

# Toward Sustainable Growth with Price Stability

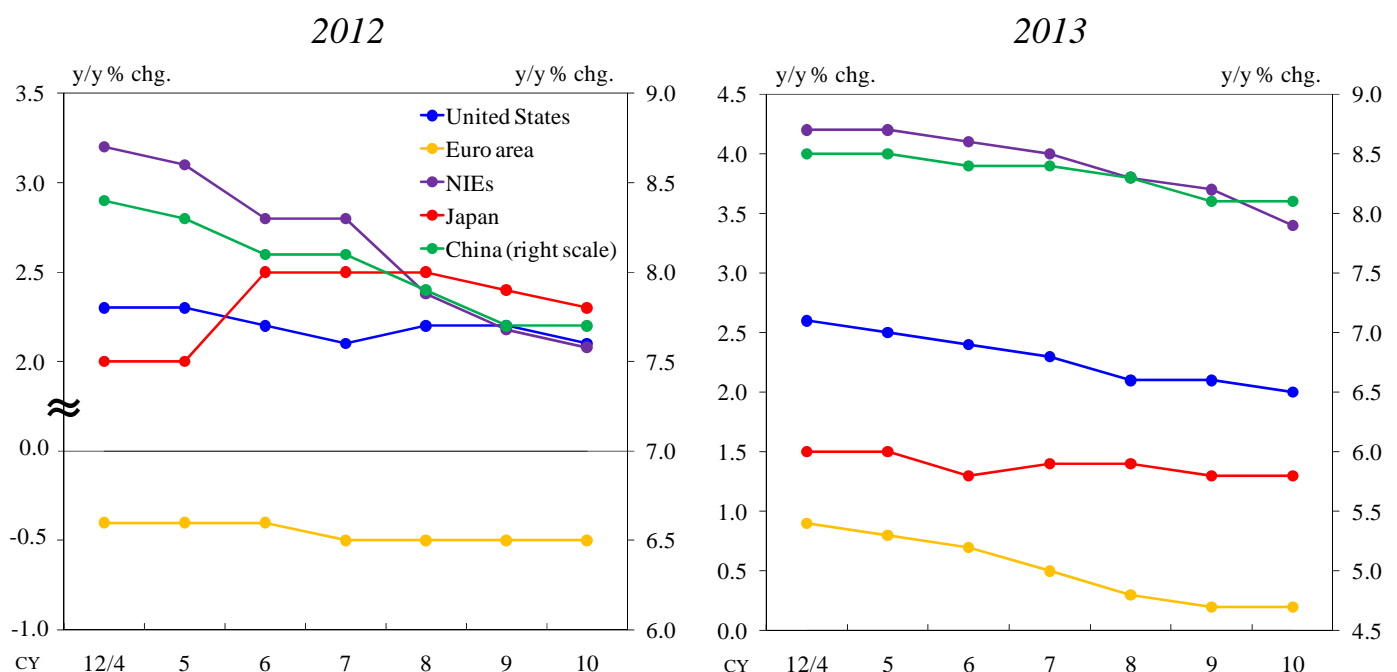
*Speech at the Kisaragi-kai Meeting in Tokyo*

November 12, 2012

Masaaki Shirakawa  
 Governor of the Bank of Japan

Chart 1

## Real GDP Forecasts by Private Sector-Economists

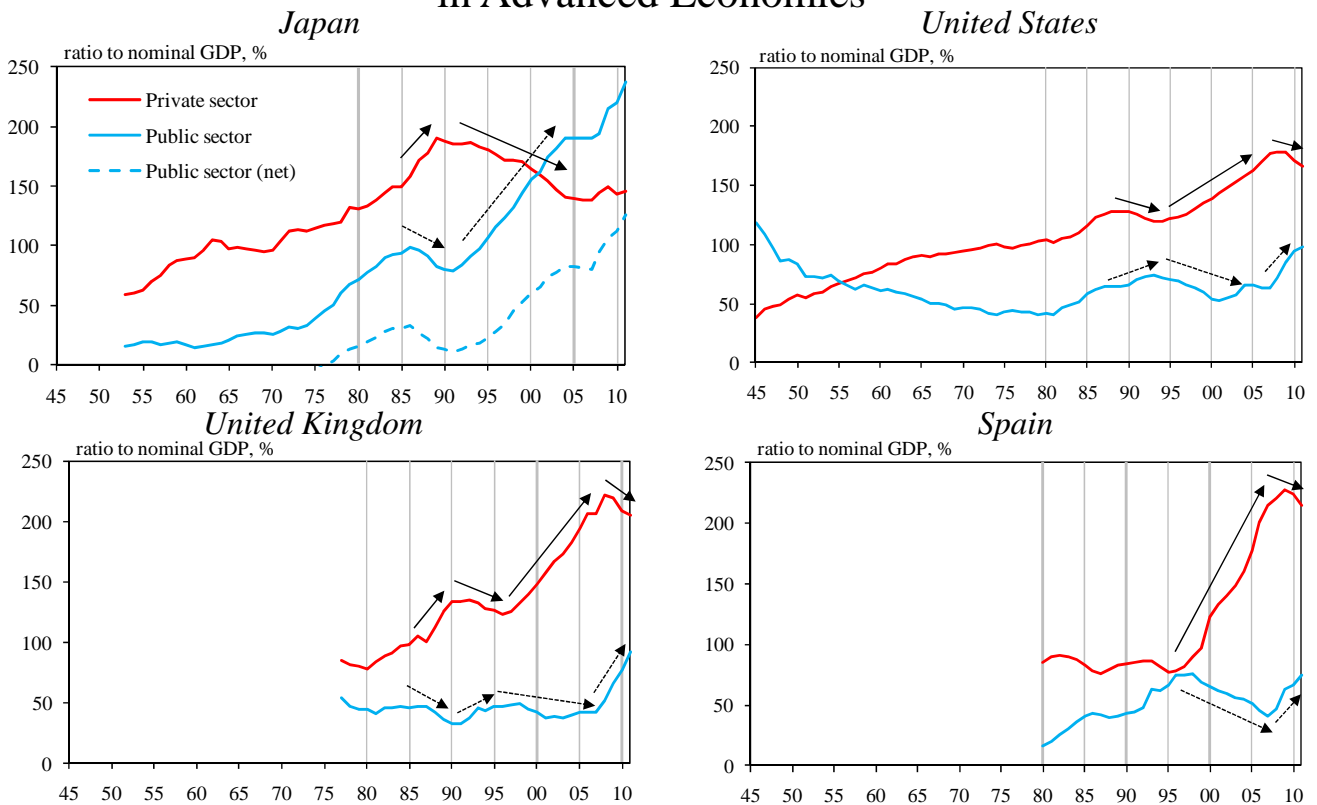


Note: NIEs consist of South Korea, Taiwan, Hong Kong, and Singapore. Figures are calculated using GDP weight based on the purchasing power parity (calculated by IMF).

Source: Consensus Economics Inc., "Consensus Forecasts."

Chart 2

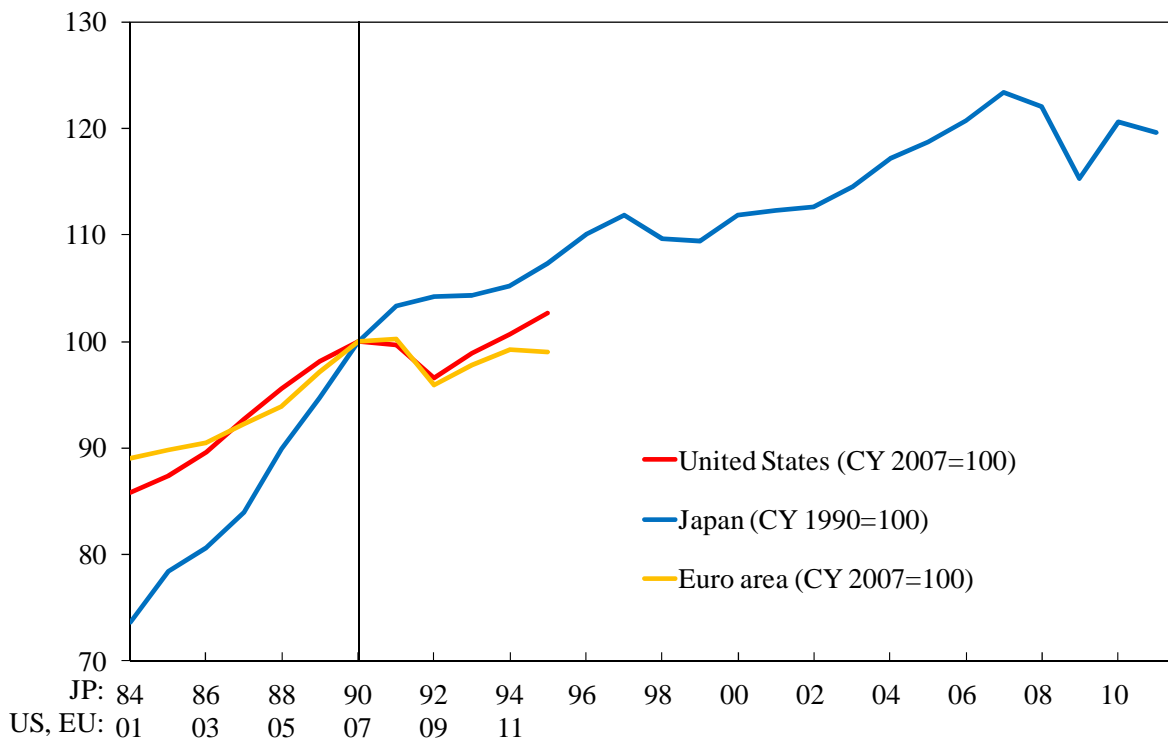
## Private Sector Debt and Public Sector Debt in Advanced Economies



Note: The private sector consists of households and non-financial firms. The public sector is based on the general government, with the exception of Japan, for which the public sector includes public non-financial firms.  
Sources: BEA; FRB; ONS; Eurostat; Bank of Japan, etc.

