Sayuri Shirai: Monetary easing and communication policy – a review based on several surveys

Speech by Ms Sayuri Shirai, Member of the Policy Board of the Bank of Japan, at a seminar held at Columbia University, New York City, 27 February 2014.

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I. Introduction

It is a great honor to be here today and have the opportunity to speak at Columbia University. I would like to add how very nice it is to return to this university, where I received my Ph.D. in economics, and I am looking forward to exchanging views with professors and students after my presentation. Today, I would like to talk about communication on monetary policy – a topic of growing interest among central banks – in the context of the Bank of Japan.

To begin with, let me pose a question: *why do central banks pay special attention to their communications on monetary policy with the public (meaning market participants and the general public)?* I think there are at least three reasons: (1) to ensure central bank accountability; (2) to enhance the effectiveness of monetary policy; and (3) (in a narrower sense) to make active use of communication as a nontraditional monetary easing measure among central banks in the face of the zero lower bound on short-term interest rates.

Communication plays a crucial role in successful conduct of monetary policy by the Bank. I would like to highlight three reasons why this is so. First, the Bank adopted its 2 percent price stability target in terms of the year-on-year rate of change in the consumer price index (CPI) in January 2013. There is an inherent challenge in convincing households of the benefits of this target, since they tend to see a rise in inflation as unfavorable. This is especially true when a rise in wages does not take place immediately, or expectations of future wage growth are not fulfilled. Thus, communication is important in this regard. Second, as stipulated in the *Joint Statement of the Government and the Bank of Japan on Overcoming Deflation and Achieving Sustainable Economic Growth*, released in January 2013, the Bank recognized that the inflation rate consistent with price stability on a sustainable basis would rise as efforts by a wide range of entities to strengthen the competitiveness and growth potential of Japan's economy progressed (Chart 1). Based on this recognition, the Bank set the price stability target at 2 percent. In this spirit, *quantitative and qualitative monetary easing* (QQE) was introduced in April 2013. Thus, promoting continuous dialogue with the government, firms, and financial institutions is essential to achieving the target. Third and finally, the Bank is actively using its communication strategy to generate monetary accommodation under QQE.

Let me outline the sequence of my speech. I will first explain the Bank's current communication practices. Next, to examine the effectiveness of QQE from a communication perspective, I will review a range of data, such as those regarding inflation expectations, and the results of several surveys targeting households, firms, market participants, and economists.

II. The Bank's monetary policy communication practices

I will begin by describing in three steps the Bank's communication practices on monetary policy. First, I will explain the legal requirement with regard to communication. Second, I will focus on the current communication practices on monetary policy. Third and finally, I will discuss the active use of communication as a nontraditional monetary easing measure under QQE, that is, *forward guidance* with regard to the continuation of monetary accommodation.

A. Legal requirement to ensure communication accountability

The Bank enjoys independence regarding monetary policy under the Bank of Japan Act (hereafter referred to as the Act). The Act stipulates that the mandate of monetary policy is to achieve price stability.[1] Monetary policy is determined by a majority of votes of the Bank's Policy Board at regular *Monetary Policy Meetings* (MPMs). The Policy Board comprises nine members (the Governor, two Deputy Governors, and six other members). All the members are appointed by the Cabinet, subject to the consent of Japan's House of Representatives and the House of Councillors, with a five-year term. The schedule of MPMs for the coming twelve months is made public in June and December each year.

Given that monetary policy affects the daily lives of the public, in a democratic society it is essential to conduct such policy with accountability. Therefore, the Act stipulates that the Bank endeavor to clarify to the public the content of its decisions, as well as its decision-making process, regarding currency and monetary control (that is, monetary policy). To meet this accountability requirement, the Act requires the Bank to promptly publish the ***minutes of the MPM***, which provide a summary of discussions held at each MPM, and to publish a ***transcript*** (available only in Japanese) of each MPM. The minutes of each MPM are approved at the following MPM and released three business days later. The transcript of discussions held at each MPM, which shows the details of each participant's remarks along with the names of speakers, is made public ten years after the MPM concerned. Furthermore, pursuant to the Act, the Bank periodically submits a ***Semiannual Report on Currency and Monetary Control*** to the Diet (Japan's national government body) on its policies. In addition, the Governor and the Bank's other officers appear frequently before the Diet to explain current monetary policy.

B. Communication policy to enhance the effectiveness of monetary policy

There is growing consensus among central banks that communication should be enhanced to improve transparency for the public. This reflects the view that it is best to minimize "surprises" in financial markets that are triggered by unexpected monetary policy decisions, to boost the effectiveness of monetary policy. Increasing transparency on future monetary policy stances should improve public comprehension of financial forecasting, helping the public to form views on future monetary policy stances similar to those of central banks. In other words, such a communication policy aims to inform the public about the "normal" *policy reaction function* of monetary policy or the conduct of traditional monetary policy in a normal economic environment where the zero lower bound is absent.

This practice may favorably influence financial markets in several ways. First, clear understanding by the public of a central bank's *policy reaction function* may help the public to adjust their future short-term interest rate expectations accordingly. This would affect long-term interest rates, since the yields reflect the average of expected future short-term interest rates. Second, in some cases clear public understanding may decrease the level of uncertainty and thus reduce volatilities in interest rates, foreign exchange rates, and financial asset prices. Finally, there may be instances where the public believes that a central bank has specialized information that can be used to assess future prices and economic activity. In such cases, a central bank could favorably affect financial markets by making public such detailed information.

The Bank's current monetary policy communication practices

Let me now explain the Bank's current communication practices with regard to monetary policy. As stated earlier, monetary policy decisions are made at the MPMs, which are held

[1] The Act states that monetary policy should be "aimed at achieving price stability, thereby contributing to the sound development of the national economy."

14 times each year; these are held on a regular basis, and additional unscheduled emergency meetings may also be held. Of the 14 MPMs, there are twelve two-day meetings held on a monthly basis with two one-day meetings at the end of April and October each year. The Bank releases a ***public statement*** immediately after each MPM. For the two-day monthly MPM, the statement contains (1) the policy decisions made at the MPM including the guideline for money market operations; (2) a summary of the assessment of current economic activity and prices, as well as the outlook (up to about six months ahead); (3) an assessment of upside and downside risks; and (4) the future monetary policy stance. For example, current QQE policy decisions are made at each MPM on whether the annual monetary base increase (namely, about 60–70 trillion yen) will be maintained until the next MPM.

During the one-day MPMs at the end of April and October, the Policy Board members prepare forecasts for real GDP growth and *core* CPI inflation (CPI for all items less fresh food) over the coming three fiscal years. For example, in the case of fiscal 2013 (beginning in April 2013), projections were prepared for fiscal 2013–15, and were released immediately after the MPM at the end of April 2013 (forecasts for real GDP growth rate for the previous fiscal year – that is, fiscal 2012 – were also released in April). The *median* and the *range* of the forecasts are disclosed together with the *forecast distribution charts* that are based on the aggregated probability distributions compiled from the individual members' distributions. The semiannual ***Outlook for Economic Activity and Prices*** (hereafter referred to as the *Outlook Report*) contains *the Bank's View* on the outlook and risk factors for economic activity and prices over the coming three fiscal years, as well as its views on the future course of monetary policy. *The Bank's View* is approved at the MPM and published at 3:00 p.m. after the MPM, while the ***public statement*** is released immediately after the MPM. ***Interim assessments*** of the outlook as laid out in the previous Outlook Report are undertaken during the respective January and July MPMs, and these interim assessments are included in the public statements.

The Governor of the Bank, as Chairman of the Policy Board, holds a ***press conference*** usually from 3:30 p.m. on the last day of each MPM and explains the thinking behind the decisions made. A ***press conference summary*** (available only in Japanese) is then released on the following business day. Furthermore, a ***Monthly Report of Recent Economic and Financial Developments*** is released on the next business day after the first MPM of each month, and contains a detailed background of the Bank's assessment of economic activity and prices, as well as financial developments on which policy decisions are based.

Strengthened communication with the adoption of the 2 percent price stability target

I mentioned that the Bank improved its transparency in January 2013 by adopting the 2 percent target. This target replaced an earlier, broader target – "*price stability goal in the medium to long term*" – which was defined as a positive range of 2 percent or lower with a goal of 1 percent having been set for the time being. This broader expression was chosen to cover the diverging views of the Policy Board members with respect to the appropriate level of long-term inflation. I take the view that the word "goal" (especially the connotation of the related term *medo* that was adopted in the Japanese version) and the ambiguous references to the range suggested a degree of passivity. As a result, the public was unsure whether the Bank was genuinely pursuing the 2 percent level or targeting a lower figure. Against this background, the adoption of the 2 percent target in January 2013 eliminated such ambiguities.

C. Communication strategy as a nontraditional accommodative monetary policy

It is widely known that theoretically one alternative accommodative monetary policy under the zero lower bound is to introduce *forward guidance* by committing to the continuation of a more accommodative policy than would otherwise have been anticipated with the normal policy reaction function. That is, forward guidance is used as a communication strategy to generate *additional* monetary accommodation. This commitment to a longer accommodative monetary policy is needed to compensate for the period constrained by the zero lower bound. In general, central banks in advanced economies have adopted forward guidance with a somewhat more flexible interpretation than suggested by theory.

Forward guidance adopted under QQE

Forward guidance constitutes an important element of QQE. The Bank released a *public statement* in April 2013 that introduced QQE and contained two descriptions of the time span of monetary accommodation. The ***first description*** was a statement of the Bank's intention to achieve the 2 percent price stability target *at the earliest possible time, with a time horizon of about two years*. The ***second description*** was a statement of its intention to continue with QQE as long as it was necessary for *maintaining the 2 percent target in a stable manner*. This description also added a condition that both upside and downside risks to economic activity and prices would be examined, and that adjustments would be made as appropriate (Chart 2).

