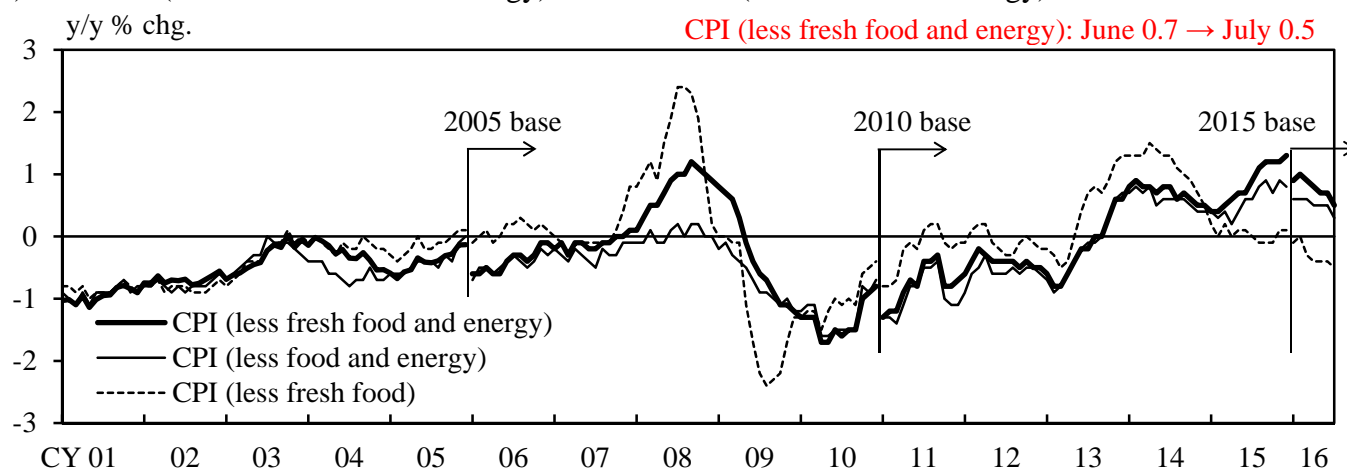


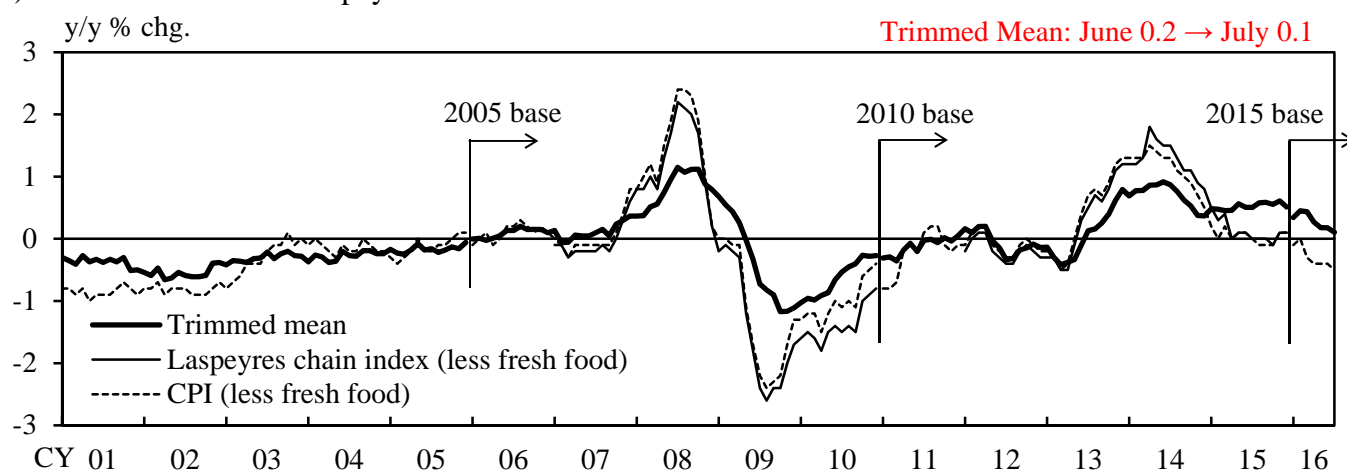
## Measures of Underlying Inflation

### (1) All Items (Less Fresh Food and Energy) and All Items (Less Food and Energy)



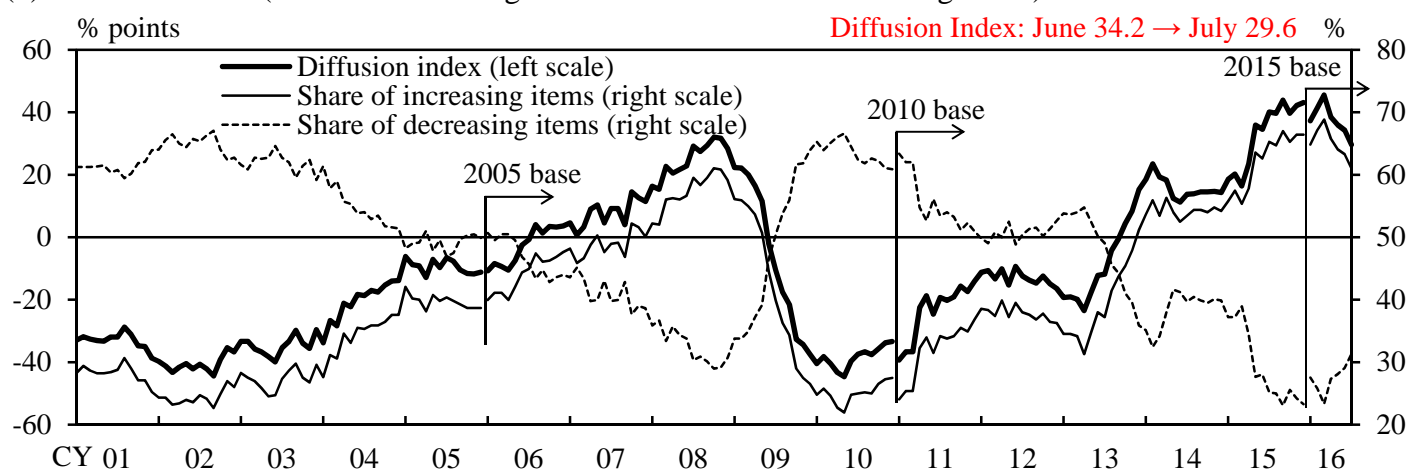
Notes: 1. Figures for the CPI (less fresh food and energy) are calculated by the Research and Statistics Department, Bank of Japan.  
 2. Figures for the CPI are adjusted to exclude the estimated effects of changes in the consumption tax rate. The same applies to the charts below.

### (2) Trimmed Mean and Laspeyres Chain Index



Note: Figures for the trimmed mean are the weighted averages of the year-on-year price changes in all individual items making up the CPI. Items are arranged in ascending order of their year-on-year rate of price change and those falling into the upper and lower 10 percent tails by weight are trimmed.

