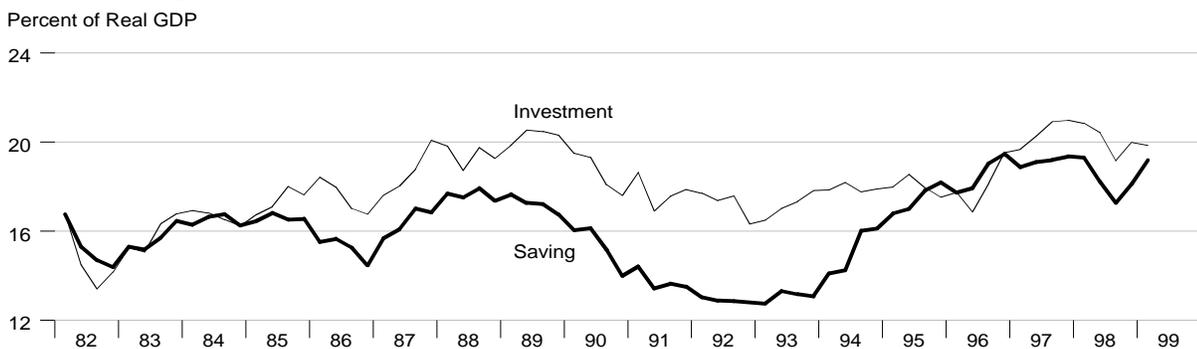
Hourly Earnings and Output per Worker



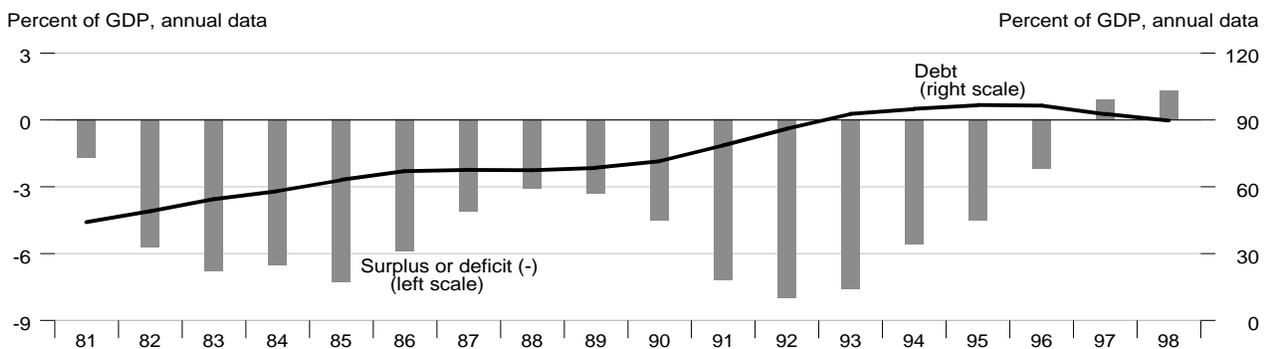
Labor Force Indicators



Real Saving and Real Investment

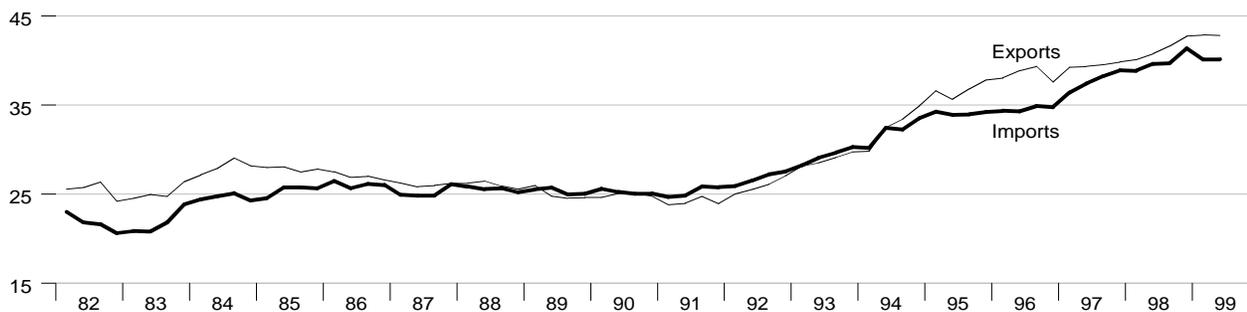


Government Debt and Budget Surplus or Deficit (-)



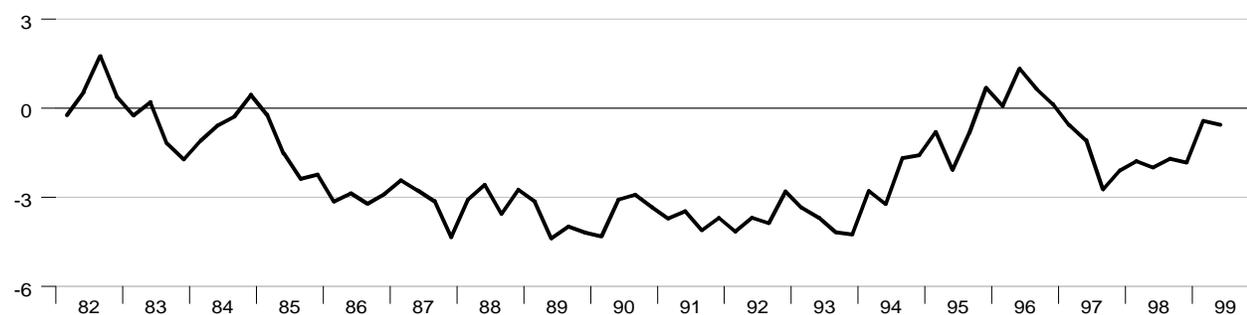
International Trade - Goods and Services

Percent of GDP



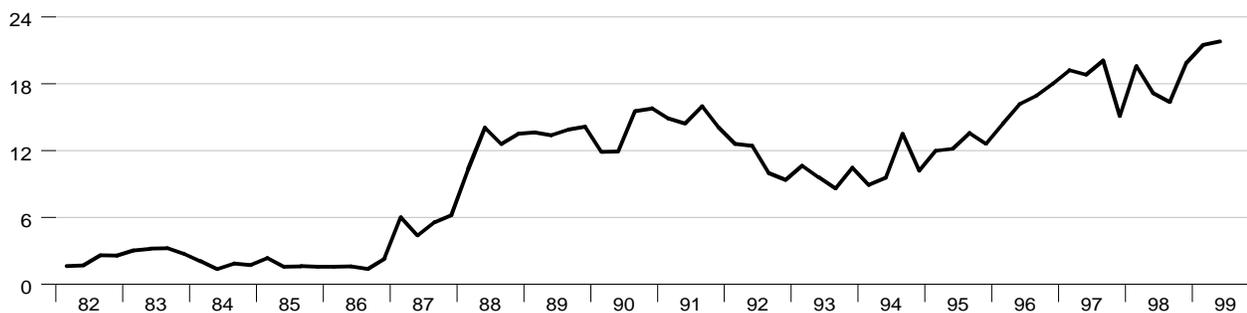
Current Account Balance

Percent of GDP



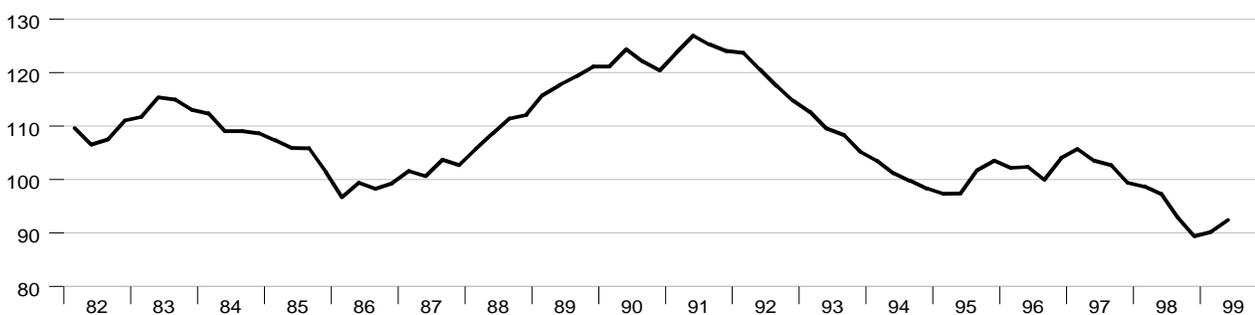
Foreign Exchange Reserves

Billions of US\$

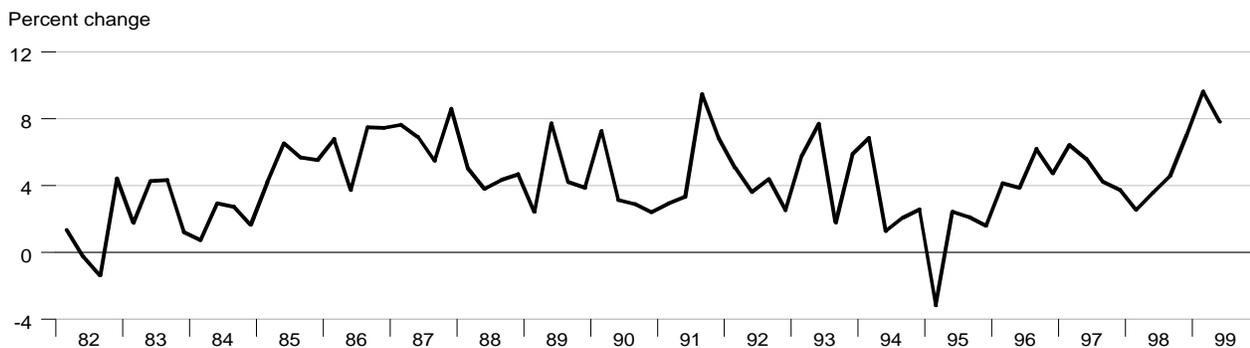


Real Effective Exchange Rate

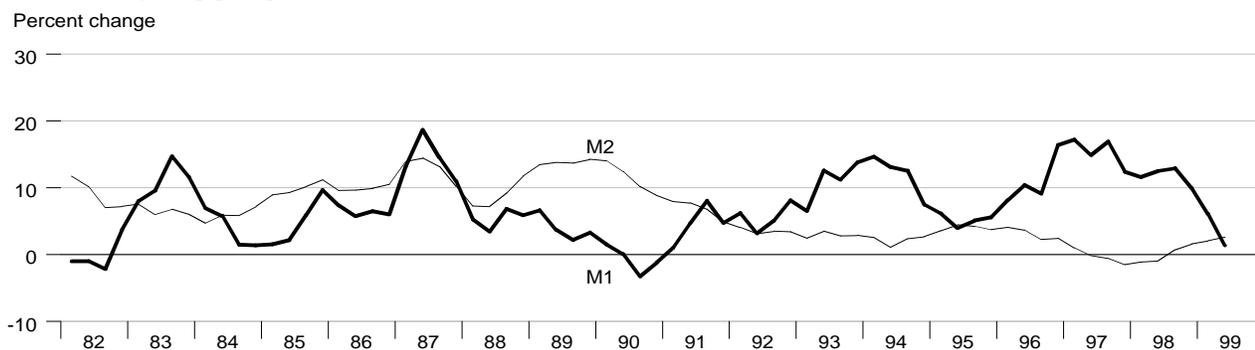
Index 1995 = 100



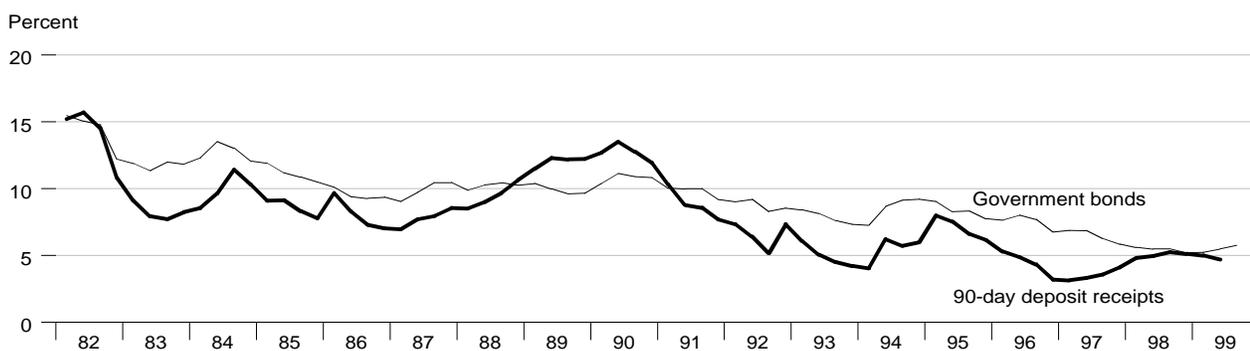
Reserve Money Growth



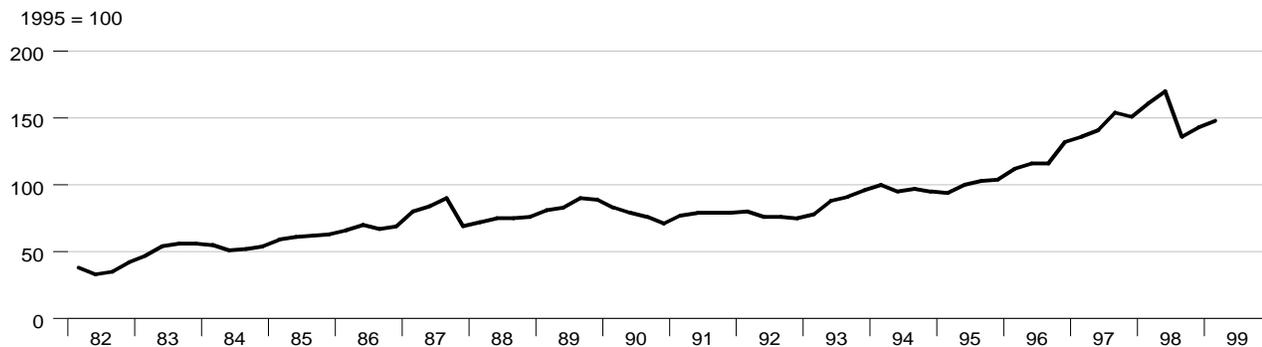
Monetary Aggregates



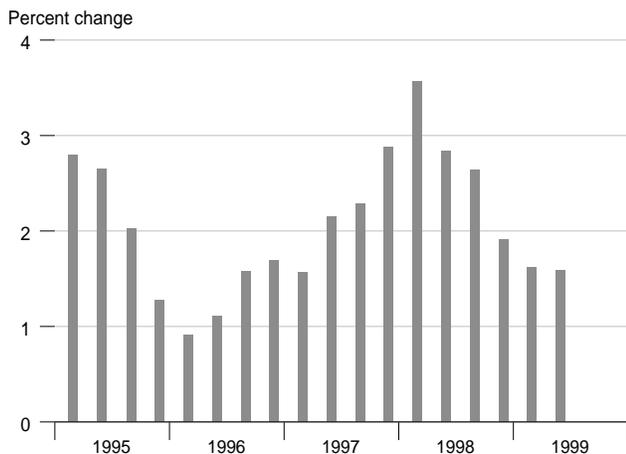
Interest Rates



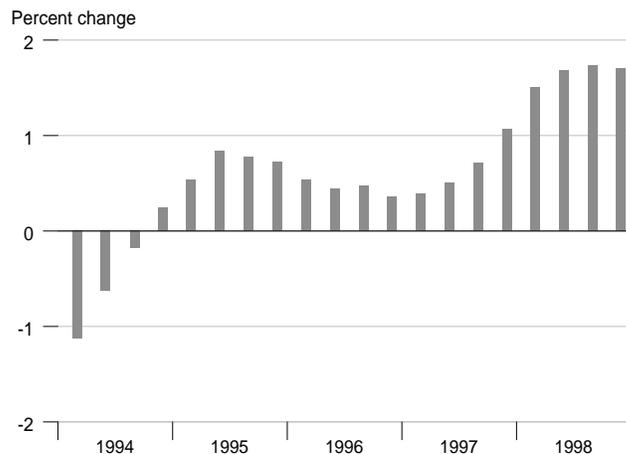
Stock Exchange Index - Toronto Stock Exchange



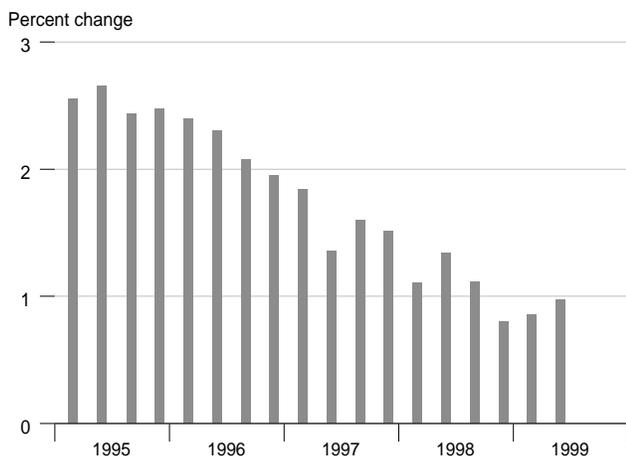
Real GDP Growth



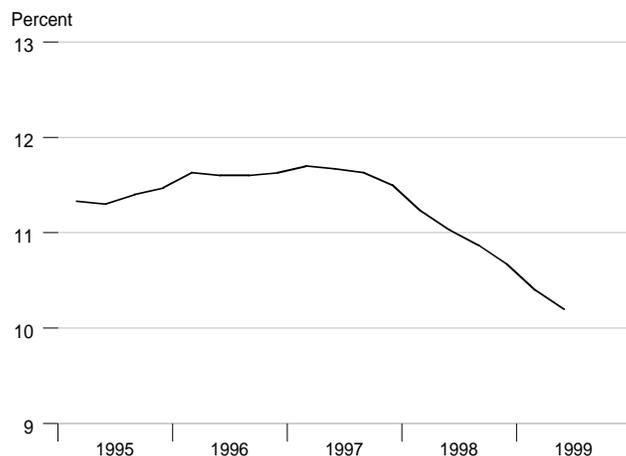
Employment Growth



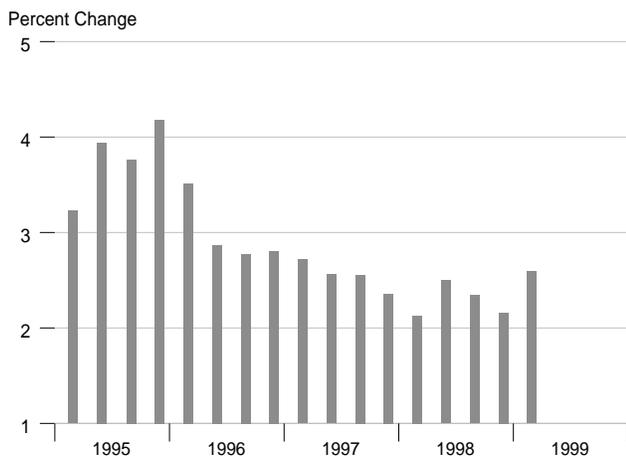
Consumer Price Index



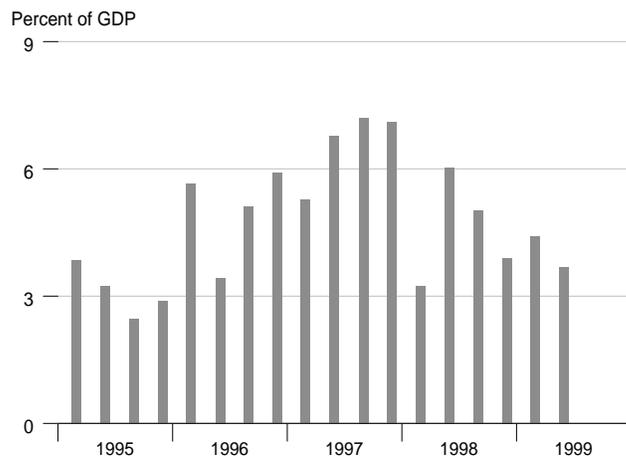
Unemployment Rate



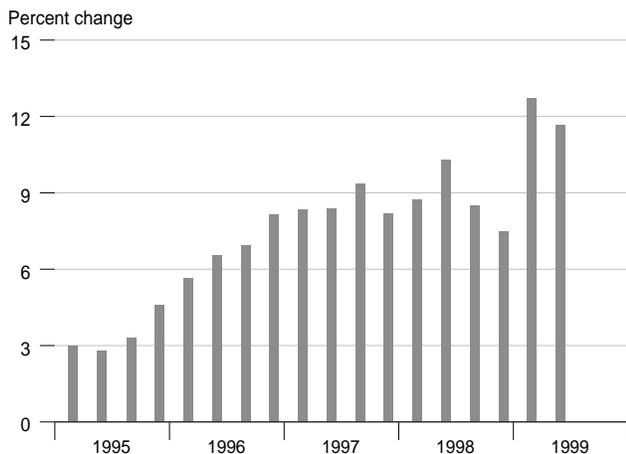
Hourly Earnings



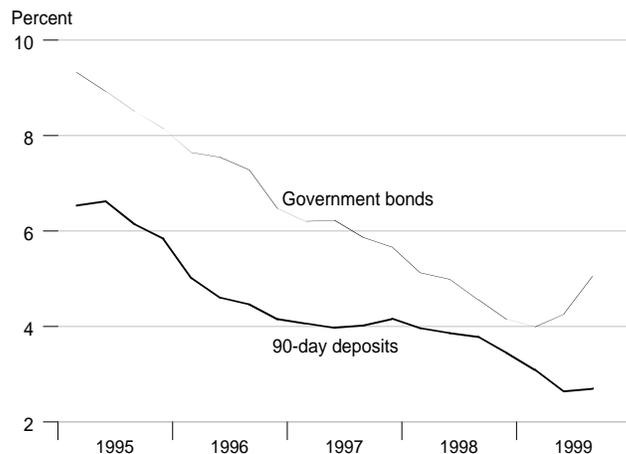
Current Account Balance



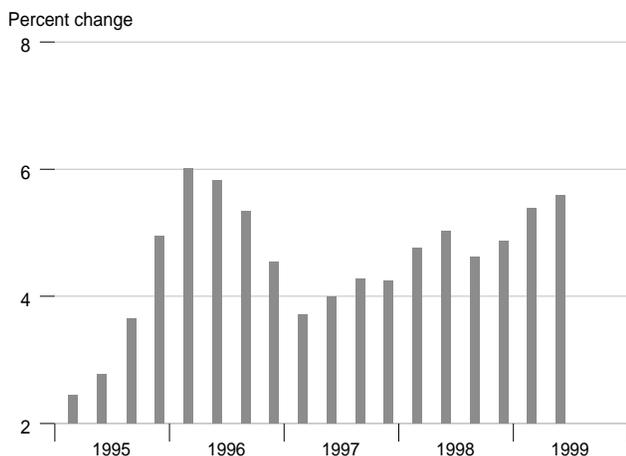
M1 Growth



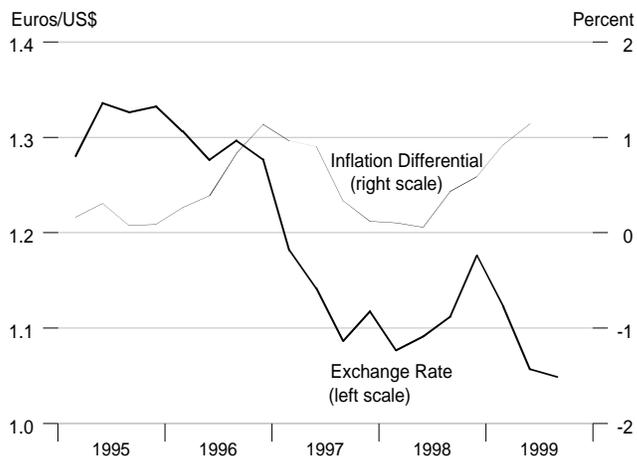
Interest Rates



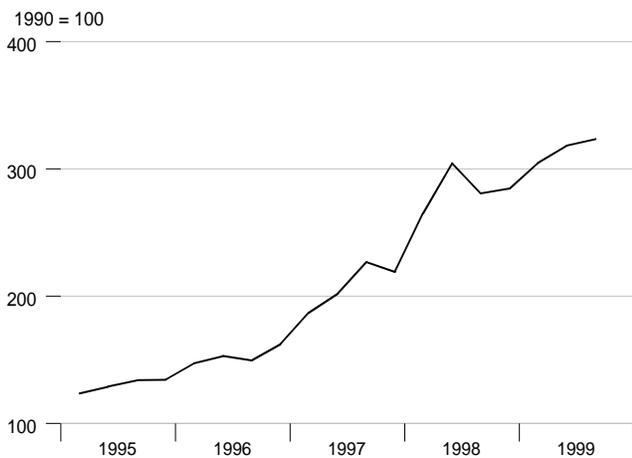
M3 Growth



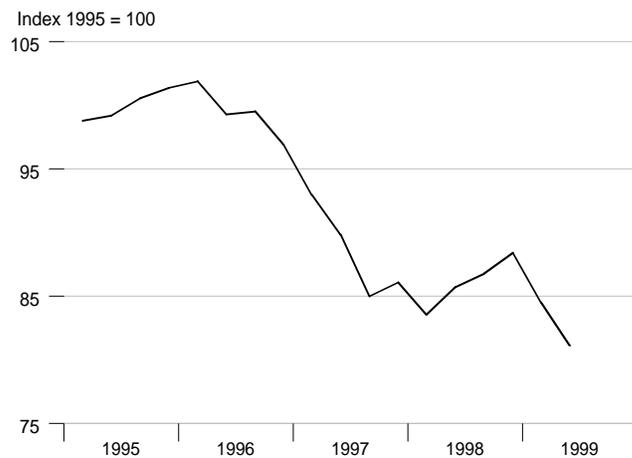
Exchange Rate and Inflation Differential