Chart 3

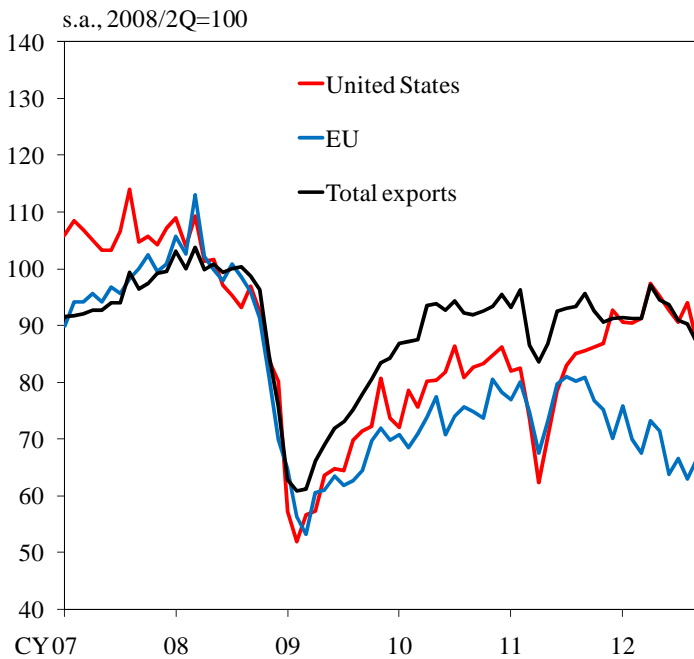
## Real GDP in Advanced Economies after the Bursting of Bubbles



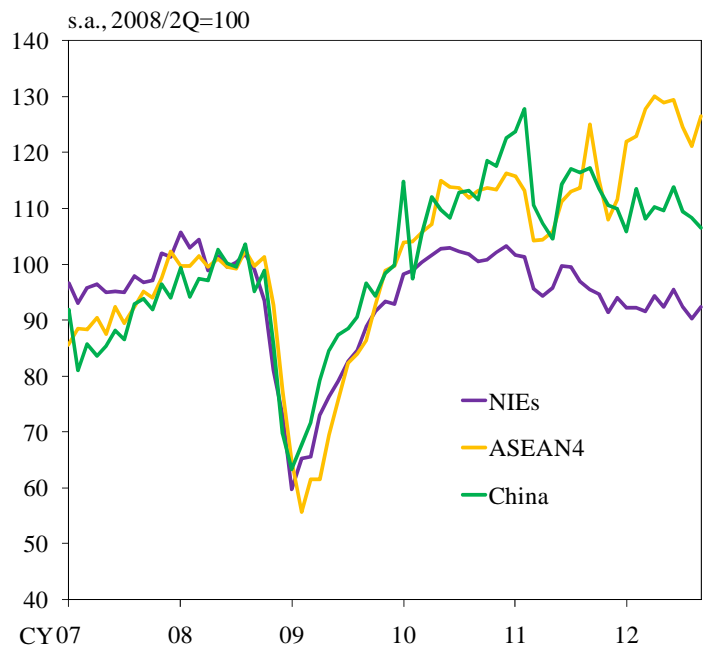
Sources: BEA; Eurostat; Cabinet Office, etc.

## Japan's Real Exports by Destination

### Advanced Economies

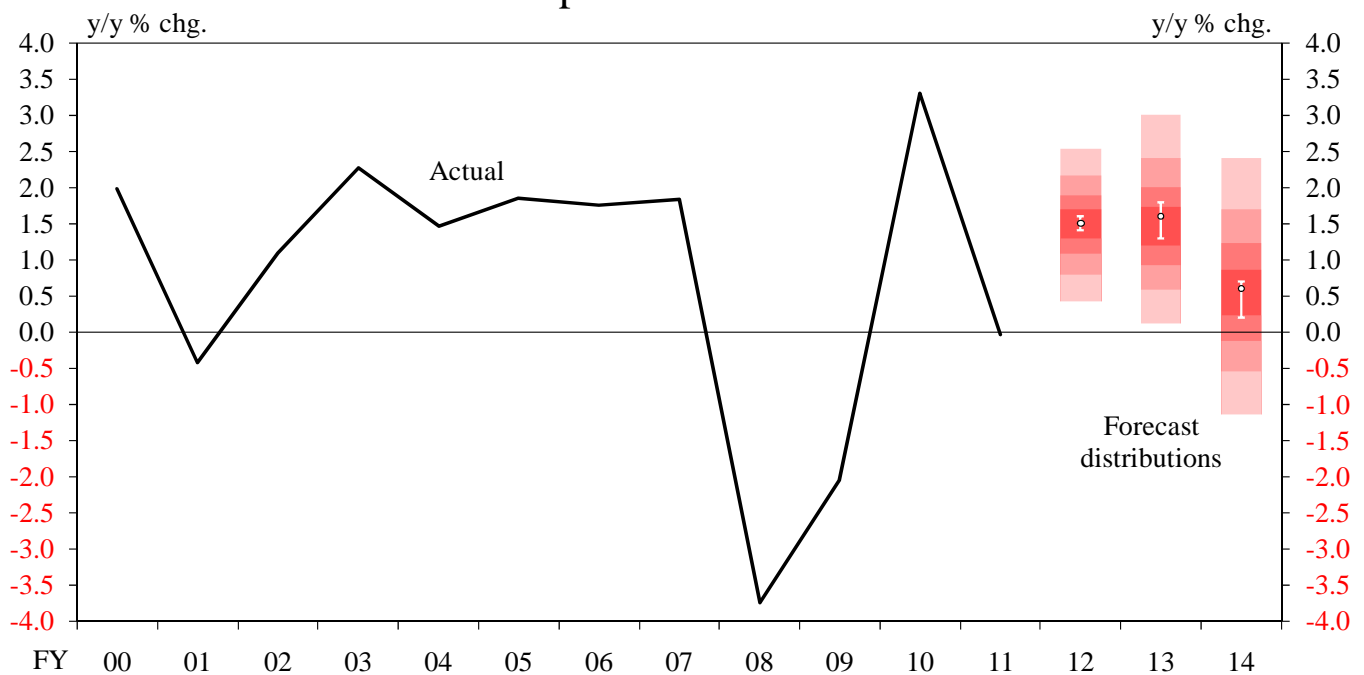


### Emerging Asian Economies



Note: NIEs consist of South Korea, Taiwan, Hong Kong, and Singapore. ASEAN4 refers to Thailand, Indonesia, Malaysia, and the Philippines.  
Sources: Ministry of Finance; Bank of Japan.

## Japan's Real GDP

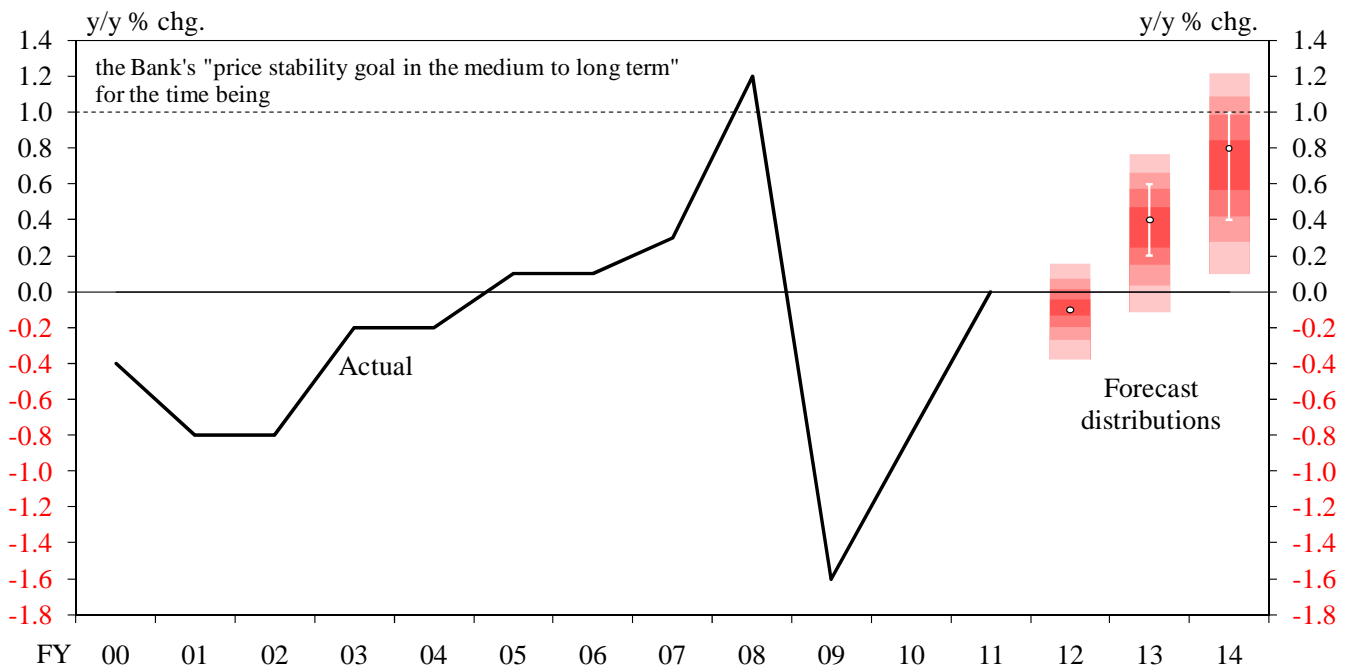


Notes: 1. Based on the aggregated probability distributions (i.e., the Risk Balance Charts) compiled from the distributions of individual Policy Board members, the Forecast Distribution Charts are compiled as follows. First, upper and lower 10 percentiles of the aggregated distributions are trimmed and second, colors indicated below are used to show the respective percentiles of those distributions. For the process of compilation of the Risk Balance Charts, see the box on page 9 of the April 2008 *Outlook for Economic Activity and Prices*.