The purpose of the first description was to signal to the public the Bank's determination to achieve its 2 percent target within a time horizon of about two years, normally pursued by other central banks under an inflation targeting framework. Mentioning the specific time span was considered essential to gain the confidence of the public as part of the Bank's intention to overcome mild deflation. To fulfill this objective, the main operating target for money market operations was switched from the uncollateralized overnight call rate to the *monetary base*; it was then decided that the size of the monetary base would rise at an annual pace of about 60–70 trillion yen, to be doubled in two calendar years (2013–14). Under this monetary base target, the Bank currently purchases Japanese government bonds (JGBs) of approximately 50 trillion yen (on an outstanding basis) each year to double the amount outstanding in two years.[2] Some market participants considered the first description to be a strong *calendar-based commitment* with a time limit, from the way the Bank presented its QQE in April 2013. My personal view is that the first description could be interpreted as both *calendar-based* (about two years) as well as *state-contingent* (2 percent) guidances. However, in this case, the time horizon of "about two years" should be interpreted with some flexibility rather than as a rigid "two years."

The second description is related to a *conditional commitment*, because the continuation of QQE is subject to the examination of upside and downside risk factors. It is also *state-contingent* guidance (to maintain the 2 percent target in a stable manner), linked to the continuation of QQE, and plays a greater role than the first description in stabilizing long-term inflation expectations at around 2 percent, thus helping to reduce long-term interest rate volatility and preventing its overshooting.

The first description can be considered as a "necessary condition" for achieving the second description, if the first description is regarded as referring to the achievability of the 2 percent target and the second as referring to the maintenance of the 2 percent target in a stable manner. While the time horizon of these two descriptions could overlap, the second description implies that time horizon is somewhat longer and that the asset purchases may not come to an end after two years. Thus, these two descriptions are mutually non-exclusive.

Based on the framework I have described, the Bank holds the baseline scenario that core CPI inflation (*excluding* the direct effects of the consumption tax hikes) is expected to reach around 2 percent toward the latter half of the projection period of fiscal 2013–15.[3] The

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2 The Bank also purchases treasury discount bills (T-Bills), exchange-traded funds (ETFs), Japan real estate investment trusts (J-REITs), and other assets.

3 The consumption tax rate in Japan is scheduled to increase from 5 percent to 8 percent in April 2014 and further to 10 percent in October 2015. The hikes are expected to raise CPI-based inflation by about

median of the Policy Board members' forecasts is 0.7 percent for fiscal 2013, 1.3 percent for fiscal 2014, and 1.9 percent for fiscal 2015 (Chart 3).

Personally, I am aware of the possibility that it may take some time to achieve the 2 percent target, since the duration depends crucially on "*the pace of improvement in the employment and income situation in Japan*." Moreover, it is possible that it may take even longer to achieve a situation where the 2 percent target is maintained in a stable manner, considering the duration required to judge whether the condition described as "in a stable manner" is met. During this period, support from monetary policy is likely to be necessary. As I pointed out earlier in the joint statement of the government and the Bank, bear in mind here that the Bank adopted the 2 percent target in January 2013, assuming that such an inflation rate should be *sustainable*. Hence, the Bank's decisions on the necessity and measures of future monetary easing should be judged in line with the objective to pursue a society with 2 percent price increase in a stable manner.

Contrast with forward guidance adopted by other major central banks

You may notice that the form of forward guidance adopted by the Bank differs greatly from the forms adopted by other major central banks (Chart 4). First, the Federal Reserve applies forward guidance to maintain a very low federal funds rate. Asset purchases are regarded as a separate monetary easing policy tool and are supplementing the interest rate policy and forward guidance. In contrast, the Bank applies forward guidance to QQE as a package. Under QQE, the monetary base is the main operating target for money market operations, and various assets (mainly JGBs) are purchased to fulfill the monetary base target.[4]

Second, the views of the Bank and other central banks differ in regard to long-term inflation expectations. Forward guidance issued by the Federal Reserve assumes that longer-term inflation expectations have been *anchored* at around 2 percent. The Bank of England (BOE) includes a similar view in one of its conditional forward guidance "knockouts." Therefore, one of the main tasks for these central banks is to continue with monetary easing measures to seek economic recovery, while ensuring that the anchored inflation expectations are maintained. In contrast, the Bank has *not yet* successfully anchored long-term inflation expectations at around 2 percent. Thus, the Bank must focus on first transforming the deflation-oriented mindset and then increasing inflation expectations to a higher level than the current one.

Third, Federal Reserve and BOE forward guidance includes employment-related thresholds. The Federal Reserve has a dual mandate of promoting price stability and maximum employment, so the reason for this is clear. The BOE sees price stability as its primary mandate; however, the inclusion of employment-related conditions may have reflected the need to clarify its views on the trade-off between inflation and unemployment. In contrast, there is a relatively small need for the unemployment threshold to be used in the Bank's guidance. The unemployment rate for December 2013 was 3.7 percent, close to the lowest point in recent years of 3.6 percent, which was attained in July 2007. Some labor issues exist, such as the differential treatment of regular and non-regular workers and firms' demand for increased flexibility over labor market regulations. However, these are structural issues that are beyond the scope of monetary policy.

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2 percentage points for fiscal 2014 and by 0.7 percentage point for fiscal 2015, respectively. When assessing the inflation rate, the Bank disregards the effects of these increases as they are temporary.

[4] The Bank has charged 0.1 percent on excess reserves since October 2008. Thus, this interest rate functions largely as a floor for the interbank market interest rates.

III. Performance of QQE in light of communication on monetary policy

Next, I would like to focus on the current performance of QQE in light of the public's perceptions of monetary policy and price developments.

A. Households' understanding of the QQE framework and inflation expectations

Households are important economic entities that undertake consumption and residential investment. Thus, understanding their current and future behavior is essential to examining the transmission mechanism of monetary easing. Moreover, changes in households' inflation expectations are likely to influence actual inflation by affecting their consumption and residential investment demand (and thus the output gap) as well as wage negotiations.

Awareness of the 2 Percent Target and QQE

In relation to the public's knowledge of QQE, the quarterly *Opinion Survey on the General Public's Views and Behavior* conducted by the Bank posed a new set of questions in its September and December 2013 surveys. These included (1) *whether respondents knew of the 2 percent price stability target*, and (2) *whether respondents knew that the Bank had embarked on QQE*.[5] The first question results indicated that 78 percent of the respondents were aware of the 2 percent target in the September survey (Chart 5); however, the detailed analysis revealed that only 37 percent said that they "know about it" while 41 percent said that they "have read or heard of it, but do not know much about it." In the December survey, the overall awareness of the 2 percent target dropped significantly to 60 percent and only 29 percent of the respondents said that they "know about it" and 31 percent said they "have read or heard of it, but do not know much about it."

Regarding the second question results, the September survey indicated that 72 percent of the respondents were aware of QQE; however, the detailed analysis showed that only 29 percent said that they "know about it" while 43 percent said that they "have read or heard of it, but do not know much about it." In the December survey, those claiming awareness of QQE dropped slightly to 69 percent, with 39 percent saying they "have read or heard of it, but do not know much about it." However, the proportion of respondents who answered that they "know about it" increased slightly from the September survey, accounting for 30 percent.

Moreover, one of the regular questions in the same survey was whether the respondents perceived the present price levels to have risen compared with one year earlier. In the September and December surveys, about 67 percent of the respondents said that prices "have gone up" (either "significantly" or "slightly"). Furthermore, more than 80 percent of the respondents that stated prices "have gone up" described the price rise as "rather unfavorable" in both surveys, while that proportion has followed a long-term declining trend (Chart 6).

These various survey results suggest that QQE is fairly widely known to the public. At the same time, it is striking to note that the majority view price rises as unfavorable. This implies that the importance of achieving the 2 percent target may not be widely understood and shared by households. Thus, it is vitally important for the Bank to clearly explain to the public and respond to questions as to why the Bank aims to achieve the 2 percent price stability target and how this will improve daily lives in the medium to long term. This is particularly important given that a consumption tax hike is scheduled in April this year, and the inflation rate may temporarily exceed 2 percent, together with the effects of monetary easing.

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5 The survey sample size is 4,000 people living in Japan who are at least 20 years of age, with about 56 percent providing valid responses.

Long-term inflation expectations and sources of inflation used to form expectations

Now let us look at households' *long-term* inflation expectations to see whether they tend to rise reflecting the impact of QQE. The Bank usually forms its understanding of inflation expectations based on various indicators, but for the sake of simplicity I will use the Bank's aforementioned opinion survey as a crude indicator to measure long-term inflation expectations. In doing so, I will focus on the median of the respondents with regard to their inflation expectations over the *next five years* (changes in price levels per year on average). The data should be interpreted with caution, since an empirical analysis based on the Bank's opinion survey has pointed out that households' inflation expectations are *upward-biased*.[6] It should be noted that the responses *exclude* the potential impacts of the consumption tax hikes from the June 2013 survey. Chart 7 shows that households' long-term inflation expectations have remained steady at around 2.0–2.5 percent since the middle of 2011, and thus there is no rising trend to date. The same survey also asks about *present* price level perceptions (change in price levels compared with one year ago) and the results show a clear rising trend since early 2013.[7]

Some might wonder about the source of information used by households when forming long-term inflation expectations. The September 2013 survey included a special set of questions about the "basis for the perception" of the *present price levels* as well as the *outlook for price levels over the next five years*. Respondents could choose up to three answers from pre-defined choices. An interesting result was that the respondents relied more on general price-related information and various other sources when forming *longer-term* inflation expectations than when forming perceptions on *present* price levels. For example, they relied heavily on "media reports on individual prices of goods and services and prices in general," "developments in foreign exchange rates such as depreciation/appreciation of the yen," "developments in stock prices and land prices," and "the Bank of Japan's monetary policy" (Chart 8). In contrast, it showed that they relied heavily on "developments in prices of frequently purchased items such as foodstuffs" and "developments in gasoline prices" when forming perceptions of the present price levels.

