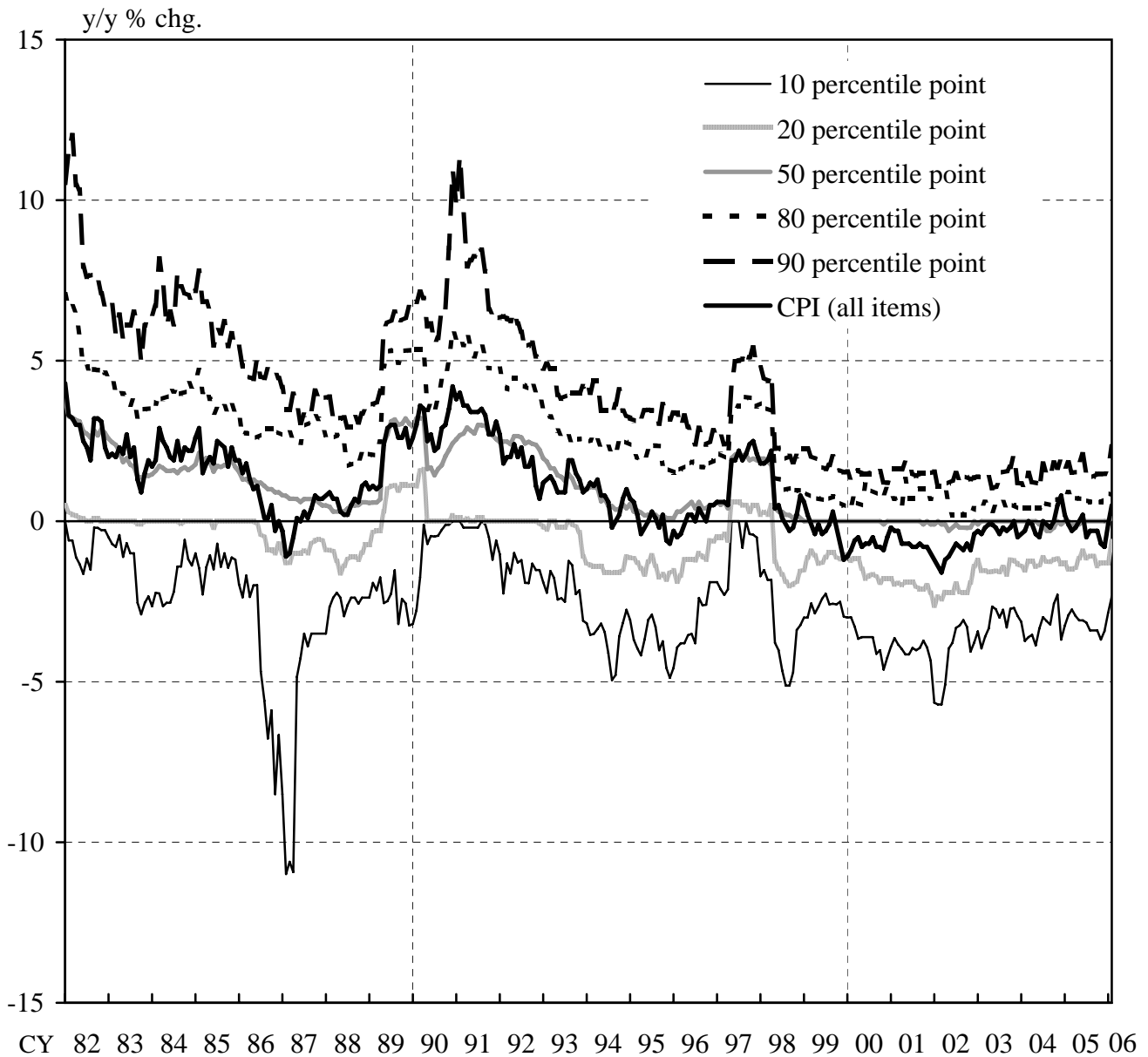


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Distribution of Price Changes for Individual Items in the CPI

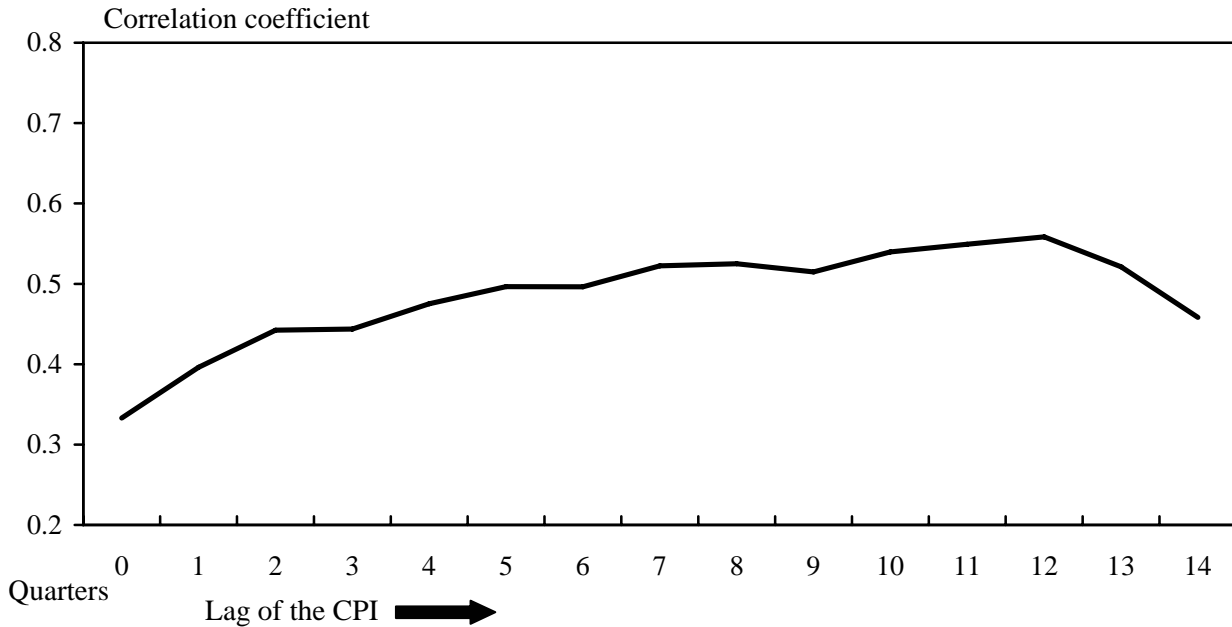


Note: X percentile point shows the rate of price change of the item whose accumulated weight is equal to X%.

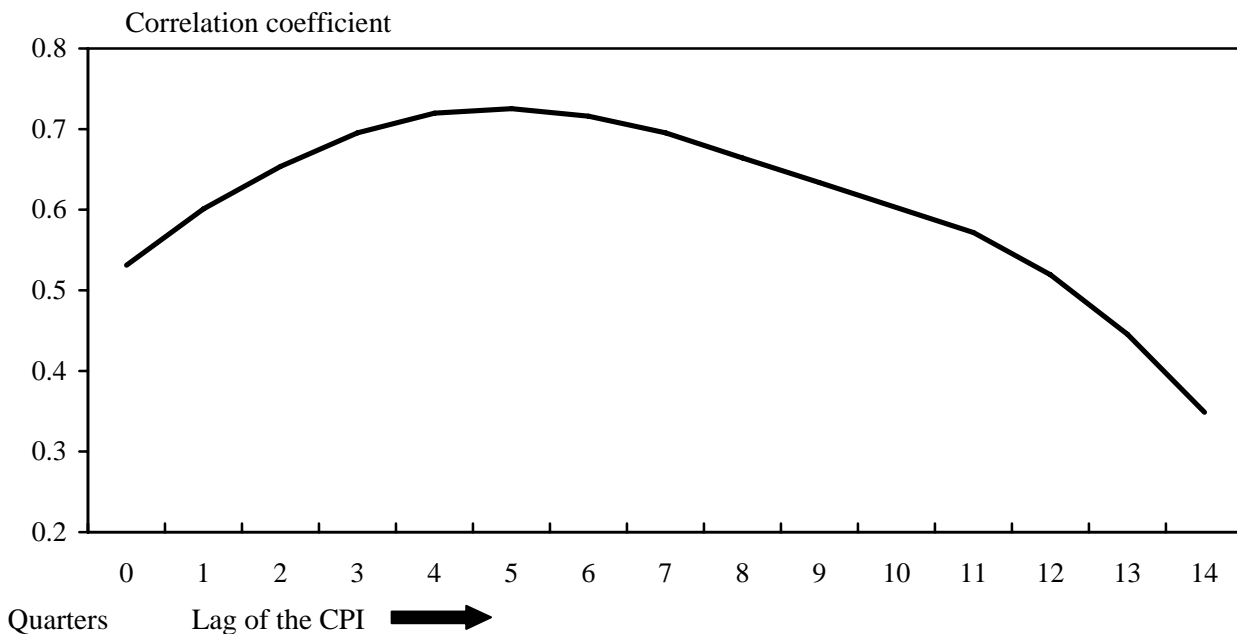
Source: Ministry of Internal Affairs and Communications, "Consumer Price Index."

Lead and Lag Relationship between Economic Activity and Prices¹

(1) Dynamic Cross-Correlation between Real GDP (y/y % chg.)
and CPI (excluding fresh food, y/y % chg.)²



(2) Dynamic Cross-Correlation between *Tankan* Business Conditions DI
and CPI (excluding fresh food, y/y % chg.)²



Notes: 1. Sample period for the dynamic cross-correlation estimation is from 1983/Q1 to 2005/Q4.

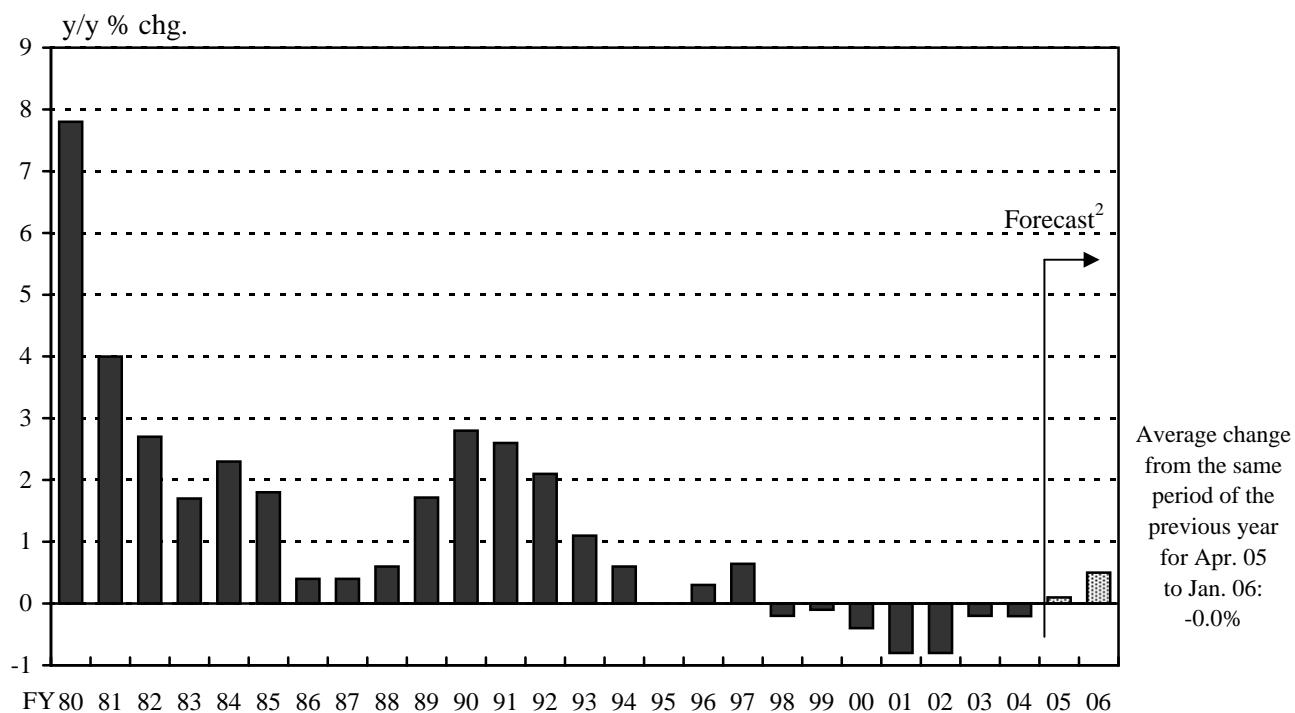
2. CPI is adjusted to exclude the effects of changes in the consumption tax rate.