2. The circles in the bar charts indicate the median of the Policy Board members' forecasts (point estimates). The vertical lines in the bar charts indicate the range of the forecasts of the majority of Policy Board members.

## Japan's CPI (All Items Less Fresh Food)



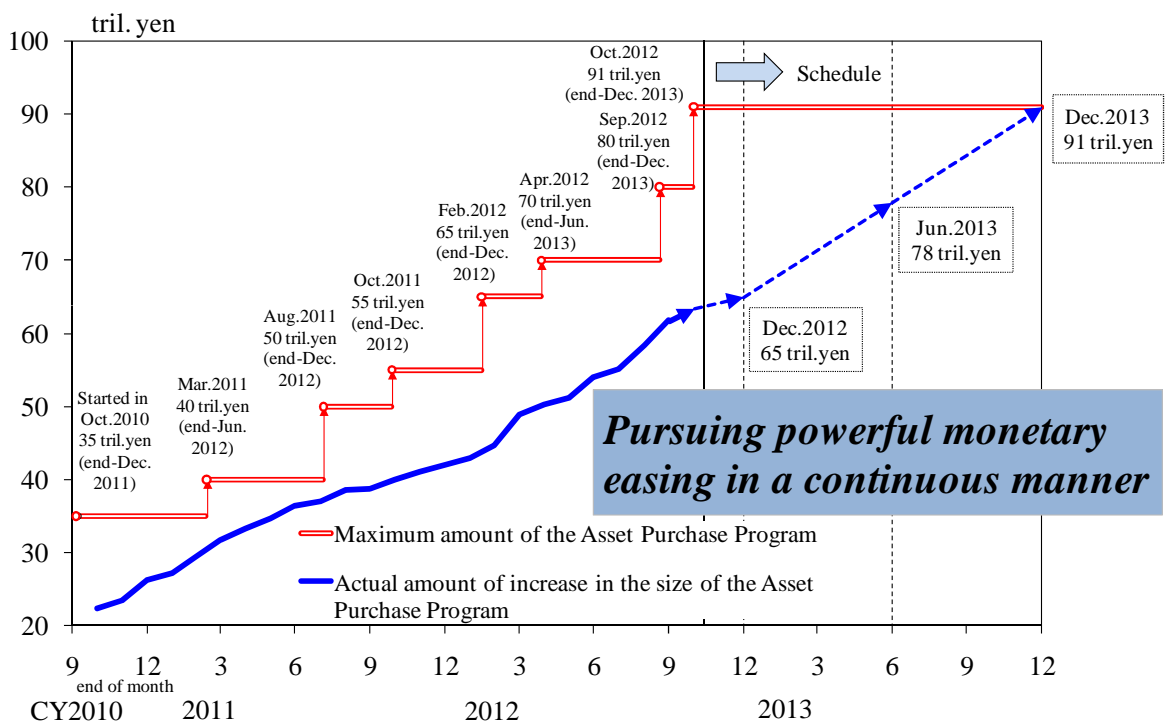
Notes: 1. Based on the aggregated probability distributions (i.e., the Risk Balance Charts) compiled from the distributions of individual Policy Board members, the Forecast Distribution Charts are compiled as follows. First, upper and lower 10 percentiles of the aggregated distributions are trimmed and second, colors indicated below are used to show the respective percentiles of those distributions. For the process of compilation of the Risk Balance Charts, see the box on page 9 of the April 2008 *Outlook for Economic Activity and Prices*.



2. The circles in the bar charts indicate the median of the Policy Board members' forecasts (point estimates). The vertical lines in the bar charts indicate the range of the forecasts of the majority of Policy Board members.  
 3. The forecast for the CPI excludes the direct effects of the scheduled consumption tax hikes.

## Asset Purchase Program

### Maximum Amount and Actual Amount of Increase in the Size of the Program



Note: Dates in parentheses indicate the intended timescale for completing the increase.

## Breakdown of the Asset Purchase Program

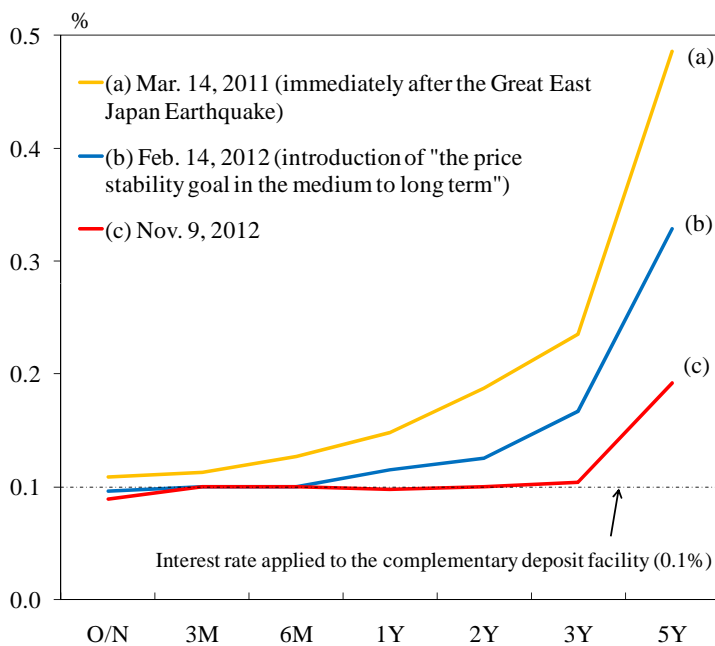
(tril. yen)

	Started in Oct. 2010	Program size before recent decision	Program size after recent decision	Change in amount	Amount outstanding (as of end-Oct. 2012)
(Intended timescale for completing the purchases)	(End-Dec. 2011)	(End-Dec. 2013)	(End-Dec. 2013)	(B) - (A)	
		(A)	(B)	(B) - (A)	
Total size	About 35	About 80	About 91	About +11	63.4
Asset purchases	5.0	55.0	66.0	+11.0	34.4
JGBs	1.5	34.0	39.0	+5.0	20.9
T-Bills	2.0	14.5	19.5	+5.0	7.5
CP	0.5	2.1	2.2	+0.1	1.5
Corporate bonds	0.5	2.9	3.2	+0.3	2.9
ETFs	0.45	1.6	2.1	+0.5	1.4
J-REITs	0.05	0.12	0.13	+0.01	0.1
Fixed-rate operation	30.0	25.0	25.0	—	29.0

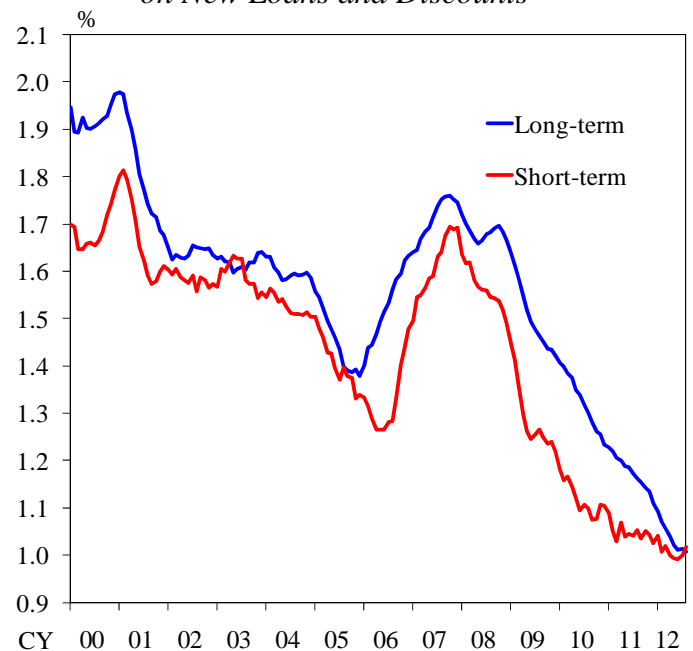
Note: In addition to purchases under the Program, the Bank of Japan regularly purchases JGBs at the pace of 21.6 trillion yen per year.