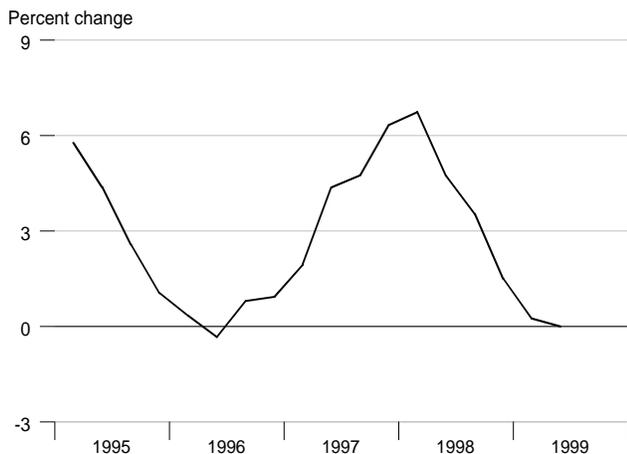
Stock Exchange Index - Dow Jones EURO STOXXSM



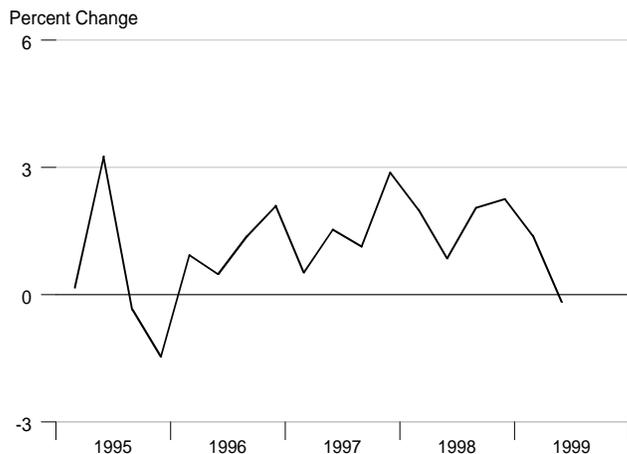
Real Effective Exchange Rate



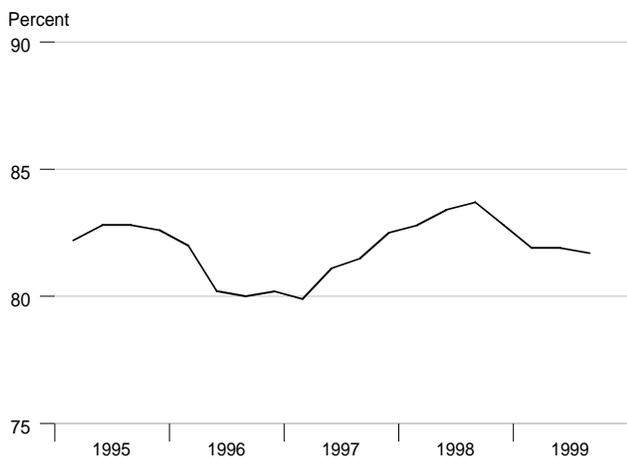
Industrial Production



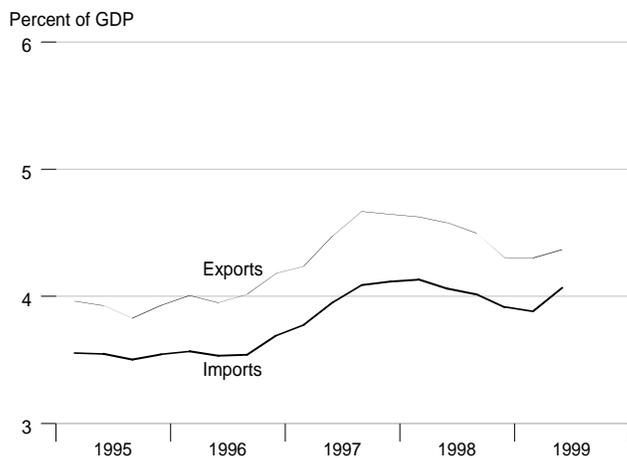
Retail Sales



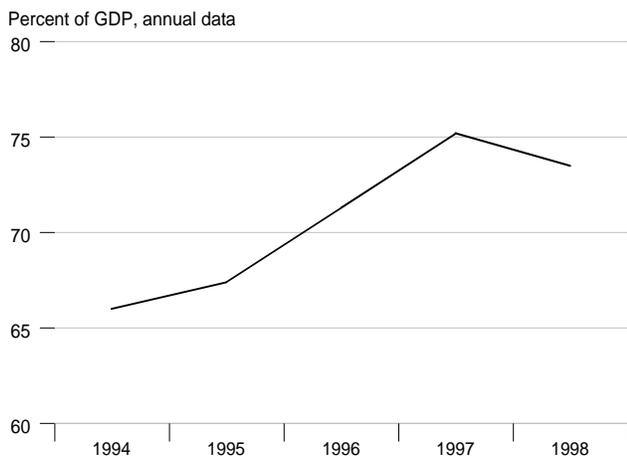
Capacity Utilization



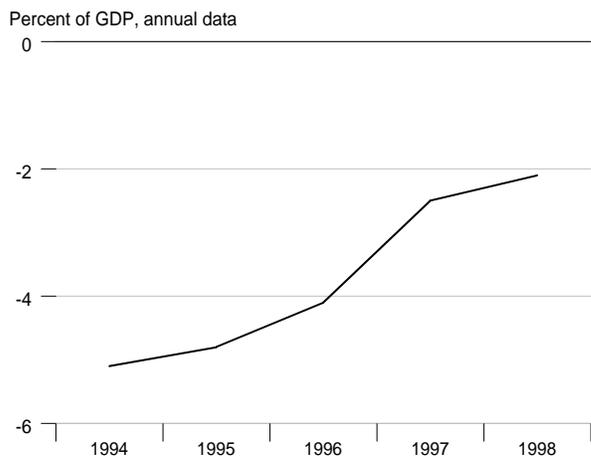
International Trade - Goods



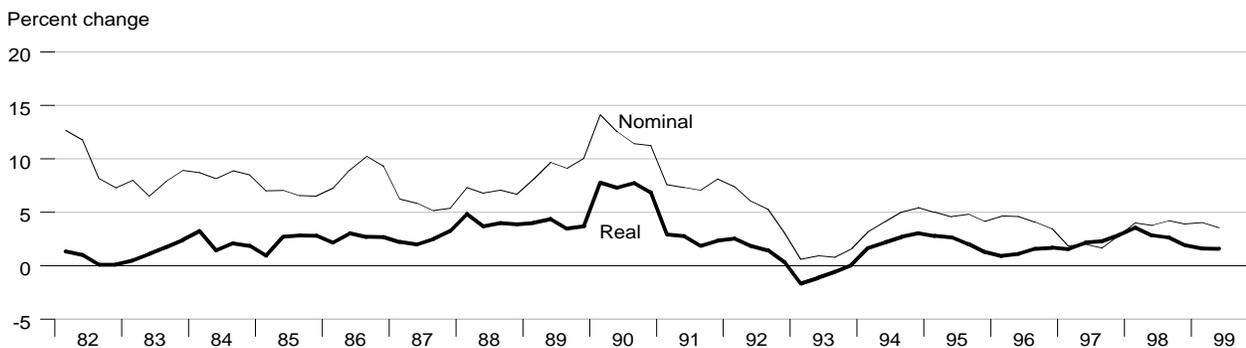
Government Debt



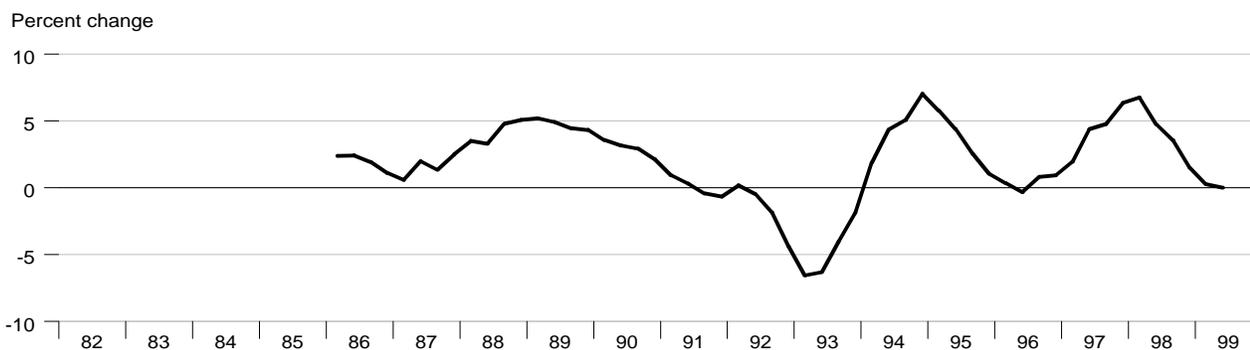
Budget Surplus or Deficit (-)



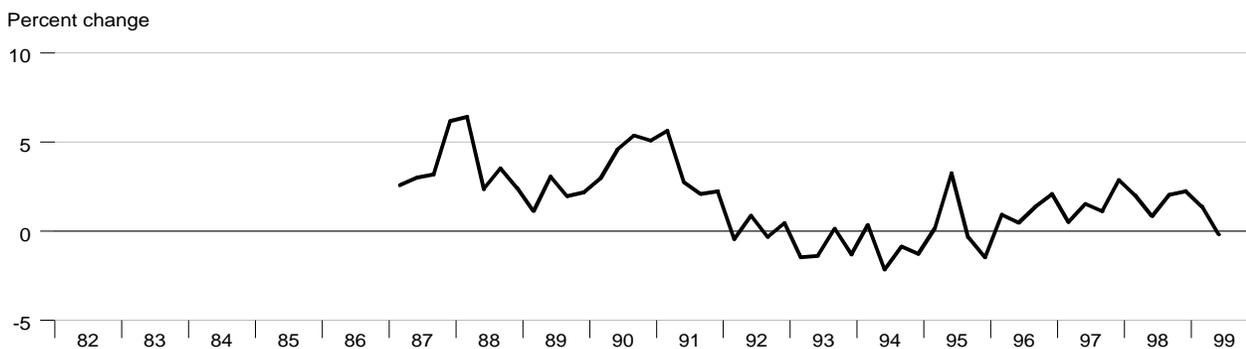
GDP Growth



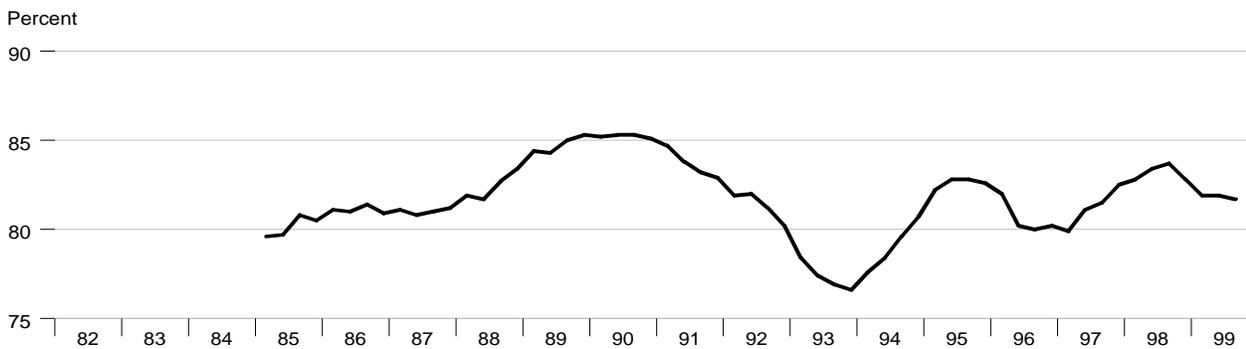
Industrial Production



Retail Sales

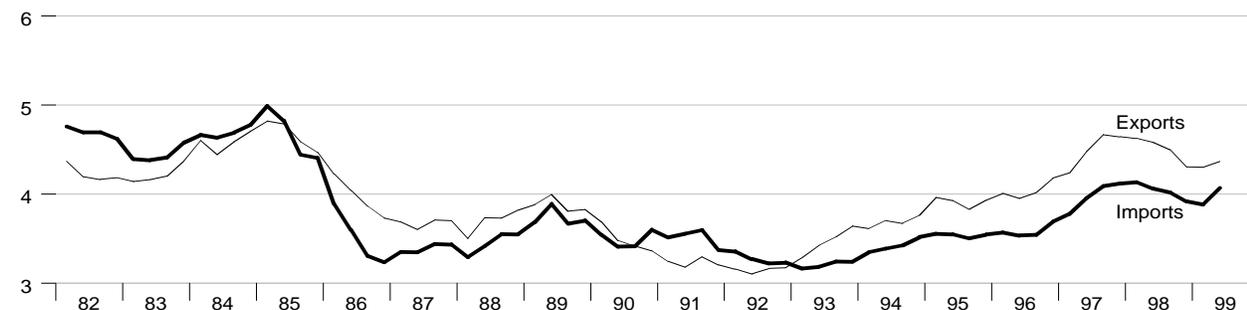


Capacity Utilization



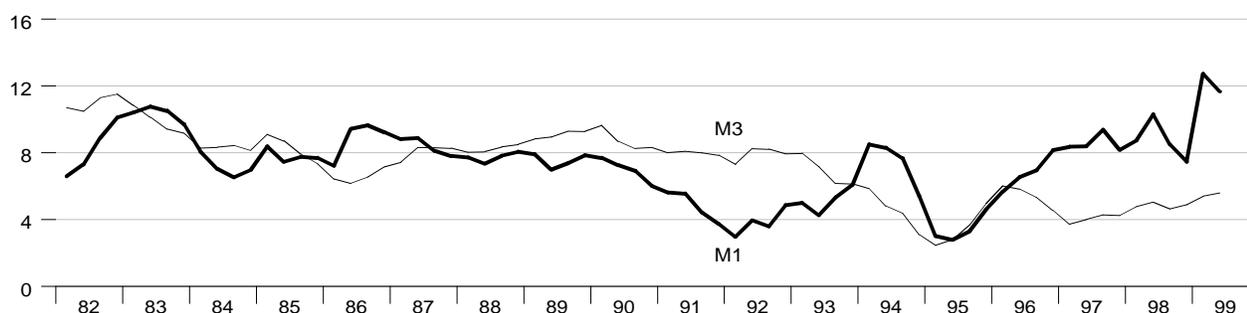
International Trade - Goods

Percent of GDP



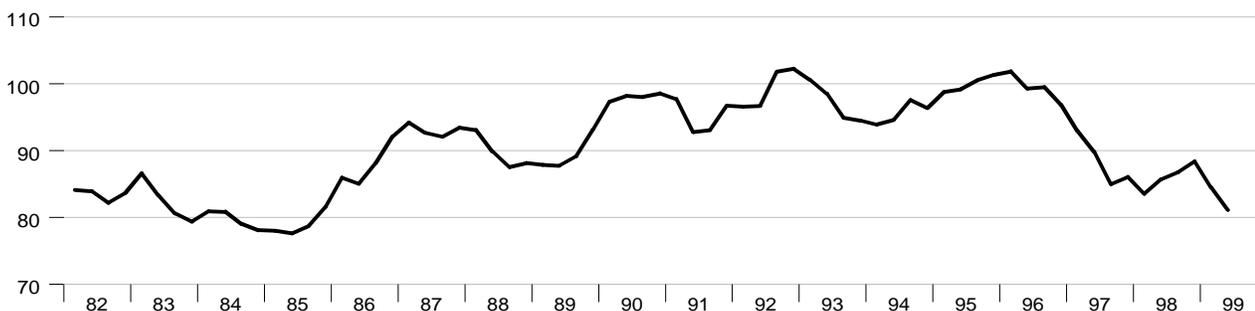
Monetary Aggregates

Percent Change



Real Effective Exchange Rate

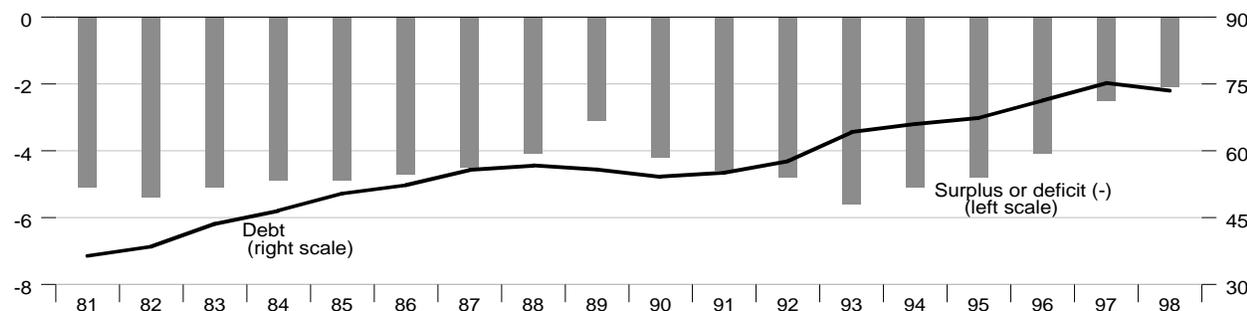
Index 1995 = 100



Government Debt and Budget Surplus or Deficit (-)