Tankan Business Conditions DI covers all enterprises.

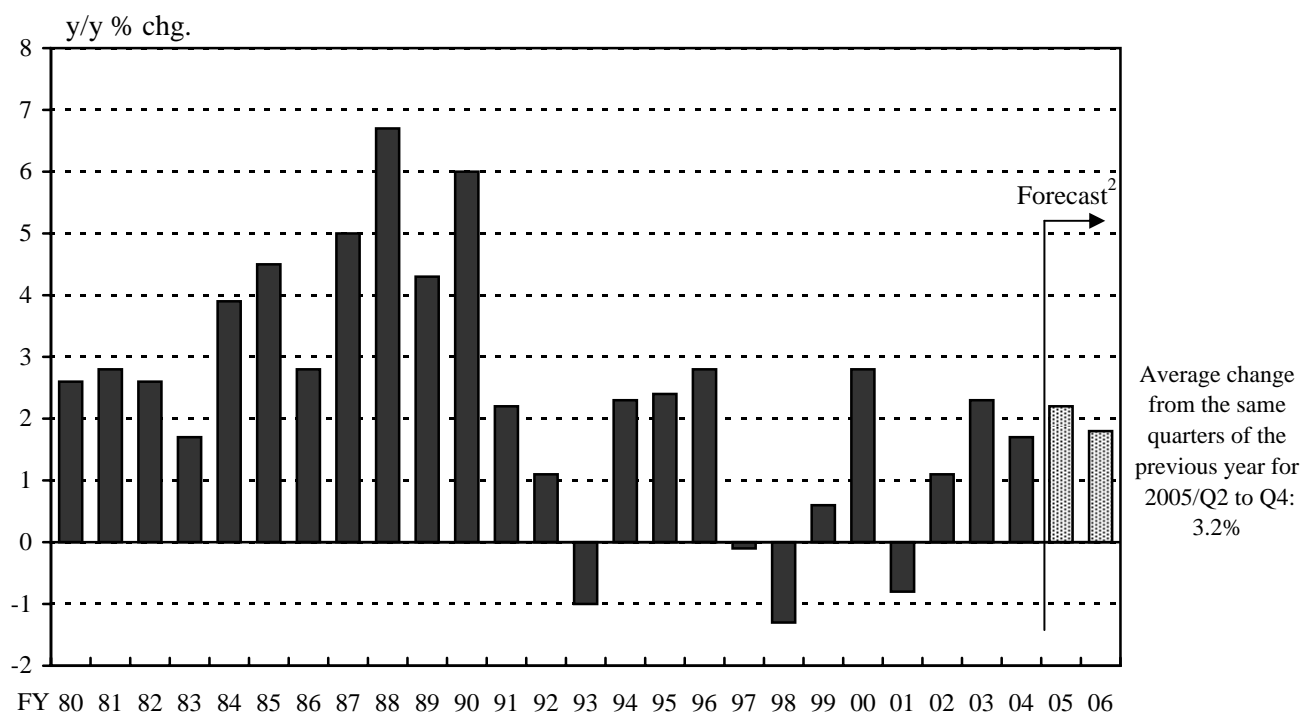
Sources: Cabinet Office, "National Accounts"; Ministry of Internal Affairs and Communications, "Consumer Price Index"; Bank of Japan, "*Tankan*, Short-Term Economic Survey of Enterprises in Japan."

CPI and Real GDP

(1) CPI (excluding fresh food)¹



(2) Real GDP



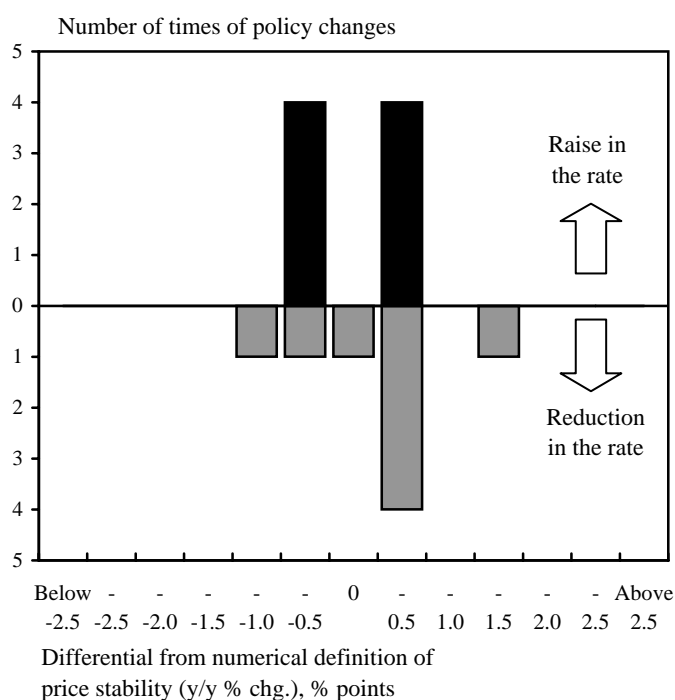
Notes: 1. CPI is adjusted to exclude the effects of changes in the consumption tax rate.

2. Figures for FY 2005 and 2006 are the medians of forecasts of Policy Board members in the *Outlook for Economic Activity and Prices* (October 2005).

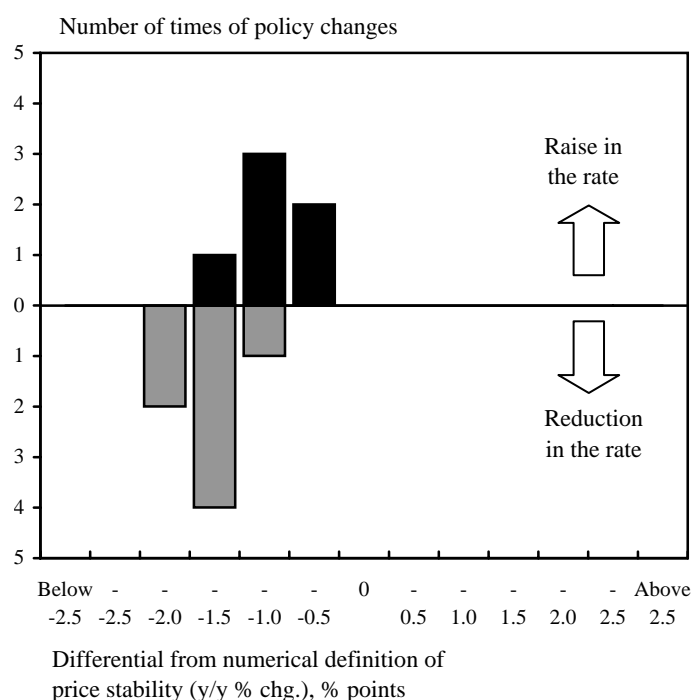
Sources: Cabinet Office, "National Accounts"; Ministry of Internal Affairs and Communications, "Consumer Price Index."

Consumer Prices at the Time of Monetary Policy Changes

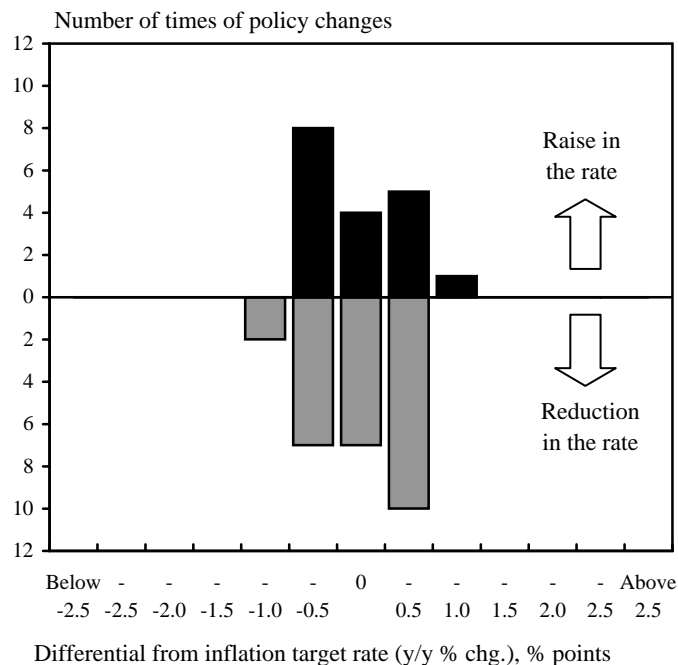
(1) Euro area (from Jan. 1999)¹



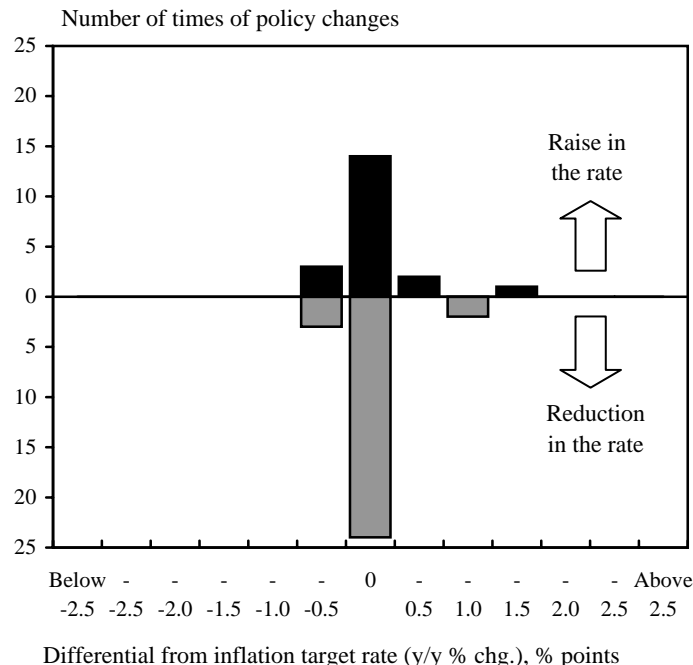
(2) Switzerland (from Dec. 1999)²



(3) United Kingdom (from Oct. 1992)³



(4) Canada (from Feb. 1991)⁴



Notes: 1. Price indicator for the Euro area is the HICP (all items). Numerical definition of price stability (y/y % chg.) is set to 2%.

2. Price indicator for Switzerland is the CPI (all items). Numerical definition of price stability (y/y % chg.) is set to 2%. In June 2004, the upper bound of the target range of the key policy rate was changed (from 0-0.75% to 0-1%), and this was considered as a raise in the rate.

3. Inflation target rate (y/y % chg.) for the United Kingdom is (1) 1-4% of the RPIX up to May 1995, (2) 2.5% of the RPIX from June 1995 to Nov. 2004, and (3) 2% of the CPI (all items) from Dec. 2004.

4. Price indicator for Canada is the CPI (all items). Inflation target rate (y/y % chg.) is (1) $3\pm 1\%$ up to Dec. 1992, (2) $2.5\pm 1\%$ from Jan. 1993 to June 1994, and (3) $2\pm 1\%$ from July 1994.

The key policy rate up to Feb. 1996 had been set at 25 basis points above the average yield on 3-month treasury bills, and no policy change was assumed for the period until then.

Inflation Target Rate or Numerical Definition of Price Stability in Major Economies

Country/Area	Adoption of inflation targeting rate or numerical definition of price stability	Indicator	Inflation target rate or numerical definition of price stability	Average y/y % change of the indicator ^{1,2}
New Zealand	Apr. 1988	CPI (all items, y/y % chg.)	1 to 3%	2.6%
Canada	Feb. 1991	CPI (all items, y/y % chg.)	1 to 3%, aim at the 2% target midpoint	2.1%
United Kingdom	Oct. 1992	CPI (all items, y/y % chg.)	2%	1.7%
Sweden	Jan. 1993	CPI (all items, y/y % chg.)	At 2%, with a tolerance range of $\pm 1\%$ point	1.5%
Australia	Mid-1993	CPI (all items, y/y % chg.)	Between 2 and 3%	2.6%
Euro area	Jan. 1999	HICP ³ (all items, y/y % chg.)	Below, but close to, 2%	2.0%
Switzerland	Dec. 1999	CPI (all items, y/y % chg.)	Less than 2%	1.0%

Notes: 1. The sample periods for average changes of the indicators (except those of New Zealand and Australia) are from the time when the inflation target or numerical definition of price stability was adopted to January 2006.