## Interest Rates

Yield Curves

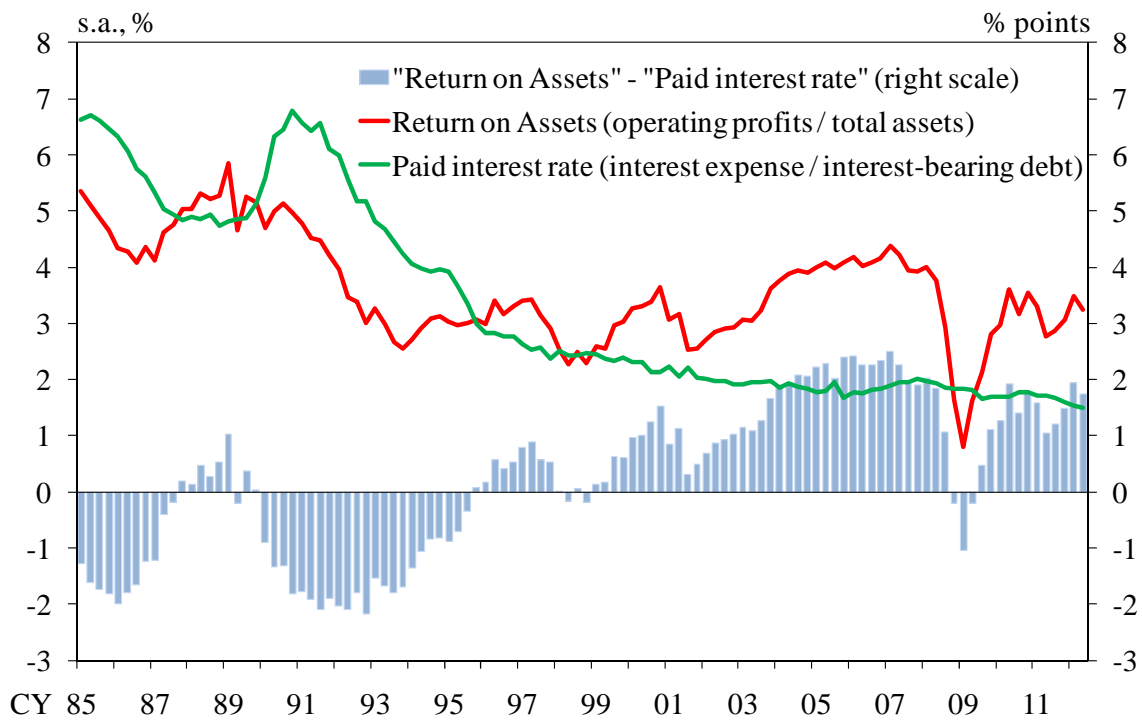


Average Contracted Interest Rates on New Loans and Discounts



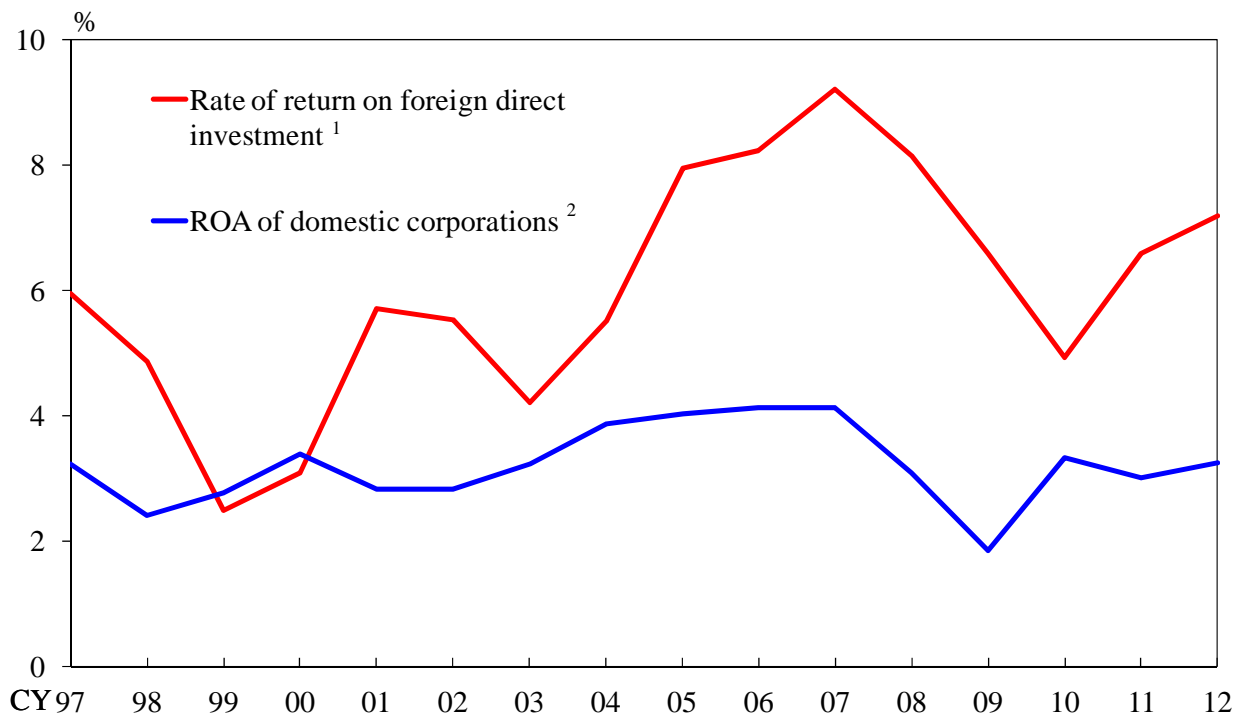
Note: Average contracted interest rates are the six-month backward moving averages on new loans and discounts.  
Sources: Bank of Japan; Bloomberg.

### ROA and Paid Interest Rate



Sources: Ministry of Finance; Bank of Japan.

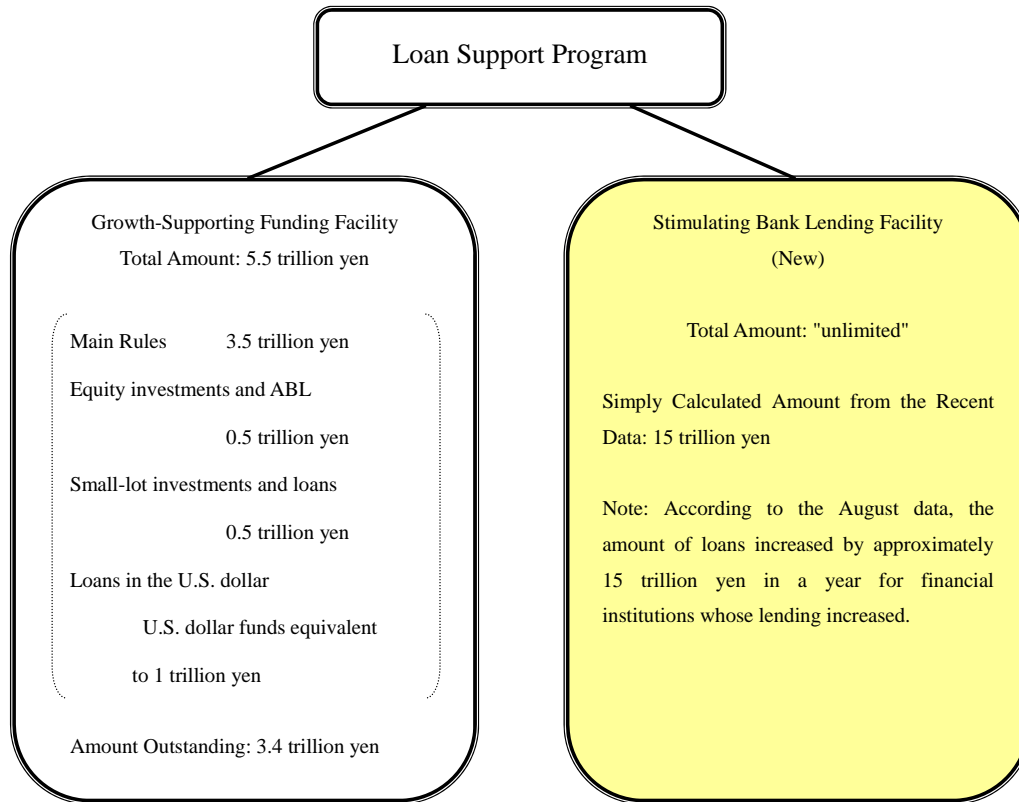
### Rates of Return on Investment by Domestic Corporations at Home and Abroad



