## Overcoming Deflation and After

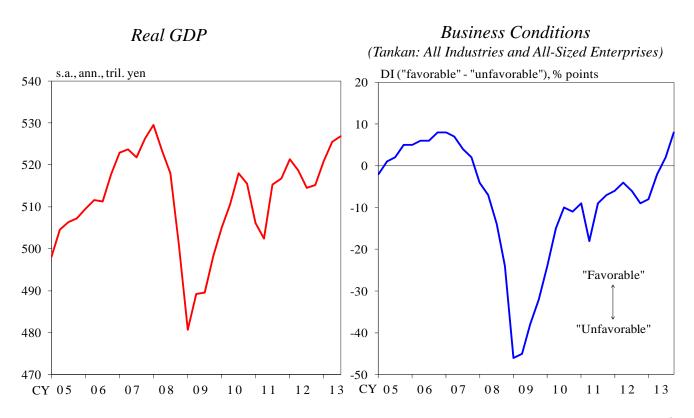
Speech at the Meeting of Councillors of Nippon Keidanren (Japan Business Federation) in Tokyo

December 25, 2013

# Haruhiko Kuroda Governor of the Bank of Japan

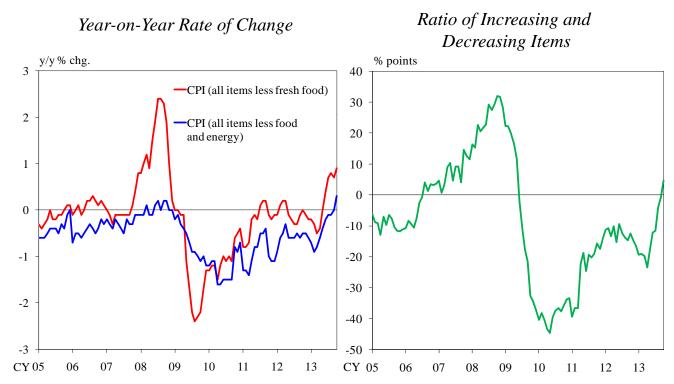
Chart 1

### Real Economy



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#### **Consumer Price**



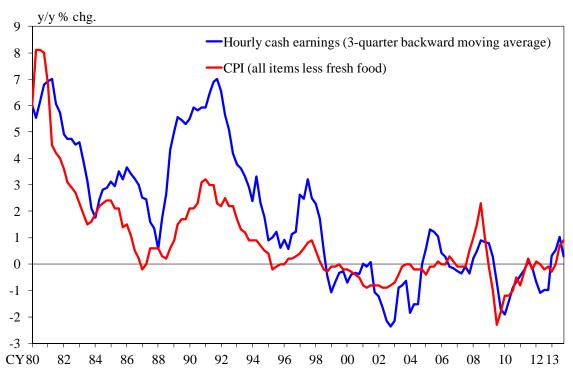
Note: The chart on the right indicates the difference between the ratio of items whose year-on-year rates of price change increased and that of items whose year-on-year rates of price change decreased. All items less fresh food.

Source: Ministry of Internal Affairs and Communications.

Chart 3

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## Consumer Price and Wages

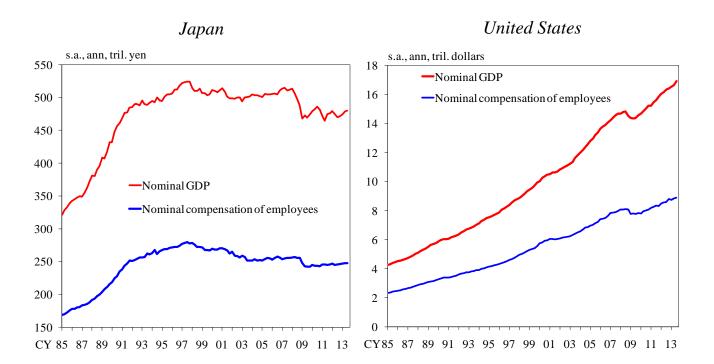


Notes 1. Figures for the CPI are adjusted to exclude the effect of changes in the consumption tax rate.

- 2. Figures for hourly cash earnings up through 1990/Q4 are those for establishments with 30 or more employees.
- 3. Figures for 2013/Q4 are those of October.