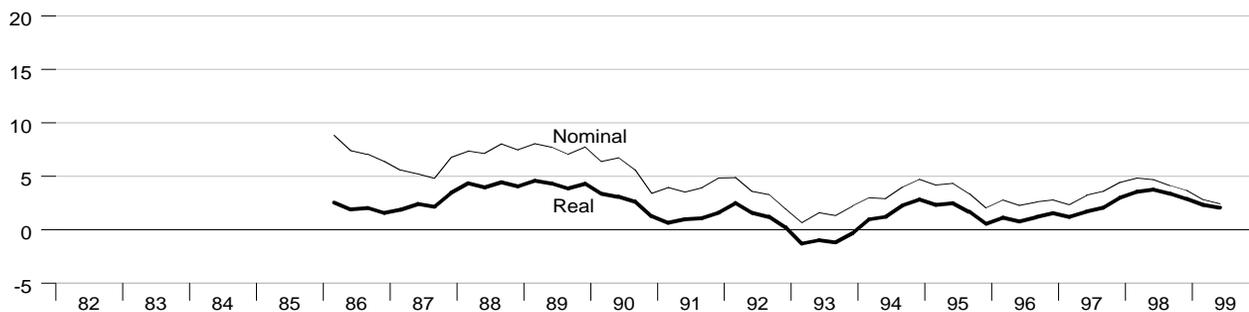
Percent of GDP, annual data

Percent of GDP, annual data



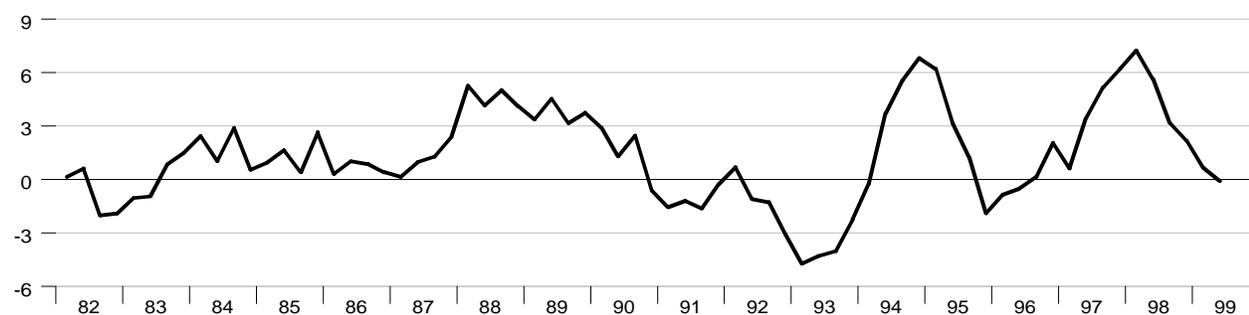
GDP Growth

Percent change



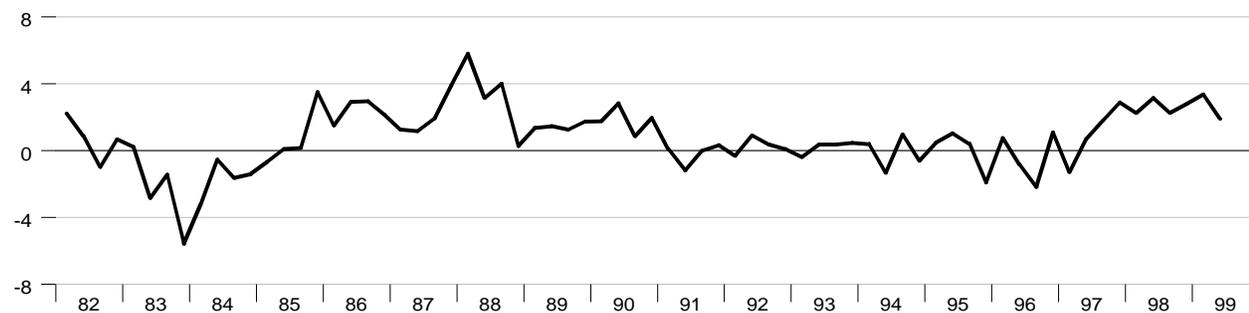
Industrial Production

Percent change



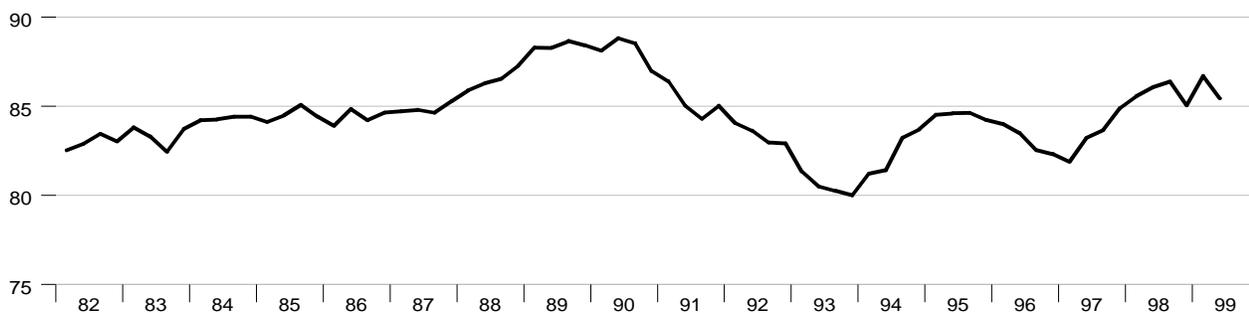
Retail Sales

Percent change

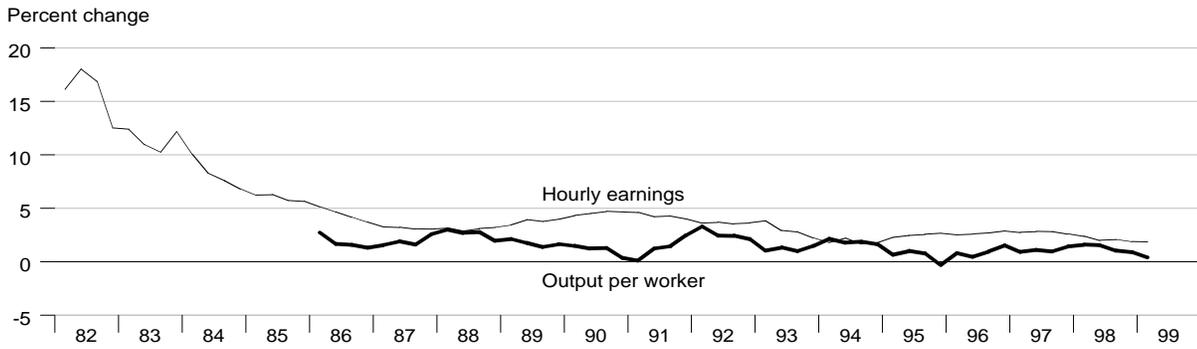


Capacity Utilization

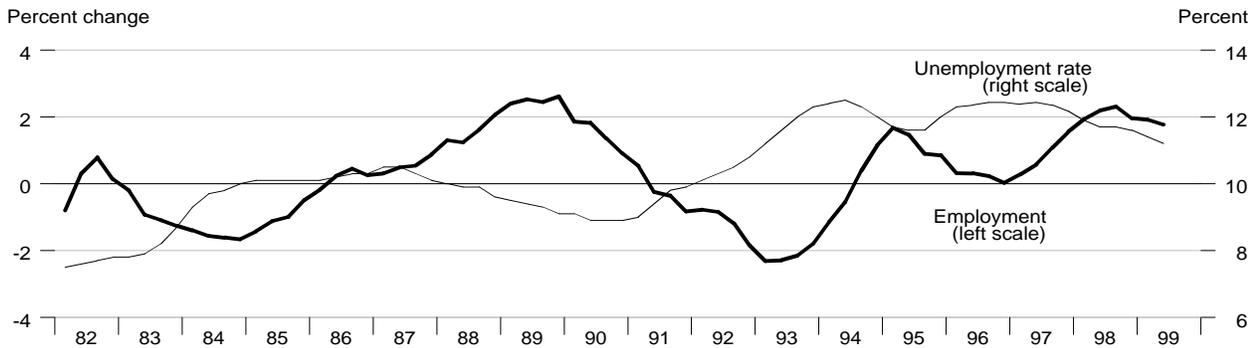
Percent



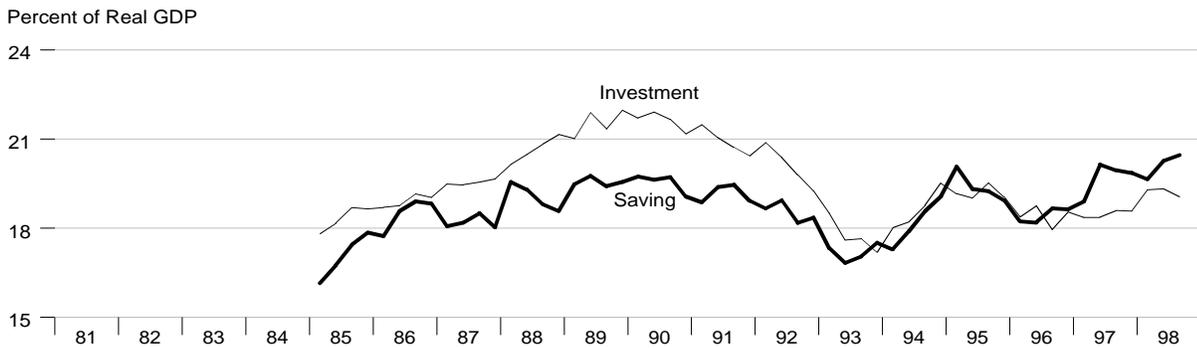
Hourly Earnings and Output per Worker



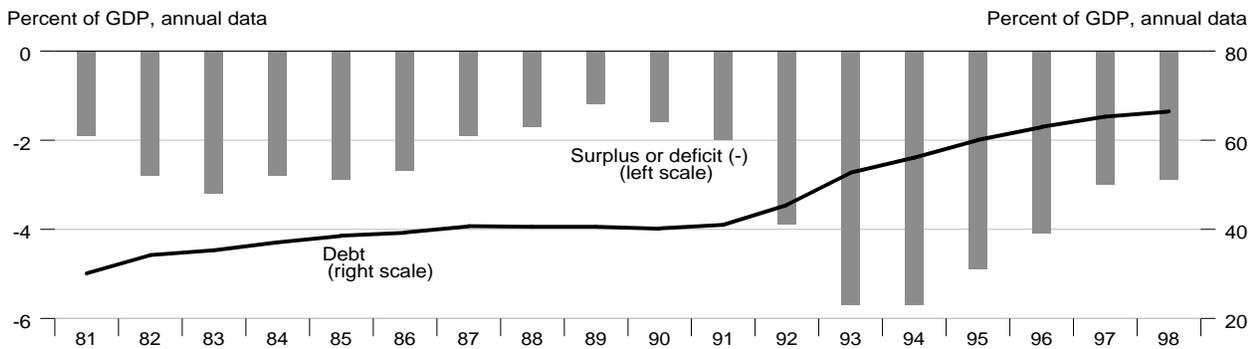
Labor Force Indicators



Real Saving and Real Investment

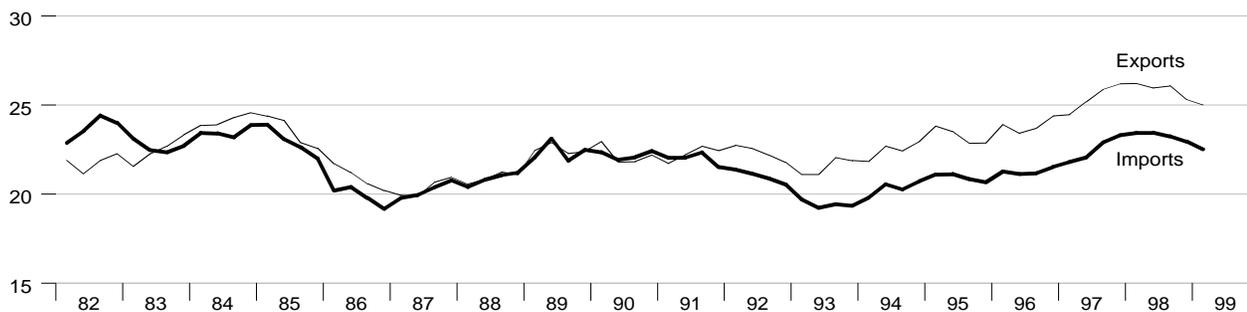


Government Debt and Budget Surplus or Deficit (-)



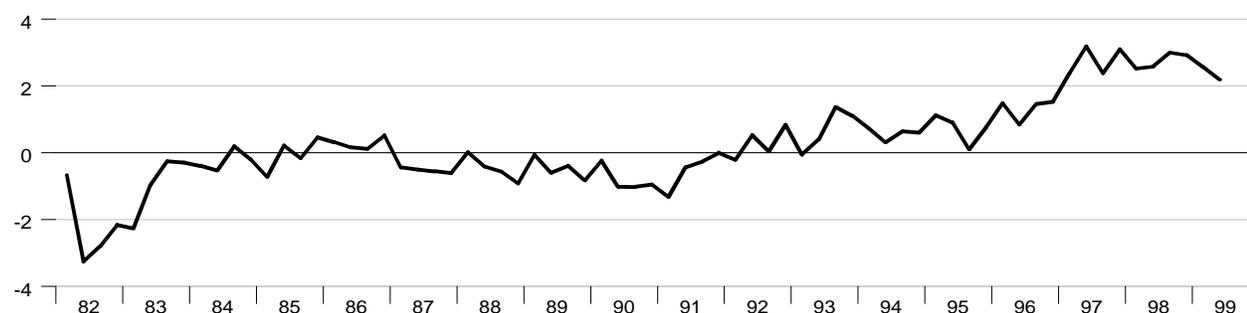
International Trade - Goods and Services

Percent of GDP



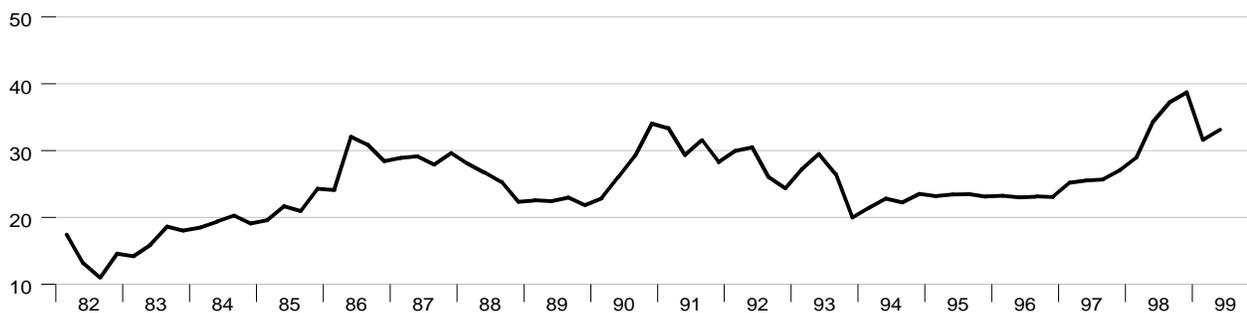
Current Account Balance

Percent of GDP



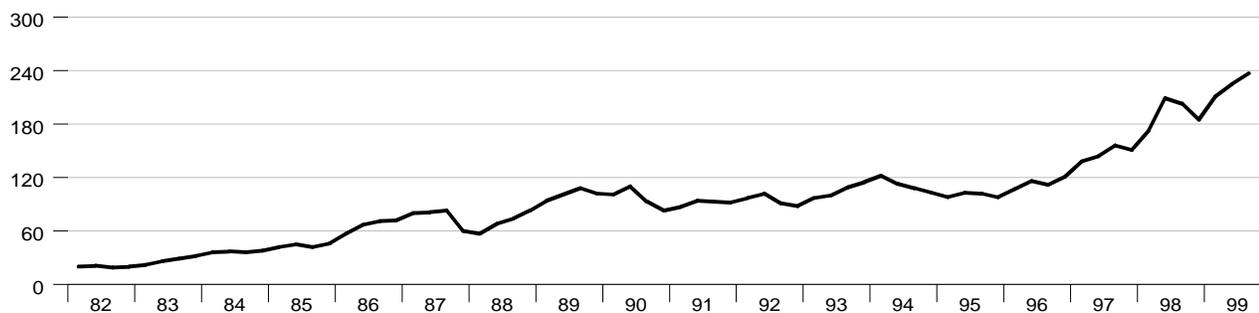
Foreign Exchange Reserves

Billions of US\$

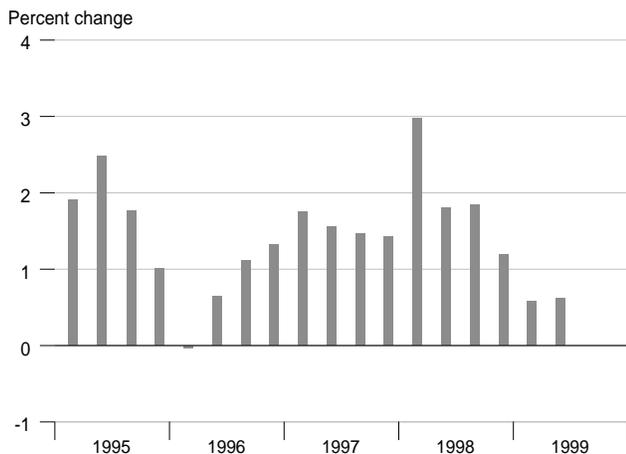


Stock Exchange Index - SBF 250

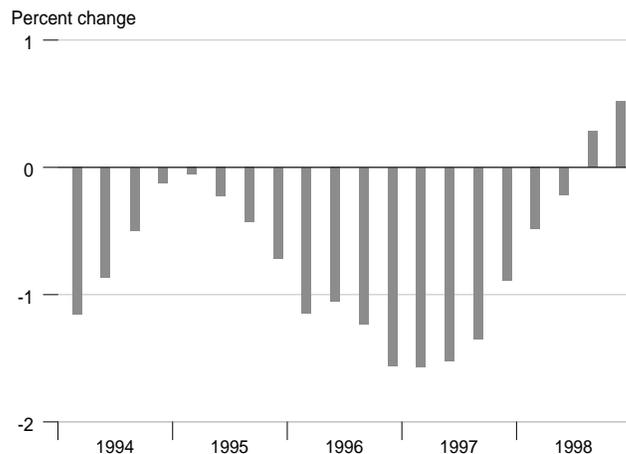
1995 = 100



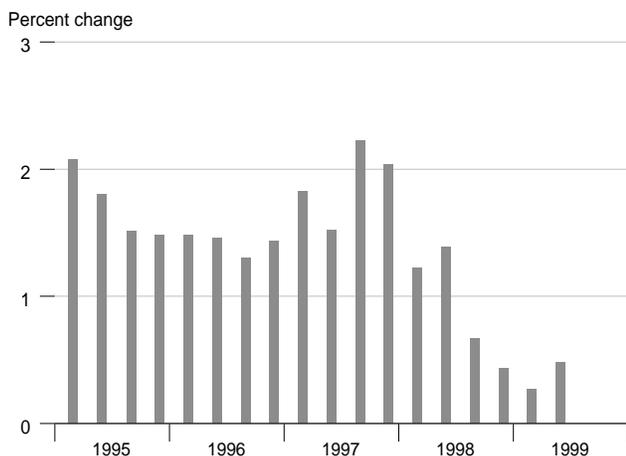
Real GDP Growth



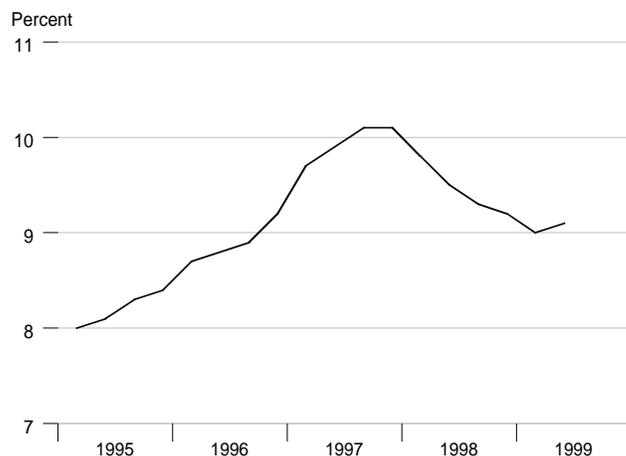
Employment Growth



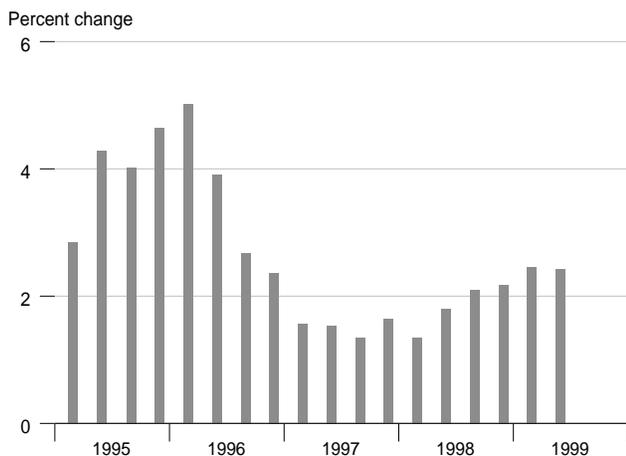
Consumer Price Index



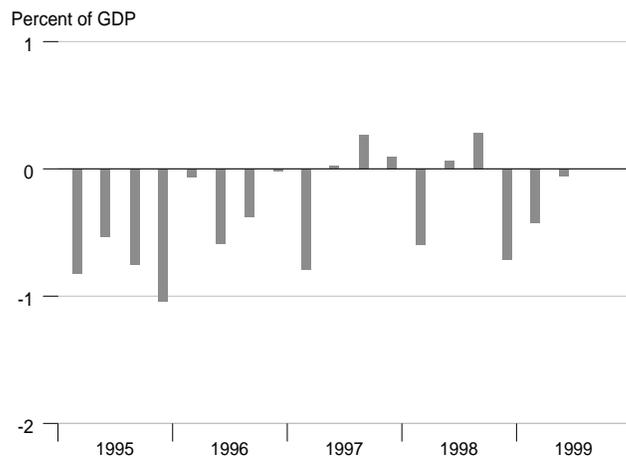
Unemployment Rate



Hourly Earnings

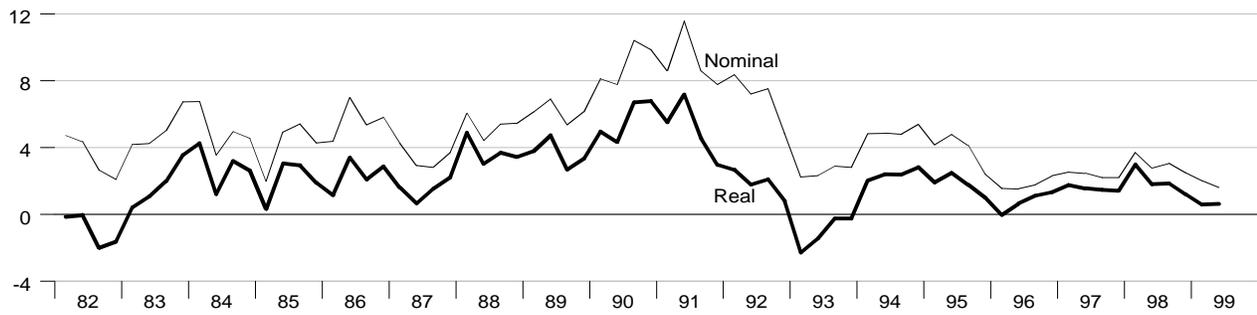


Current Account Balance



GDP Growth

Percent change



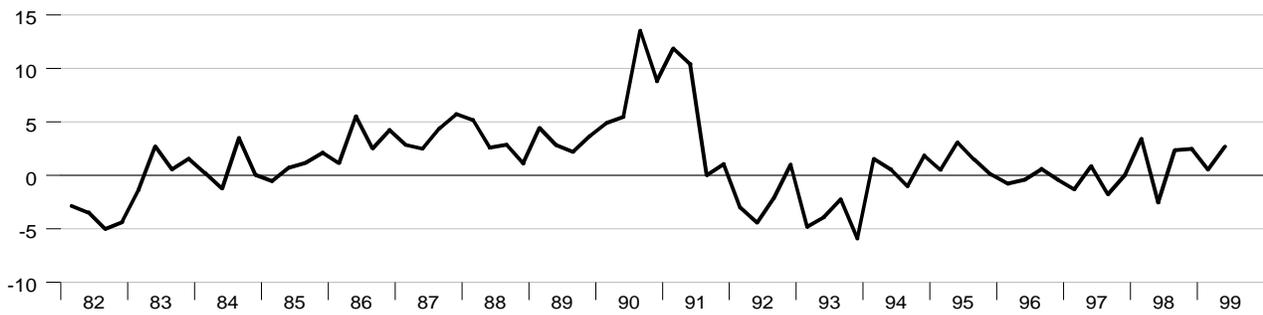
Industrial Production

Percent change



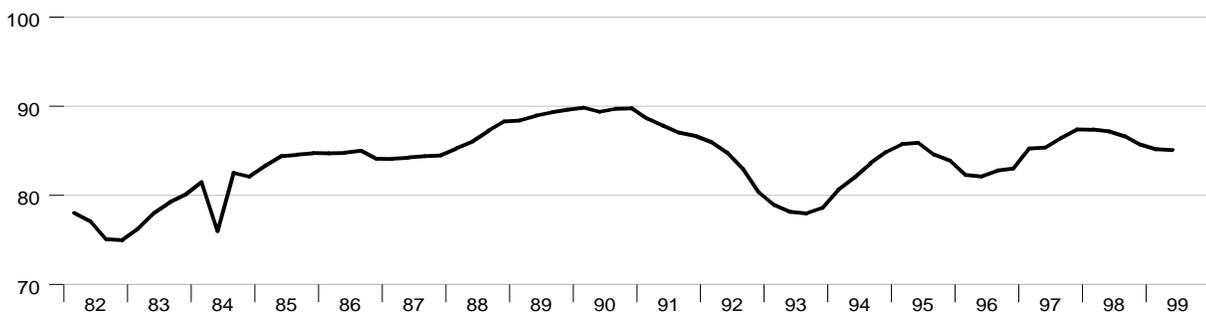
Retail Sales

Percent change

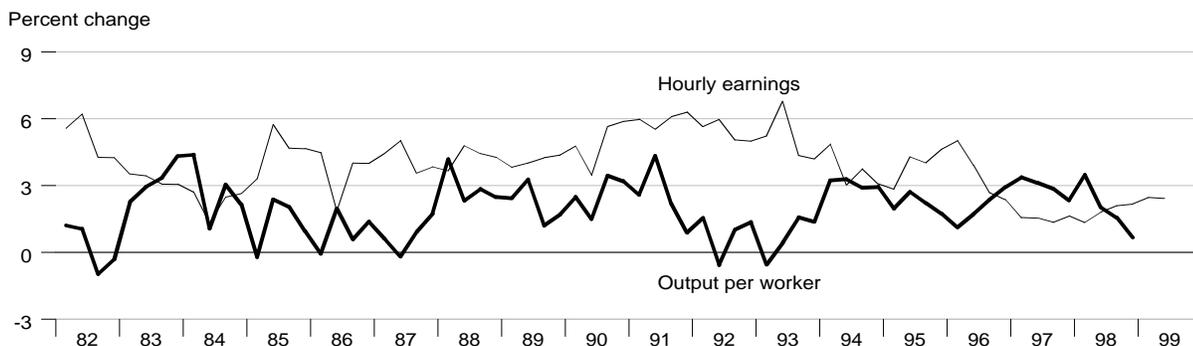


Capacity Utilization

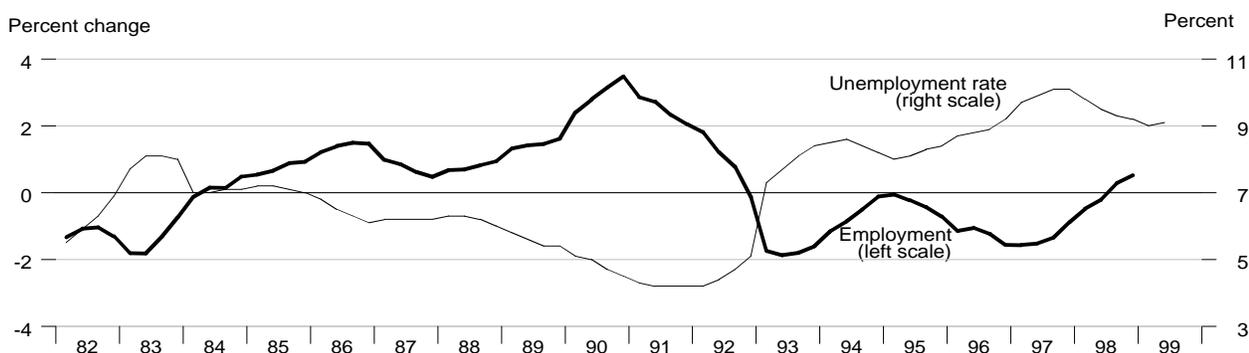
Percent



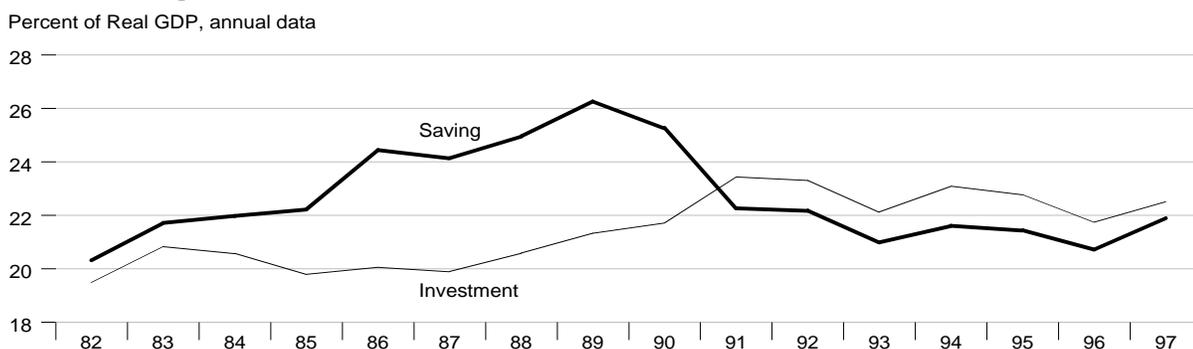
Hourly Earnings and Output per Worker



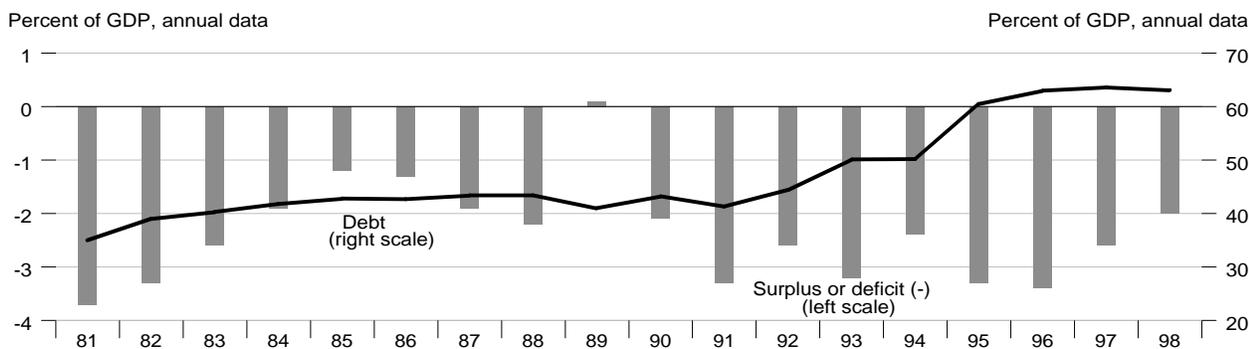
Labor Force Indicators



Real Saving and Real Investment

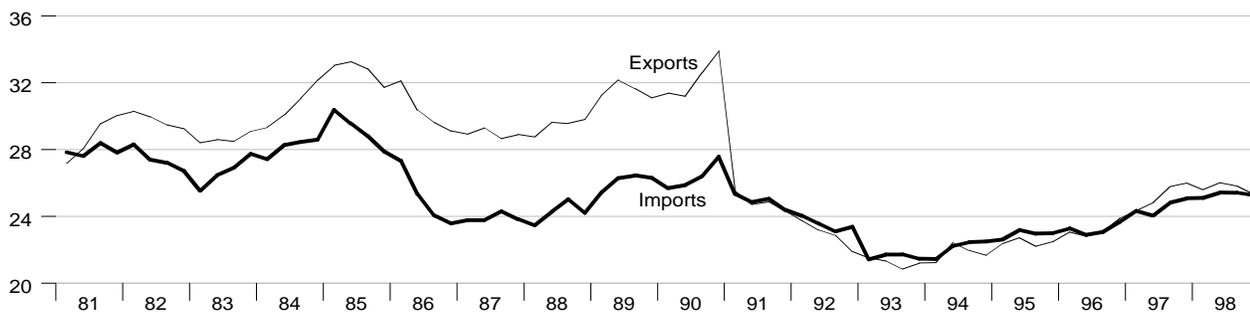


Government Debt and Budget Surplus or Deficit (-)