These observations may suggest that households tend to use *rational expectations* – in addition to *adaptive expectations* – when forming longer-term inflation expectations. For example, past research shows that about 40 percent of households' inflation expectations is allocated to adaptive expectations and nearly 60 percent to rational expectations.[8] Hence, a deeper understanding of the QQE framework as well as the actual and past price increases may help raise households' inflation expectations and increase the achievability of the 2 percent target.

B. Firms' views on the 2 percent target and inflation expectations

Firms are very important economic entities, since they are not only producers and investors but also major borrowers from financial markets. Moreover, they are price setters that

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6 Note here that households who hold negative inflation expectations tend to choose zero rather than the true value. See Koichiro Kamada, "Downward Rigidity in Households' Price Expectations: An Analysis Based on the Bank of Japan's 'Opinion Survey on the General Public's Views and Behavior,'" *Bank of Japan Working Paper Series*, No. 13-E-15, 2013.

7 The same survey also provides information on *short-term* inflation expectations over the next twelve months; these showed an increase in the March 2013 survey (but not to as high a level as after 2010) and have since remained at the same level as the June 2013 survey. On the other hand, the *Consumer Confidence Survey* compiled by the Cabinet Office showed a clear rise in the pace of increase in short-term inflation expectations (in the next twelve months) from the beginning of 2013. However, it is not clear whether such expectations included the tax effects.

8 See Ko Nakayama and Kazuo Oshima, "Infure Kitai no Keisei ni Tsuite (On Inflation Expectations)," *Bank of Japan Working Paper Series*, 99–7, 1999 (available only in Japanese). The paper uses short-term inflation expectations (one year ahead).

significantly influence actual inflation. During the period of prolonged mild deflation, firms tended to set their sales prices according to their competitors' and clients' demand, rather than in response to the output gap or cost developments. This was partly attributable to an increase in the price elasticity of demand caused by intensified competition at home and abroad, and a series of negative demand shocks. Thus, in aiming to achieve the 2 percent target, it is important to examine firms' recognition of QQE and inflation expectations to analyze whether their price-setting behavior is changing.

Views on the achievability of the 2 percent target

Regarding the recognition of QQE by firms, we could look at *QUICK Tankan*, a monthly statistical survey compiled by QUICK Corp., which is often used as an early indicator of the Bank's *Tankan* (Short-Term Economic Survey of Enterprises in Japan). *QUICK Tankan* included a special question in its January 2014 survey on "the achievability of the 2 percent target" (Chart 9).[9] The result indicated that 62 percent of the respondents stated "an even chance," followed by "the probability is low" (23 percent) and "the probability is high" (15 percent). This may suggest that, compared with households, firms generally have higher recognition of QQE and hold a better outlook for its achievability. Looking at sector breakdowns, approximately 60 percent of both manufacturing and nonmanufacturing firms stated "an even chance" and approximately 20 percent of both stated that "the probability is low." In contrast, 50 percent of financial institution respondents stated "an even chance" and 40 percent stated "the probability is low." The fact that the majority of firms responded "an even chance" suggests that their perception could swing either way. Nonetheless, those with indecisive views could be adjusted toward "the probability is high," as the collective efforts of all economic entities to overcome mild deflation make further progress and as firms gain greater confidence in QQE through the Bank's further communication efforts.

Inflation expectations and sources of inflation used to form expectations

The most frequently used indicator of firms' inflation expectations is obtained from the Bank's quarterly *Tankan*.[10] Generally, it uses the diffusion index (DI) of "rise" minus "fall" with respect to output prices for the next quarter. In addition, the difference between this DI and the correspondent DI for input prices is often used as a proxy for profit margins (Chart 10). It is known that the DI for output prices tends to be *downward-biased* and the DI for input prices tends to be *upward-biased*, so the interpretation of these indicators needs to take these tendencies into account.[11] The drawback of this approach is that the data are only available for the next quarter, so only very short-term inflation expectations can be measured. The chart shows that there are some signs of an increase in firms' inflation expectations based on the DI for output prices, but the indicator has leveled off very recently. Fortunately, the Bank will begin publishing a survey of firms' longer-term inflation expectations (looking one, three, and five years ahead) beginning with the March 2014 *Tankan* survey. It is expected that this will promote a better understanding of firms' inflation expectations and their price-setting behavior.

Regarding factors contributing to firms' inflation expectations, the *Annual Report on the Japanese Economy and Public Finance 2013,* compiled by the Cabinet Office, conducted an interesting survey in February 2013. It showed that firms tend to raise their outlook for sales

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9 The respondents covered 367 listed firms. Approximately 56 percent were nonmanufacturing firms, 41 percent were manufacturing firms, and the remainder were financial institutions.

10 The survey population encompasses about 210,000 firms (excluding financial institutions) that have at least 20 million yen in capital. More than 11,000 firms are sampled in each survey.

11 See, for example, Koichiro Kamada and Kentaro Yoshimura, "Kigyo no Kakaku Mitoshi no Kochokusei: *Tankan* DI wo Mochiita Bunseki (Rigidity in Firms' Price Expectations: An Analysis Based on the Bank of Japan's *Tankan* [Short-Term Economic Survey of Enterprises in Japan] DI)," *Bank of Japan Working Paper Series*, No. 10-J-3, 2010 (available only in Japanese).

prices of goods and services over the next year when they project that market prices over the same period will increase.[12] This response was provided by approximately 70 percent of manufacturing respondents and more than 50 percent of nonmanufacturing respondents. In other words, if an increase in demand for goods and services leads to a rise in market prices, this may induce firms to raise their sales prices. This situation is more likely to occur if a sustainable expansion of the domestic market is projected.

In addition, firms may reflect more *adaptive* expectations than households when forming inflation expectations. For example, it should be noted here that about 50–70 percent of firms' inflation expectations is allocated to adaptive expectations and about 50–30 percent to rational expectations.[13] Hence, the actual and past price performances may be the most important element in raising firms' inflation expectations to achieve the 2 percent target, while at the same time, a deeper understanding of the QQE framework could also be of help.

C. Market participants' and economists' views on the 2 percent target and inflation expectations

In addition to the views of households and firms, it is important to pay attention to the views of market participants and economists. After all, financial markets do influence the behavior of households and firms through changes in interest rates, foreign exchange rates, and financial asset prices. Moreover, the financial market indicators reflect financial asset valuations by market participants and economists as well as their expectations of future inflation and economic developments. These indicators respond directly to monetary policy measures, the release of the latest macroeconomic data, news items, and exogenous shocks.

Views on achievability of the 2 percent target

Generally, market participants and economists are familiar with the QQE framework. Thus, the focus is on their views regarding whether the Bank will be able to achieve the target and, if so, when the target will be achieved. As mentioned earlier, the Bank's latest baseline scenario says that core CPI inflation is expected to reach around 2 percent toward the latter half of the projection period of fiscal 2013–15.

Two surveys were conducted recently regarding the achievability of the 2 percent target. One was the *ESP Forecast Survey* undertaken by the Japan Center for Economic Research on about 40 economists. In the January and February 2014 surveys, a question on the achievability of 2 percent within two years (around March or April 2015) was posed. In the January survey, 2 percent of the respondents (one economist) stated "yes/can be achieved," 85 percent (34 economists) stated "no/cannot be achieved," and the remaining 13 percent (five economists) stated "difficult to say." The results improved slightly in the February survey, with 5 percent of the respondents (two economists) stating "yes/can be achieved," 80 percent (33 economists) stating "no/cannot be achieved," and the remaining 15 percent (six economists) stating "difficult to say" (Chart 11). Chart 12 shows the evolution of the economists' forecasts for inflation (*including* the tax effects) over the period of fiscal 2013–15 by plotting the distribution of their forecasts for each fiscal year. It reveals that the economists' forecasts for inflation were adjusted toward the higher levels with greater probability for fiscal 2013 as the observation point approached the end of the observation year concerned. A similar but more moderate pattern was present for fiscal 2014. The average of the economists' forecasts and the median of the Bank's Policy Board members' forecasts were then compared in Chart 13. This suggested the presence of a clear convergence for fiscal 2013, as a result of adjustments made mainly by the economists. A

[12] The sample size was 6,000 listed and unlisted firms, with a 20 percent response ratio.

[13] See Ko Nakayama and Kazuo Oshima, "Infure Kitai no Keisei ni Tsuite (On Inflation Expectations)," *Bank of Japan Working Paper Series*, 99–7, 1999 (available only in Japanese).

moderate degree of convergence was also observed for fiscal 2014, while a relatively large difference remained for fiscal 2015.

The second survey was conducted by Bloomberg News on about 35 economists. This survey posed a question regarding when the Bank should start the “tapering” process subsequent to judging that the 2 percent target would be maintained in a stable manner. The survey results for February 2014 reported that 6 percent of the respondents (two economists) stated “in 2015,” 21 percent (seven economists) “in 2016,” 9 percent (three economists) “in 2017,” and 21 percent (seven economists) “in 2018 and beyond,” while 41 percent (14 economists) responded “cannot be foreseen” (Chart 14). Hence, there is a large gap between the Bank’s view and those of economists. Nonetheless, the ratio of respondents who have recognized the possibility of achieving the target in the medium to long term increased, compared with the November 2013 survey results.