Sources: Ministry of Internal Affairs and Communications; Ministry of Health, Labour and Welfare.

### GDP and Employee Income (Nominal)

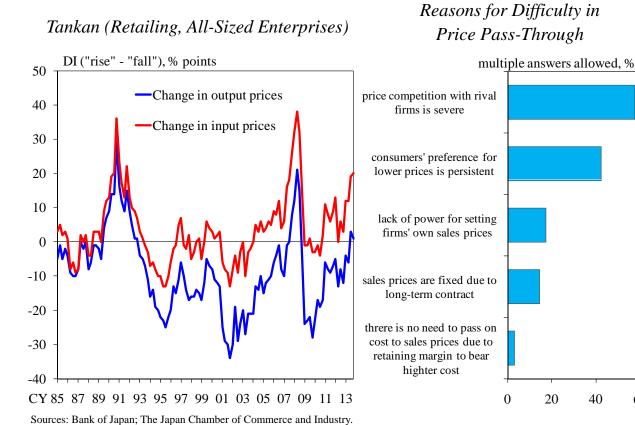


Sources: Cabinet Office; BEA.

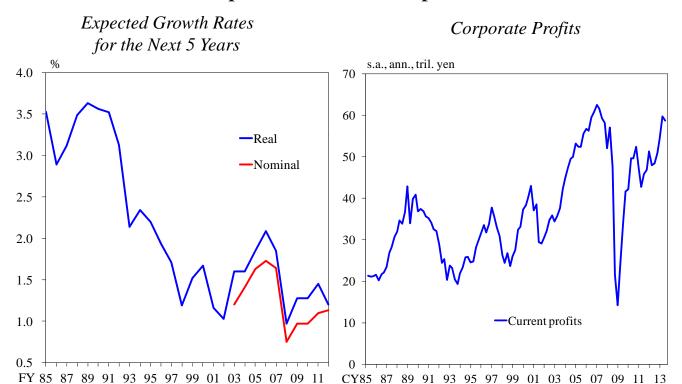
#### Chart 5

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## **Pricing Power of Firms**



## Growth Expectations and Corporate Profits



Notes 1. Expected growth rates are taken from "Annual Survey of Corporate Behavior."

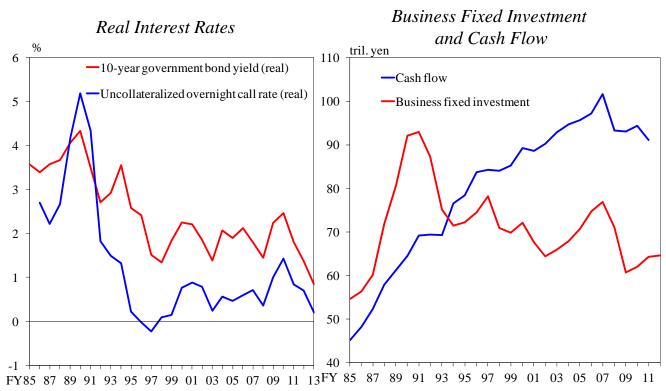
Corporate profits are taken from the "Financial Statements Statistics of Corporations by Industry, Quarterly." Figures are based on all enterprises except finance and insurance.

Sources: Cabinet Office; Ministry of Finance.

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Chart 7

#### Real Interest Rates and Business Fixed Investment



Notes: 1. Figures for real interest rates are calculated by subtracting the year-on-year rate of change in the CPI (less food and energy, adjusted to exclude the effect of changes in the consumption tax rate) from each nominal yield.

2. Business fixed investment and cash flow are taken from the "National Accounts."

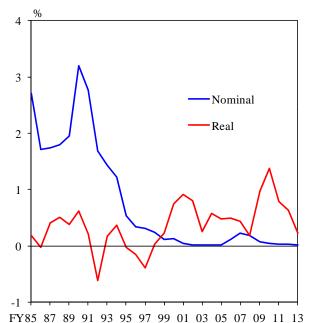
Cash flow = consumption of fixed capital + (operating surplus + net property income) / 2

Figures up through fiscal 1993 are on the 2000 base.