2. CPI is released quarterly in New Zealand and Australia. The sample period for average change of the CPI of New Zealand is from 1988/Q2 to 2005/Q4. That of Australia is from 1993/Q2 to 2005/Q4.

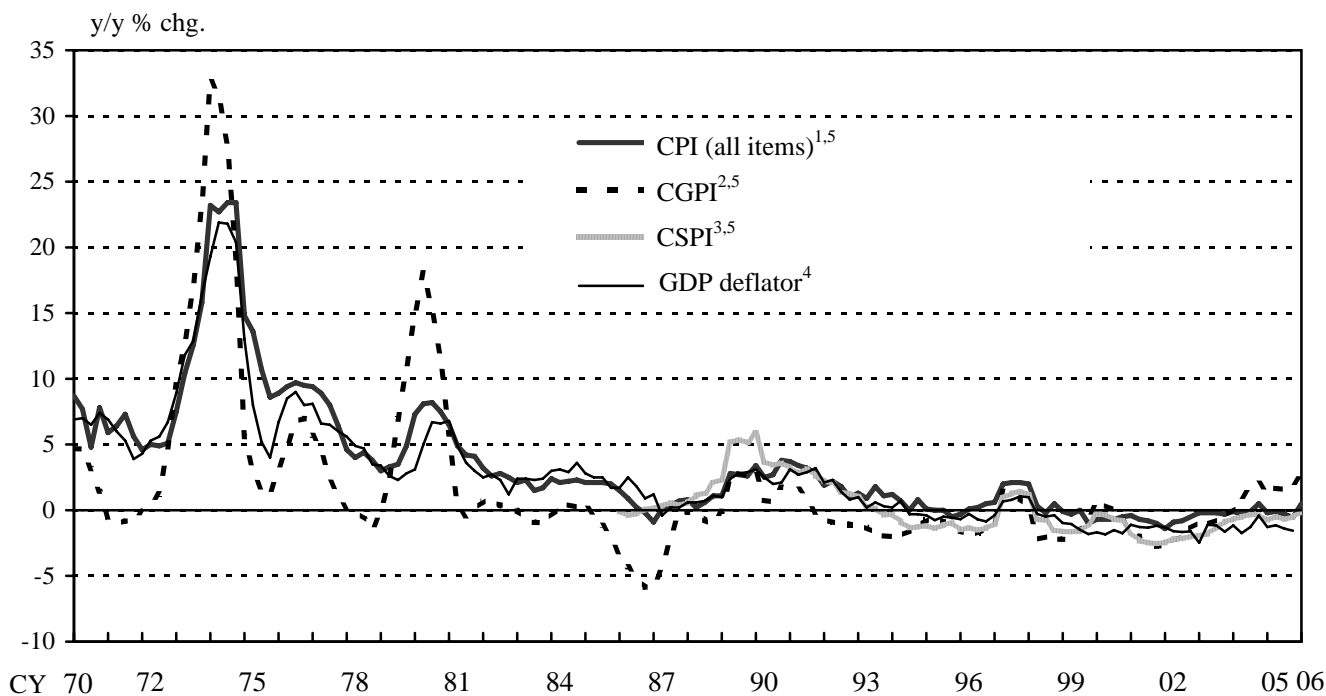
3. HICP is a consumer price index designed for international comparison by using a harmonized methodology.

Price Indicators to Explain
the Conduct of Monetary Policy

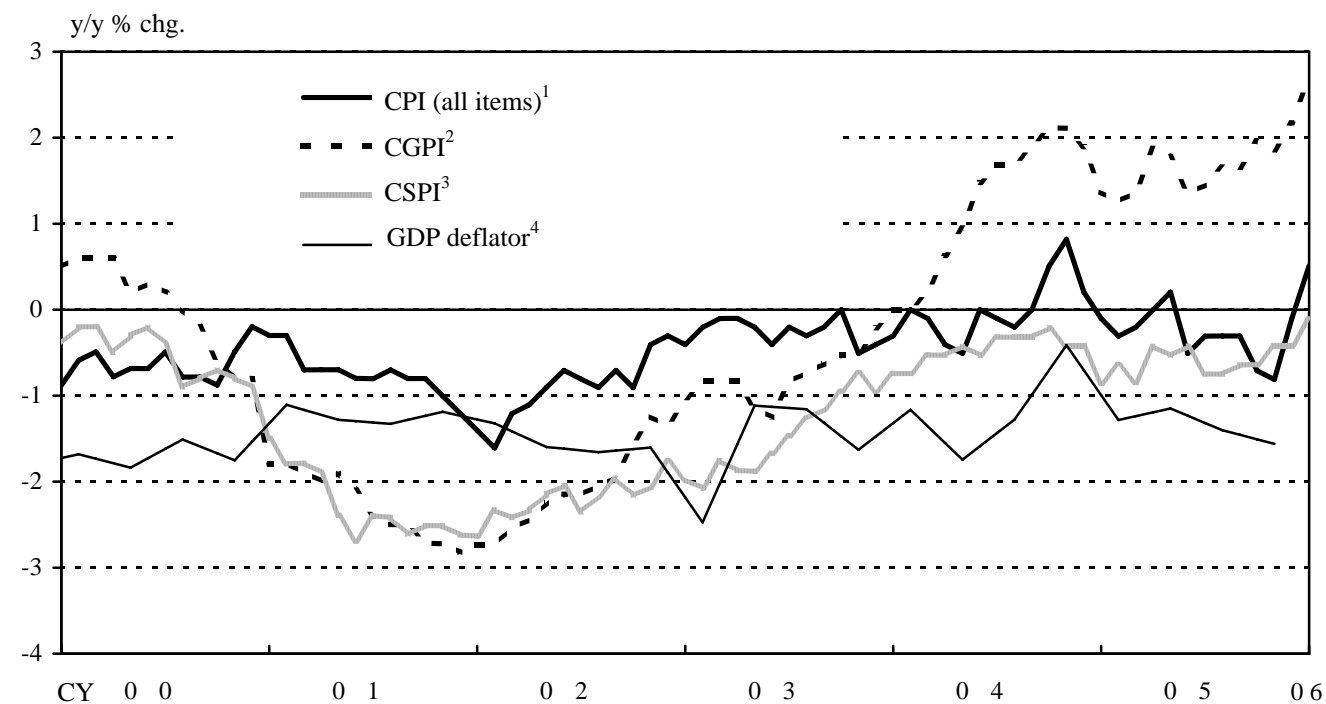
Country/Area	Price indicator	Where price indicator is referred to
Japan	CPI (excluding fresh food)	Forecasts in the <i>Outlook for Economic Activity and Prices</i>
United States	Chain-type price index of PCE (personal consumption expenditures), (excluding food and energy)	Projections in the <i>Monetary Policy Report to the Congress</i>
Euro area	HICP (all items)	Numerical definition of price stability
Switzerland	CPI (all items)	
United Kingdom	CPI (all items)	Inflation target
Canada	CPI (all items)	
New Zealand	CPI (all items)	
Australia	CPI (all items)	
Sweden	CPI (all items)	
Norway	CPI (all items)	

Developments in Various Price Indicators

(1) Developments from 1970



(2) Developments from 2000



Notes: 1. CPI covers the prices of goods and services purchased by households.

2. Figures of the CGPI up to 2000 are those of the WPI (wholesale price index). CGPI and WPI cover the prices of goods traded between firms.

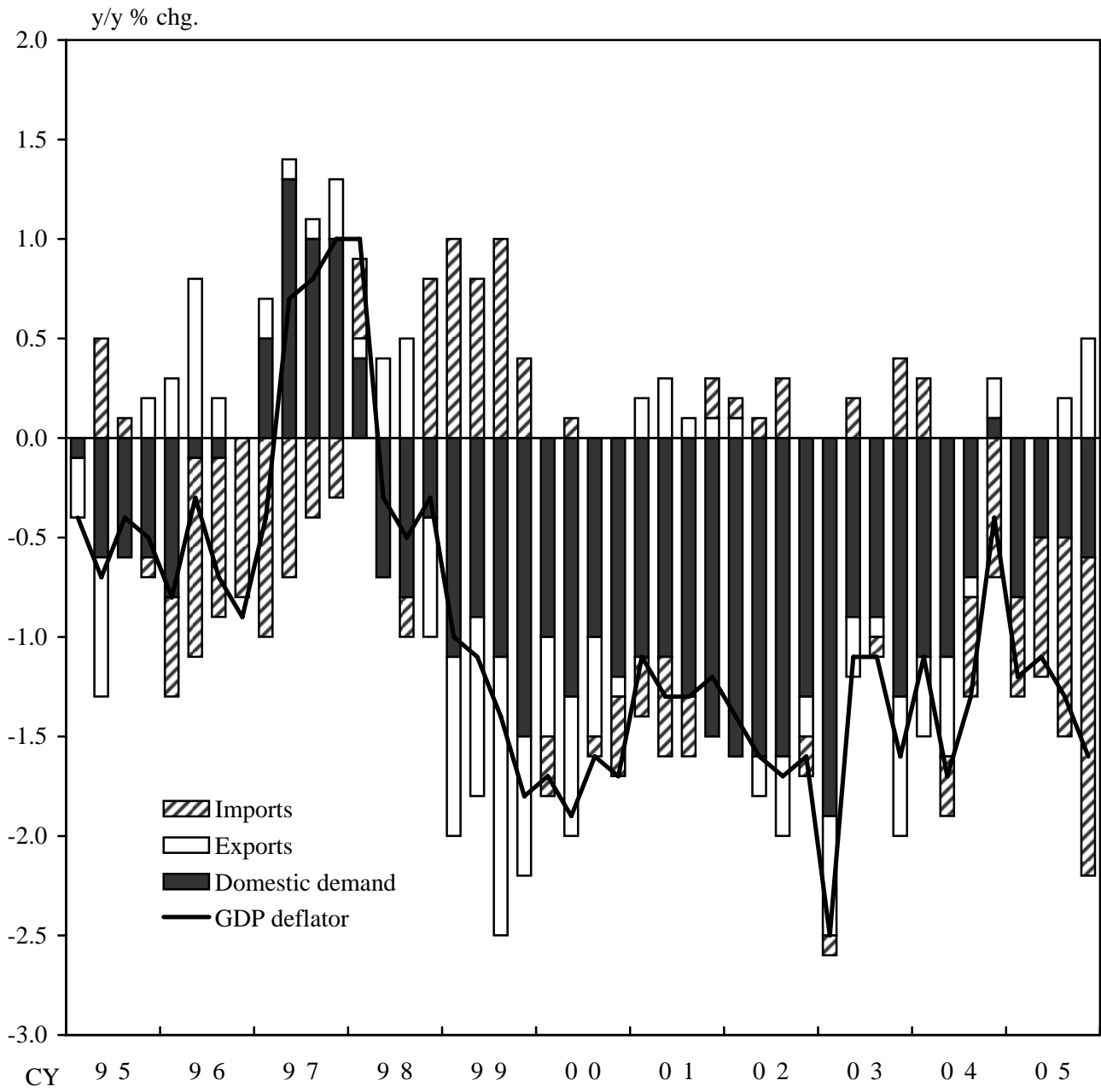
3. CSPI covers the prices of services traded between firms.