These survey results indicate that most market participants and economists feel that it will take some time for the Bank to achieve the 2 percent target, and to achieve it in a stable manner, while their confidence in its achievability is gradually spreading. To reduce the perception gap between the Bank and these groups, it is important for the Bank to further enhance its dialogue with them by (1) exchanging views on forecasting methods as well as (2) providing clearer explanations about the transmission mechanism of monetary easing (including background analysis) and the direction of QQE for achieving the target.

Survey-based and market data-based long-term inflation expectations

Now I would like to present some indicators related to long-term inflation expectations. Chart 15 shows three survey-based indicators with projections made by (1) economists based on the *ESP Forecast Survey* for two to six years ahead, (2) economists based on *Consensus Forecasts* released by Consensus Economics Inc. for six to ten years ahead, and (3) bond market participants based on the *QUICK Bond Monthly Survey* for two to ten years ahead. Chart 16 shows two types of market data-based indicators: (4) the breakeven inflation (BEI) rates for inflation-indexed JGBs (about five years and ten years); and (5) inflation swap rates (five-year rate and implied five-year forward rate five years ahead).

These indicators recently show a general increase in inflation expectations. However, they require caution in interpretation, as an increase in the inflation expectations may reflect the potential impacts of the consumption tax hikes. The *ESP Forecast Survey excludes* the tax effects from the October 2013 survey, while the *QUICK Bond Monthly Survey includes* the tax effects from the September 2013 survey.[14] The BEI and inflation swap rates reflect the tax hikes. The BEI indicator also reflects the differences in liquidity between fixed-rate and inflation-indexed bonds. A rising trend in long-term inflation expectations based on the *ESP Forecast Survey* even after *excluding* the tax effects is encouraging, but is still well below the 2 percent target (Charts 15 and 16). Other indicators also show an increase, but the levels (after excluding the tax effects) are similar to pre-global financial crisis figures.

IV. Concluding remarks

I have talked today about communication on the Bank’s monetary policy. Several survey results have indicated that some among the public remain unaware of the QQE framework and uncertain about the achievability of the target. Such public views may be reflected in inflation expectations, which are generally rising but still well below 2 percent. Nevertheless, survey results have also indicated some encouraging signs of improvement, and the current progress in actual price and economic performance may further improve the public’s recognition of and confidence in the target achievability. At the same time, gaining the public’s understanding of the Bank’s policy intention may strengthen the process.

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[14] The tax effects are irrelevant for the *Consensus Forecasts data* for six to ten years ahead.

While the Bank has been increasing its efforts to promote communication, I believe there is still room for further enhancement of communication practices. The results of various surveys showed that there are differences among households, firms, as well as market participants and economists in their understanding of the QQE framework and their views on achievability of the 2 percent target. In this regard, the Bank could consider communicating more effectively with targeted approaches that take these differences into account. For example, the Bank needs to review published documents to include clearer language and explanations. Increased contact with a range of social groups and local communities in collaboration with the Bank's 32 branches and 14 local offices, as well as more effective use of the media and its web site, would likely be effective in reaching out to firms and the general public. On the other hand, for market participants and economists, increased dialogues to explain forecasting methods and the Bank's view backed by analytical output would be a powerful tool to enhance understanding of the Bank's conduct of monetary policy. A successful example of such communication practices was seen during April-July 2013, when the JGB market became unstable. The Bank responded by holding several dialogues with market participants, which led to the adoption of a flexible operational framework and helped to stabilize the market. All such enhanced communication efforts are considered to be essential steps to achieving the 2 percent target in a stable manner.

This brings me to the end of my speech. Thank you very much for listening.

Chart 1

From Abenomics to the Adoption of QQE

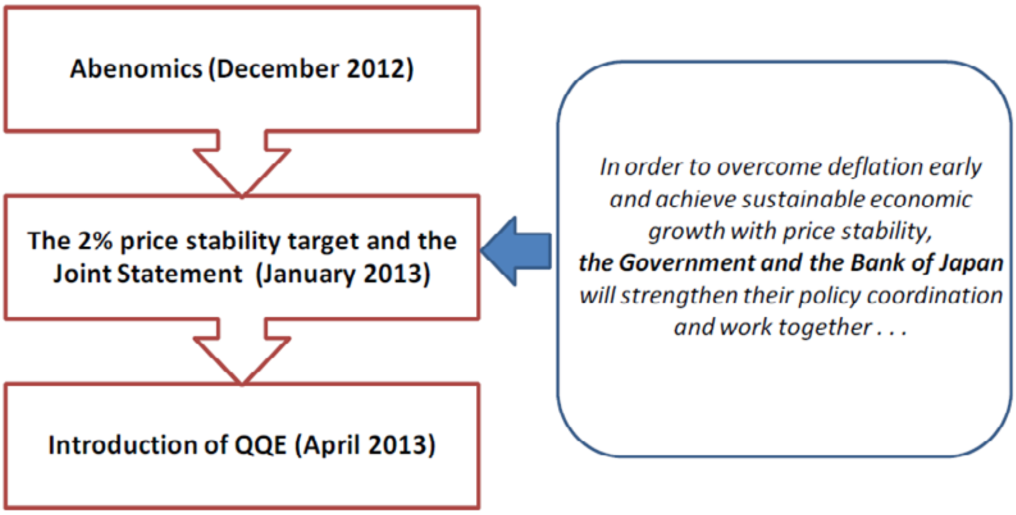


Chart 2

The Bank of Japan's Forward Guidance

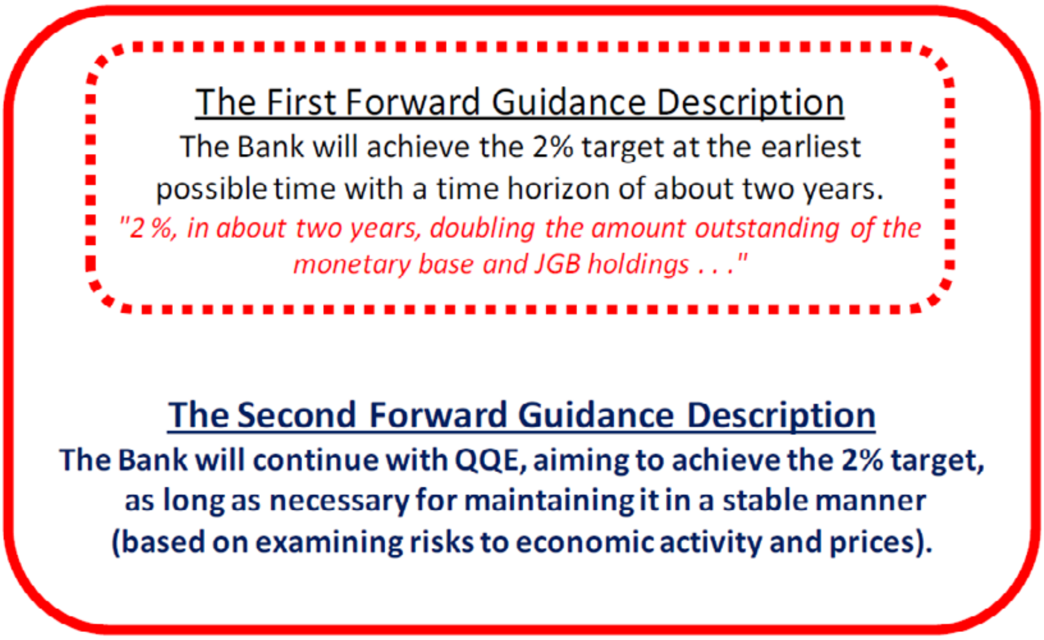
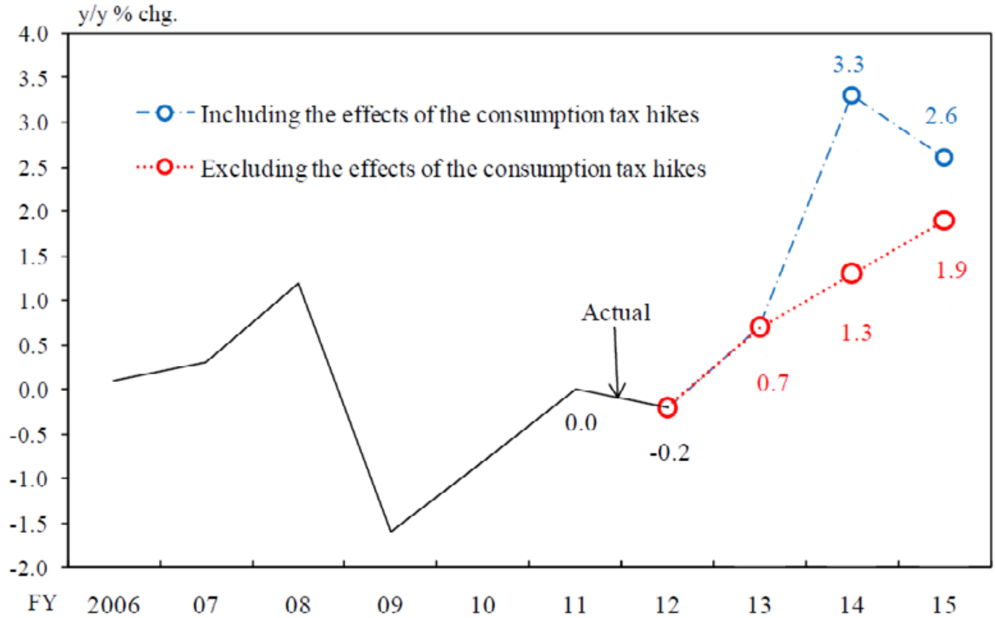


Chart 3

The Bank of Japan's Outlook for Prices (CPI)



Note: The circles in the chart indicate the median of the Policy Board members' forecasts (point estimates).