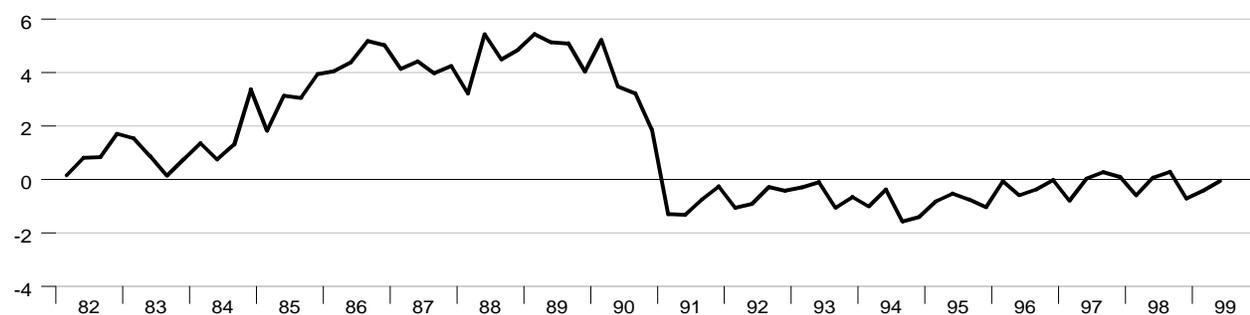
International Trade - Goods and Services

Percent of GDP



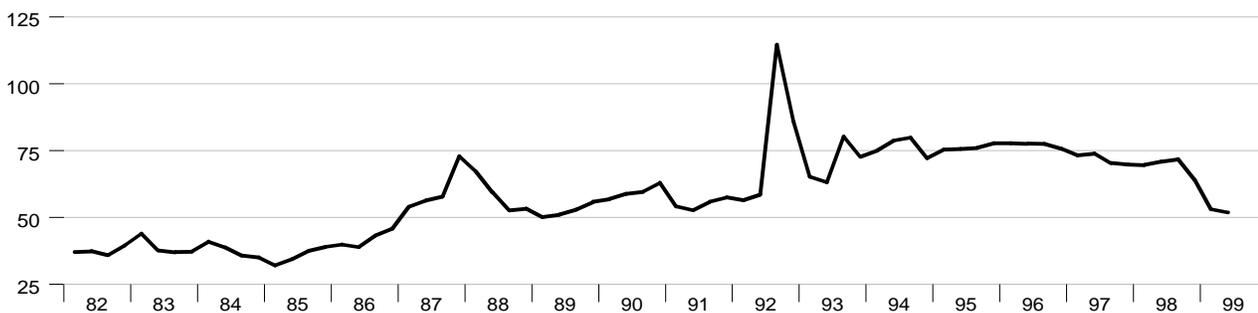
Current Account Balance

Percent of GDP



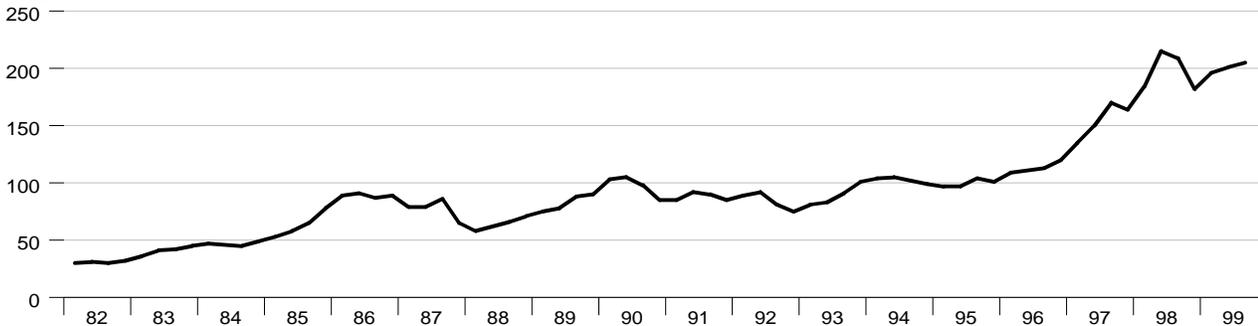
Foreign Exchange Reserves

Billion of US\$

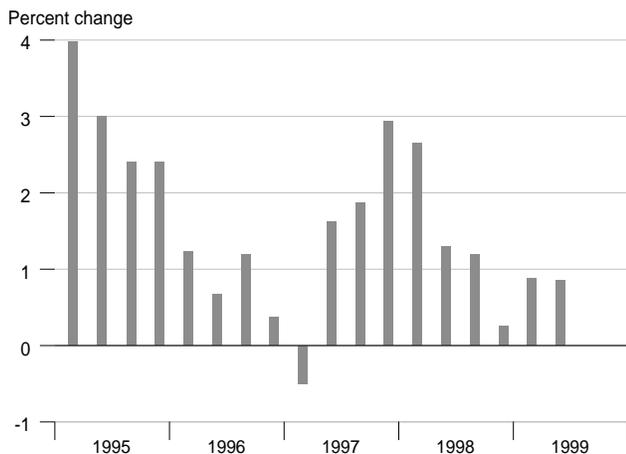


Stock Exchange Index - CDAX

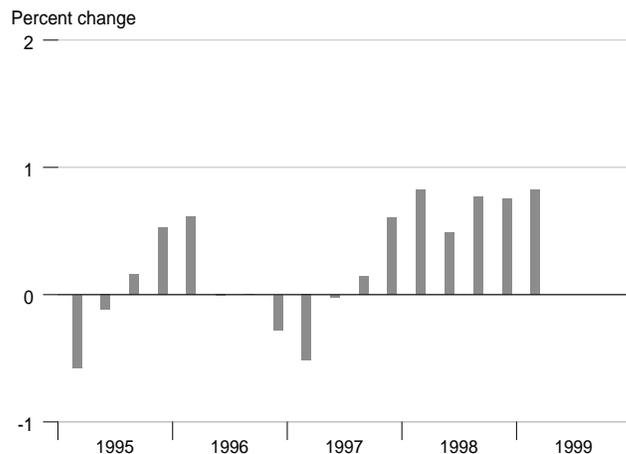
1995 = 100



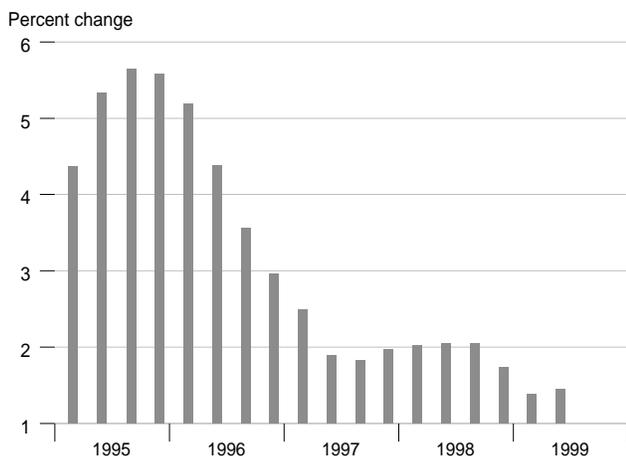
Real GDP Growth



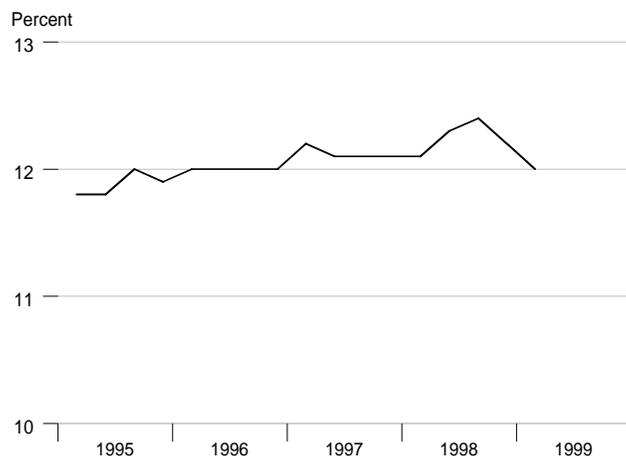
Employment Growth



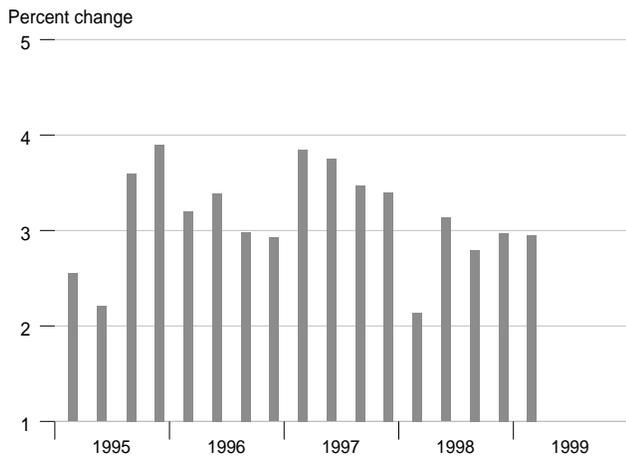
Consumer Price Index



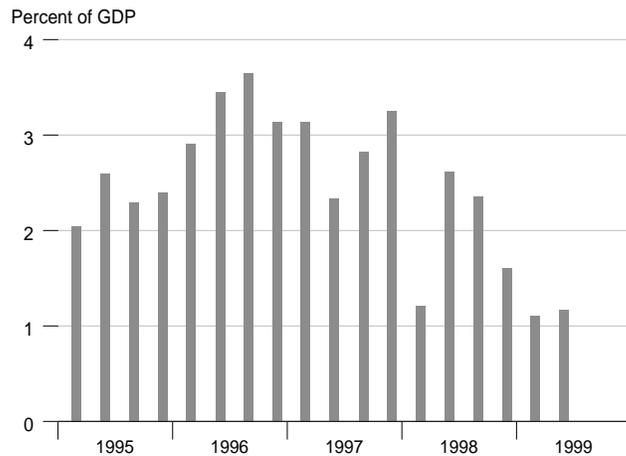
Unemployment Rate



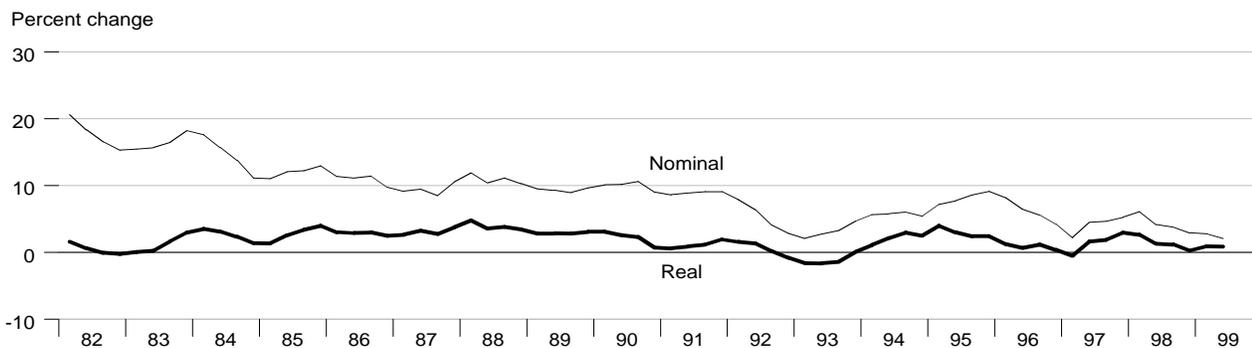
Hourly Earnings



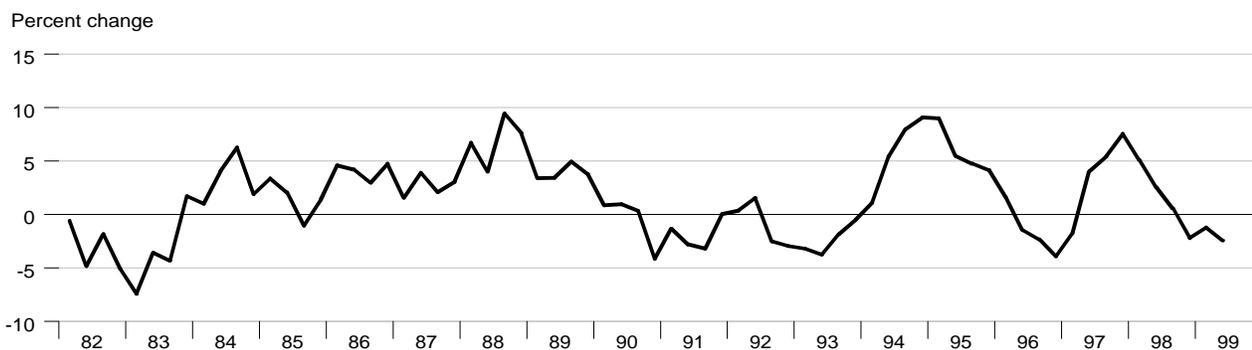
Current Account Balance



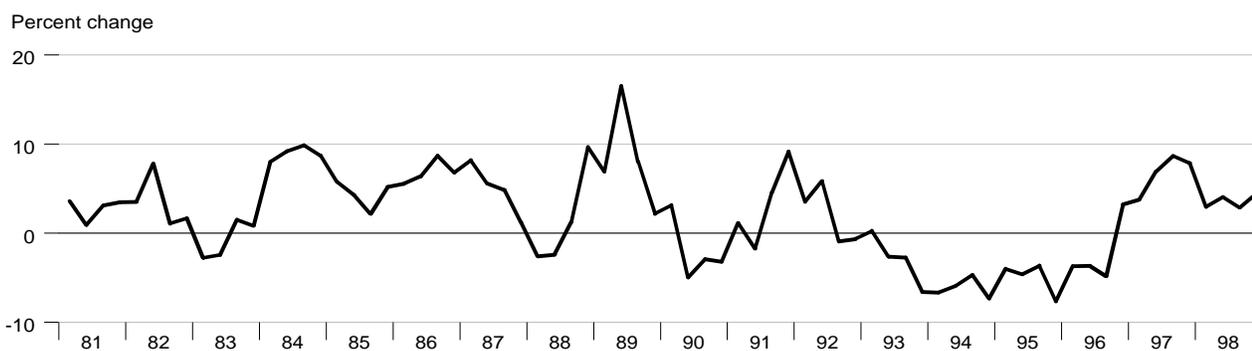
GDP Growth



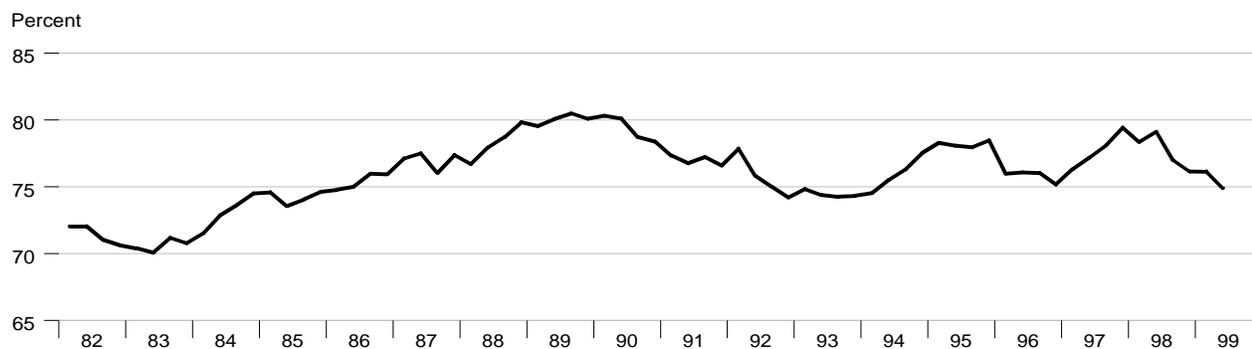
Industrial Production



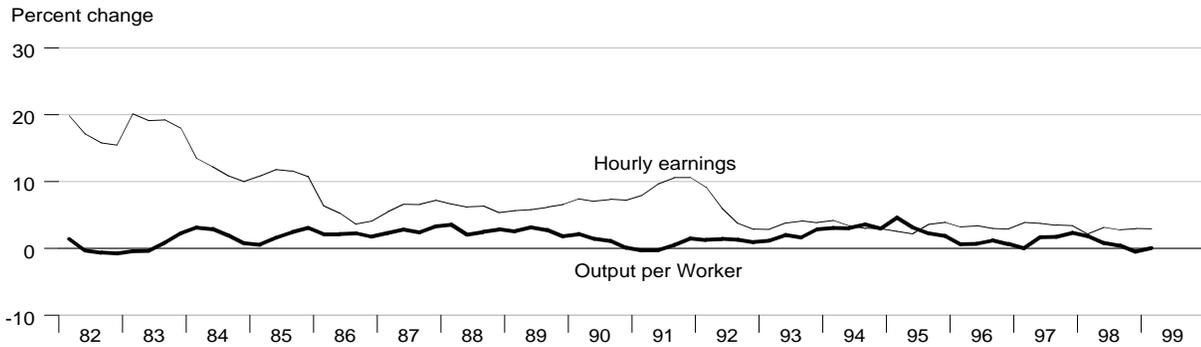
Retail Sales



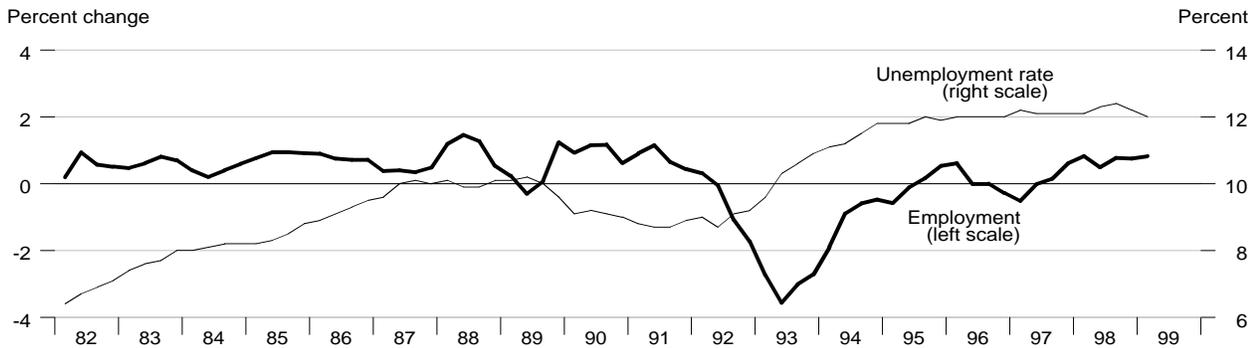
Capacity Utilization



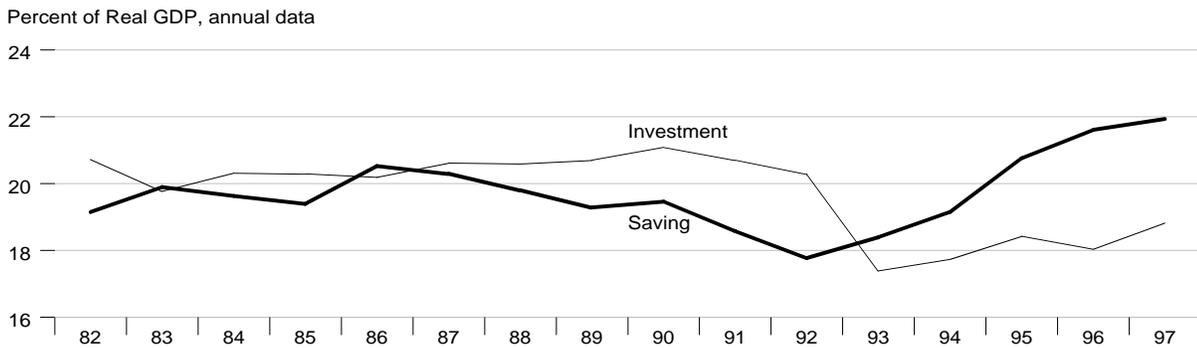
Hourly Earnings and Output per Worker



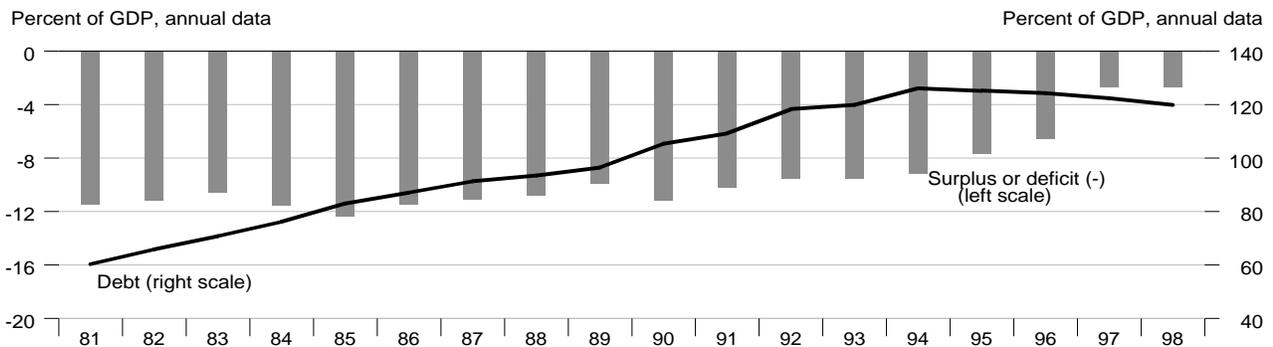
Labor Force Indicators



Real Saving and Real Investment

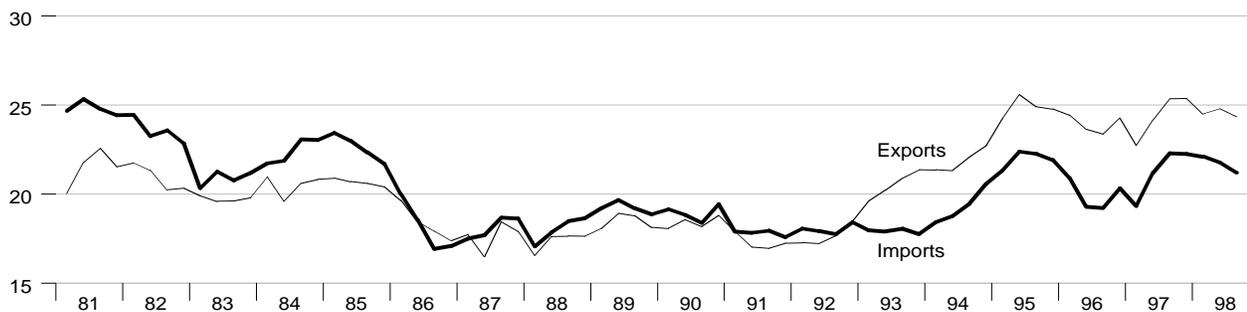


Government Debt and Budget Surplus or Deficit (-)



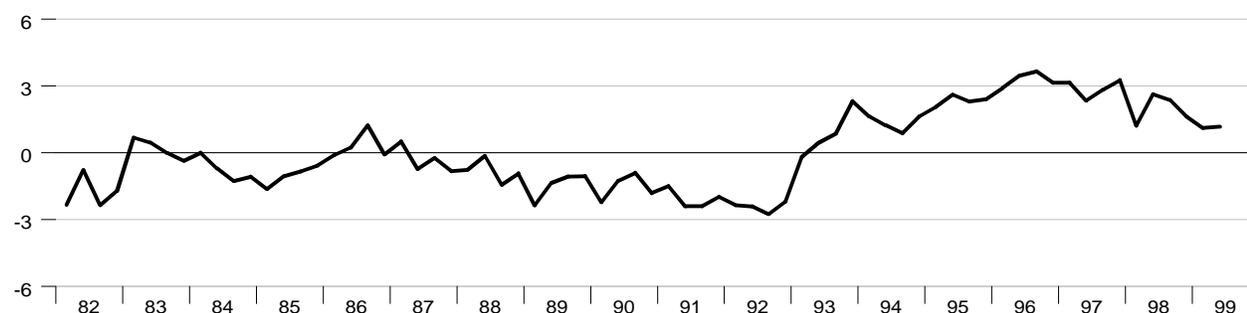
International Trade - Goods and Services