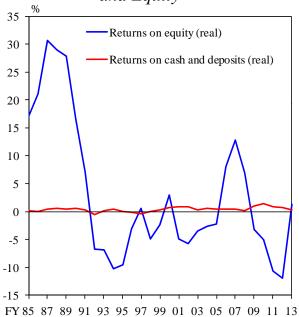
Sources: Bloomberg; Ministry of Internal Affairs and Communications; Cabinet Office.

## Real Returns on Cash and Deposits

#### Returns on Cash and Deposits



## Returns on Cash and Deposits and Equity



Notes: 1. Returns on cash and deposits are weighted average rates of interest rates on deposits (that on currency is regarded as zero) and amounts outstanding of cash and deposits of nonfinancial corporations in the "Flow of Funds."

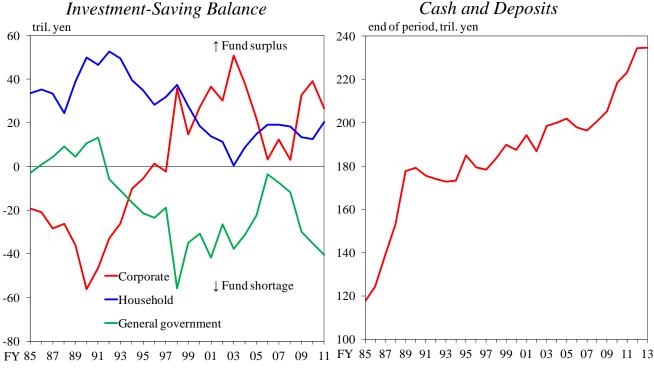
- 2. Figures for real returns are calculated by subtracting the year-on-year rate of change in the CPI (less food and energy, adjusted to exclude the effect of changes in the consumption tax rate) from each nominal return.
- 3. Figures for returns on equity are annual returns on equity listed on the first section of the Tokyo Stock Exchange, over a 5-year investment period. They are calculated by using TOPIX (Total Return Index) after 1994 and JSRI estimates up through 1993.

Sources: Bank of Japan; Japan Securities Research Institute (JSRI); Tokyo Stock Exchange; etc.

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#### Chart 9

## Corporate Saving

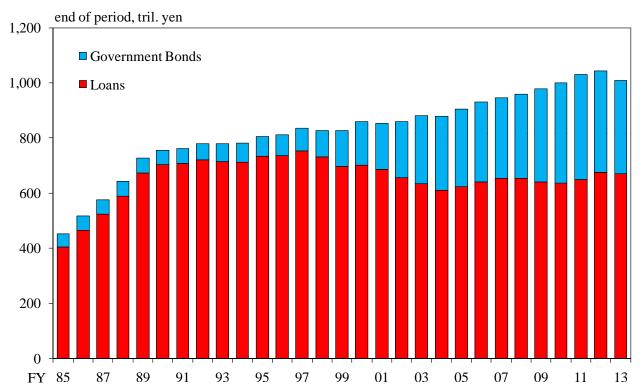


Notes: 1. The chart on the right indicates amounts outstanding of cash and deposits held by nonfinancial corporations in the "Flow of Funds."

2. Figures for fiscal 2013 are those of September.

Sources: Cabinet Office; Bank of Japan.

#### Asset Portfolio of Banks



Notes: 1. Banks include Japan Post Bank.

- 2. Government bonds are sum of "central government securities and FILP bonds" and "treasury discount bills."
- 3. Figures for fiscal 2013 are those of September.

Source: Bank of Japan.

Chart 11

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## Quantitative and Qualitative Monetary Easing (QQE) *Introduced on April 4, 2013*

#### Strong and Clear Commitment

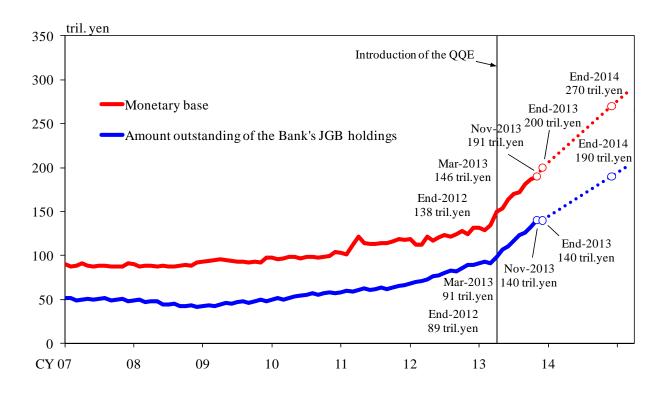
Achieve the price stability target of 2%, at the earliest possible time, with a time horizon of about 2 years.