4. GDP deflator is the index that shows the effect of price changes on the total value added.

5. Figures for 2006/Q1 are those of January 2006.

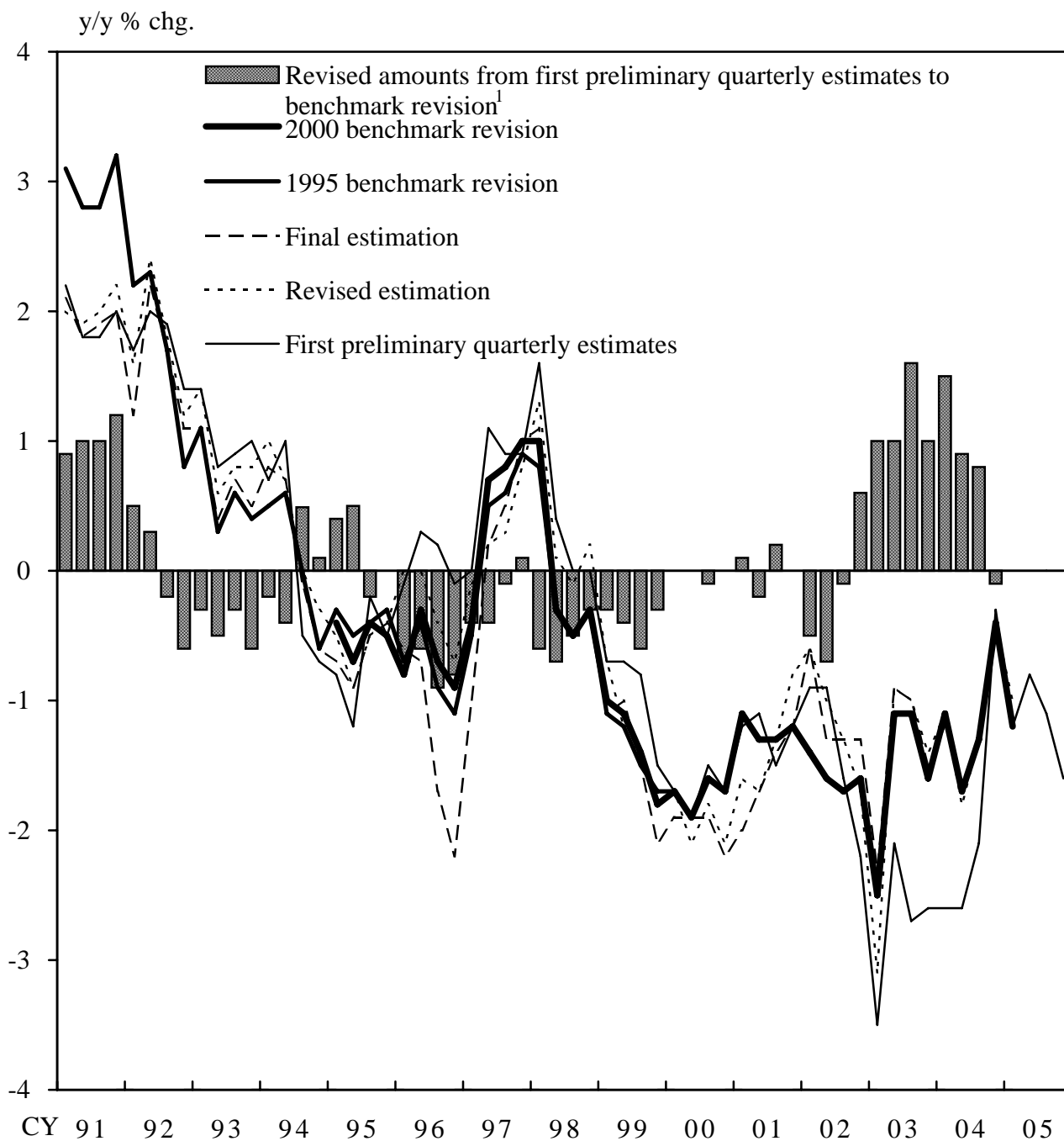
Sources: Cabinet Office, "National Accounts"; Ministry of Internal Affairs and Communications, "Consumer Price Index"; Bank of Japan, "Corporate Goods Price Index," "Wholesale Price Indexes," "Corporate Service Price Index."

GDP Deflator



Source: Cabinet Office, "National Accounts."

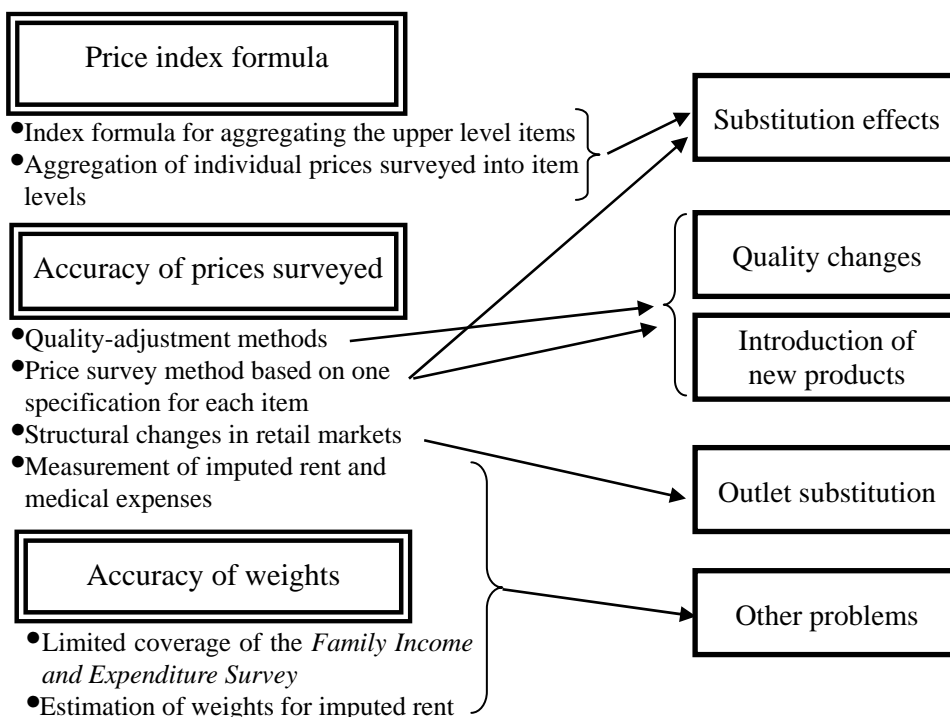
Revision of GDP Deflator



Note: 1. Revised amounts until 1994 are those from the first preliminary quarterly estimates to the 1995 benchmark revision, and from 1995, those to the 2000 benchmark revision are used.

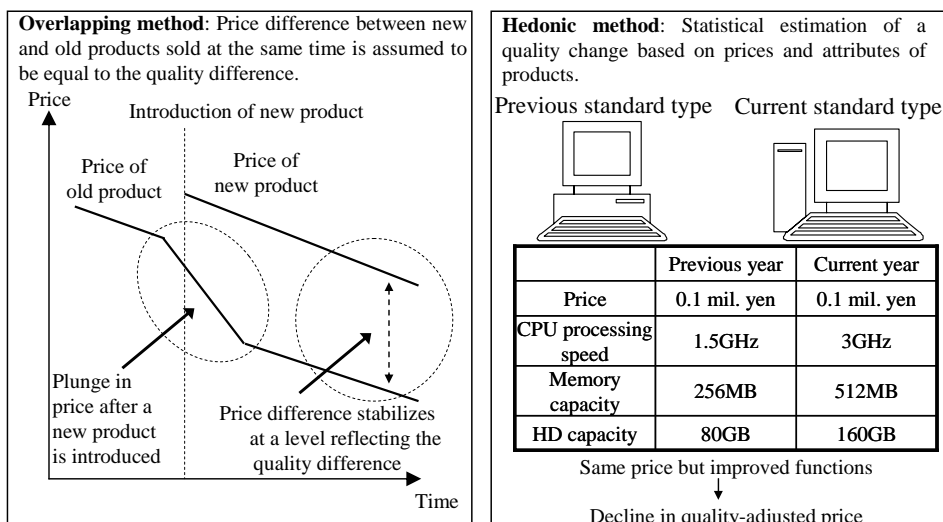
Source: Cabinet Office, "National Accounts."

Causes of Measurement Errors in the CPI



- Notes:
1. Substitution effects: The CPI weights are fixed at the base year, and therefore the effects of items whose relative prices are falling or rising are undervalued or overvalued.
 2. Quality changes: It is difficult to accurately grasp changes in the quality of items and reflect them in the CPI, and therefore such insufficient quality adjustments cause upward bias of the CPI.
 3. Introduction of new products: Consumers purchase a new product when they regard it as relatively less expensive than an old one on a quality-adjusted basis, and therefore a delay in including the new product in the CPI basket causes upward bias.
 4. Outlet substitution: It is difficult to reflect in the CPI the impact of consumers' shift to discount outlets, because outlets surveyed are fixed for a certain period of time.

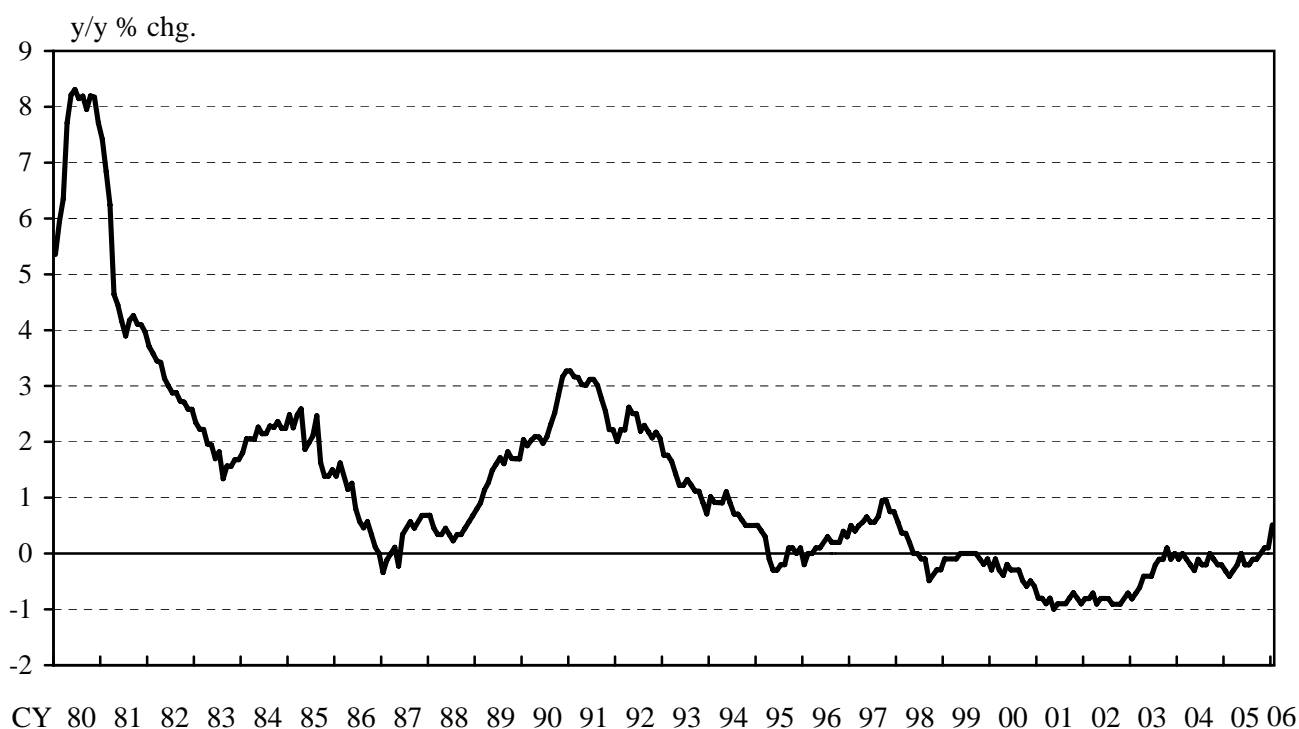
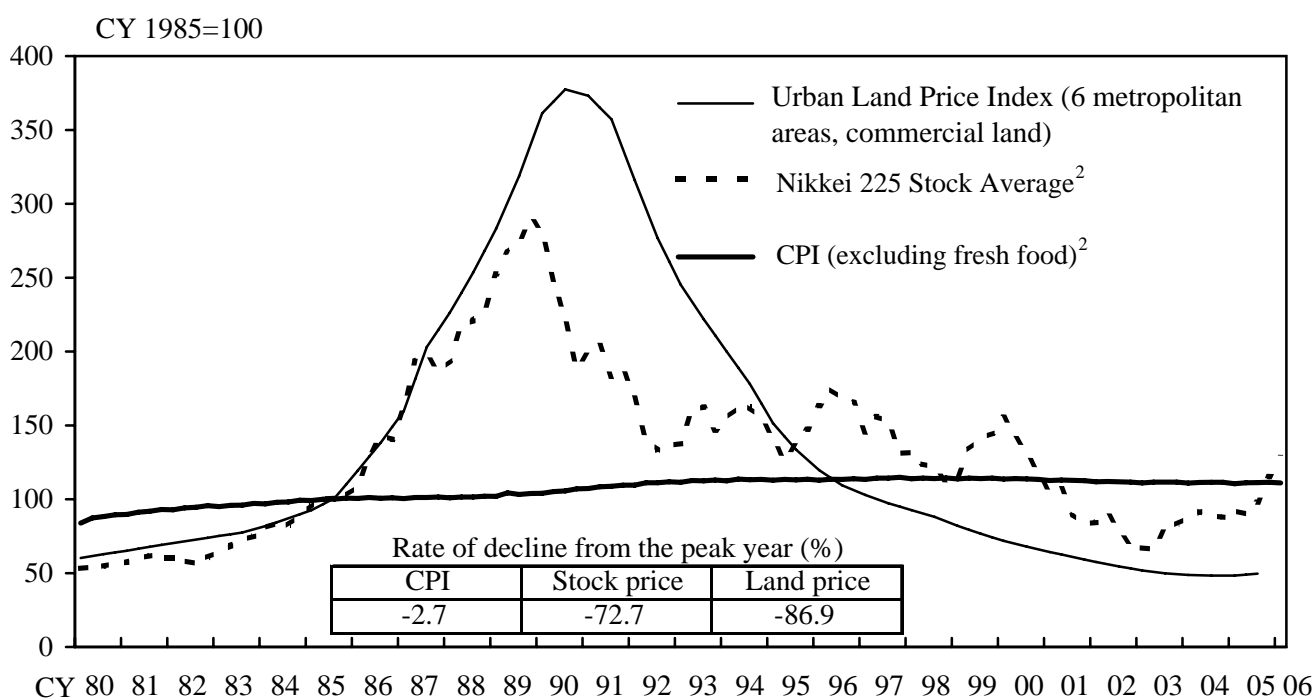
Reference: Main Quality-Adjustment Methods