Percent of GDP



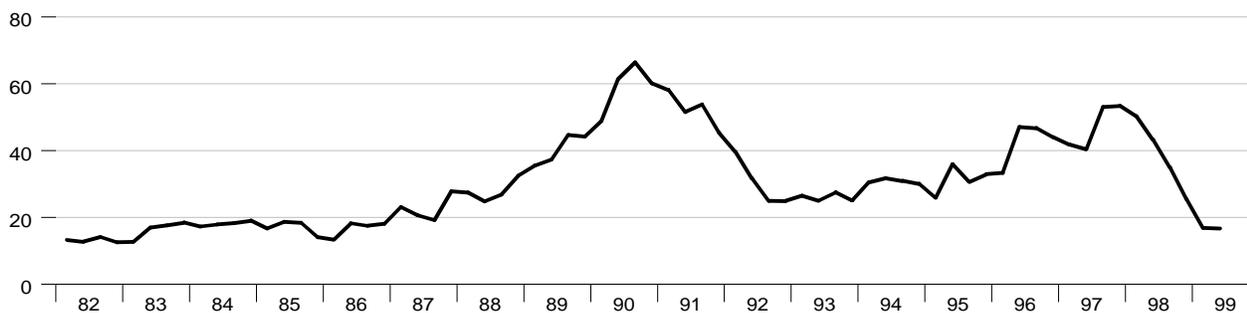
Current Account Balance

Percent of GDP



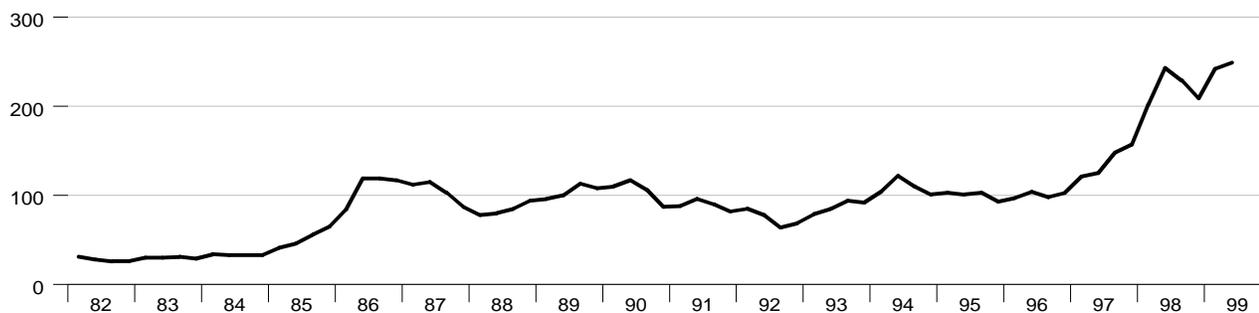
Foreign Exchange Reserves

Billions of US\$

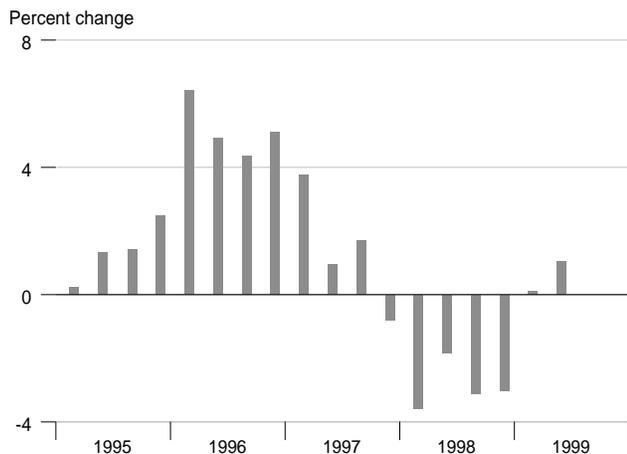


Stock Exchange Index - Milan Stock Exchange

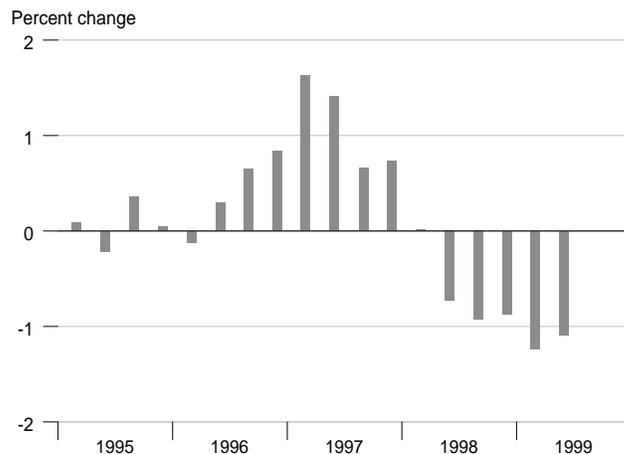
1995 = 100



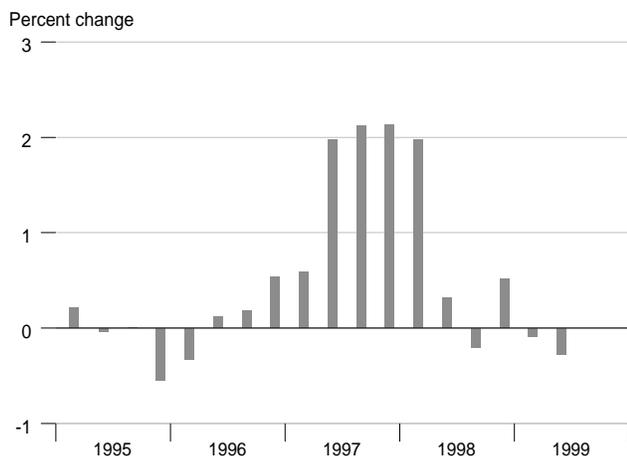
Real GDP Growth



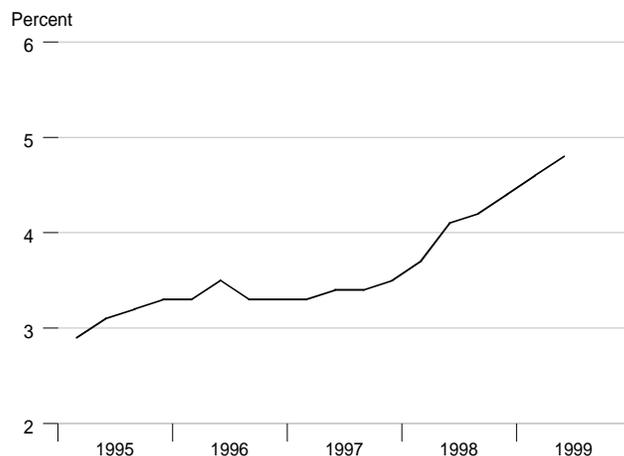
Employment Growth



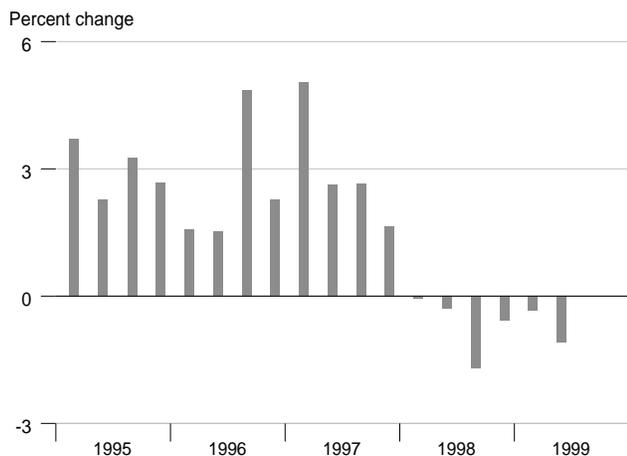
Consumer Price Index



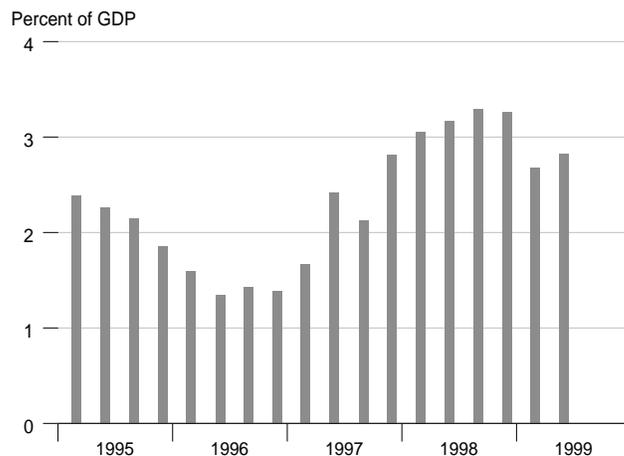
Unemployment Rate



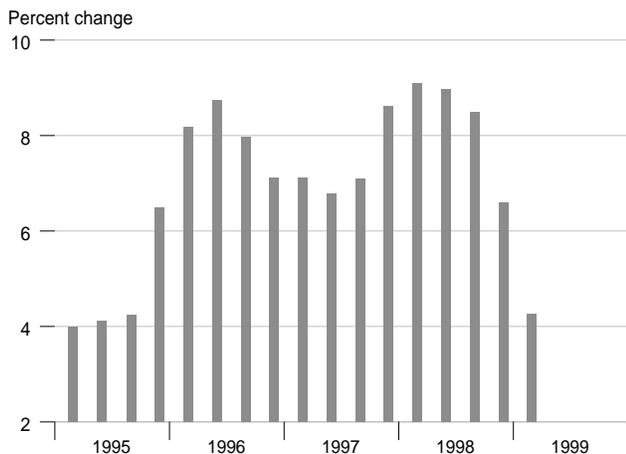
Monthly Earnings



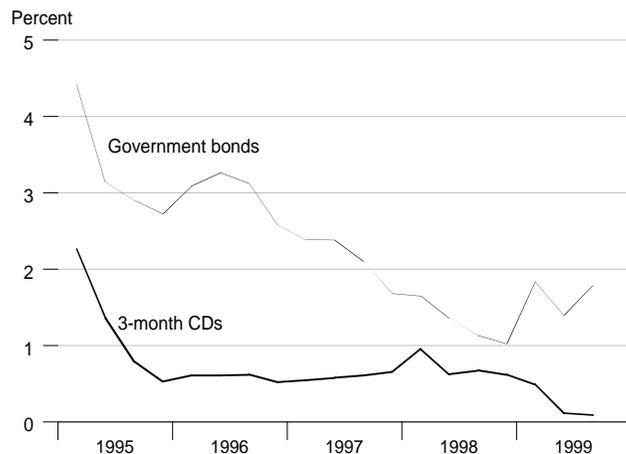
Current Account Balance



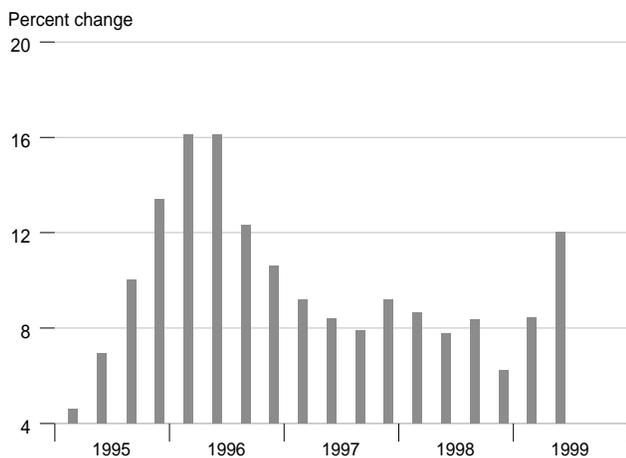
Adjusted Monetary Base Growth



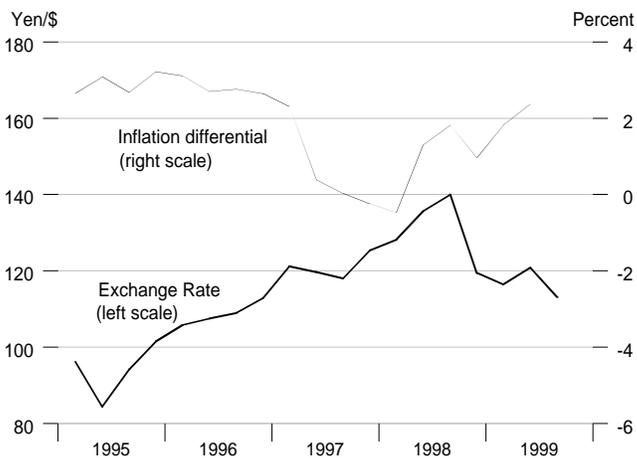
Interest Rates



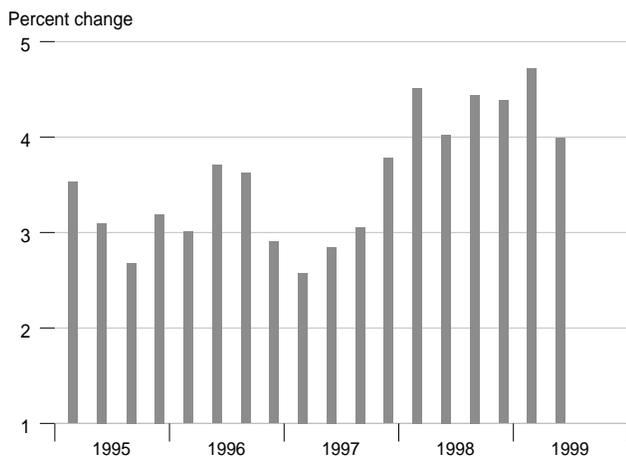
M1 Growth



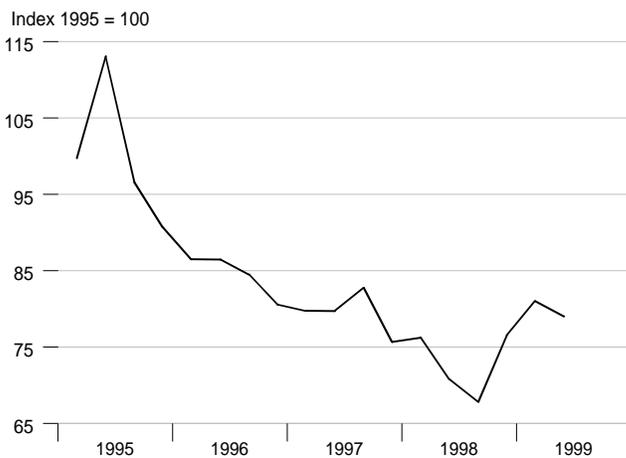
Exchange Rate and Inflation Differential



M2 Growth

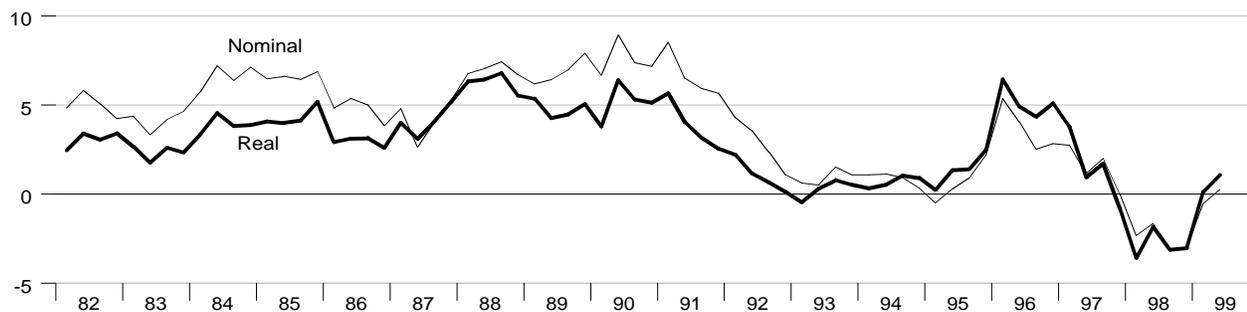


Real Effective Exchange Rate



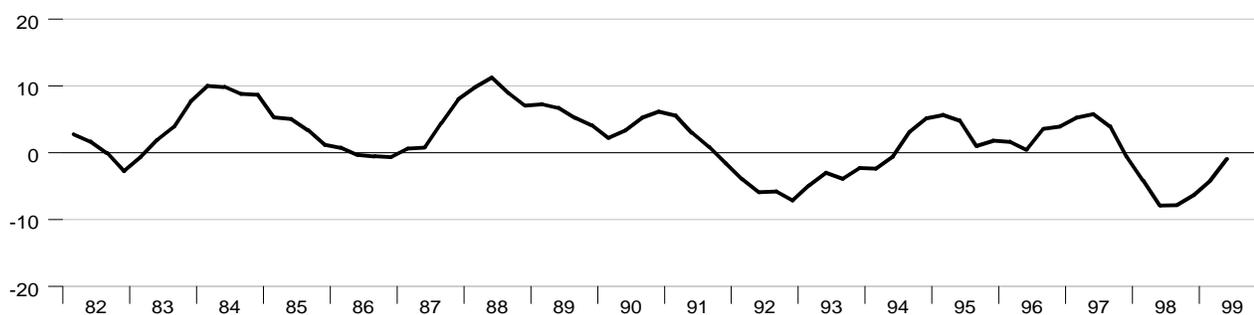
GDP Growth

Percent change



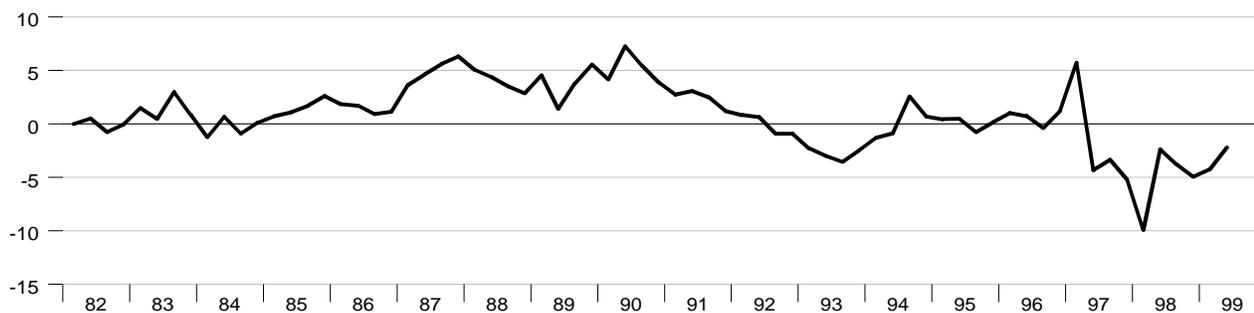
Industrial Production

Percent change



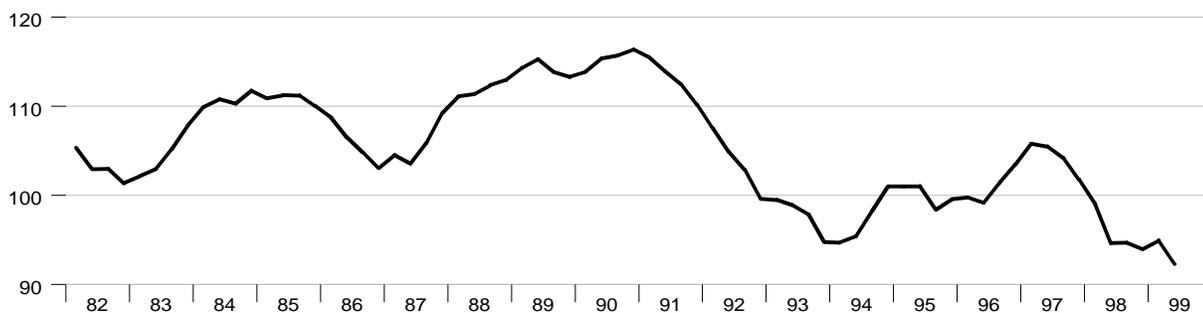
Retail Sales

Percent change

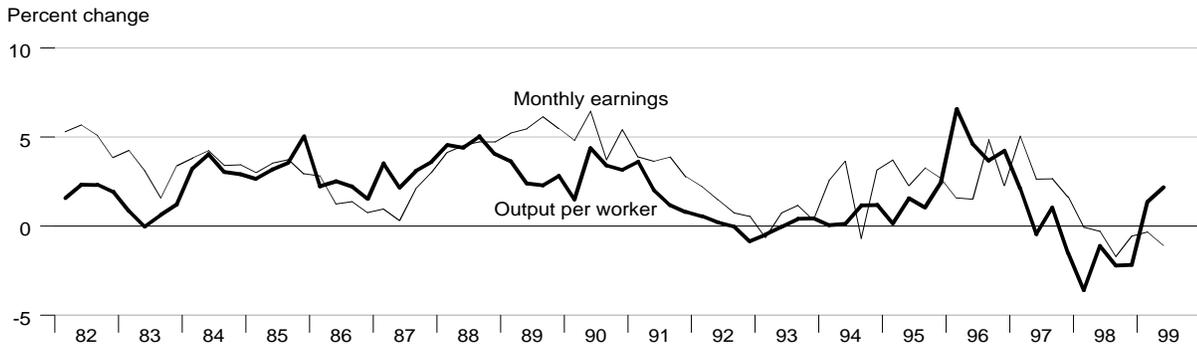


Capacity Utilization

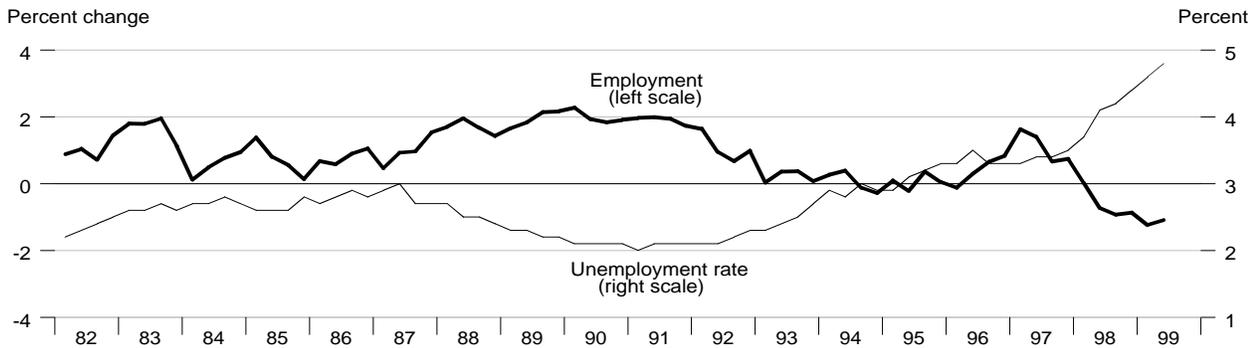
1995 = 100



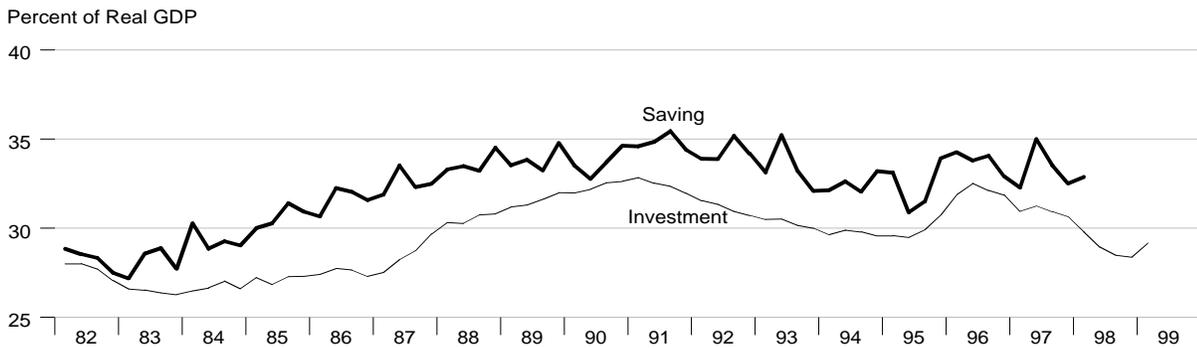
Monthly Earnings and Output per Worker



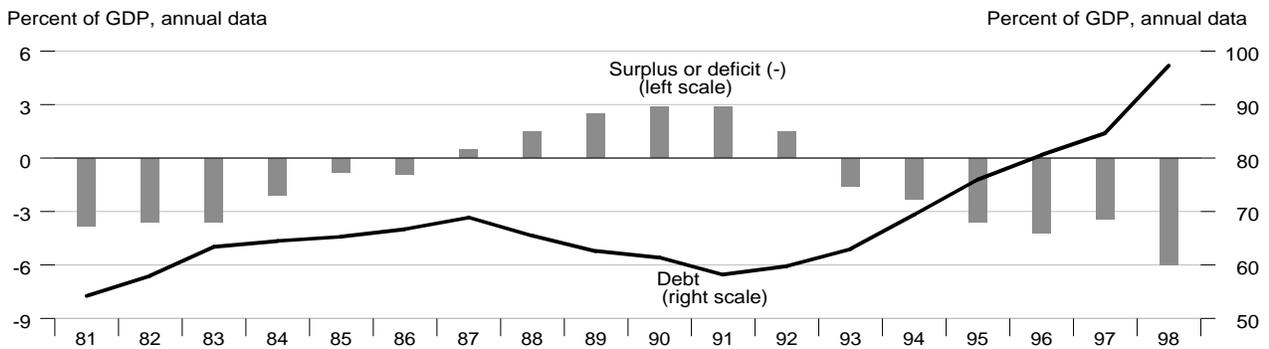
Labor Force Indicators



Real Saving and Real Investment

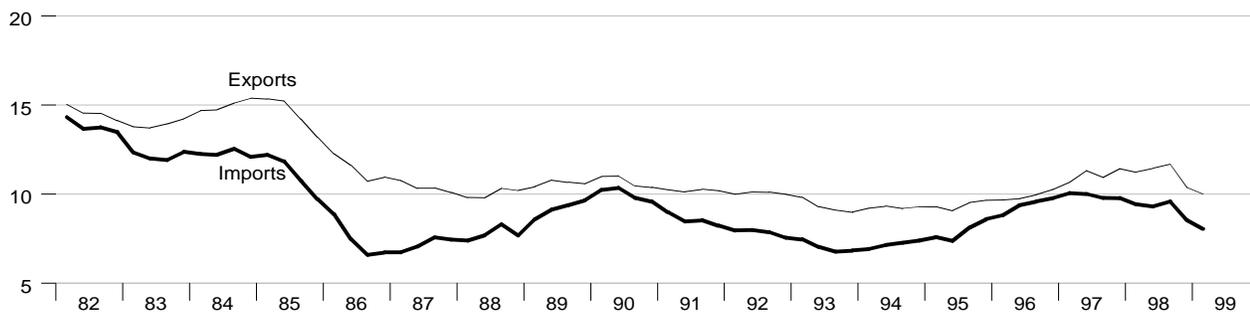


Government Debt and Budget Surplus or Deficit (-)



