Sayuri Shirai: Communication and forward guidance in a world of unconventional monetary policy – the case of the Bank of Japan

Remarks by Ms Sayuri Shirai, Member of the Policy Board of the Bank of Japan, at the 2014 Monetary Policy Forum, New York City, 28 February 2014.

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I. Introduction

Thank you very much for inviting me to the 2014 U.S. Monetary Policy Forum. I feel greatly honored to have the opportunity to talk about communication on monetary policy in the context of the Bank of Japan.

As you may know, the Bank adopted *quantitative and qualitative monetary easing* (QQE) in April 2013. Prior to this, the Bank had adopted the 2 percent price stability target in terms of the year-on-year rate of change in the consumer price index (CPI) in January 2013. The Bank committed to pursuing monetary easing to achieve the 2 percent target as early as possible. Despite this increased transparency on its inflation target, some in both the markets and the public soon questioned the achievability of the 2 percent target under the then existing monetary easing framework called *comprehensive monetary easing* (CME) adopted in October 2010. This appears to have reflected (1) a perception of lack of boldness under CME,[1] (2) doubt about the Bank's determination to overcome deflation due to ineffective communication between the Bank and the markets as well as the public, and (3) disbelief arising from the Bank's past monetary policy because of a poor track record in achieving its stated objectives.[2] Under these conditions, QQE was introduced in April 2013.

Given this background, my presentation will begin by touching on the main features of QQE. I will then explain the Bank's forward guidance, or its communication strategy, on its future monetary policy stance. Finally, I will discuss issues related to the Bank's communication on monetary policy.

II. Main features of QQE and the Bank's forward guidance

Let me first highlight some distinctive differences between the current QQE and the previous CME (Chart 1).

Shifting from interest rate targeting to monetary base targeting

First, the main feature of QQE was a shift in the main operating target for money market operations from the *uncollateralized overnight call rate* to the *monetary base*. There were several reasons for this shift. It was thought it would be intuitively easier for the public to grasp the essence of monetary easing: an increase in the "quantity" could easily be connected to a large-scale supply of cash, creating an image of inflation. Moreover, market participants use the monetary base as a reference for measuring the scale of monetary easing across central banks when engaging in financial transactions. Certain academic research studies were also taken into account in regard to the Bank's adoption of monetary base targeting.[3] Moreover, there was general agreement among the Policy Board members

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[1] The size of the Asset Purchase Program was increased nine times, each time in the range of 5–10 trillion yen. The purchase of JGBs was mainly up to a remaining maturity of three years.

[2] This often refers to the exit timings of the *zero interest rate policy* in August 2000 and *quantitative monetary easing* in March 2006.

[3] These research studies, including those related to the Bank's monetary policy, include Paul R. Krugman, "It's Baaack: Japan's Slump and the Return of the Liquidity Trap," *Brookings Papers on Economic Activity*, 1998, 2, pp. 137–205; Allan H. Meltzer, "The Transmission Process," paper presented to the Deutsche Bundesbank

that changing the main operating target would effectively signal a much-needed change in the monetary policy framework and enable the Bank to wipe away its image as a reluctant monetary accommodator. Hence, the shift was decided as part of the Bank's *communication policy tool*. The purchase of Japanese government bonds (JGBs) was viewed as the main tool to fulfill the monetary base target. The Bank now purchases JGBs with a remaining maturity from a minimum of less than one year up to the maximum 40 years.

Importance of raising long-term inflation expectations

Here, I should also mention that QQE relies more heavily on long-term inflation expectations to achieve negative long-term real interest rates than the monetary policies adopted by other central banks. A decline in long-term interest rates in real terms may increase investment and consumption. The anticipation of higher inflation may hasten such increases. These expectations may also affect current sales prices and wages. Thus, the Bank decided to use all available tools to convince the markets and the public of its strong determination to overcome mild deflation and to help transform the deflation-oriented mindset. In this spirit, the "quantity"-based targeting approach was considered reasonable. This feature draws a clear line between QQE and the previous CME, which placed little emphasis on influencing such expectations and perceptions relating to the Bank's monetary policy stance.