Source: Bank of Japan.

Chart 4

Forward Guidance: The Bank of Japan and Other Major Central Banks

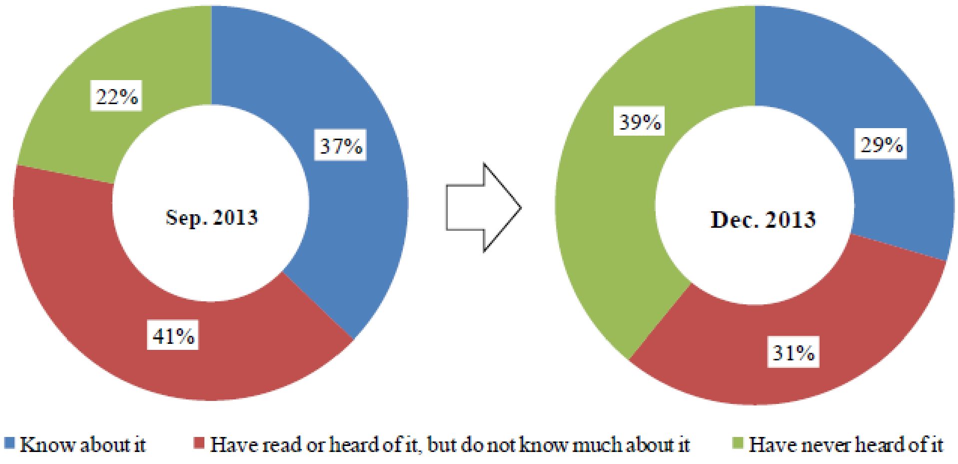
FRB	• (2012) The low interest rate will be maintained at least ***as long as (1) the unemployment rate remains above 6.5%, (2) inflation between one and two years ahead is projected to be no more than 2.5%, and (3) longer-term inflation expectations continue to be well anchored.*** • (2013) The rate will likely be maintained ***even after the unemployment rate declines below 6.5%, especially if projected inflation continues to run below the 2% goal.***
ECB	• (2013) It expects the key interest rates to remain at present or lower levels ***for an extended period of time***.
BOJ	• (2013) (1) It will achieve the 2% price stability target at the earliest possible time, with a time horizon of ***about two years***. (2) The monetary easing (QQE) will continue as long as necessary for maintaining the target ***in a stable manner***.
BOE	• (2013) The interest rate will be maintained ***until the unemployment rate has fallen to 7%***. Asset purchases may be increased while the unemployment rate remains above 7%. Until 7% is reached, the stock of asset purchases will be maintained.

Note: The BOE provided further guidance in February 2014 on their action once the 7 percent threshold had been reached.

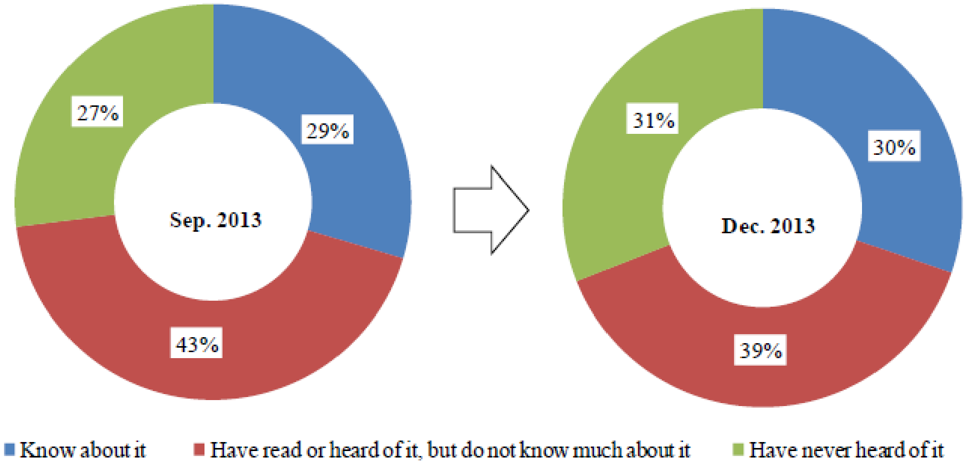
Chart 5

Households' Recognition of the Bank of Japan's Monetary Policy

(1) Question: ***Do you know that the Bank of Japan has set the "price stability target" at 2 percent in terms of the year-on-year rate of change in the CPI?***



(2) Question: ***Do you know that the Bank of Japan has embarked on a new phase of monetary easing both in terms of quantity and quality (referred to as "quantitative and qualitative monetary easing")?***



Source: Bank of Japan.

Chart 6

Households' Comments on the Price Rise

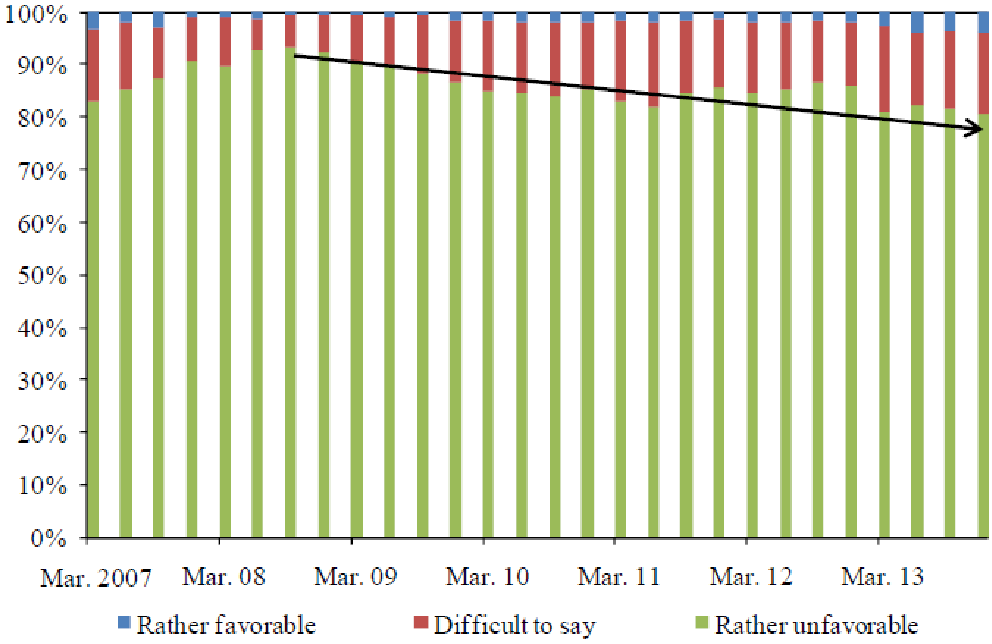
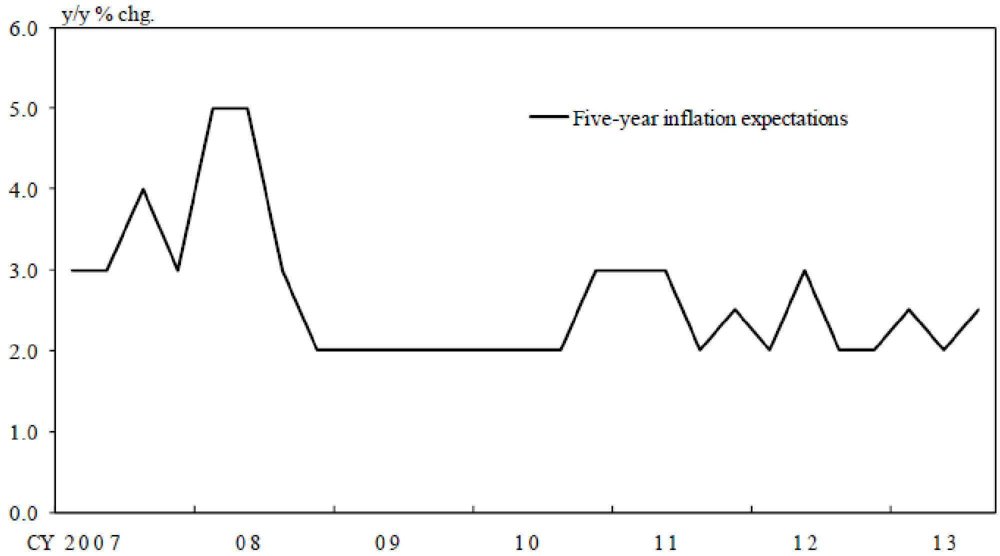