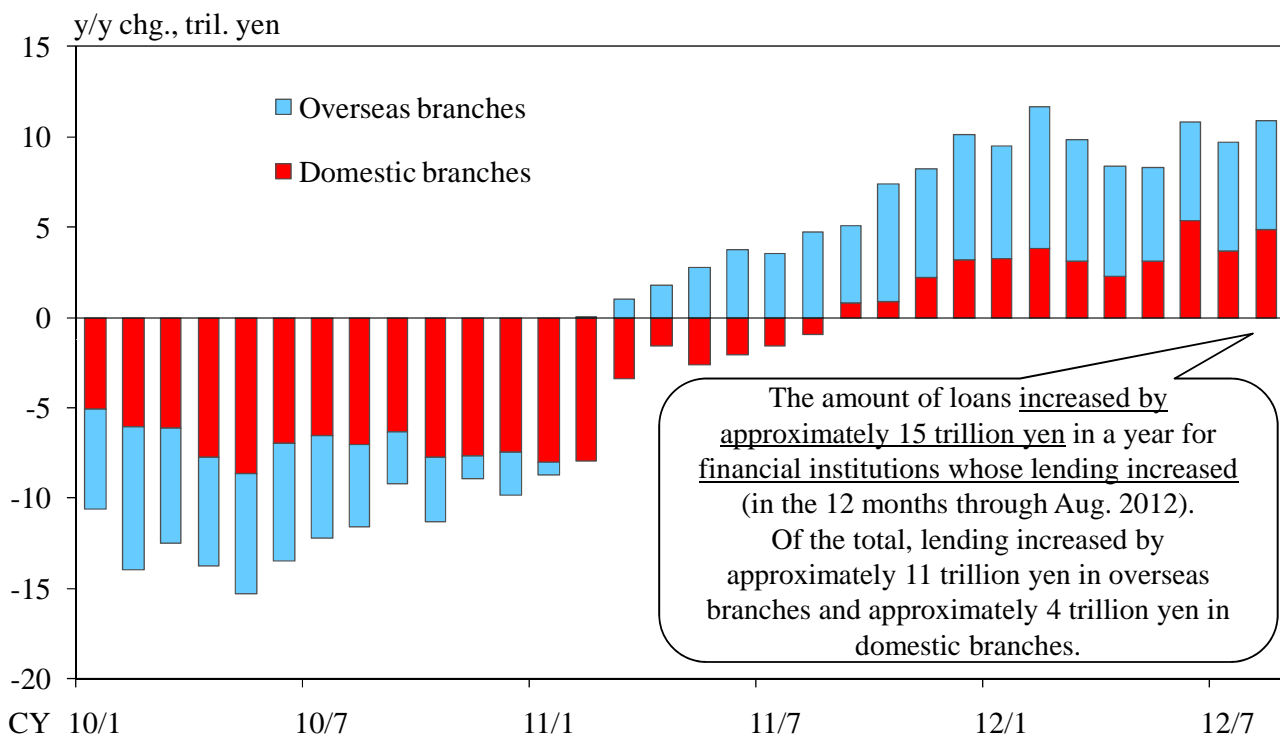
Notes: 1. Figures are calculated as direct investment income (credit, based on the "Balance of Payments") divided by direct investment assets.  
 2. Figures are calculated as operating profits divided by total assets, based on all-size enterprises and all industries, and exclude finance and insurance.

Sources: Ministry of Finance; Bank of Japan.

## Establishment of the "Stimulating Bank Lending Facility"



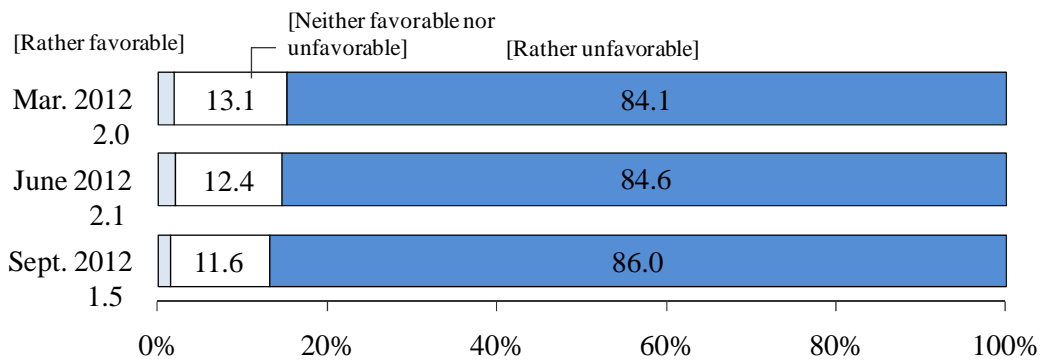
## Increase in Lending by Financial Institutions



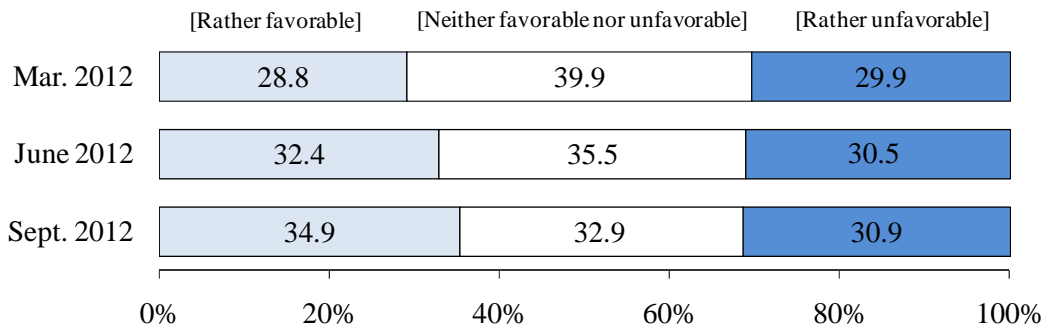
Note: Financial institutions refer to domestic banks and *shinkin* banks that are counterparties of the Bank.  
Source: Bank of Japan.

# Comments on Prices in the *Opinion Survey on the General Public's Views and Behavior*

## Comments on the Price Rise

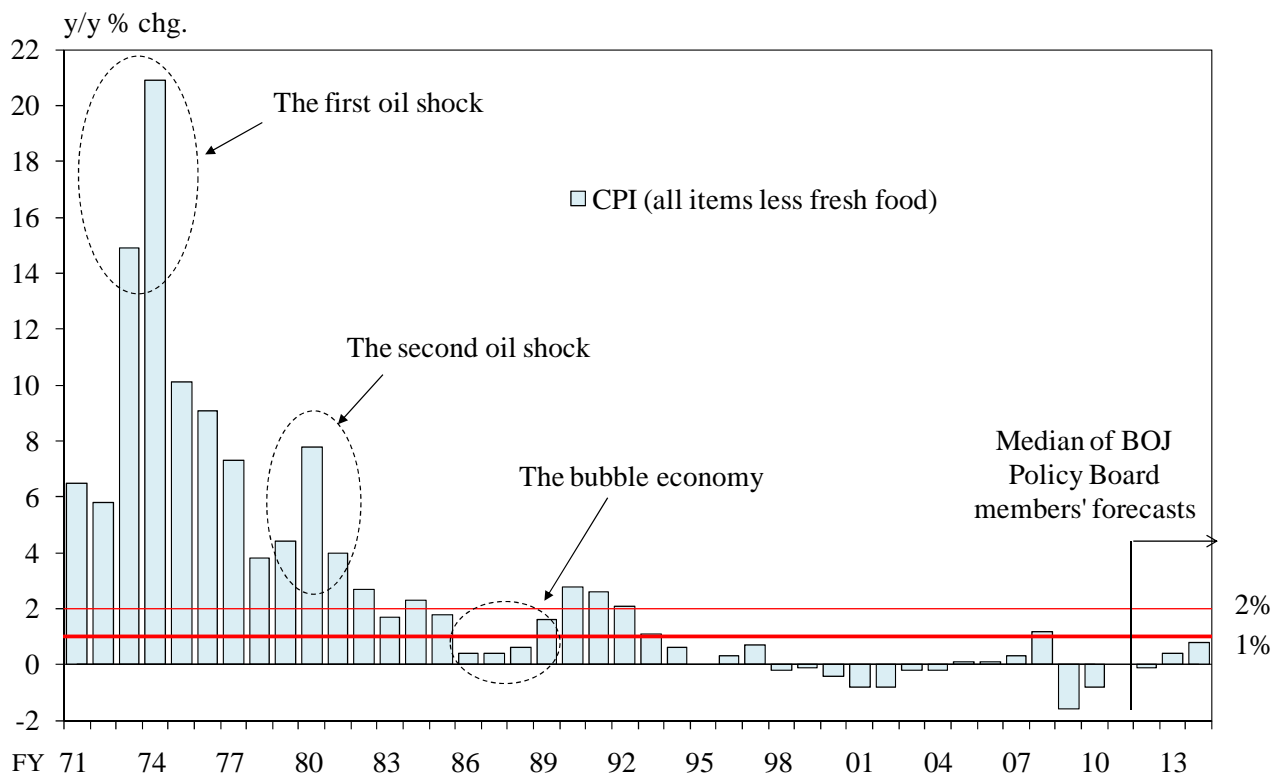


## Comments on the Price Decline



Note: The Bank conducts its quarterly *Opinion Survey on the General Public's Views and Behavior* in order to grasp how the public's current impression of household circumstances and changes in financial and economic conditions affect their perceptions and actions.  
Source: Bank of Japan.

# Long-term Developments in the CPI



Sources: Ministry of Internal Affairs and Communications; Bank of Japan.