Improvement of the Accuracy of the Japanese CPI

Category	Measure
Quality adjustment	<ul style="list-style-type: none"> ● PCs were included in the CPI items and their price changes were adjusted with the hedonic method [at the revision of the base year to 2000]. ● Price changes of digital cameras were reflected in the price indexes of cameras and their price changes were adjusted with the hedonic method [at the interim review in 2003].
Range of outlets surveyed	<ul style="list-style-type: none"> ● The standard for the range of outlets surveyed was reviewed to facilitate inclusion of large ones in the suburbs [at the revision of the base year to 2000].
Frequency of review on the items included	<ul style="list-style-type: none"> ● Items included in the CPI are to be reviewed at the intermediate time of base-year revisions [decided at the revision of the base year to 2000]. – The first interim review was conducted in January 2003, and PC printers and Internet connection charges were added to the items.
Index formula	<ul style="list-style-type: none"> ● The chained Laspeyres index and midpoint-year basket index are to be compiled [starting from the revision of the base year to 2005 that will be conducted in August 2006].
Weighting	<ul style="list-style-type: none"> ● Reference index based on the basket of all households including one-person households is to be compiled [starting from the revision of the base year to 2005 that will be conducted in August 2006].

General Prices and Asset Prices

(1) CPI¹ (excluding fresh food)(2) CPI¹ (excluding fresh food) and Asset Prices

Notes: 1. CPI is adjusted to exclude the effects of the changes in the consumption tax rate.

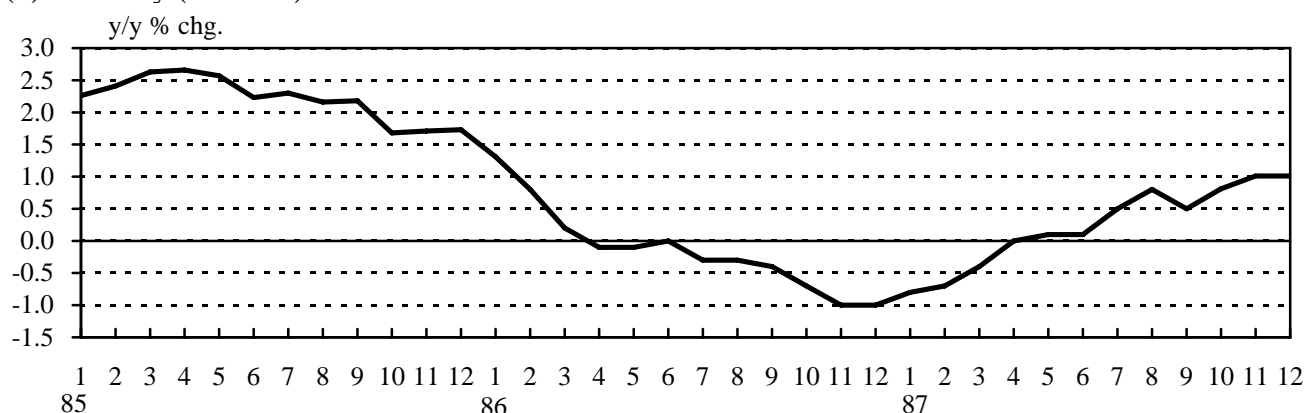
2. The figure of Nikkei 225 Stock Average in 2006/Q1 is the average of the latest data available.

The figure of the CPI in 2006/Q1 is that of January 2006.

Sources: Ministry of Internal Affairs and Communications, "Consumer Price Index"; Japan Real Estate Institute, "Urban Land Price Index"; *Nihon Keizai Shimbun*.

Experiences of Negative Year-on-Year Changes in the CPI¹ in the G-10 Countries since 1980 (1)

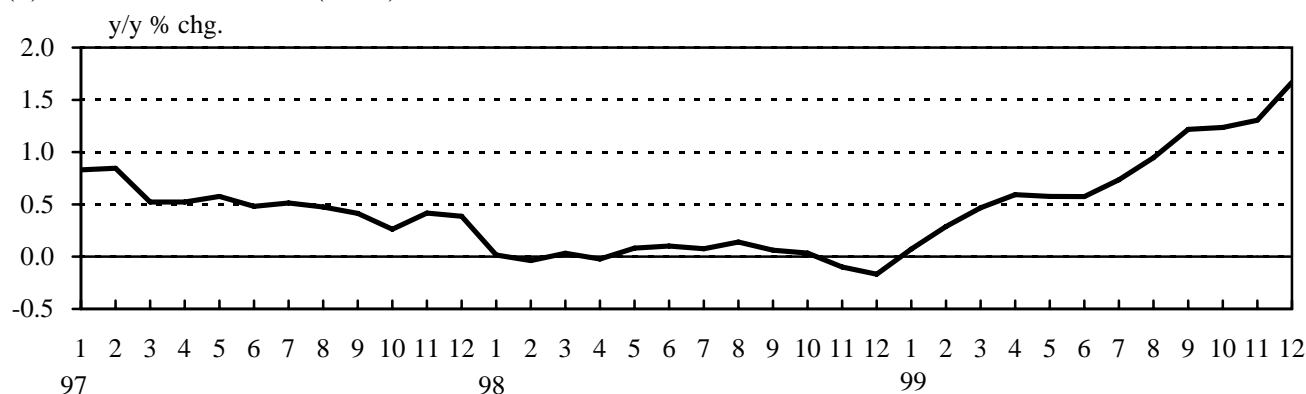
(1) Germany (1986-87)



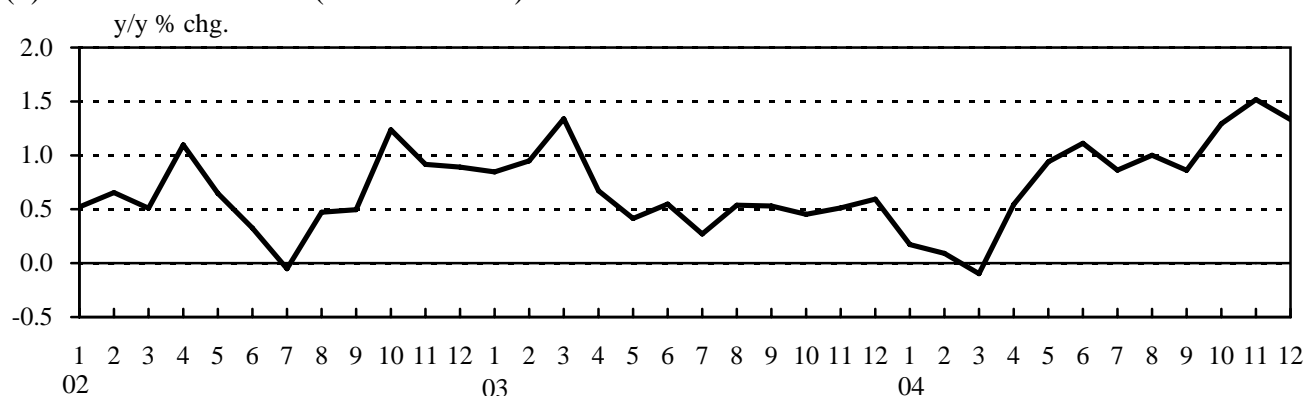
(2) Switzerland: Case 1 (1986)



(3) Switzerland: Case 2 (1998)



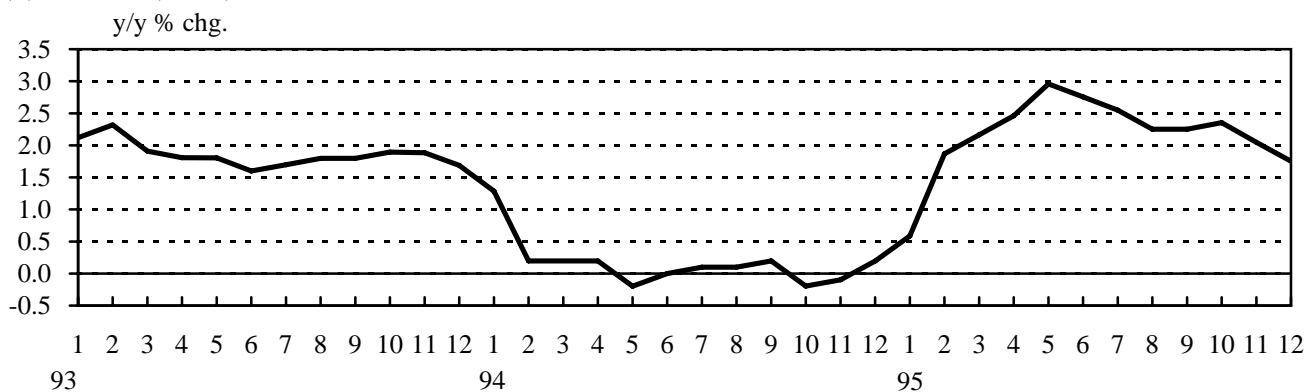
(4) Switzerland: Case 3 (2002 and 2004)



Note: 1. Figures are based on the CPI including all items.