Chart 7

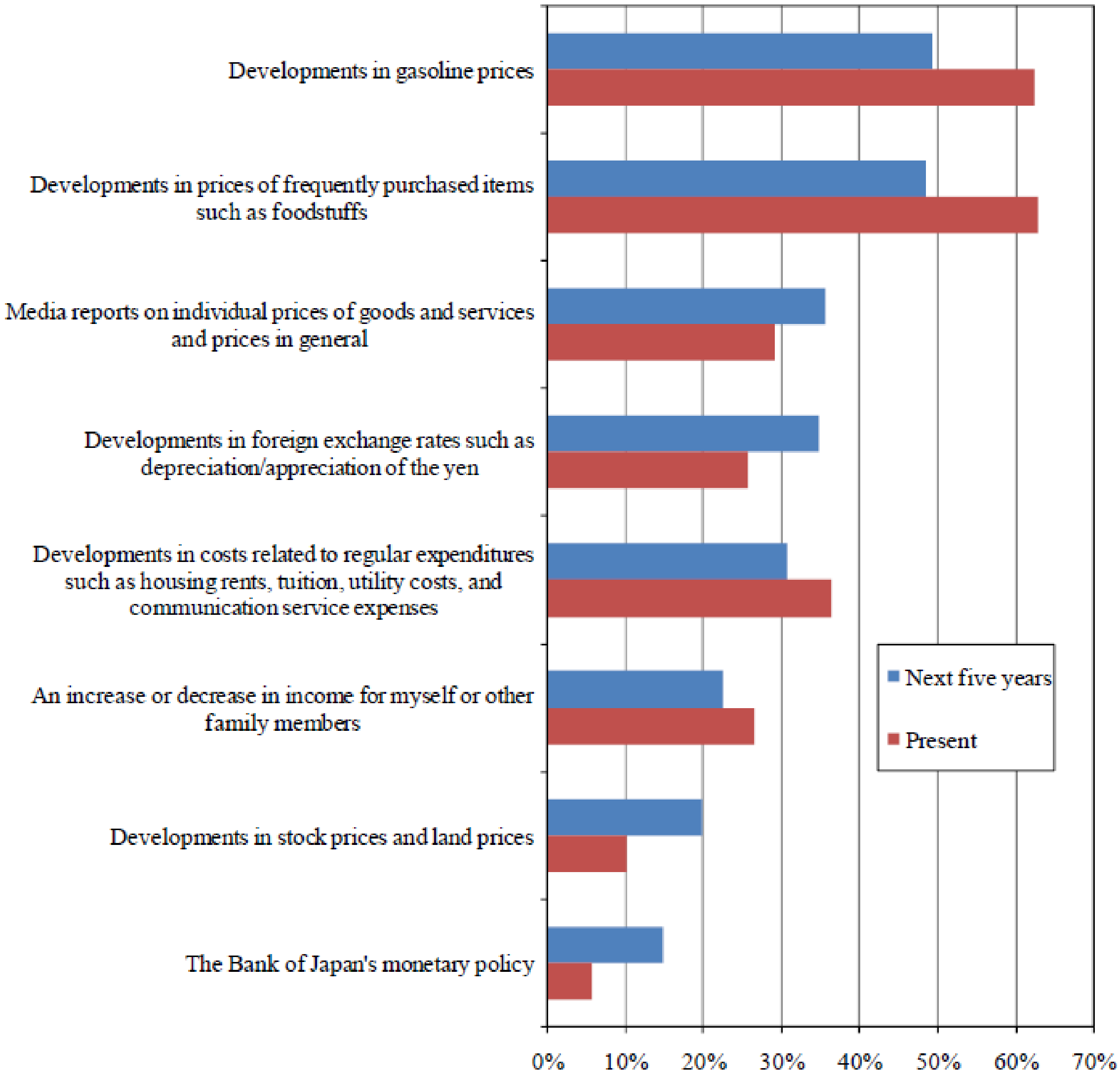
Households' Long-Term Inflation Expectations



Note: The responses exclude the effects of the consumption tax hikes from the June 2013 survey.
Source: Bank of Japan.

Chart 8

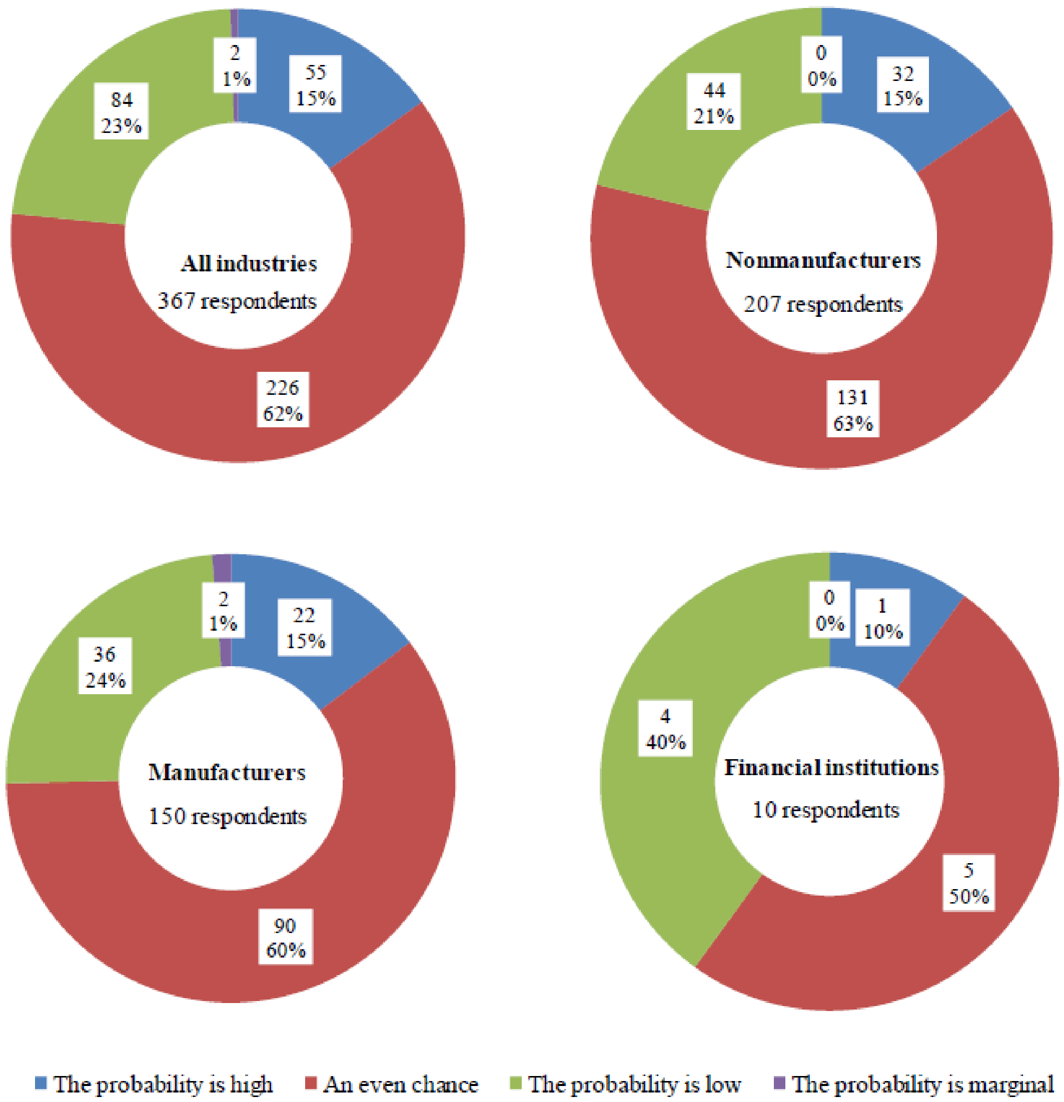
Basis for the Households' Perception of the Price Levels (Sep. 2013)



Source: Bank of Japan.

Chart 9

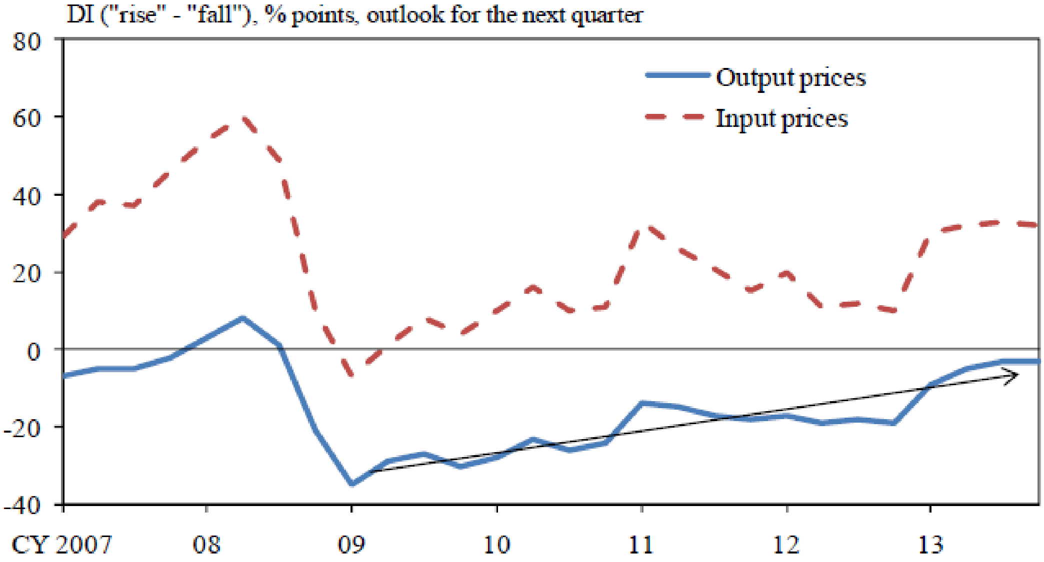
Firms' Views on the Achievability of the 2 Percent Target (Jan. 2014)



Source: QUICK.