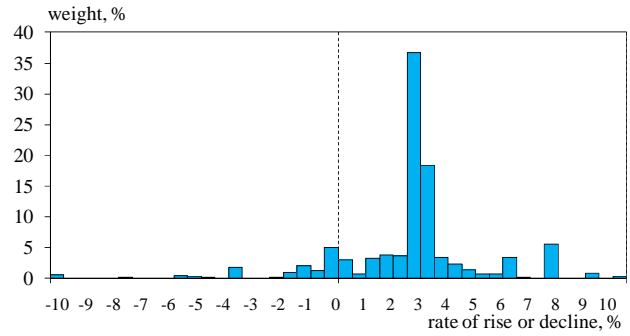
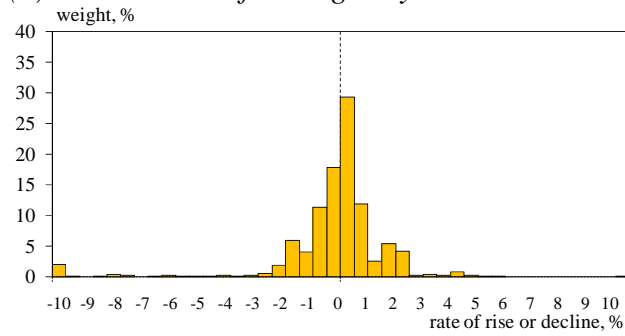


## Distribution of Changes in the CPI by Item

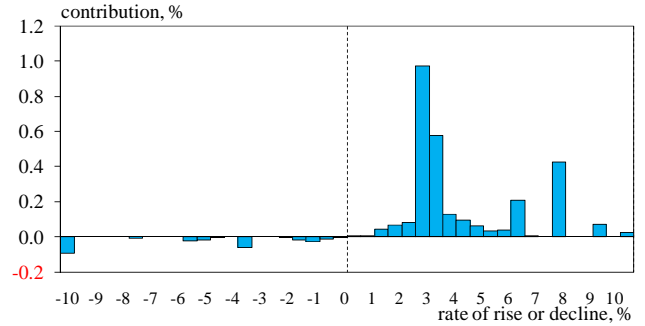
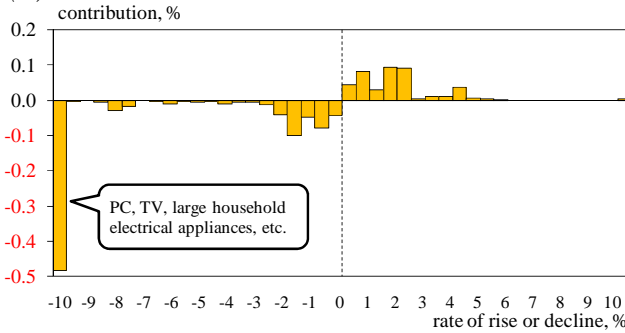
Japan

United States

(1) Distribution of Changes by Item<sup>1</sup>



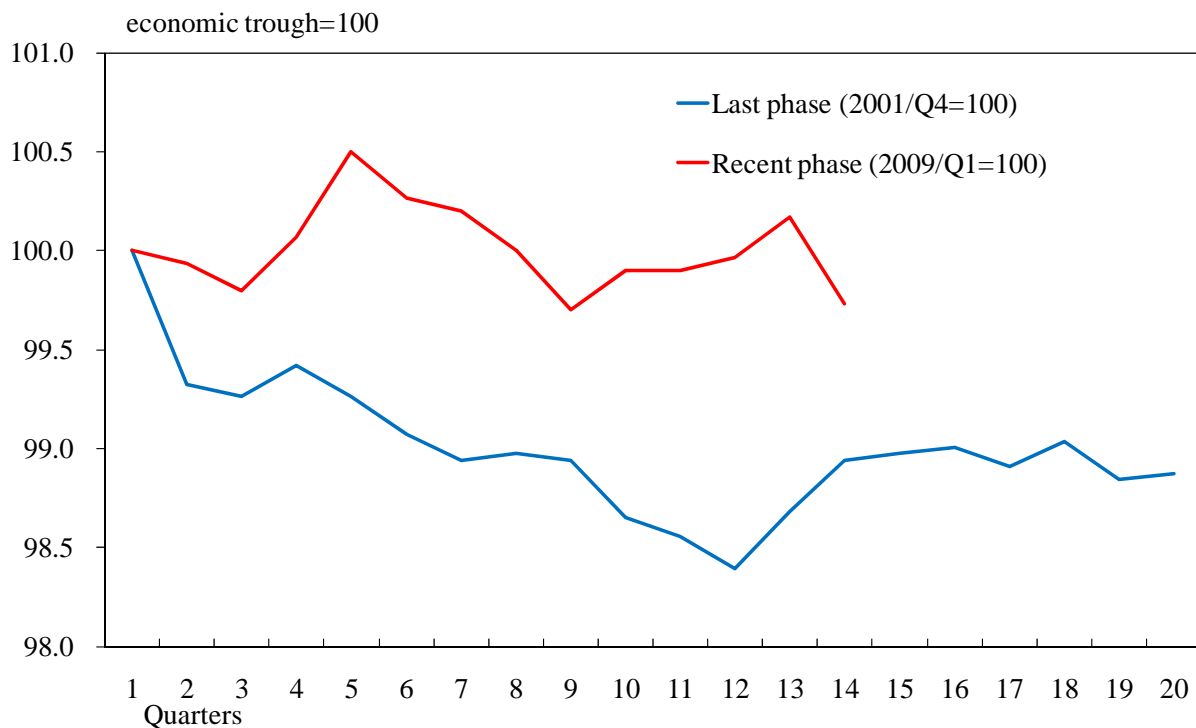
(2) Contribution to CPI Fluctuation<sup>2</sup>



Notes: 1. Figures are the annualized rates of cumulative changes from 1997 to 2011 for items comprising the CPI (all items, 2010 base for Japan and as of 2011 for the United States). The weights used in the calculation are 2010 base for Japan and as of December 2011 for the United States.  
2. Figures for Japan are calculated by "changes in (1)" x "weights (the 2010 base)" and those for the United States by "changes in (1)" x "weights (as of December 2011)."

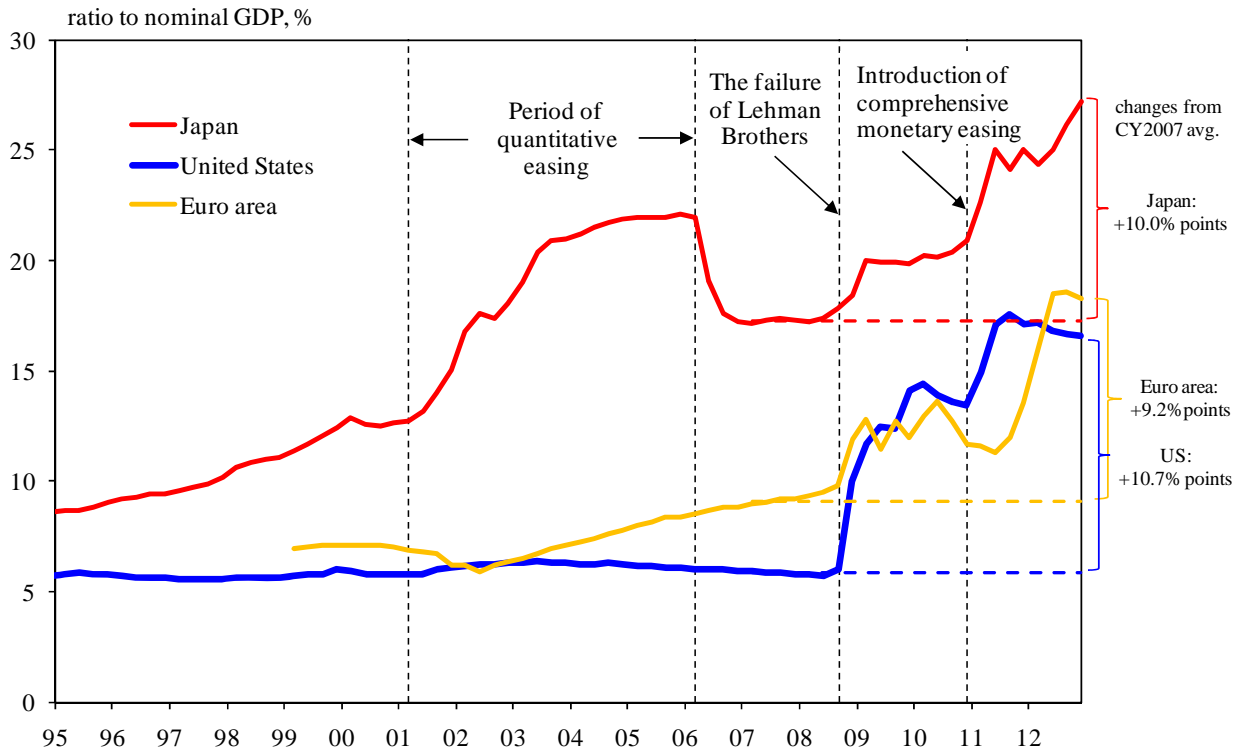
Source: Ministry of Internal Affairs and Communications.