Experiences of Negative Year-on-Year Changes in the CPI¹ in the G-10 Countries since 1980 (2)

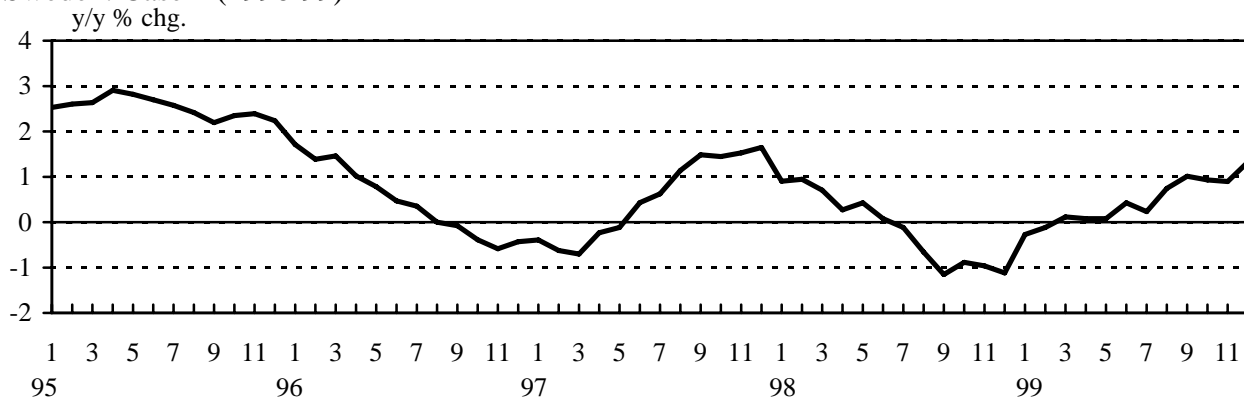
(1) Canada (1994)



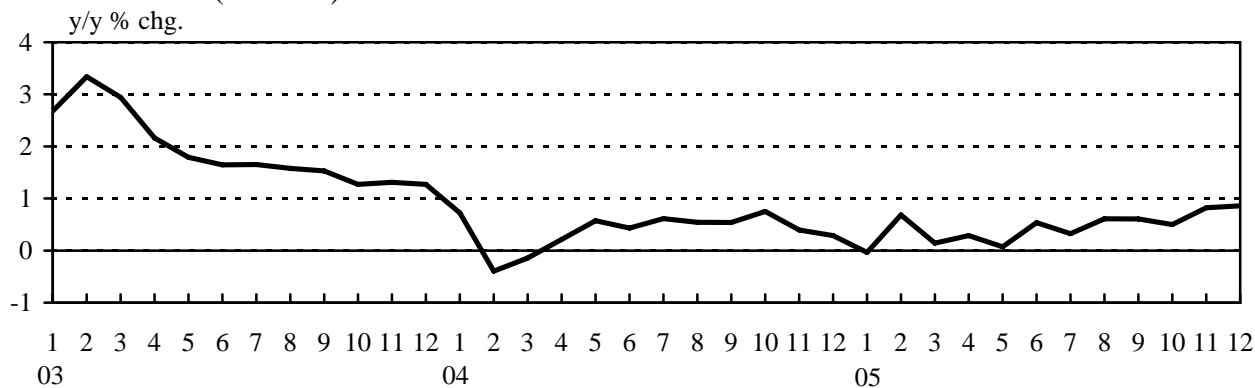
(2) Netherlands (1986-87)



(3) Sweden: Case 1 (1996-99)



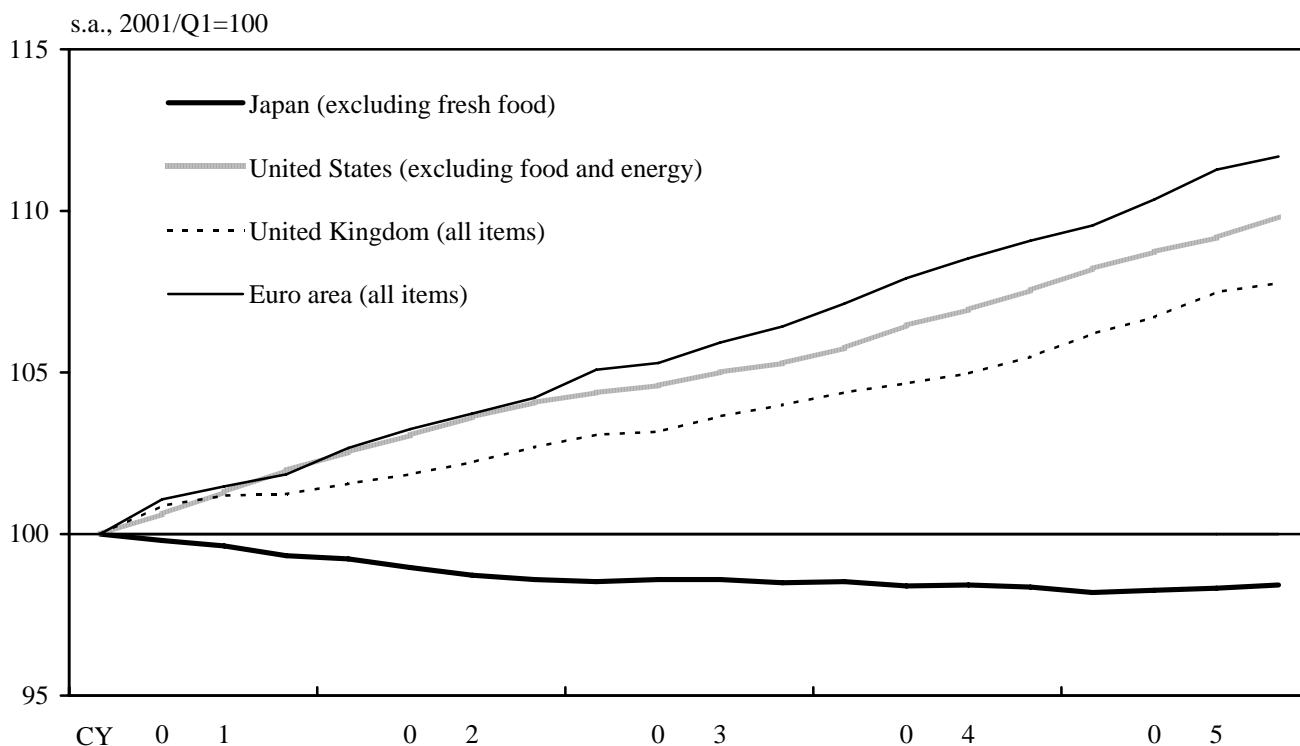
(4) Sweden: Case 2 (2004-05)



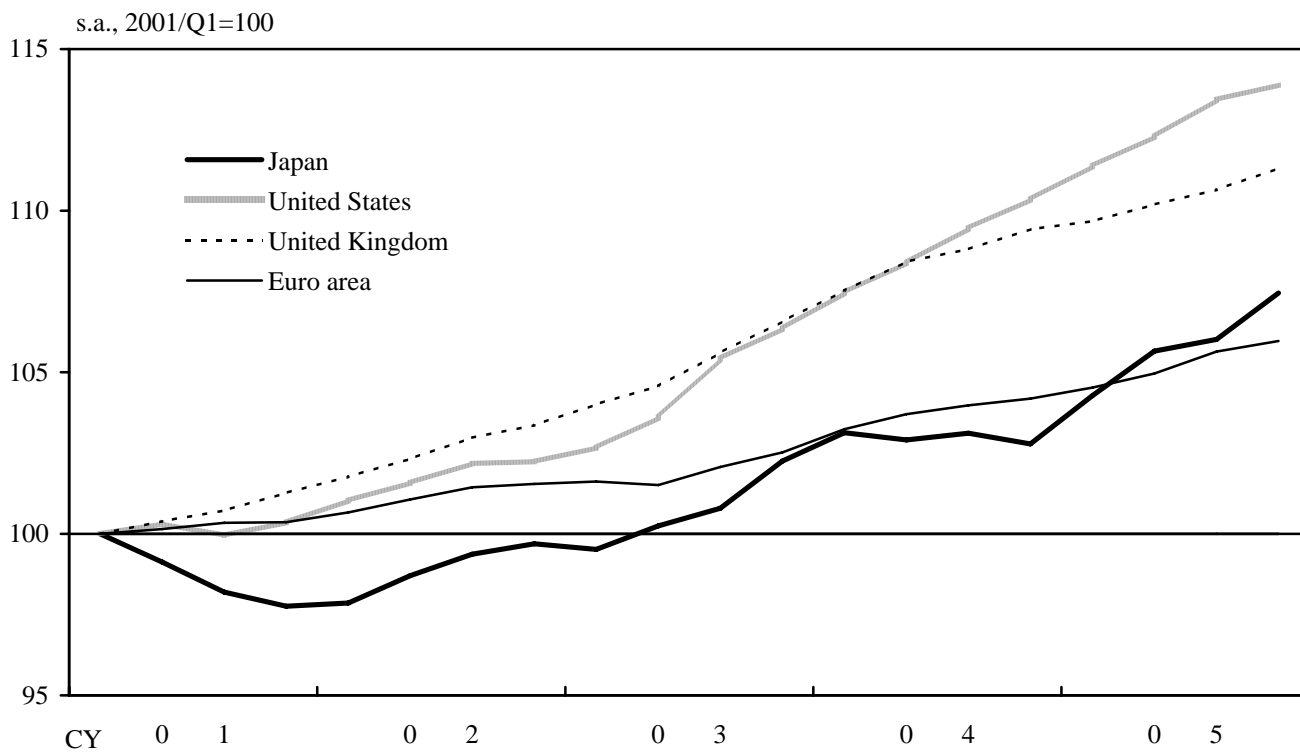
Note: 1. Figures are based on the CPI including all items.

CPI and Real GDP in Major Economies

(1) CPI

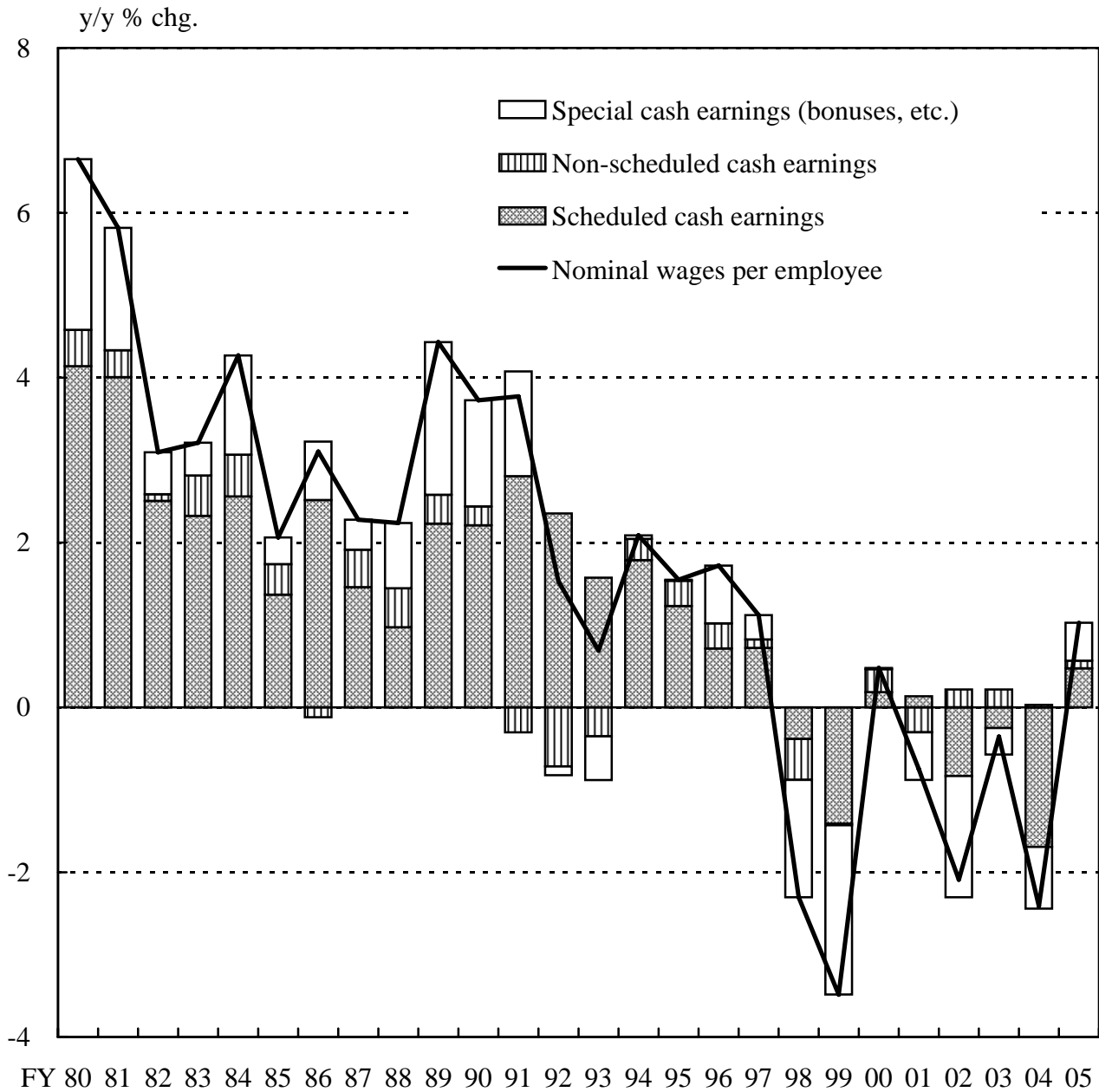


(2) Real GDP



Sources: Cabinet Office, "National Accounts"; Ministry of Internal Affairs and Communications, "Consumer Price Index"; government announcements.