The Bank's communication strategy and two descriptions in its forward guidance

QQE entails forward guidance as one of its most important elements (Chart 2). 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.

The purpose of the ***first description*** was to signal to both the markets and the public the Bank's intention 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. The reason the Bank set a time span was to show its determination to achieve the target and increase the confidence of the markets and the public. 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 JGBs of approximately 50 trillion yen (on an outstanding basis) each year to double the amount outstanding in two years (Chart 3).

Some market participants considered that the first description is a strong *calendar-based commitment*. This may have partly reflected an impression gained from the Bank's communication about QQE in April 2013. Namely, the Bank stressed the number "two" on many occasions – *the 2 percent price stability target, a time horizon of about two years, doubling the monetary base and the amount outstanding of JGBs, and more than doubling*

Conference on the Monetary Transmission Process: Recent Developments and Lessons for Europe, 1999; Ben S. Bernanke, "Japanese Monetary Policy: A Case of Self-Induced Paralysis?" in Adam Posen and Ryoichi Mikitani, eds. *Japan's Financial Crisis and Its Parallels to U.S. Experience*, Special Report 13, Institute for International Economics, Washington, D.C., 2000, pp. 149–166; and Bennett T. McCallum, "Alternative Monetary Policy Rules: A Comparison with Historical Settings for the United States, the United Kingdom, and Japan," *Economic Quarterly*, Federal Reserve Bank of Richmond, 2000, pp. 49–79.

the average remaining maturity of JGB purchases. This presentation was successful in sending a clear message about the new framework. However, the message may also have been interpreted by some market participants as a strong *calendar-based* commitment with a time limit, with a lesser focus on the second description (which I will describe in a moment). Personally, I believe 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 it plays a greater role than the first description in stabilizing long-term inflation expectations at around 2 percent. This helps to reduce long-term interest rate volatility and prevent 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 the time horizon is somewhat longer and that the asset purchases may not come to an end after two years. In this sense, the QQE time framework may be described as "open-ended," although the April 2013 *public statement* stipulated the annual pace of increase in the monetary base for the coming two calendar 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 (CPI for all items less fresh food; 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.[4]

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. Bear in mind here that the Bank adopted the 2 percent target in January 2013, assuming that such an inflation rate should be *sustainable*.[5] 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.

Why is the Bank's forward guidance so different from that of the Federal Reserve?

The form of forward guidance adopted by the Bank differs from that of the Federal Reserve on several fronts (Chart 4). First, the Federal Reserve applies forward guidance to its primary short-term policy interest rate (the overnight federal funds rate) and provides guidance to the

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4 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 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.

5 The *Joint Statement of the Government and the Bank of Japan on Overcoming Deflation and Achieving Sustainable Economic Growth*, released in January 2013, stated, "The Bank recognizes that the inflation rate consistent with price stability on a sustainable basis will rise as efforts by a wide range of entities toward strengthening competitiveness and growth potential of Japan's economy make progress." Based on this recognition, the Bank set the 2 percent target.

markets and the public about how long it expects to keep the current exceptionally low level. In other words, the Federal Reserve attempts to exert downward pressure on longer-term interest rates by influencing expectations of the markets and the public regarding the continuation of the current low level of short-term interest rates over an extended period of time. 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. Once the pace of the annual increase in the monetary base is set, the approximate pace of increase in JGB purchases is determined accordingly. In this sense, the pace of increase in the monetary base and that in asset purchases are treated as "*non-separable*," as shown in Chart 3. Then the Bank uses forward guidance to inform the public of its intention to maintain an increase in the monetary base and thus in asset purchases in the future. In other words, the Bank attempts to exert downward pressure on the entire yield curve by influencing the expectations of the markets and the public about the low level of the yield curve in the future.