### (3) Diffusion Index (Share of Increasing Items minus Share of Decreasing Items)

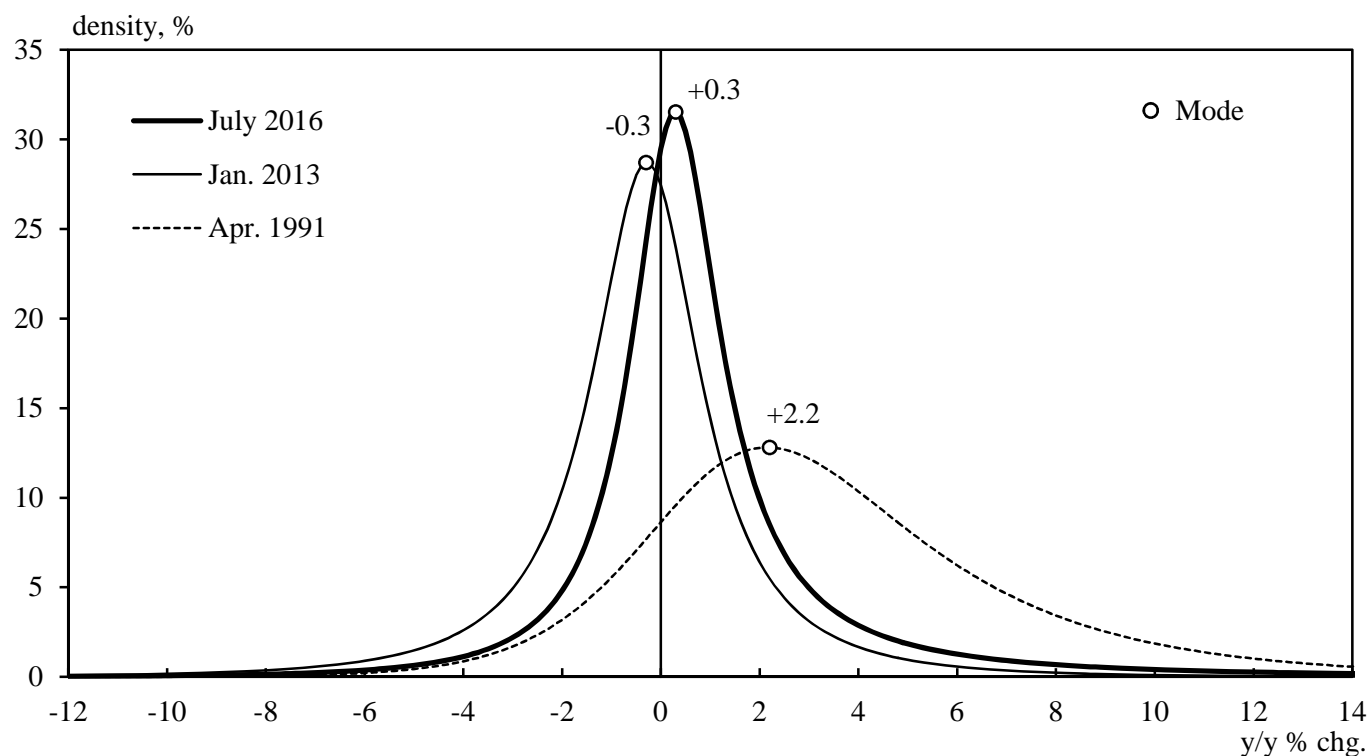


Note: The share of increasing/decreasing items is the share of items in the CPI (less fresh food) whose price indices increased/decreased from a year earlier.

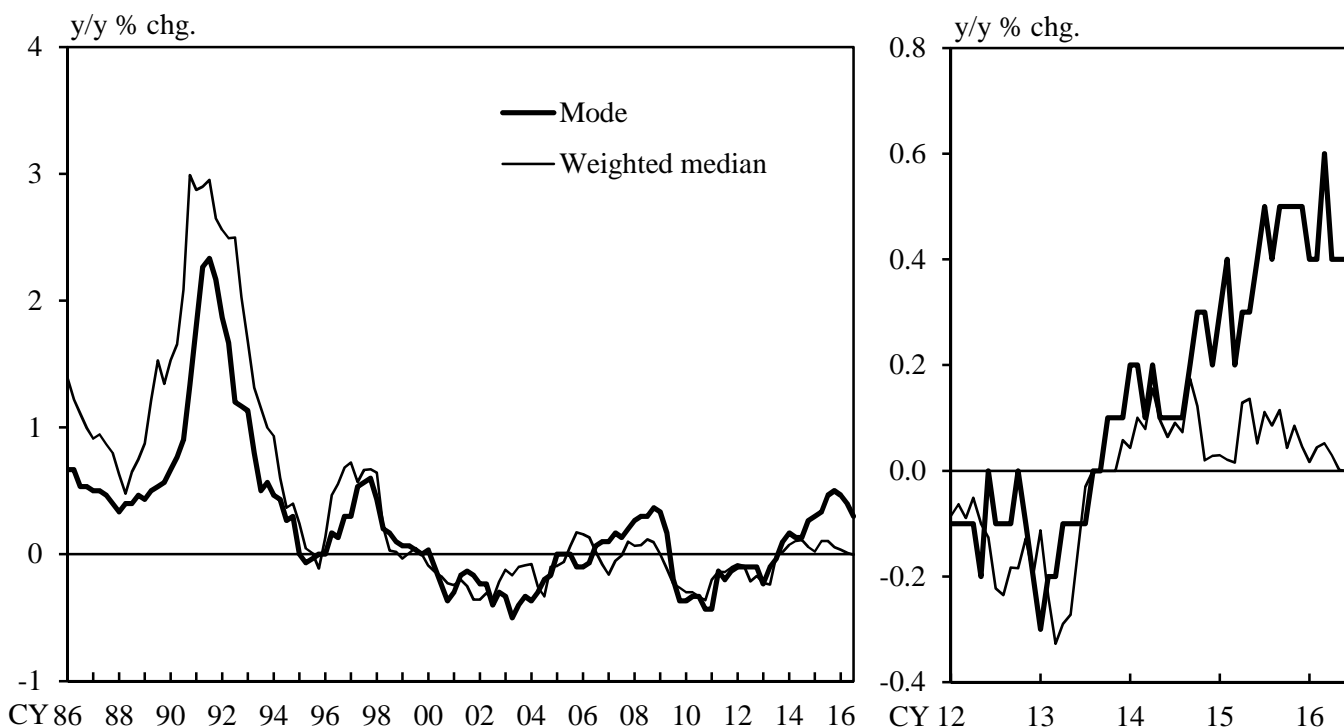
Source: Ministry of Internal Affairs and Communications.

## Distributions of Price Changes and Measures of Underlying Inflation

### (1) Distributions of Price Changes in Individual CPI Items



### (2) Various Measures of Core Inflation



Notes: 1. The distributions of the year-on-year rate of change in individual items of the CPI (less fresh food) are fitted to the normal inverse Gaussian distribution.

2. The weighted median is calculated using the year-on-year price changes and weights of individual CPI items in each base year. For the period before 2005, the year-on-year price changes of minor groups and subgroups are used.

3. Figures for the CPI are adjusted to exclude the estimated effects of changes in the consumption tax rate.

4. Figures for quarterly data are 3-month averages of monthly year-on-year price changes.

5. Figures for 2016/Q3 are those of July.

Source: Ministry of Internal Affairs and Communications.