Nominal Wages per Employee

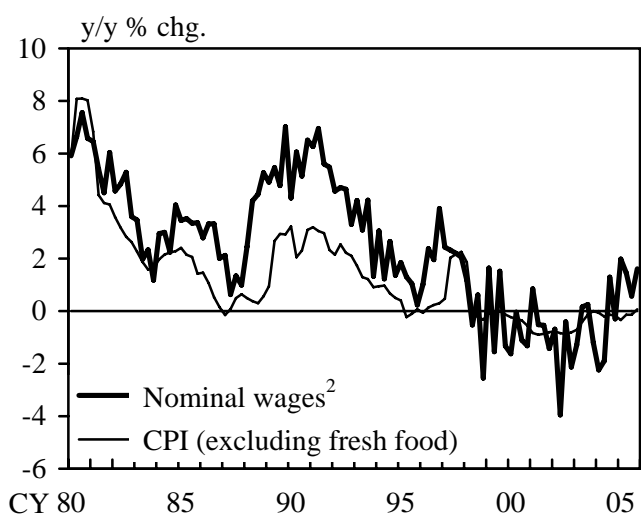


Notes: 1. Data are for businesses with at least 30 employees.
 2. Figures for FY 2005 are those of Apr. 2005-Jan. 2006.

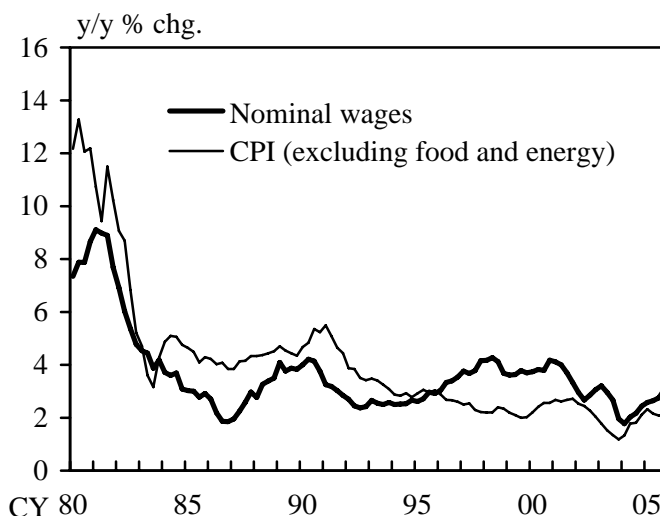
Source: Ministry of Health, Labour and Welfare, "Monthly Labour Survey."

Nominal Wages¹ and Consumer Prices in Major Economies

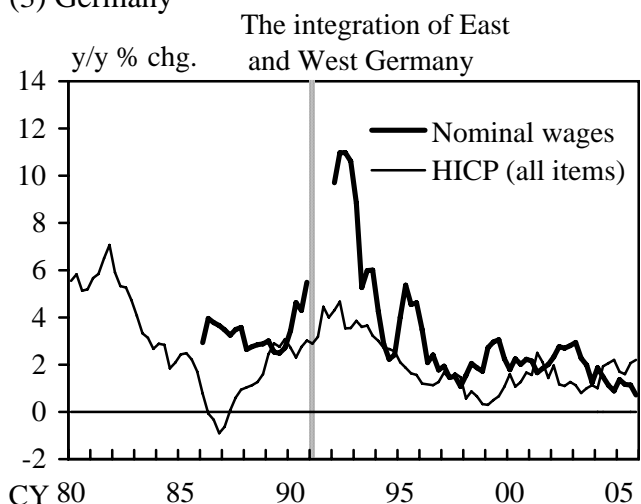
(1) Japan



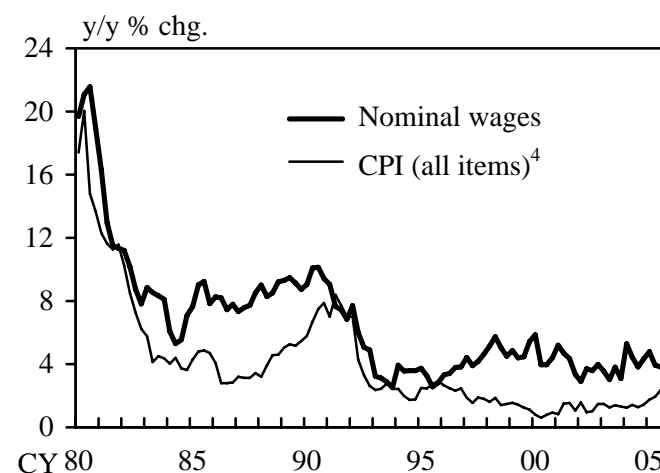
(2) United States



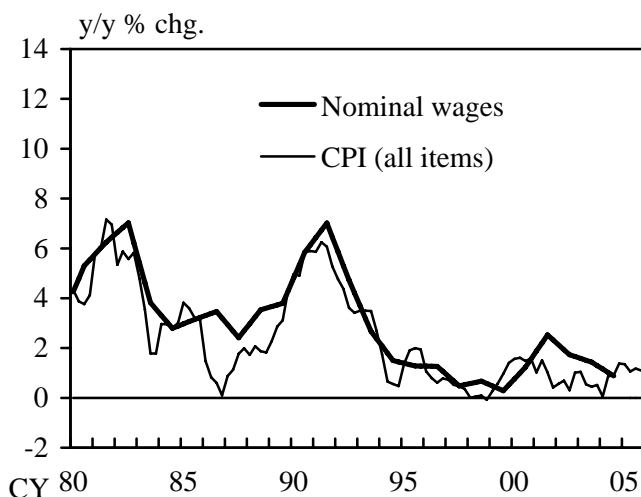
(3) Germany³



(4) United Kingdom



(5) Switzerland



Notes:

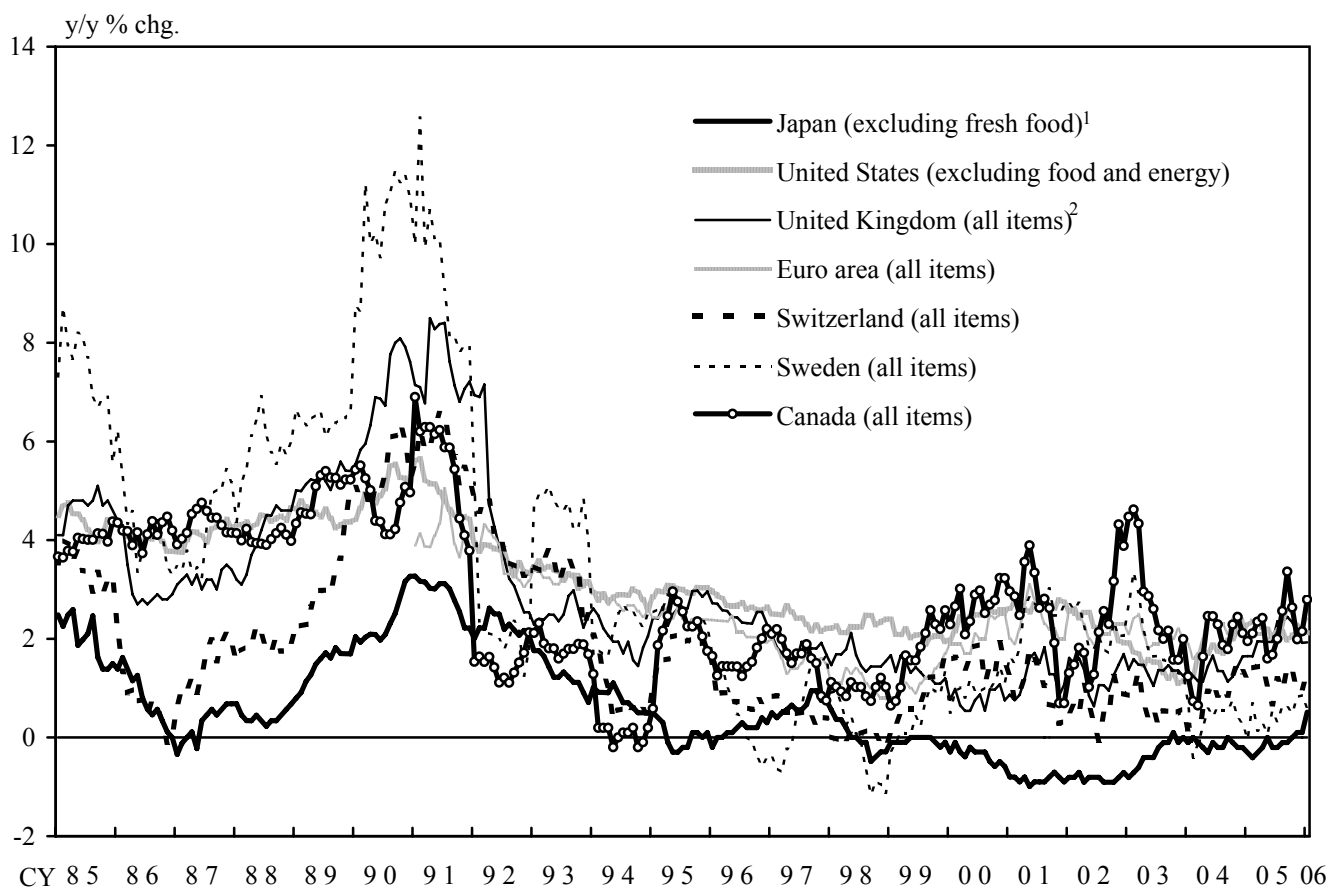
1. Figures of nominal wages are on a per hour basis in Japan and the United States. Those in Germany, the United Kingdom, and Switzerland are on a per employee basis.
2. Figures of nominal wages in Japan are data for businesses with at least 30 employees. Q1=Mar.-May, Q2=June-Aug., Q3=Sep.-Nov., Q4=Dec.-Feb. The figure of the latest quarter is that of Dec.2005-Jan.2006 compared with the same period of the previous year.
3. Figures of nominal wages and the HICP until 1990 are those of the former West Germany. HICP is used from 1996 and the CPI was used until 1995.
4. Figures of the CPI in the United Kingdom until 1988 are calculated by subtracting 0.5% points from the year-on-year changes in the RPIX.

Sources:

Ministry of Internal Affairs and Communications, "Consumer Price Index"; Ministry of Health, Labour and Welfare, "Monthly Labour Survey"; government announcements.

Consumer Prices in Major Economies

(1) Developments from 1985



(2) Average of Changes during the Specified Periods

	y/y % chg.					
	1985-89	90-94	95-99	2000-05	1985-2005	1985-97
Japan ¹	1.0	1.9	0.2	-0.4	0.6	1.2
United States	4.3	4.0	2.5	2.1	3.2	3.8
United Kingdom ²	4.1	4.7	2.0	1.3	2.9	3.9
Euro area	—	3.4	1.7	2.2	2.4	2.8
Germany ³	1.3	3.3	1.2	1.6	1.8	2.1
Switzerland	2.1	3.9	0.8	1.0	1.9	2.6
Sweden	5.6	5.8	0.8	1.4	3.3	4.7
Canada	4.3	2.8	1.6	2.4	2.8	3.1

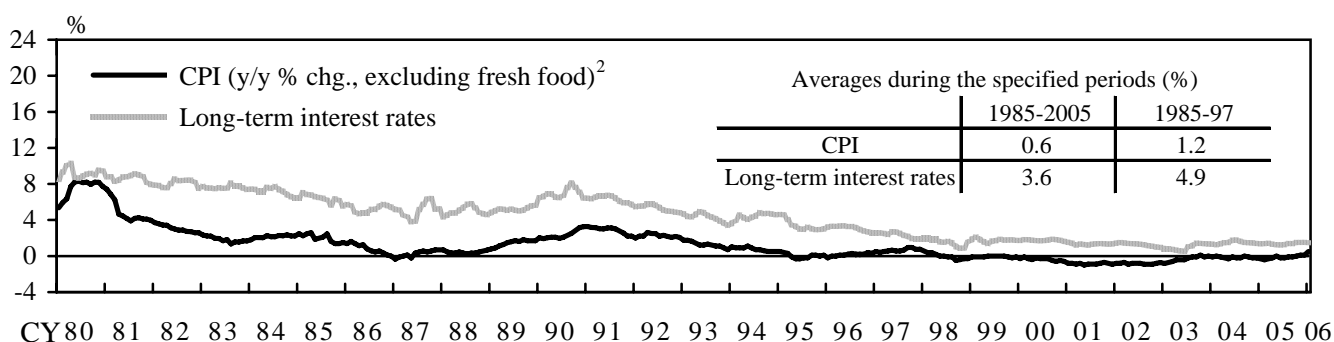
Notes: 1. Figures for Japan are adjusted to exclude the effects of changes in the consumption tax rate.