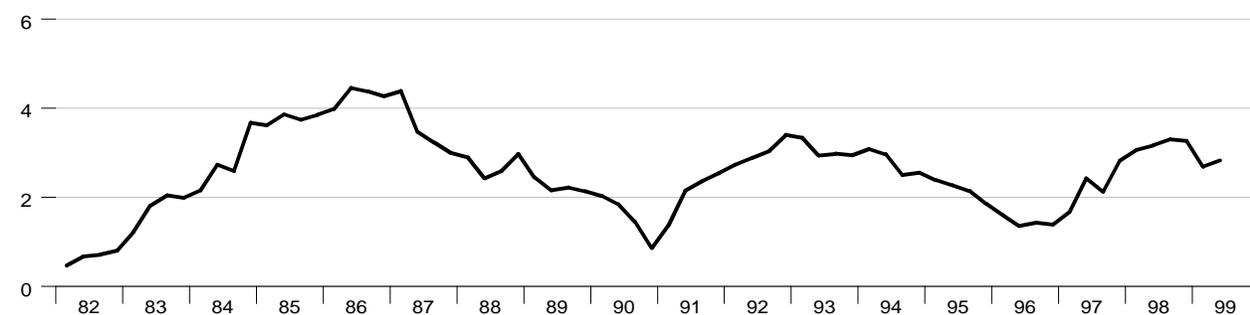
International Trade - Goods and Services

Percent of GDP



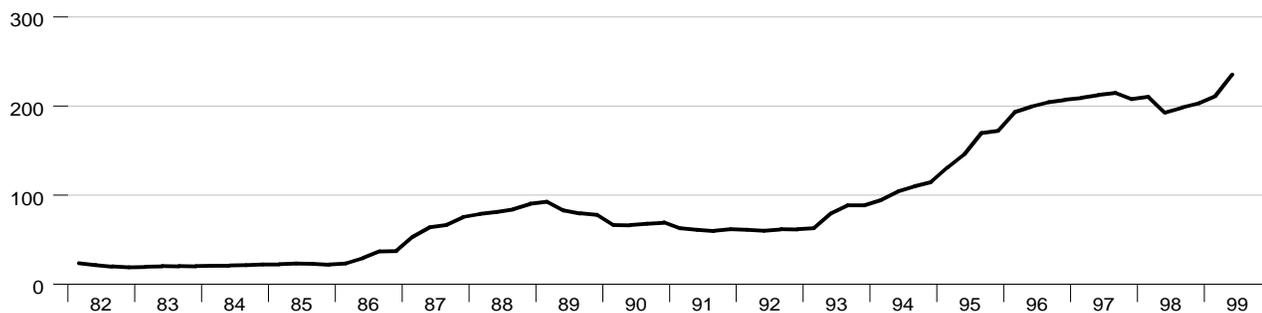
Current Account Balance

Percent of GDP



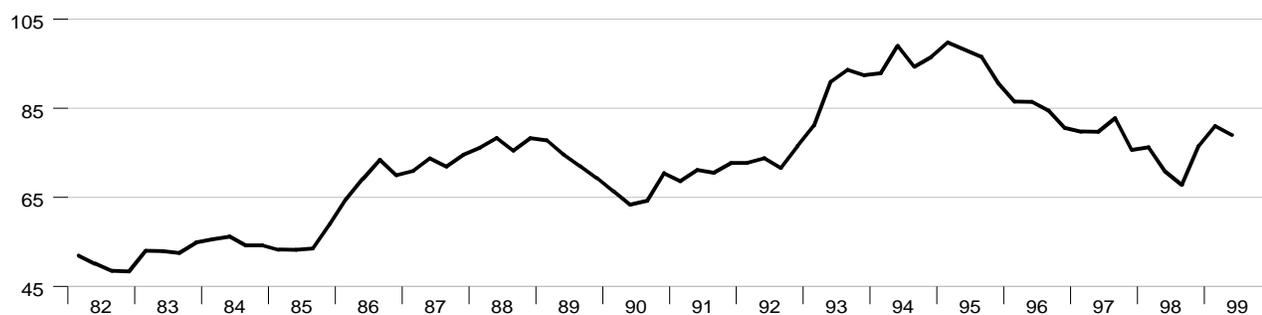
Foreign Exchange Reserves

Billions of US\$



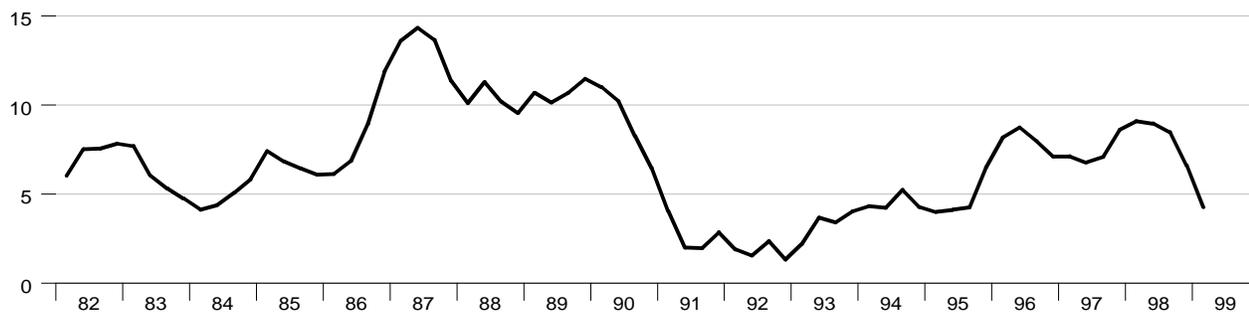
Real Effective Exchange Rate

Index 1995 = 100



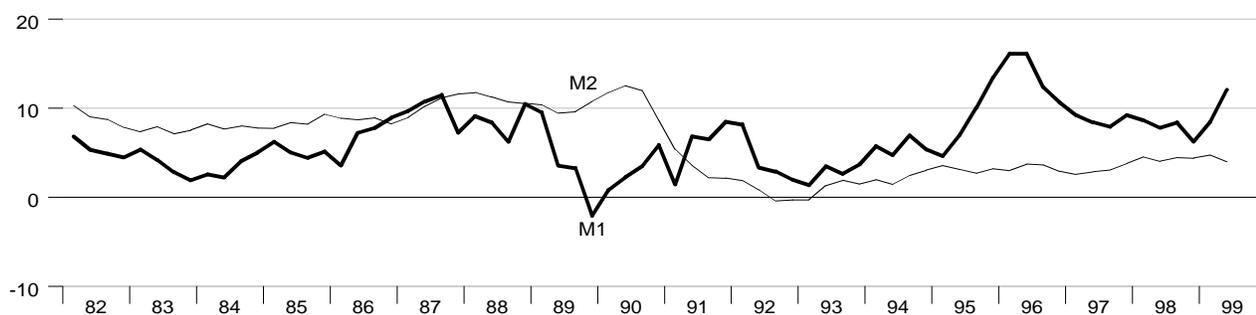
Adjusted Monetary Base Growth

Percent change



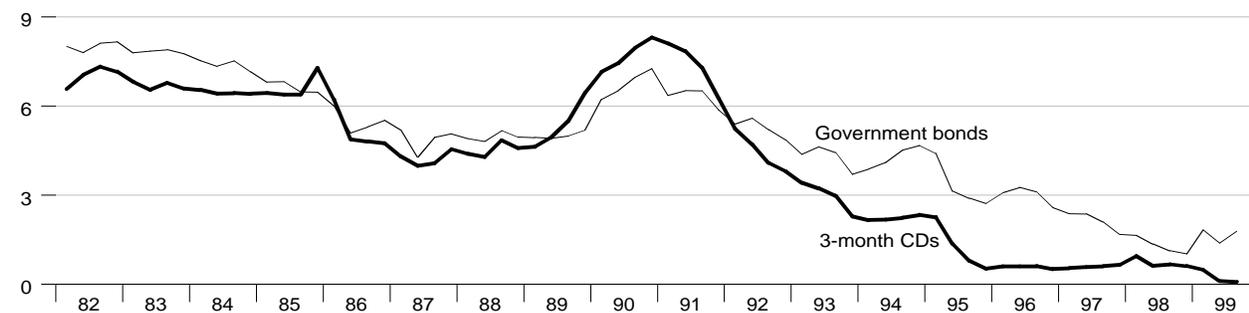
Monetary Aggregates

Percent change



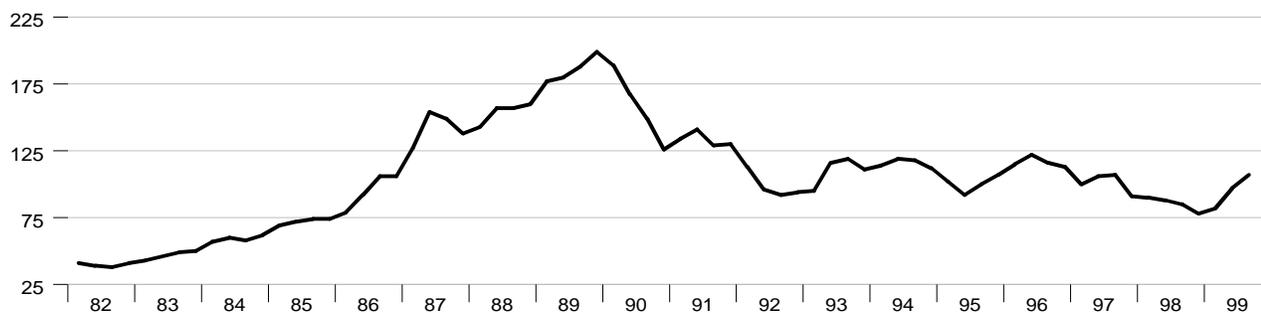
Interest Rates

Percent



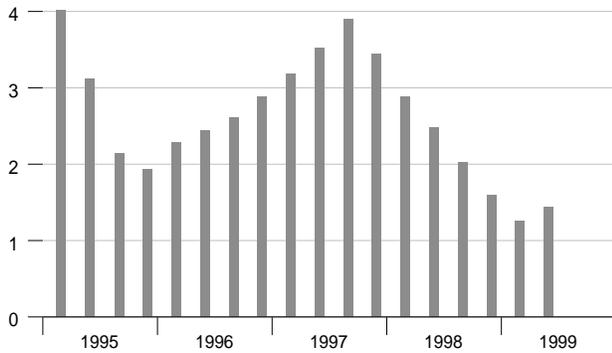
Stock Exchange Index - Tokyo Stock Exchange

1995 = 100



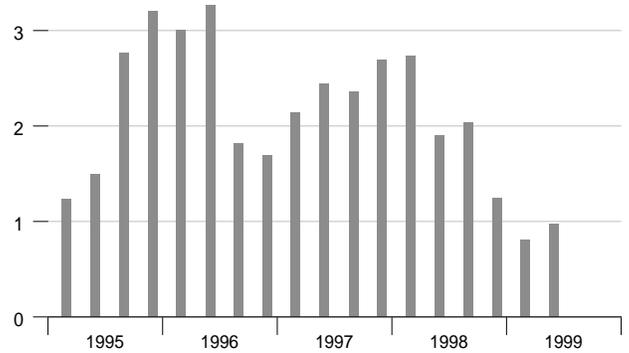
Real GDP Growth

Percent change
5



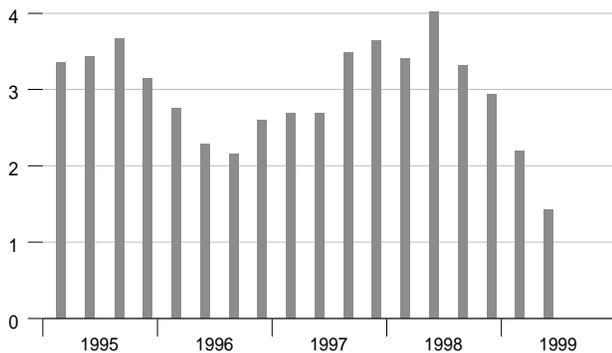
Employment Growth

Percent change
4



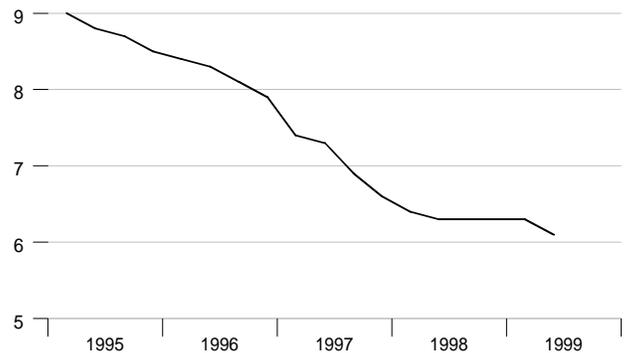
Consumer Price Index

Percent change
5



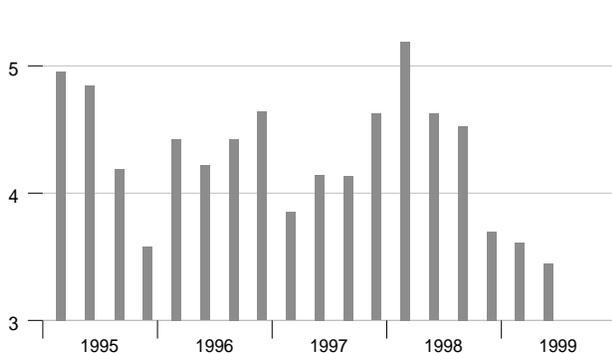
Unemployment Rate

Percent
10



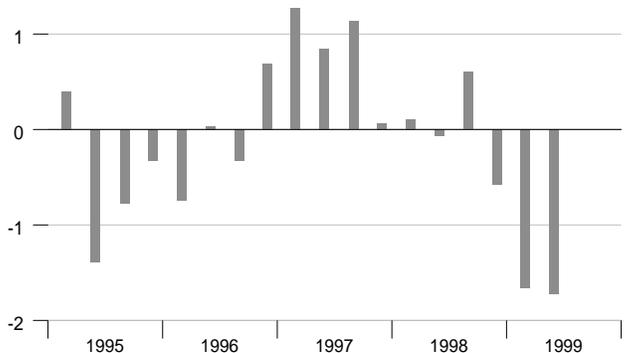
Weekly Earnings

Percent change
6

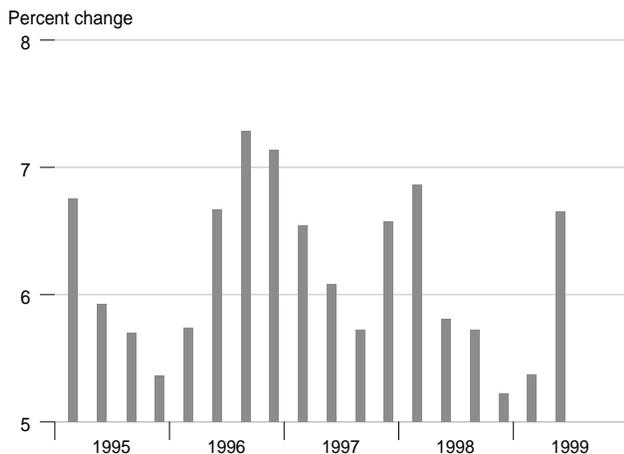


Current Account Balance

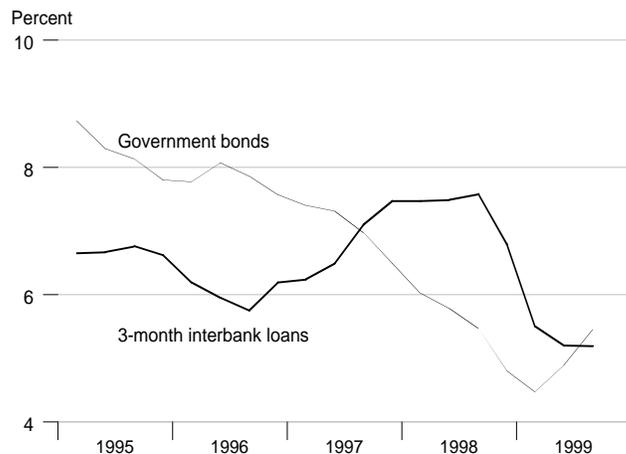
Percent of GDP
2



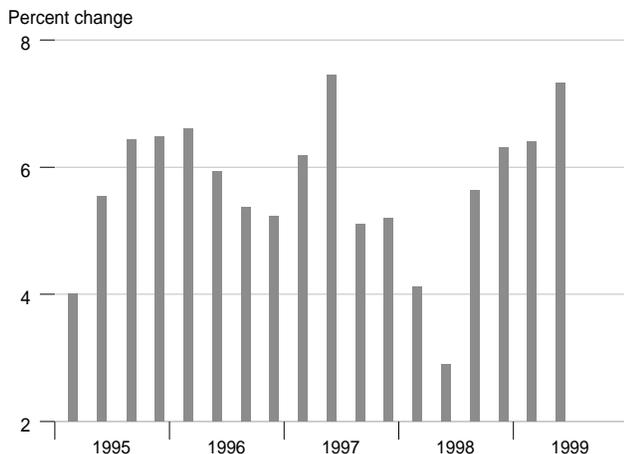
M0 Growth



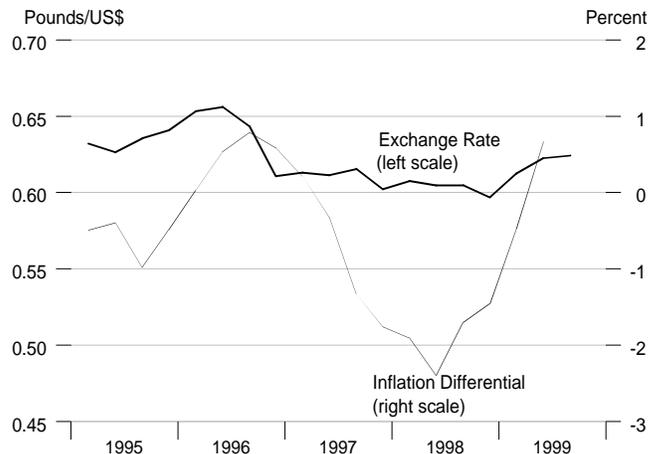
Interest Rates



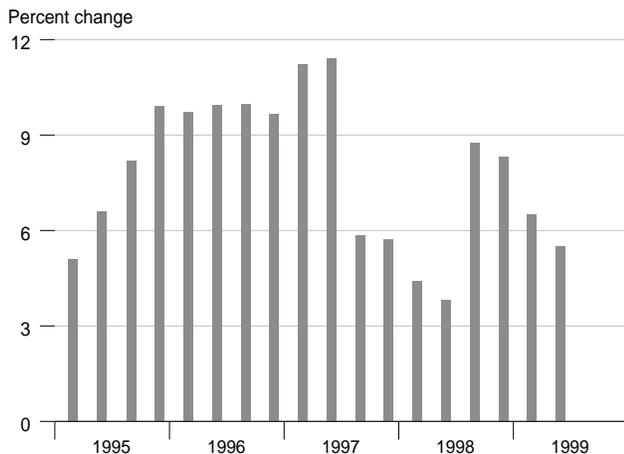
M2 Growth



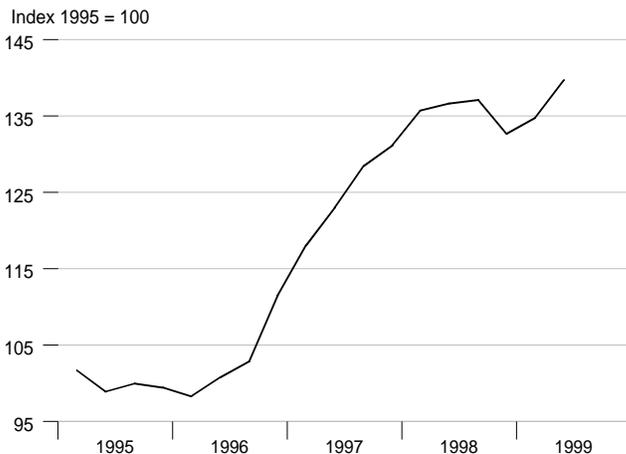
Exchange Rate and Inflation Differential