## Wage Developments in Recovery Phases



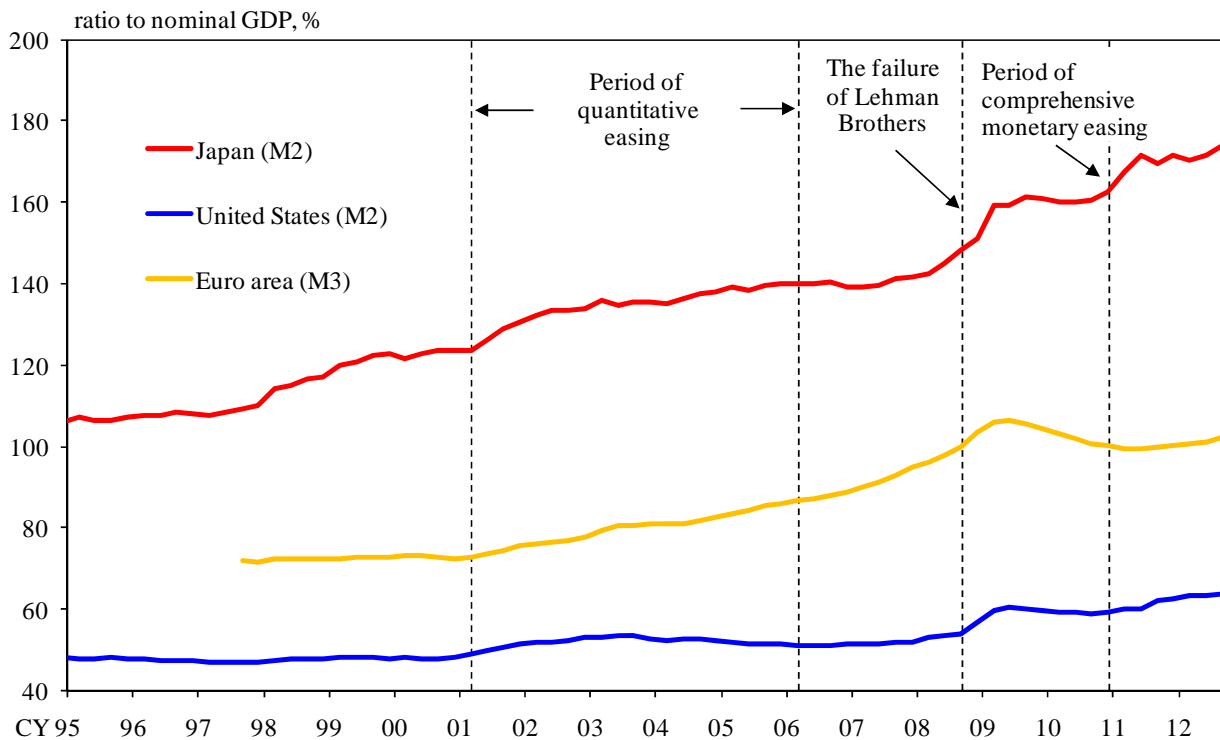
Note: Figures are total cash earnings for establishments with at least five employees.  
Q1 = March-May, Q2 = June-August, Q3 = September-November, Q4 = December-February.  
Source: Ministry of Health, Labour and Welfare.

### Monetary Base in Major Countries



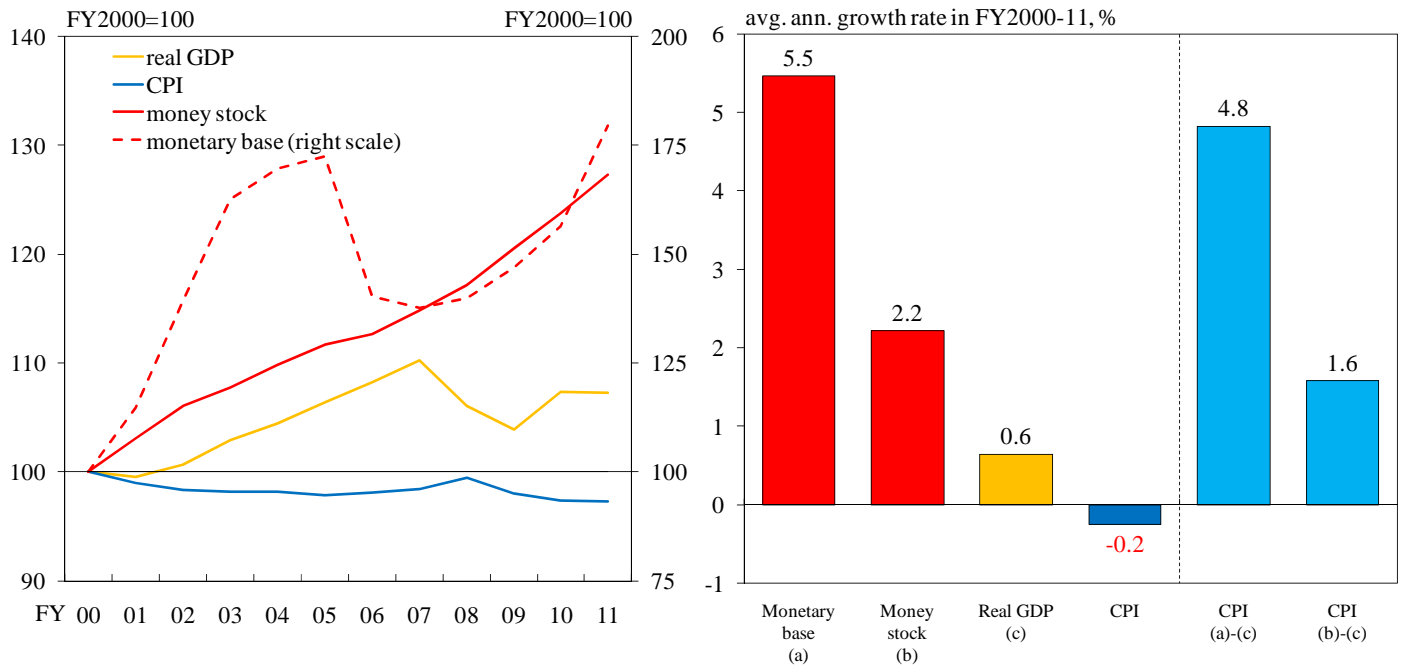
Note: 1. Monetary base is the sum of banknotes in circulation, coins in circulation, and current account deposits at a central bank.  
 2. Figures for the euro area for 2012/Q3 and Q4 are calculated using its nominal GDP figures for 2012/Q2. Figures for Japan and the United States for 2012/Q4 are calculated using their nominal GDP figure for 2012/Q3.  
 Sources: Cabinet Office; Bank of Japan; FRB; ECB; Eurostat.

### Monetary Stock in Major Countries



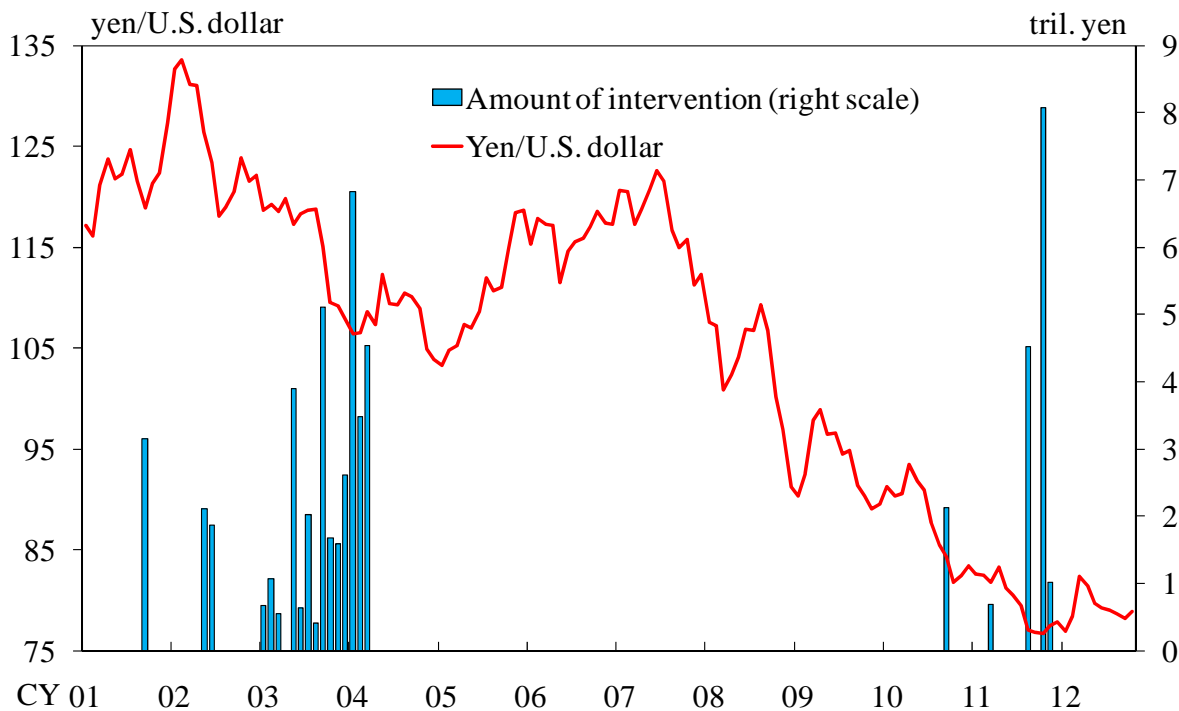
Note: Figures for the euro area for 2012/Q3 and Q4 are calculated using its nominal GDP figures for 2012/Q2. Figures for Japan and the United States for 2012/Q4 are calculated using their nominal GDP figure for 2012/Q3.  
 Sources: Cabinet Office; Bank of Japan; FRB; ECB; Eurostat.