Chart 10

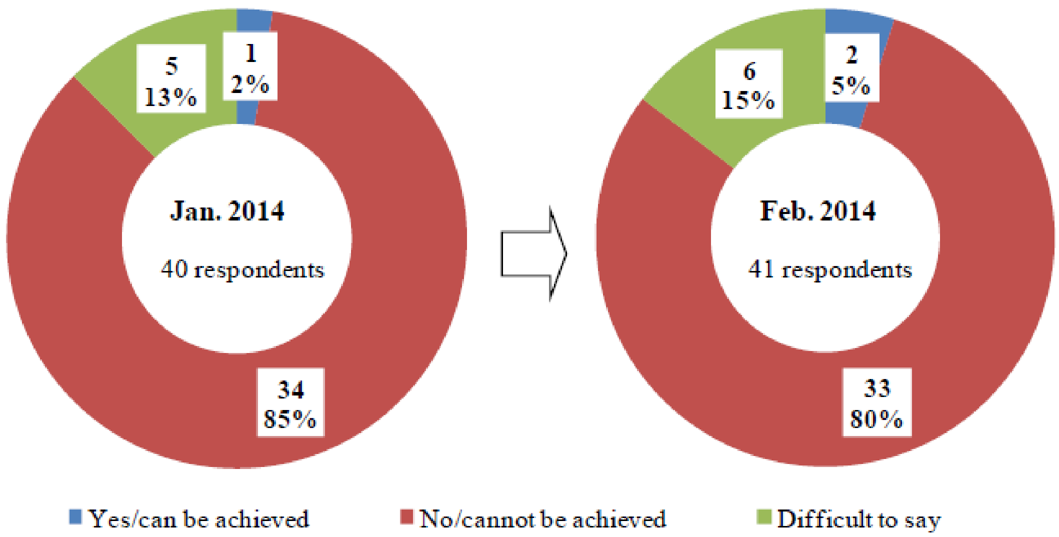
Tankan: Output Price DI and Input Price DI



Source: Bank of Japan.

Chart 11

Economists' Views on the Achievability of the 2 Percent Target in Two Years

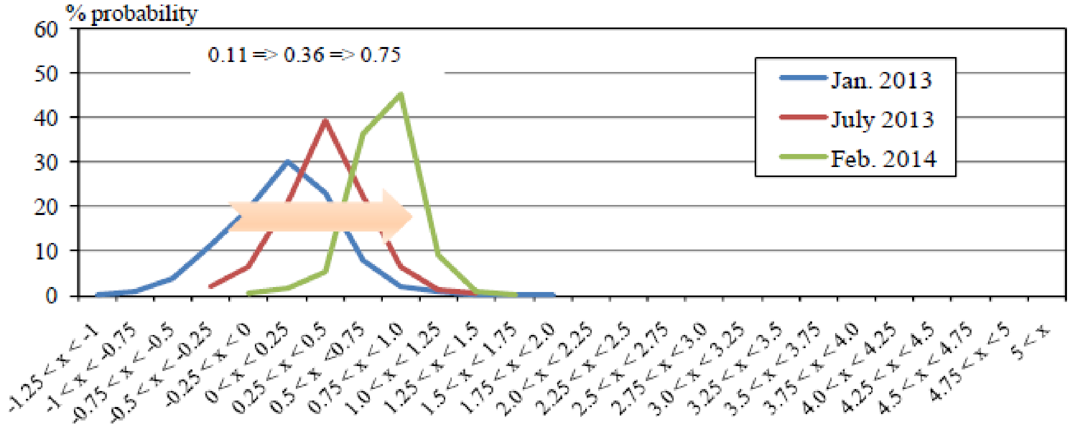


Source: Japan Center for Economic Research (JCER).

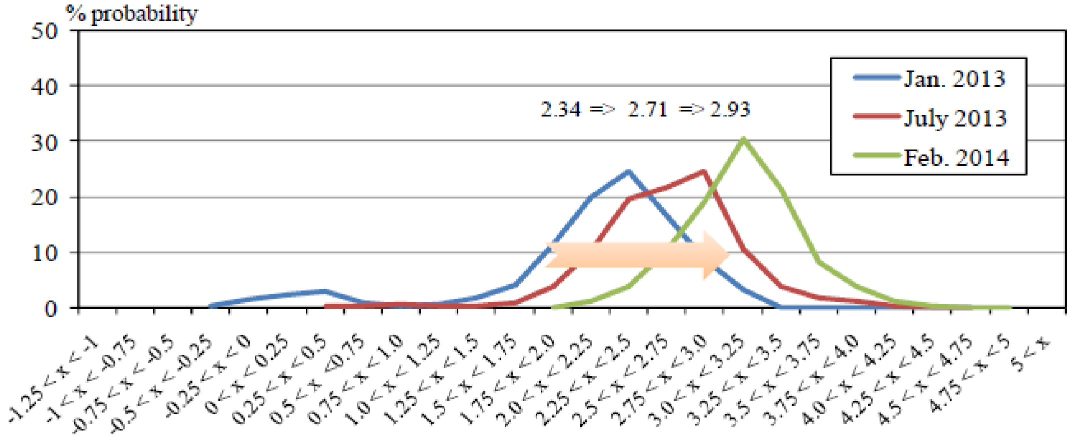
Chart 12

Distribution of Economists' Outlook for Prices (CPI)

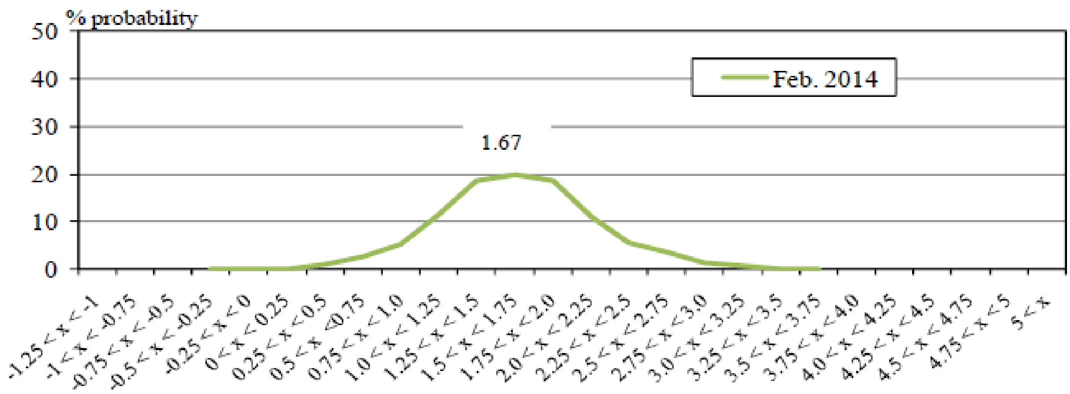
(1) FY 2013



(2) FY 2014



(3) FY 2015

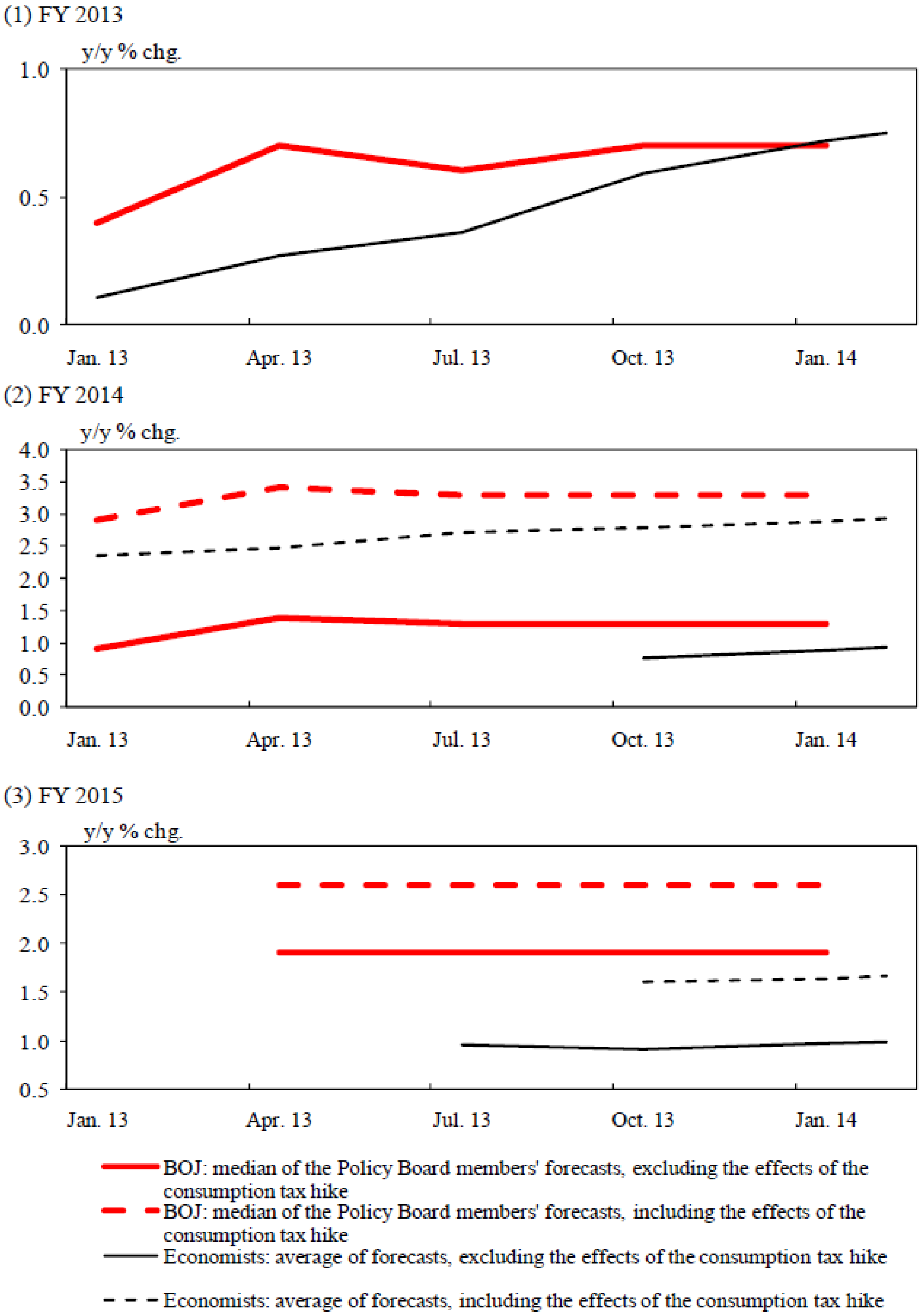


Note: For fiscal 2014 and fiscal 2015, the effects of the consumption tax hike are explicitly included in the February 2014 survey.