2. Figures for the United Kingdom until 1988 are calculated by subtracting 0.5% points from the year-on-year changes in the RPIX.

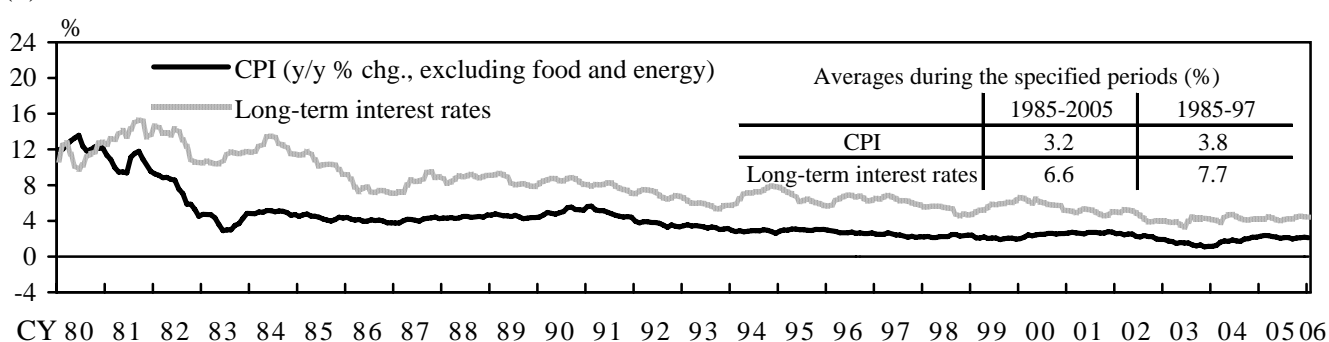
3. Figures for Germany up to 1990 are those of the former West Germany.

Long-Term Interest Rates¹ and Consumer Prices in Major Economies

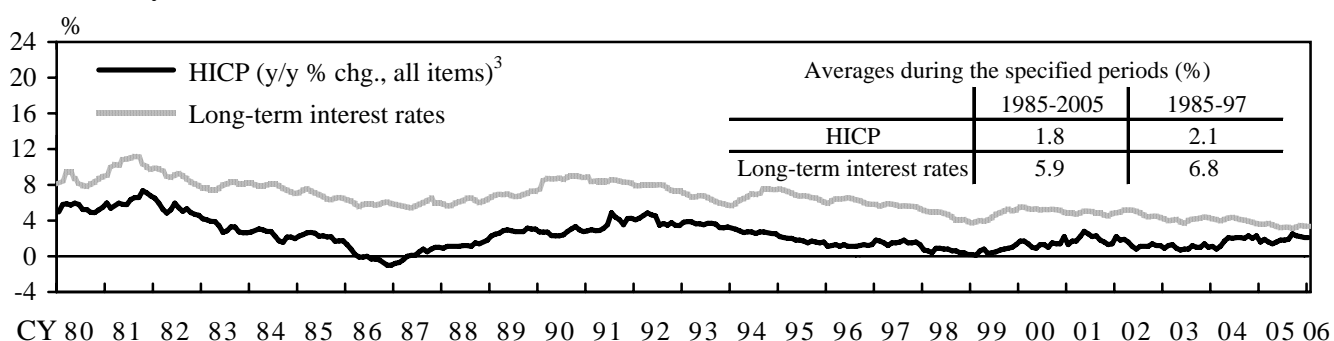
(1) Japan



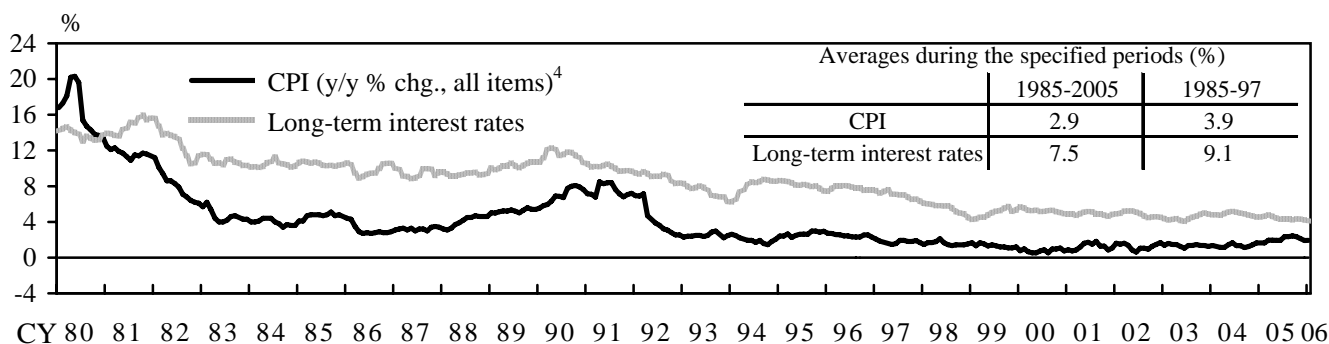
(2) United States



(3) Germany



(4) United Kingdom



Notes: 1. Long-term interest rates are 10-year government bond yields.

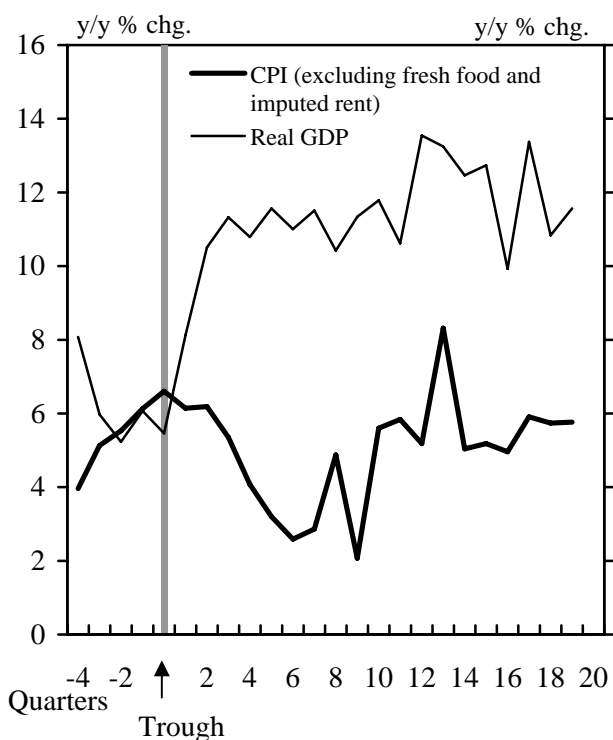
2. CPI for Japan is adjusted to exclude the effects of changes in the consumption tax rate.

3. Figures of the HICP until 1990 are those of the former West Germany. HICP is used from 1996 and the CPI was used until 1995.

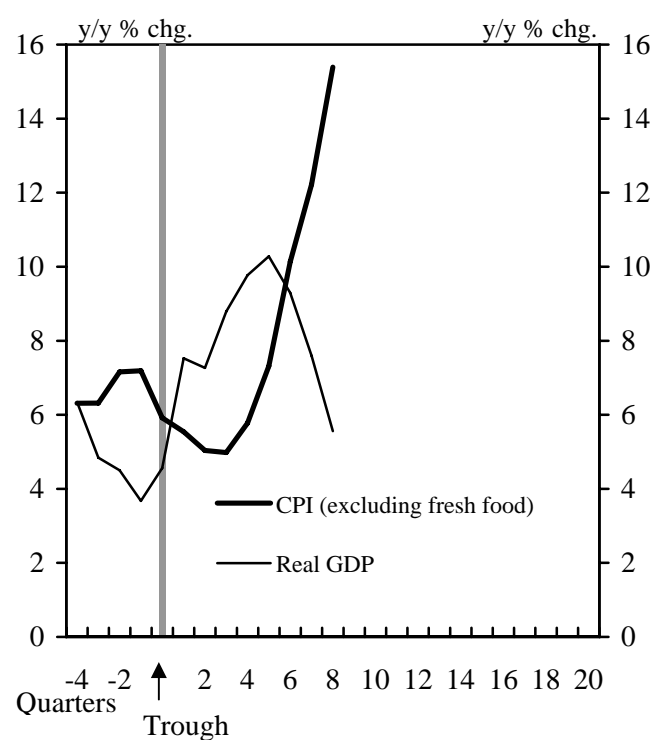
4. Figures of the CPI for the United Kingdom until 1988 are calculated by subtracting 0.5% points from the year-on-year changes in the RPIX.

Developments in the CPI through Economic Recovery Phases

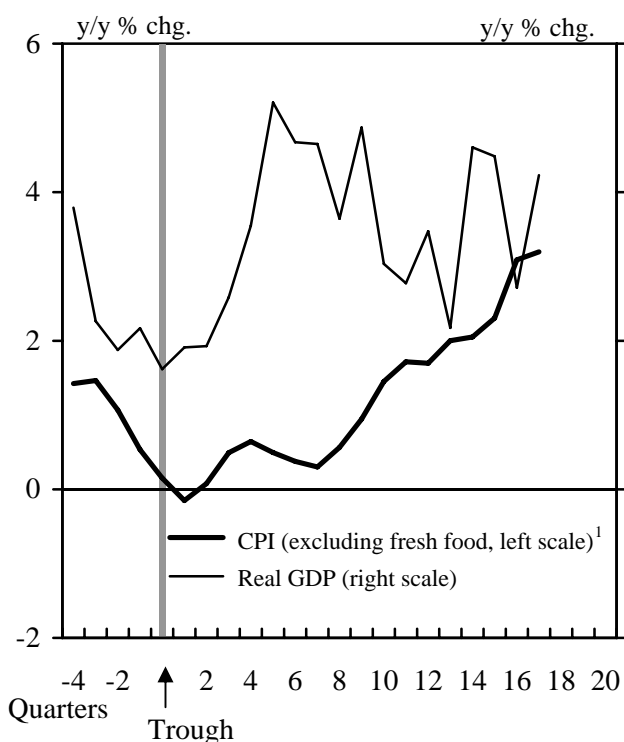
(1) From 1965/Q4 (*Izanagi Boom*)



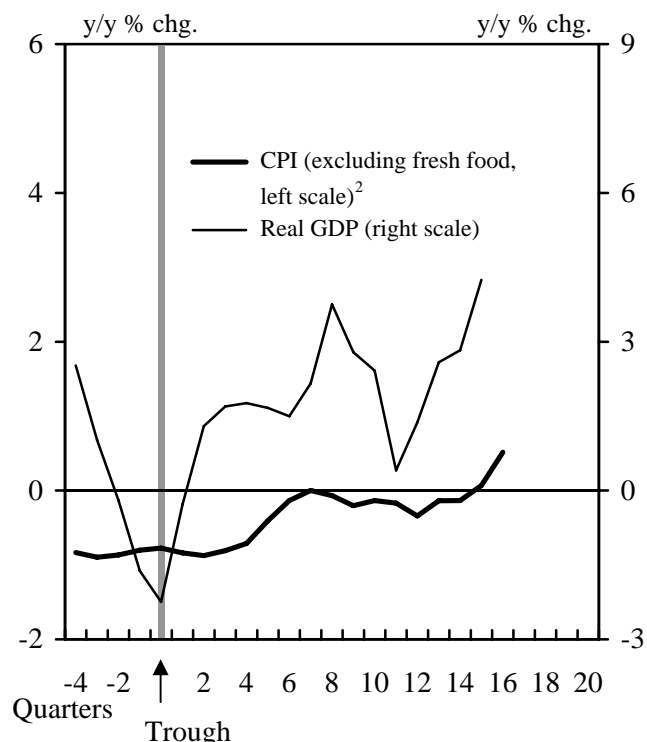
(2) From 1971/Q4 (*Retto Kaizo Boom*)



(3) From 1986/Q4 (*Heisei Boom*)



(4) From 2002/Q1 (Current Recovery)



Notes: 1. CPI is adjusted to exclude the effects of changes in the consumption tax rate.

2. The figure of the CPI in the latest period, 2006/Q1, is that of January 2006 compared with the same month of the previous year.

Sources: Cabinet Office, "National Accounts"; Ministry of Internal Affairs and Communications, "Consumer Price Index."