M4 Growth

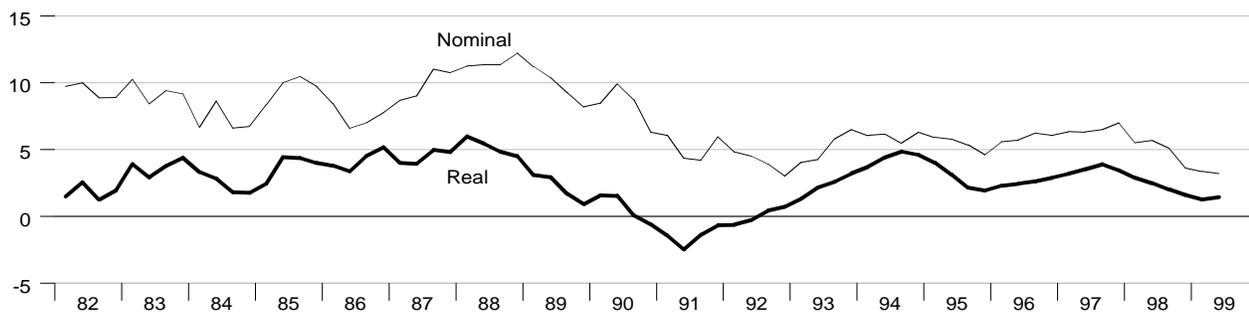


Real Effective Exchange Rate



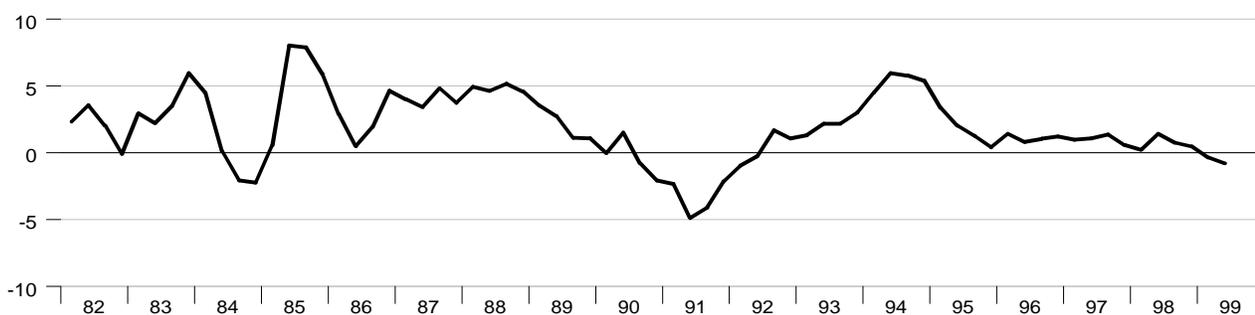
GDP Growth

Percent change



Industrial Production

Percent change



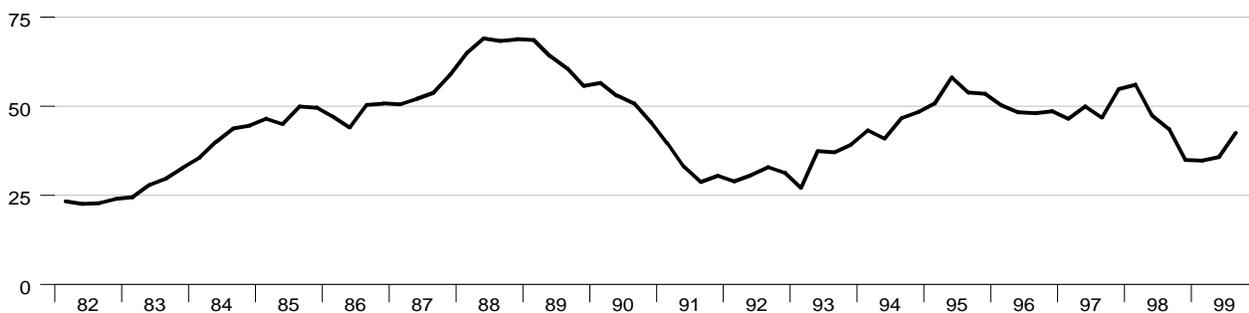
Retail Sales

Percent change

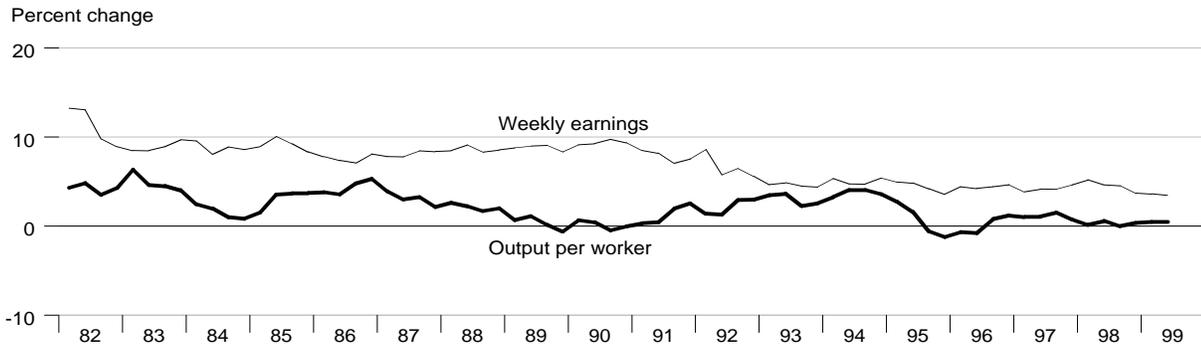


Firms Operating at Capacity

Percent



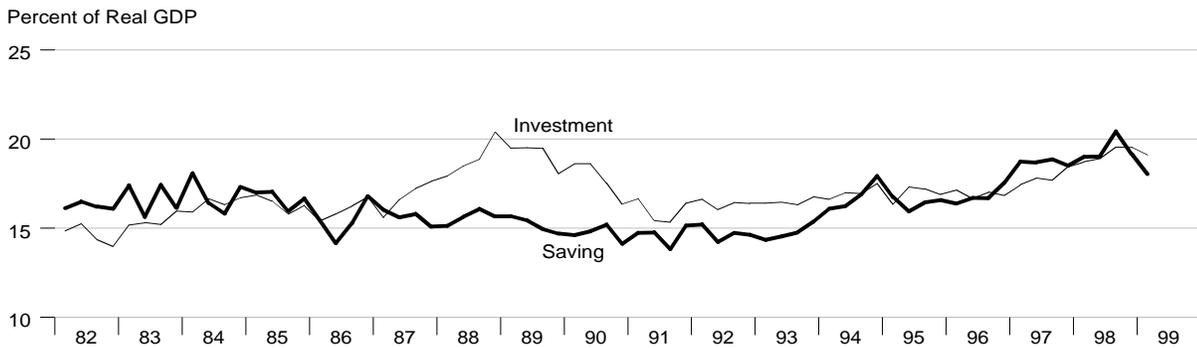
Weekly Earnings and Output per Worker



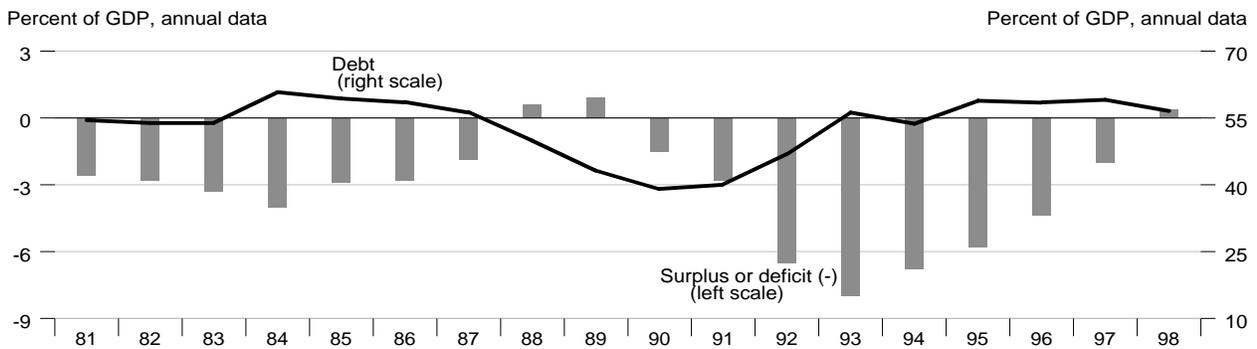
Labor Force Indicators



Real Saving and Real Investment

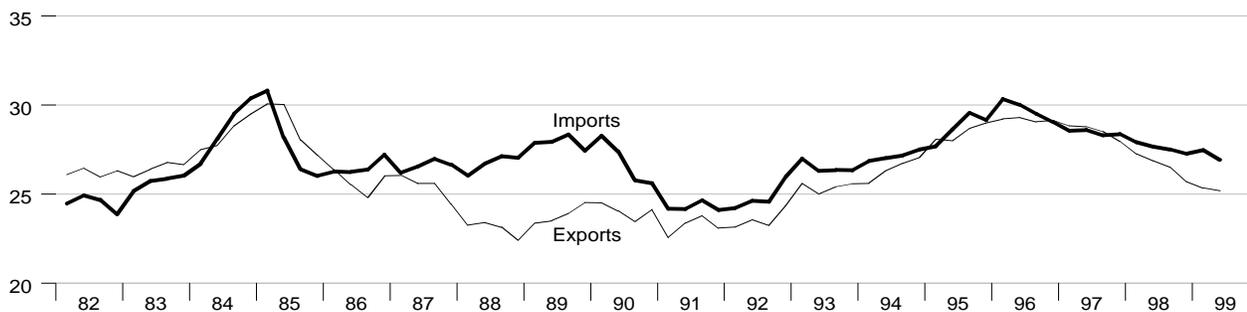


Government Debt and Budget Surplus or Deficit (-)



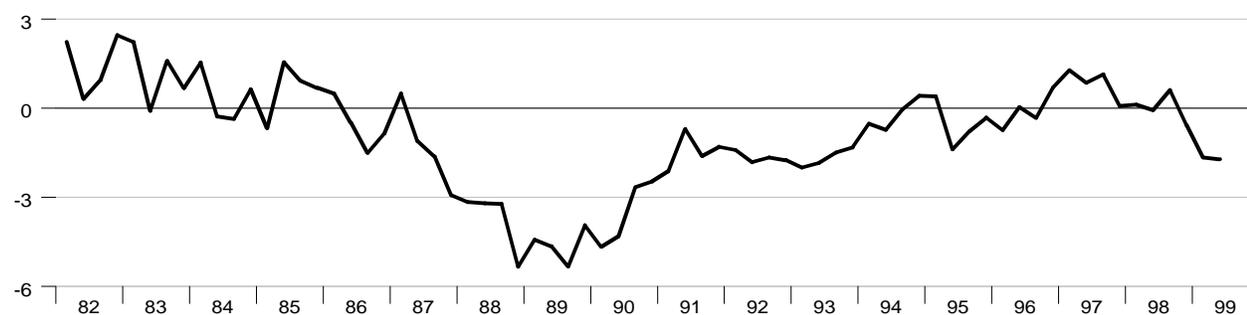
International Trade - Goods and Services

Percent of GDP



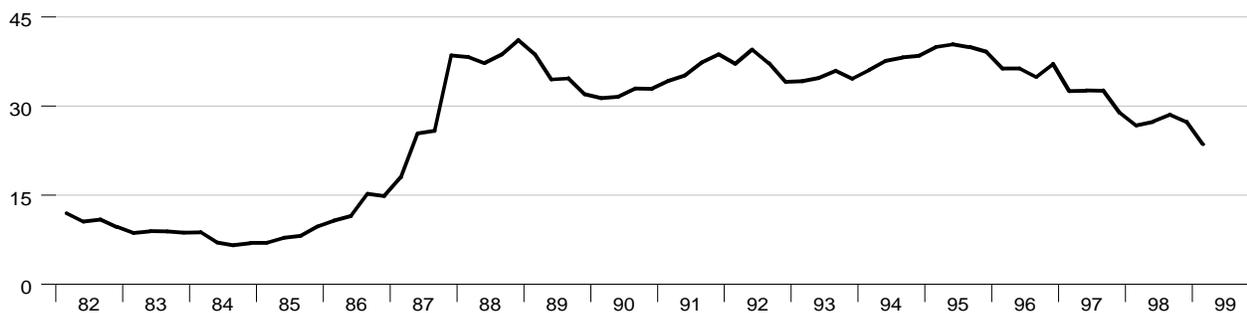
Current Account Balance

Percent of GDP



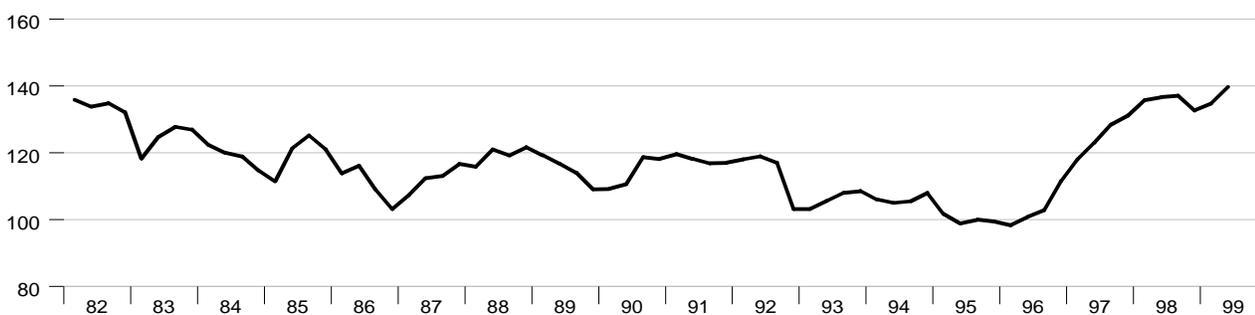
Foreign Exchange Reserves

Billions of US\$



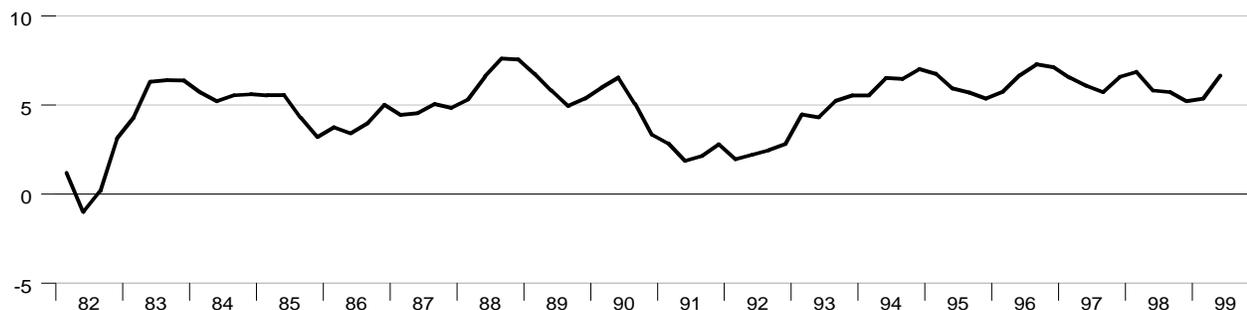
Real Effective Exchange Rate

Index 1995 = 100



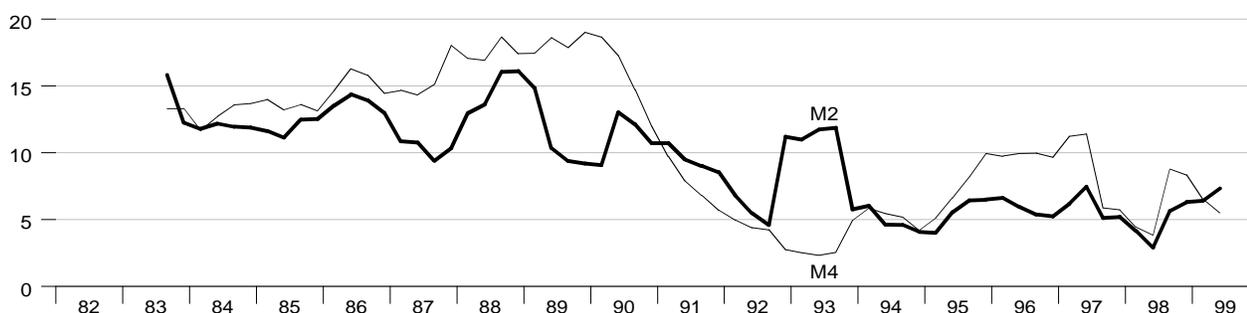
M0 Growth

Percent change



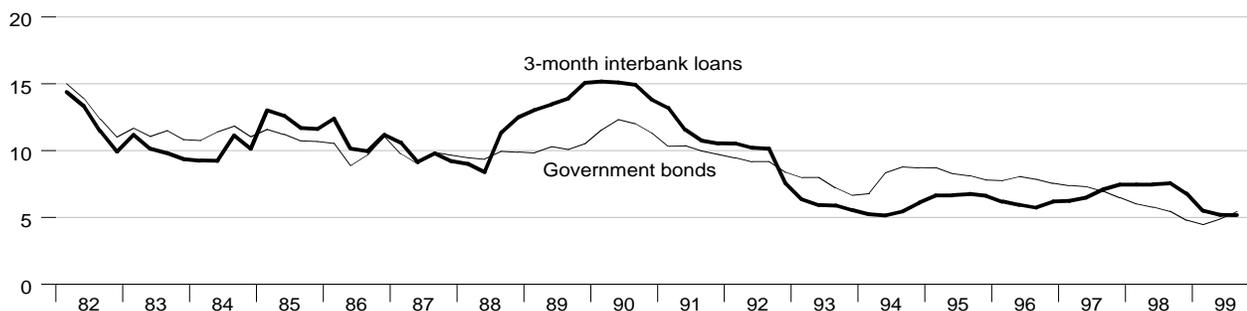
Monetary Aggregates

Percent change



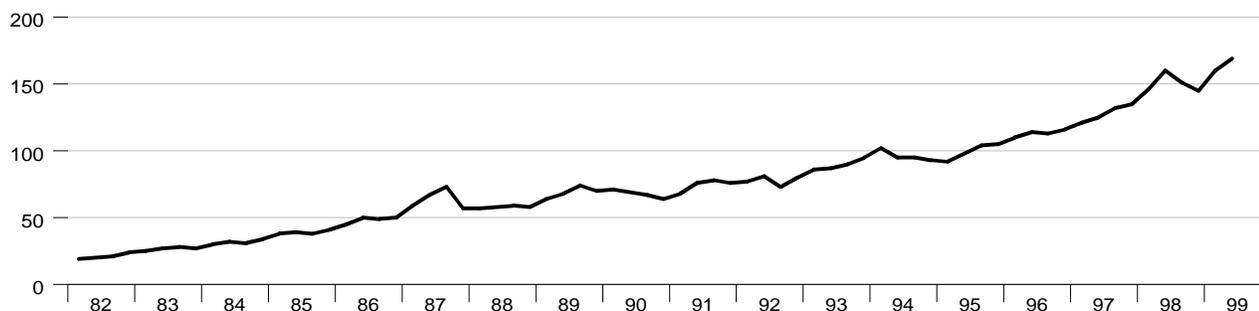
Interest Rates

Percent

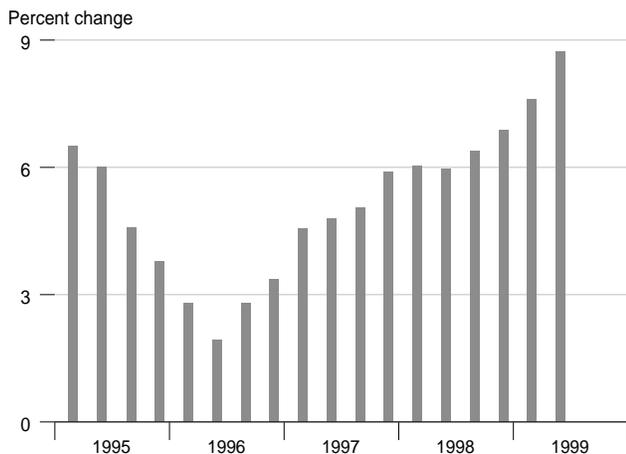


Stock Exchange Index - Financial Times Stock Exchange

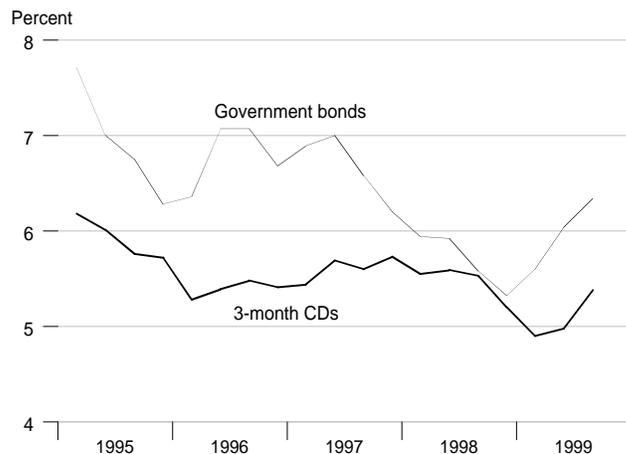
1995 = 100



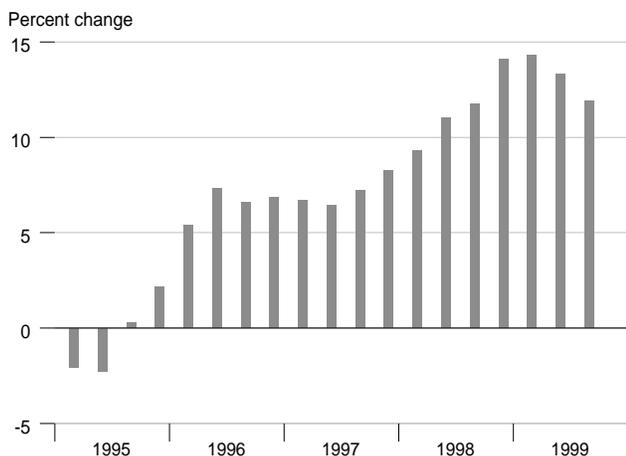
Adjusted Monetary Base Growth



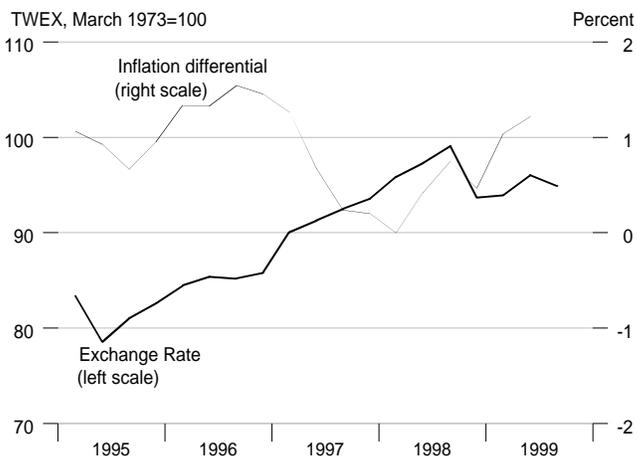
Interest Rates



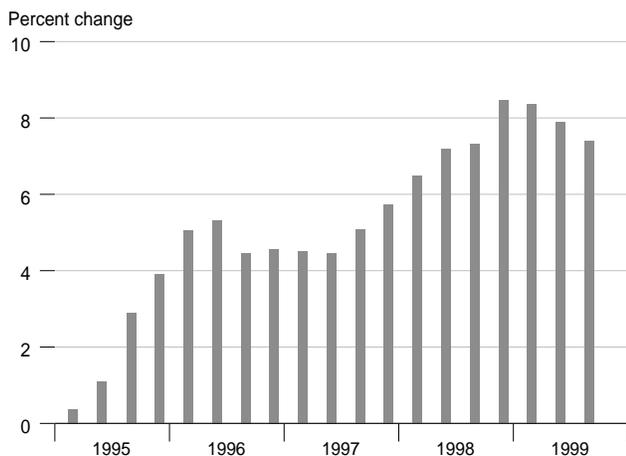
MZM Growth



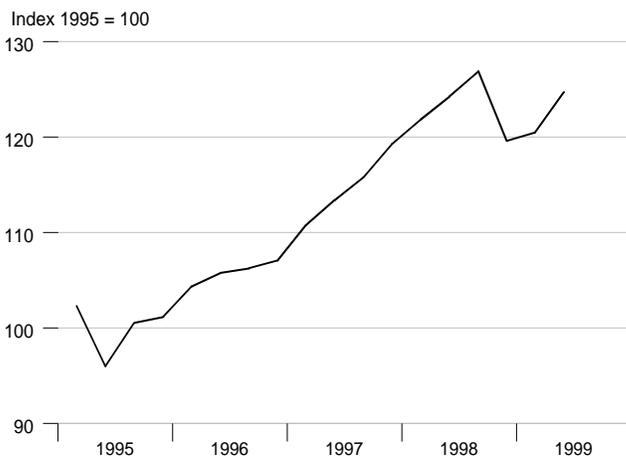
Exchange Rate and Inflation Differential