Source: Japan Center for Economic Research (JCER).

Chart 13

Comparison between the Bank of Japan's and Economists' Forecasts

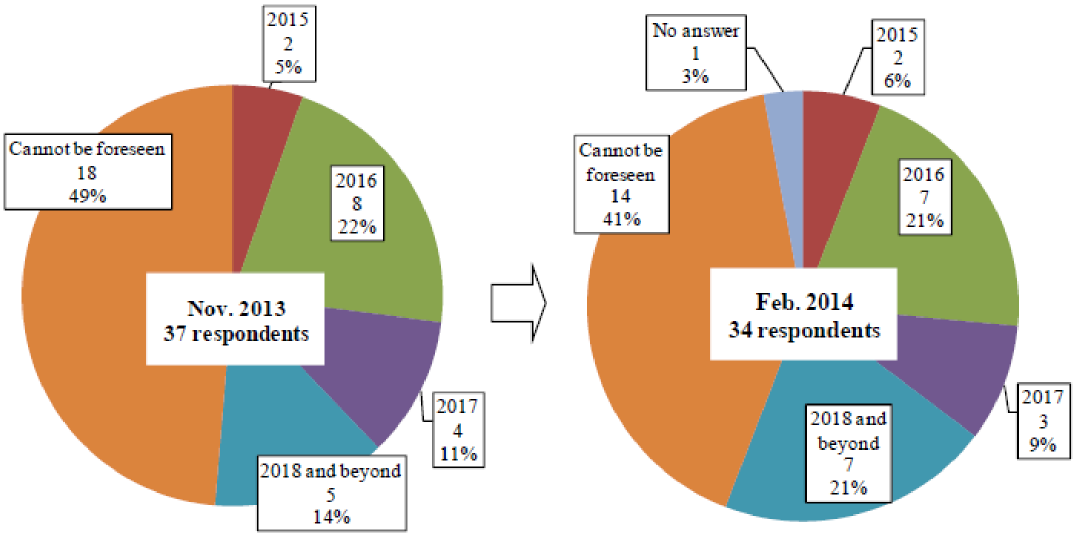


Sources: Japan Center for Economic Research (JCER); Bank of Japan.

Chart 14

Economists' Views on the Timing to Achieve 2 Percent Stably

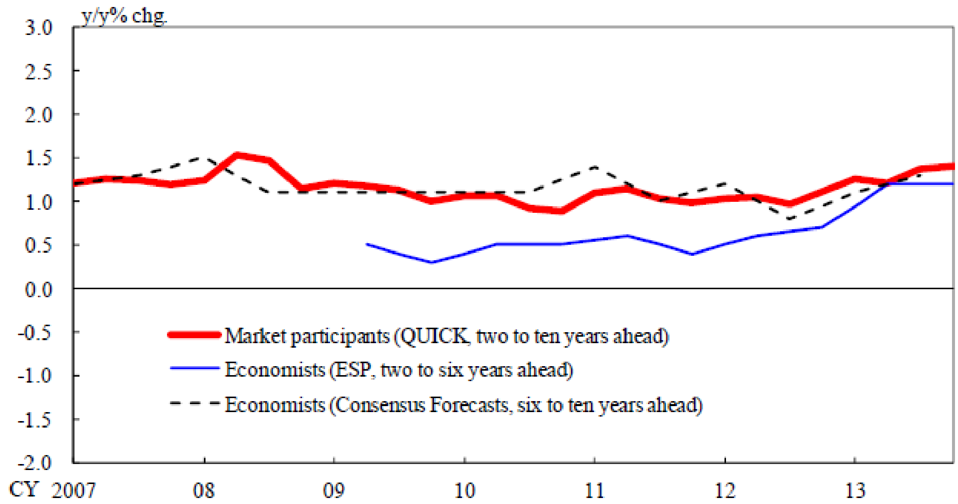
Question: ***When do you anticipate that the 2 percent inflation target will be achieved stably and the BOJ will start "tapering" its QQE?***



Source: Bloomberg.

Chart 15

Survey-Based Long-Term Inflation Expectations



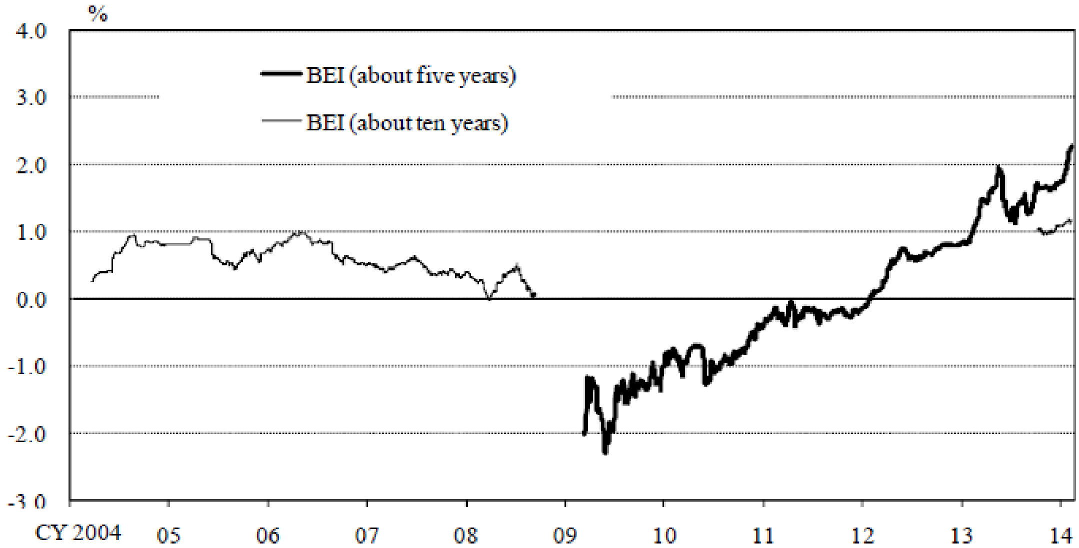
Note: The ESP Forecast Survey excludes the tax effects from the October 2013 survey; the QUICK Bond Monthly Survey includes the effects from the September 2013 survey. The tax effect is irrelevant for the period "six to ten years ahead" in Consensus Forecasts.

Sources: Consensus Economics Inc.; Japan Center for Economic Research (JCER); QUICK.

Chart 16

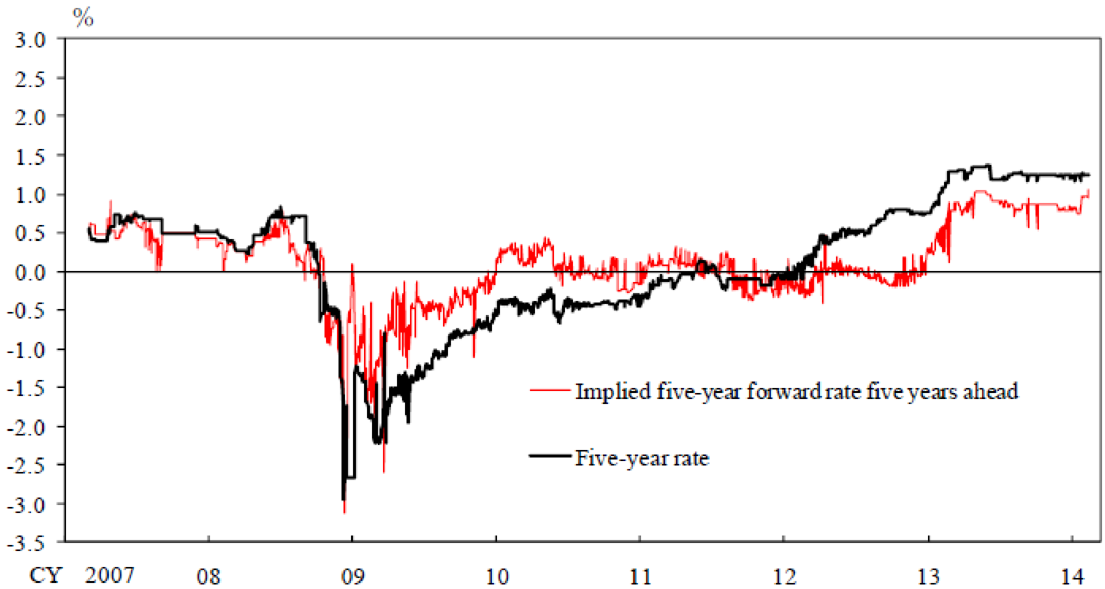
Market Data-Based Long-Term Inflation Expectations

(1) BEI Rates



Source: Bloomberg.

(2) Inflation Swap Rates



Note: Fixed interest rate of the zero coupon inflation swap.
Source: Bloomberg.