# New Phase of Monetary Easing Both in Terms of Quantity and Quality to Underpin the Commitment

- Monetary base: Annual increase of about 60-70 tril. yen ( $\underline{x2}$  in 2 years).
- Amount outstanding of the Bank's JGB holdings: Annual increase of about 50 tril. yen (more than x2 in 2 years).
- Average remaining maturity of the Bank's JGB purchases: Extended to about 7 years (more than x2).
- Amount outstanding of ETF holdings: Annual increase of about 1 tril. yen (more than x2 in 2 years).

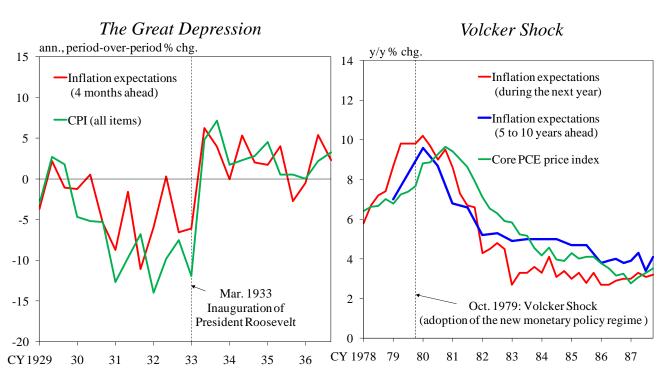
Chart 13

## Expansion in the Monetary Base and JGB Holdings



Source: Bank of Japan.

## Inflation Expectations in United States

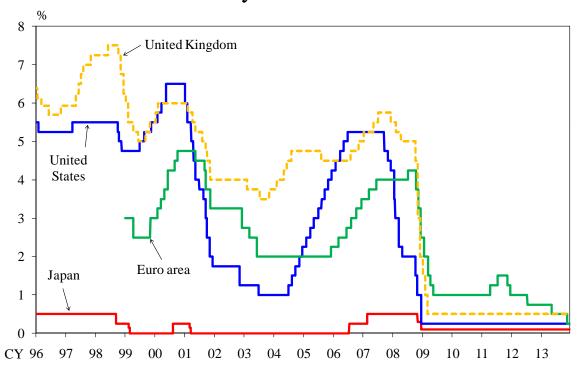


Notes: 1. Figures for inflation expectations are based on Hamilton (1992) in the left chart, and on "Survey of Consumers" conducted by the Michigan University in the right chart.

2. Missing values are linearly interpolated.

Sources: Hamilton, J., "Was the Deflation during the Great Depression Anticipated? Evidence from the Commodity Futures Market." American Economic Review 82 (1), 1992; BLS; Thomson Reuters and Michigan University.

### Money Market Rates



Notes: 1. In the United States, the target range for the federal funds rate has been 0 to 0.25 percent since December 16, 2008.

2. In Japan, the money market rate was zero percent during the period of quantitative easing (March 19, 2001-March 8, 2006), and 0.1% (the interest rate applied to the complementary deposit facility) during the period of comprehensive

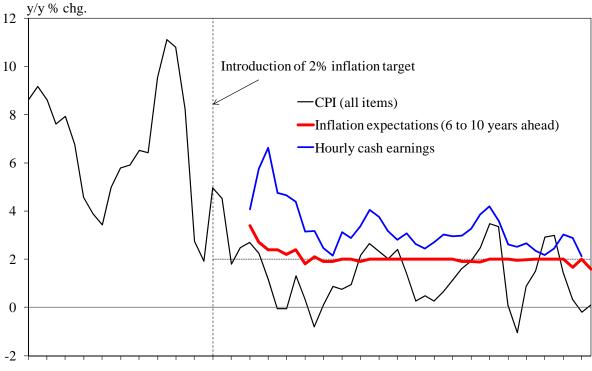
Sources: Bank of Japan; Federal Reserve; European Central Bank; Bank of England.

monetary easing (October 5, 2010-April 3, 2013) and QQE (since April 4, 2013).

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#### Chart 15

## Inflation Expectations and Wages in Sweden



CY 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13

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