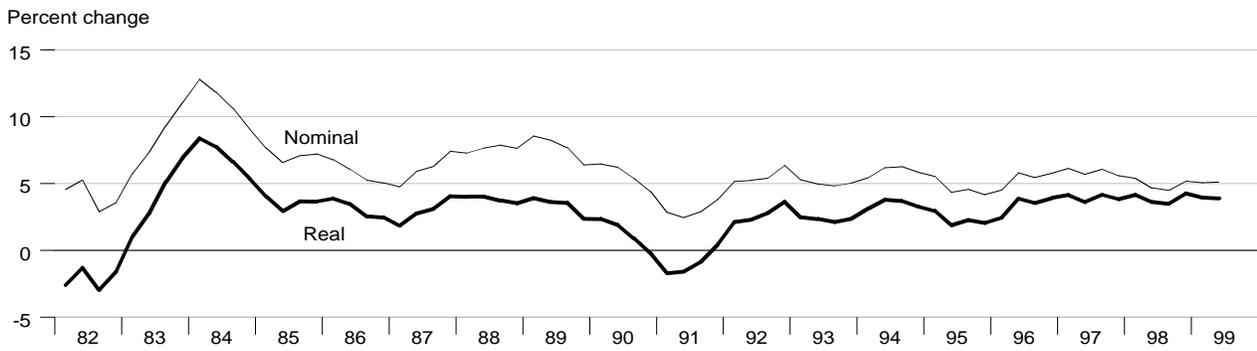
M2 Growth



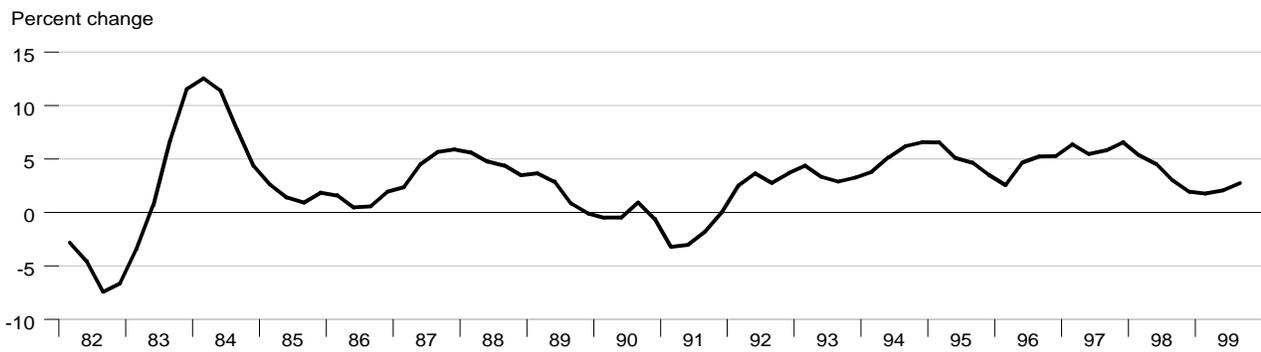
Real Effective Exchange Rate



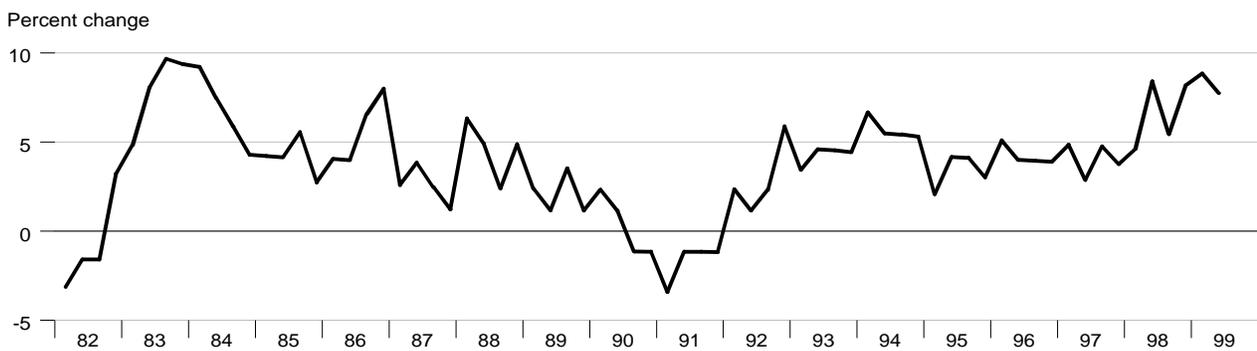
GDP Growth



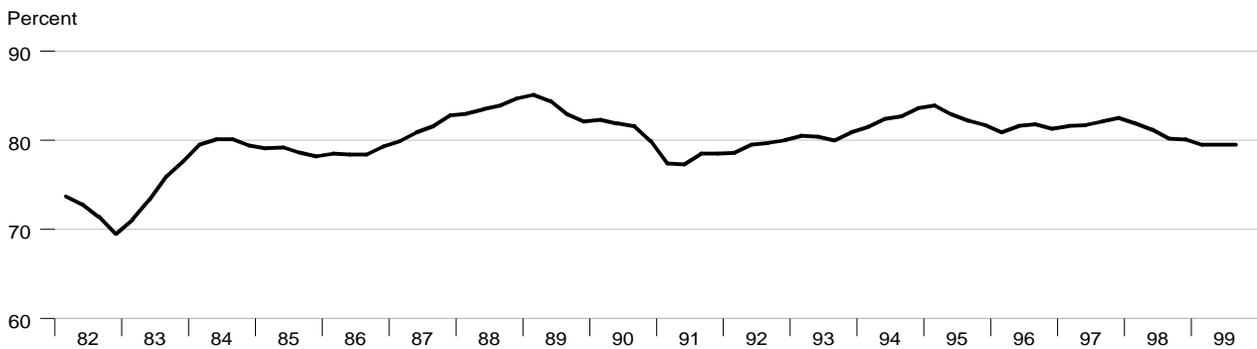
Industrial Production



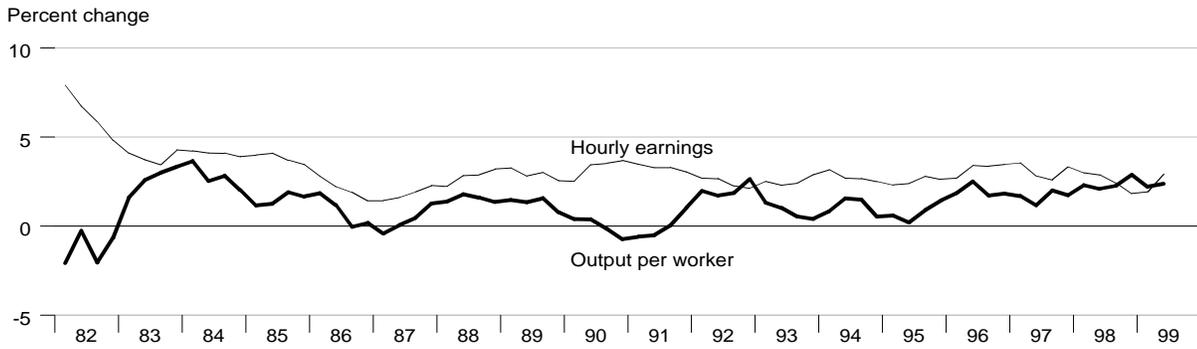
Retail Sales



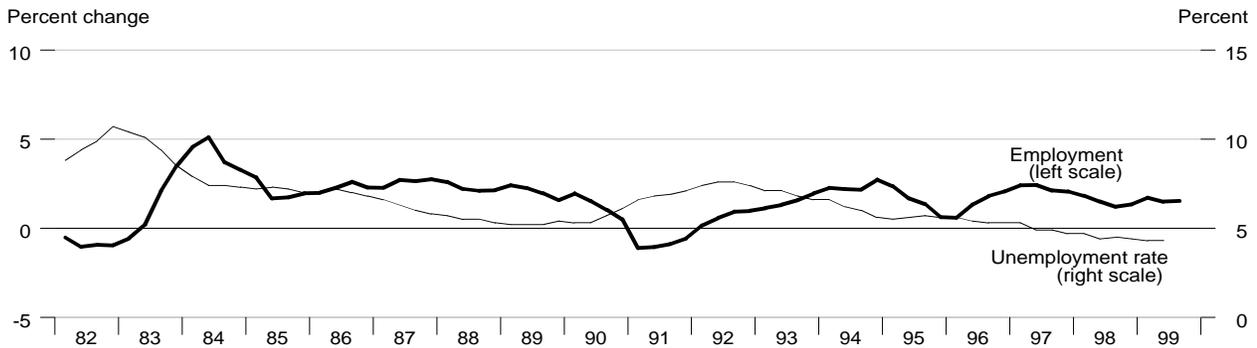
Capacity Utilization



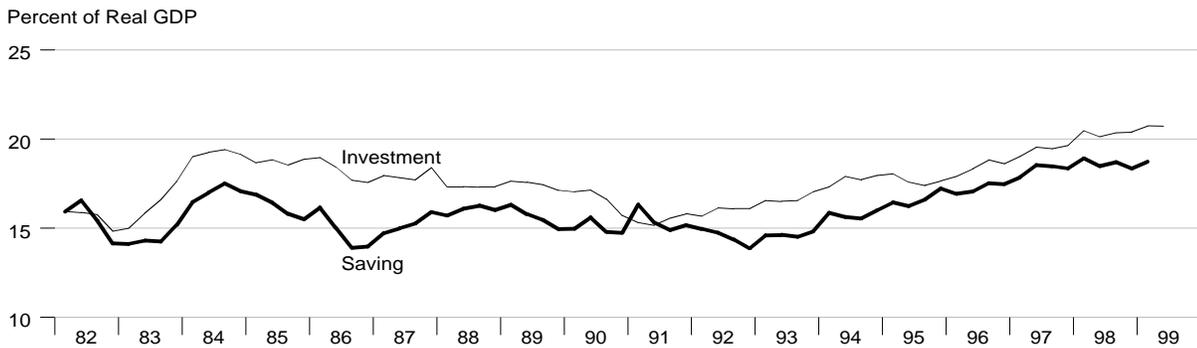
Hourly Earnings and Output per Worker



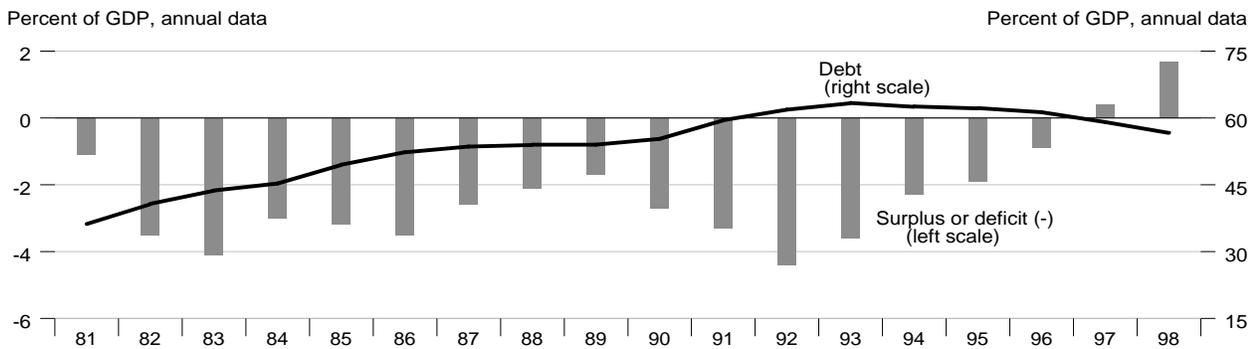
Labor Force Indicators



Real Saving and Real Investment

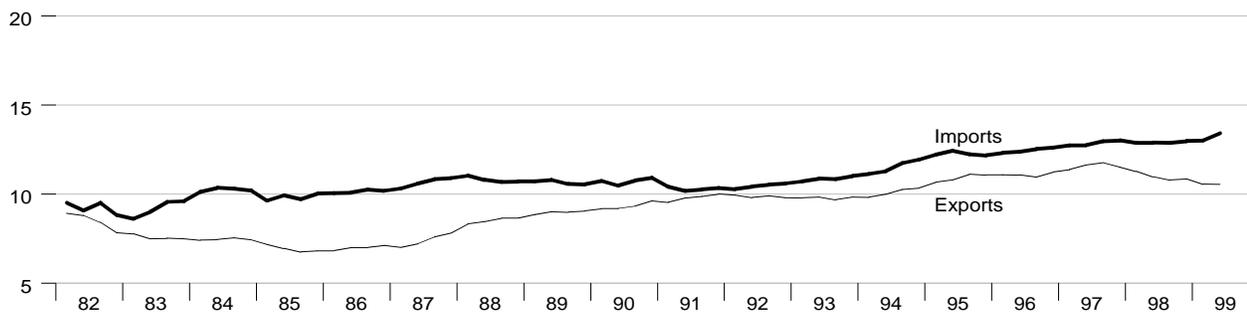


Government Debt and Budget Surplus or Deficit (-)



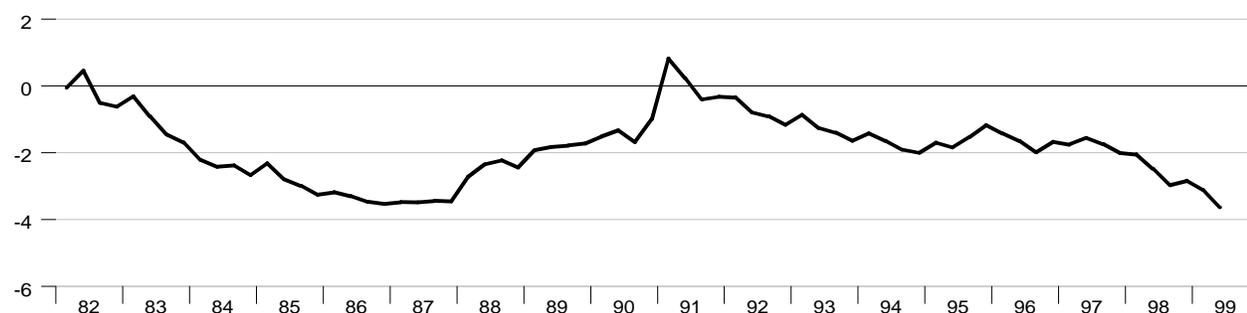
International Trade - Goods and Services

Percent of GDP



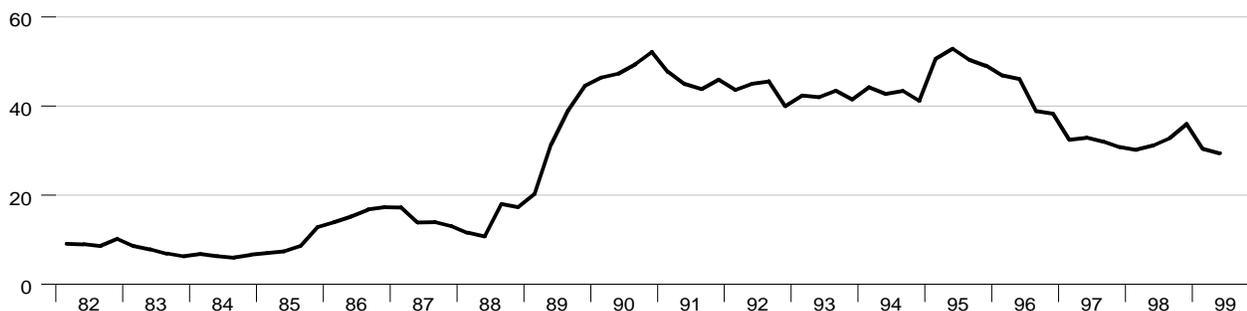
Current Account Balance

Percent of GDP



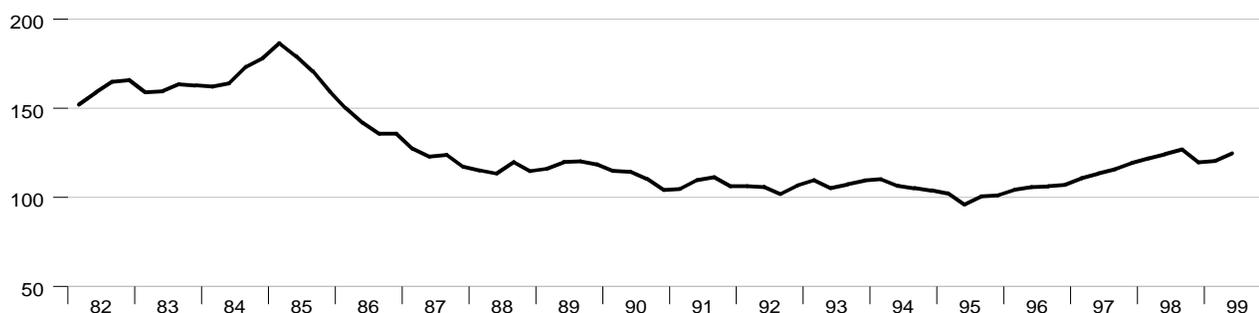
Foreign Exchange Reserves

Billions of US\$



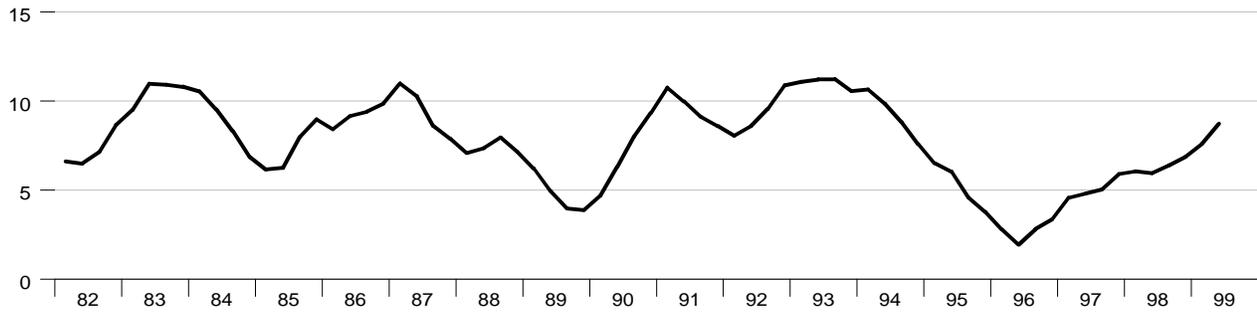
Real Effective Exchange Rate

Index 1995 = 100



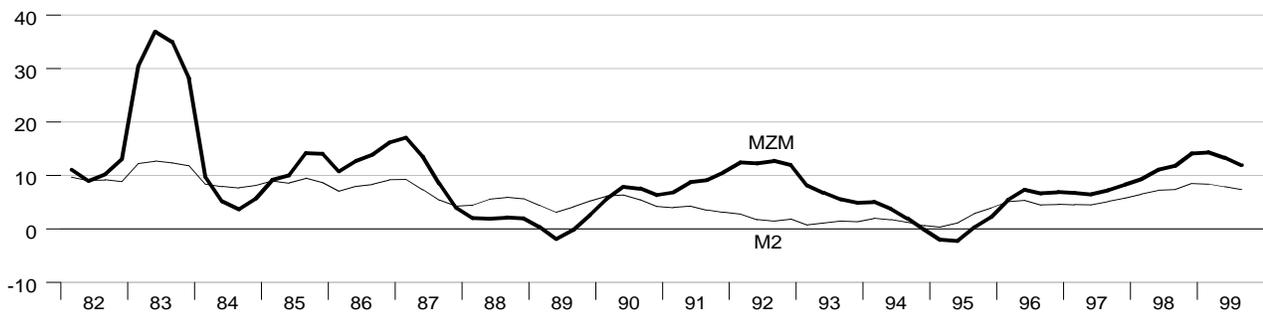
Adjusted Monetary Base Growth

Percent change



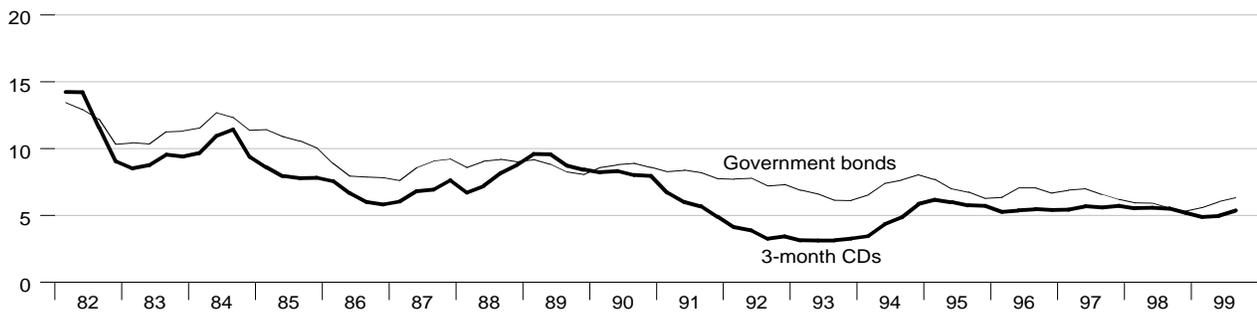
Monetary Aggregates

Percent change



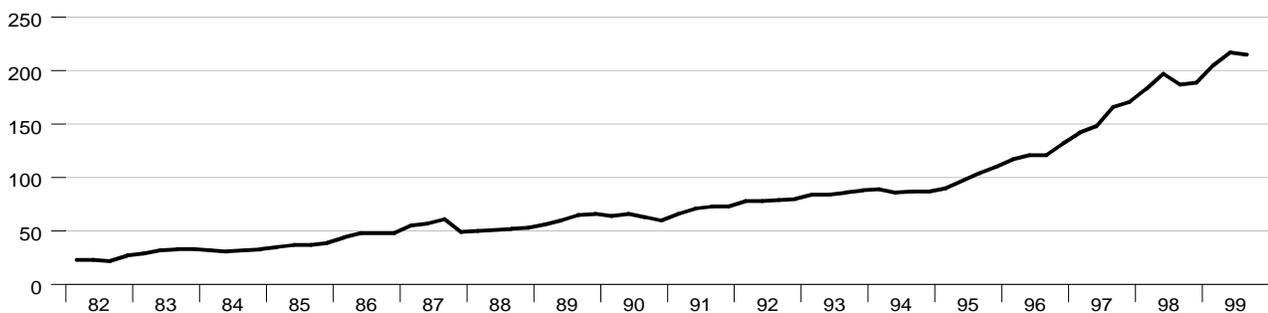
Interest Rates

Percent



Stock Exchange Index - New York Stock Exchange

1995 = 100



Notes

Euro-area Data – The unit of account for most series is the euro.

Prior to December 1998, euro-area interest rates 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.

Inflation data for the euro area is based on the harmonized index of consumer prices. Data for individual countries in this publication continues to be based on national consumer price indexes.

The euro/dollar exchange rate used in the chart on page 48 is a synthetic rate prior to January 1999. This is constructed by calculating a weighted average of the exchange rates of the 10 euro-area countries 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 most of 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. Data for capacity utilization and hourly earnings remain for western Germany only.

Third quarter 1990: current account balance and international trade.
First quarter 1991: CPI, GDP, industrial production, investment and saving.

First quarter 1992: employment and output per worker.

First quarter 1993: stock exchange index and unemployment rate.

First quarter 1994: retail sales.

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 and Italy; all households for France; households with a monthly income of less than 25,000 DM for Germany; 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.

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

The **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 1989-91. 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, the United States, and the euro area; industrial employment for France; employed persons excluding conscripts for Italy; and total employment for Japan and the United Kingdom.

Fluctuations in the dollar value of **Foreign Exchange Reserves** occur as a result of changes in reserve holdings and/or changes in the dollar value of the currencies held.

Government Surplus 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.

The **Inflation Differential** is the difference between the U.S. inflation rate and the foreign inflation rate, as measured by the consumer price index. For the U.S. chart on page 42, the inflation differential is the difference between the U.S. inflation rate and a weighted average of the inflation rates in the 17 countries used in the major currency trade-weighted exchange index. For the euro-area chart on page 48, the inflation differential is the difference between the U.S. inflation rate and a weighted average of the inflation rates in the 11 euro-area countries. The weights are based on 1997 GDP shares.

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 Canada and the United States; long-term public and semi-public sector bonds for France; 7-15 year public sector bonds for Germany; 15-20 year government bonds through 1990, and 10-year government bonds starting in 1991 for Italy; 10-year government bonds for Japan, the United Kingdom, and the euro area.

Investment is gross fixed capital formation and changes in stocks (inventories) of the government and business sectors.

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, reserve requirements and an adjustment for the effects of changes in reserve requirement ratios.

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 and 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 UK banks and building societies. In December 1992, the definition of retail deposits was changed, so care should be exercised when making comparisons around this date.

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 two years.

M4

United Kingdom – M2 plus wholesale deposits with the UK banks and building societies.

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

Retail Sales are based on a volume index.

Saving is gross national saving which includes net national saving (receipts less disbursements of households, business and the government) and consumption of fixed capital. Nominal saving is deflated using the investment deflator.

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

The trade-weighted exchange rate, **TWEX**, is the Board of Governors of the Federal Reserve System's major currency trade-weighted dollar exchange rate. This is a weighted average of the exchange value of the U.S. dollar relative to the major international currencies of 17 industrial countries.

The **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

Except as noted below, all data are from the *Organization for Economic Cooperation and Development (OECD)*. For more details on these data see: OECD, *Main Economic Indicators, Sources and Definitions 1997*, July 1997. This publication is available on the Internet at: <http://www.oecd.org/std/meta.htm>.

Bank of Canada

M1 and M2 (Canada)

Banca D'Italia

Long-term interest rate (Italy)

Bank of Japan

Adjusted monetary base (Japan), long-term interest rate (Japan), employment (Japan)

Board of Governors of the Federal Reserve System

Exchange rates, short and long-term interest rates (U.S.), M2 (U.S.), industrial production index (U.S.), capacity utilization (U.S.)

Bundesanstalt Fur Arbeit

Employment (Germany)

Bureau of Economic Analysis (BEA), U.S. Department of Commerce

Gross domestic product (U.S.), current account balance (U.S.), merchandise and service trade (U.S.)

Bureau of Labor Statistics (BLS), U.S. Department of Labor

Employment (U.S.), consumer price index (U.S.)

European Central Bank

Monetary aggregates (euro area), stock exchange index (euro area), short and long-term interest rates (euro area)

Eurostat

Consumer price index (euro area), current account balance (euro area), gross domestic product (euro area), industrial production (euro area), retail sales (euro area), unemployment (euro area)

Federal Reserve Bank of St. Louis

Inflation differential (U.S. and euro area), adjusted monetary base (U.S.), MZM (U.S.)

Financial and Economic Research International

Capacity utilization (euro area), budget surplus or deficit (euro area), employment (euro area), government debt (euro area), hourly earnings (euro area), merchandise trade (euro area)

Haver Analytics

Synthetic euro exchange rate

Instituto Centrale di Statistica

Employment (Italy)

International Monetary Fund (IMF)

Foreign exchange reserves, reserve money (Canada), merchandise and service trade (except U.S. and euro area), and real effective exchange rate. For more details on these data see: *IMF, International Financial Statistics*.

Ministere du Travail et des Affaires Sociales

Employment (France)

Statistics Canada

Employment (Canada)

U.K. Office for National Statistics

Employment (U.K.) and M0 (U.K.)