## Money, and Economic Activity and Prices



Note: Figures for the CPI ((a)-(c), (b)-(c)) represent the rates of change in the CPI on the assumption that changes in the monetary base and money stock are reflected in prices in accordance with the "quantity theory of money."  
Sources: Cabinet Office; Ministry of Internal Affairs and Communications; Bank of Japan.

## Exchange Rate and Exchange Intervention Results



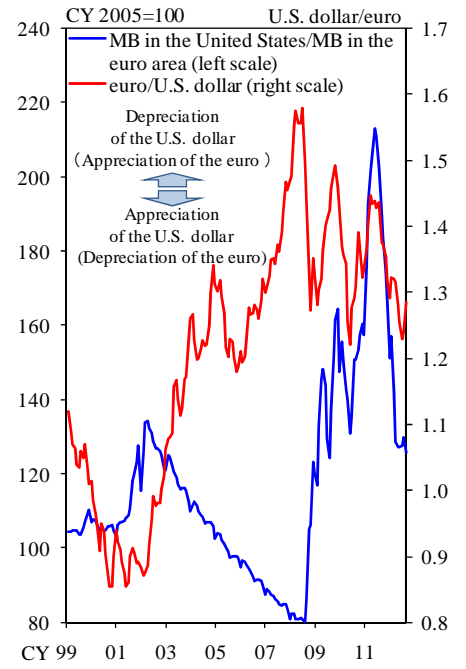
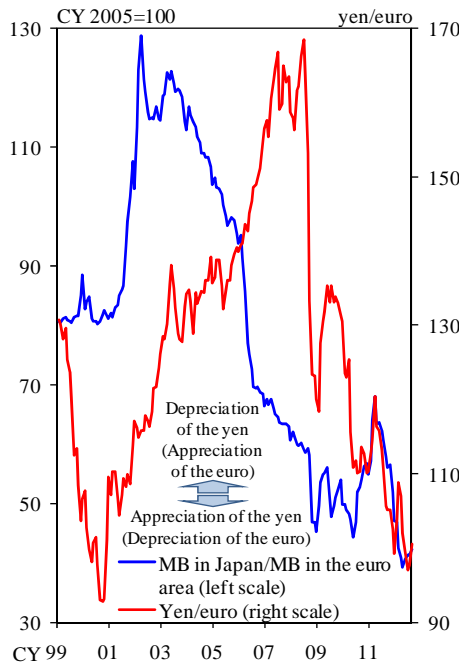
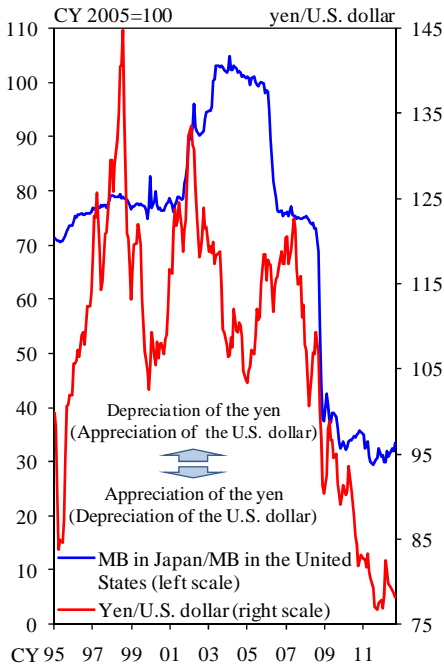
Note: Yen/U.S. dollar rates are monthly averages, while the amount of foreign exchange intervention is the monthly total.  
Sources: Ministry of Finance; Bank of Japan.

## Monetary Base and Exchange Rates

*Japan and the United States*

*Japan and the Euro Area*

*United States and the Euro Area*



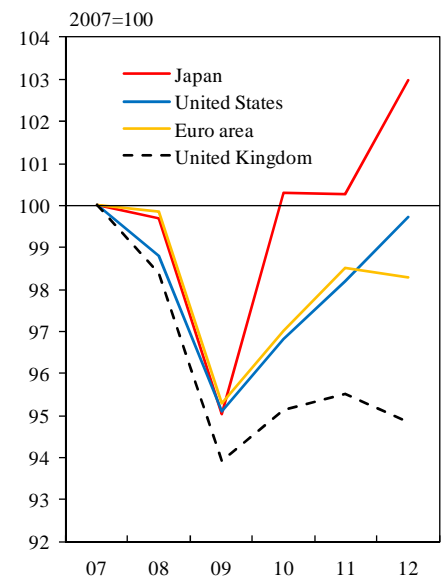
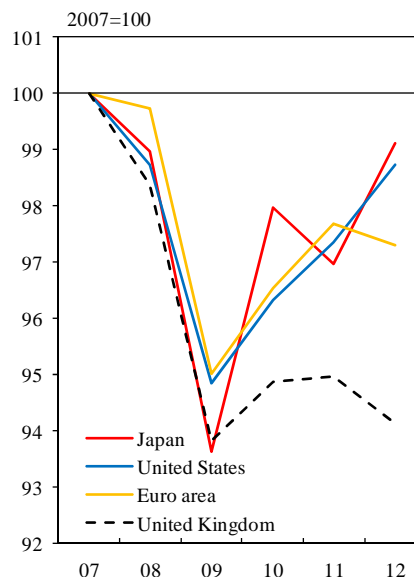
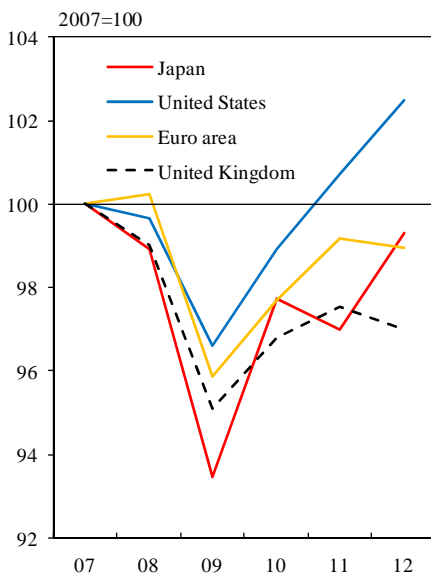
Sources: Bank of Japan; Federal Reserve Board; European Central Bank; Bloomberg.

## GDP of Advanced Economies

*Real GDP*

*Real GDP per Capita*

*Real GDP per Working-Age Person*

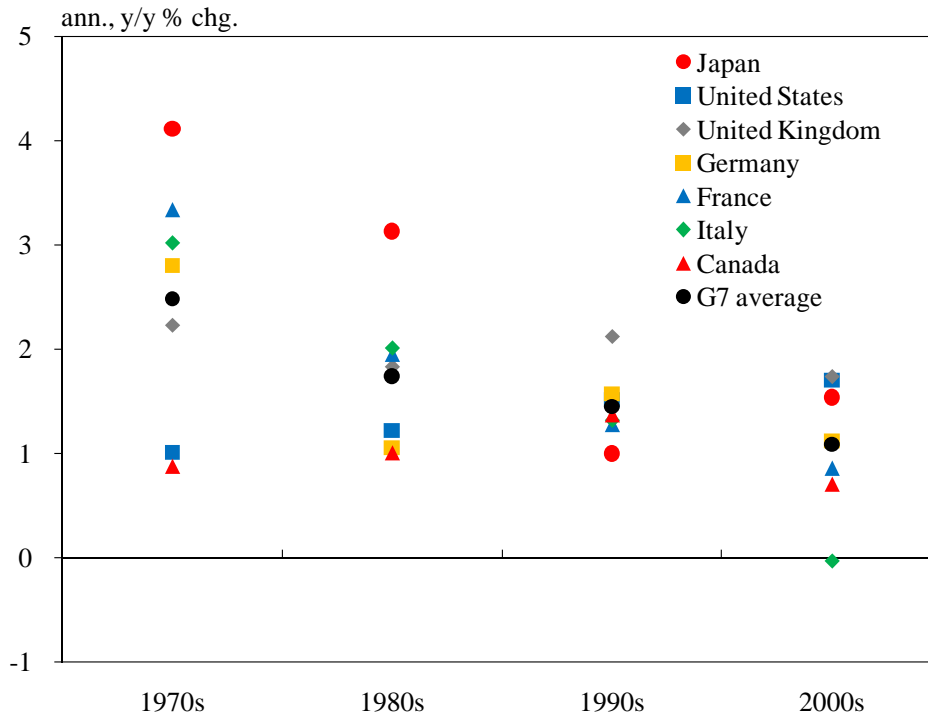


Notes: 1. A working-age person refers to those between 15 and 64 years old.

2. Figures for 2012 are January-June averages. Figures for the population for 2012 are calculated using the growth rate for 2011.

Sources: Cabinet Office, "National Accounts"; World Bank; BEA; Eurostat; ONS.

## Developments in Labor Productivity Growth Rate (Real GDP per Worker)



Note: To eliminate the effects of the financial crisis after the failure of Lehman Brothers, figures for the 2000s are the averages for 2000 through 2008.  
 Figures for the 1970s are the averages for 1971 through 1979.

Sources: OECD; Cabinet Office; Ministry of Internal Affairs and Communications.