Second, the Bank purchases treasury discount bills (T-Bills) and other assets, in addition to JGBs, to meet the monetary base target.[6] Moreover, it regularly conducts fixed-rate funds-supplying operations (with a duration of mainly three months, but available up to one year). Therefore, these short-term operations exert downward pressure directly on short-term interest rates. In contrast, the Federal Reserve purchases longer-term Treasury securities (with a remaining maturity from four to 30 years) and agency mortgage-backed securities (MBSs). The downward pressure on short-term interest rates is exerted through the forward guidance.

Third, the Bank and the Federal Reserve have different views on long-term inflation expectations. Forward guidance issued by the Federal Reserve assumes that longer-term inflation expectations have been *anchored* at around 2 percent. However, there may be some limited concerns on the dis-anchoring of inflation expectations. Therefore, one of the main tasks for the Federal Reserve is to continue with monetary easing measures to seek economic improvement, 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 help transform the deflation-oriented mindset of all economic entities and then increase inflation expectations to a higher level of 2 percent. Therefore, the threshold used for forward guidance concentrates solely on "2 percent" or "maintaining 2 percent in a stable manner."

Fourth, Federal Reserve forward guidance includes employment-related thresholds. It has a dual mandate of promoting price stability and maximum employment, so the reason for this is clear. In contrast, the Bank's primary mandate is to achieve price stability and there is relatively small concern about the unemployment rate. In fact, the unemployment rate for December 2013 reached 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.

III. Communication and challenges faced by the Bank

As you may know, Japan's economy is performing relatively well and the *core* CPI turned positive in June 2013 and reached 1.3 percent in December 2013. Together with expansionary fiscal measures and a front-loaded increase in consumption, QQE has

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[6] Other assets include exchange-traded funds (ETFs), Japan real estate investment trusts (J-REITs), CP, and corporate bonds. The Bank has also 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.

contributed to the favorable performance. That said, I will present my own views on some possible communication-related challenges that the Bank may face in the future.

Maintaining low levels of real interest rates and communicating with the markets

One clear achievement of QQE (and of the anticipated greater monetary easing from the end of 2012) is that long-term real interest rates turned negative and have remained in negative territory (Chart 5). This reflects two factors. One factor is the continuous downward pressure being exerted on long-term nominal interest rates. Chart 6 shows that upward pressure on long-term interest rates remains limited to date, since the massive purchases of JGBs have helped to generate strong downward pressure on interest rates. The chart shows the decomposition of key factors contributing to long-term JGB yields. It indicates that in recent months downward forces caused by “other factors” (which seems to largely reflect domestic factors) have been greater than upward pressure caused by “common factors” (which largely reflects global factors).

Another factor is an increase in long-term inflation expectations since late 2012. Chart 7 shows survey-based indicators (such expectations of households, economists, and market participants), while Chart 8 shows market data-based indicators. These indicators 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. After *excluding* the tax effects, they are still well below the 2 percent target and the recent movement of some indicators appears to have leveled off to some extent.

A current and future challenge relates to the growing linkages across financial markets. A rise in long-term nominal government bond yields in a major overseas economy may exert upward pressure on the government bond yields in Japan. The upward force may work against the downward pressure maintained by QQE, potentially weakening the effectiveness of monetary policy and leading to greater volatility in long-term nominal and real interest rates. Yet, even in the phase of intensified upward pressure, the continuation of the Bank’s large-scale asset purchases is likely to maintain the downward pressure – in addition to the forward guidance applied to QQE. As long as the rising pace of long-term interest rates is more *moderate* than that of inflation expectations, real interest rates are likely to remain at low levels. Maintaining relatively low levels of nominal and real interest rates as well as contained volatilities are important in terms of supporting the economic recovery path. While the Bank expects that both short- and long-term interest rates will move largely on a stable path, it is important to continue dialogues with the market participants regarding the framework of QQE. Indeed, during April-July 2013, when the JGB market became unstable, the Bank held several dialogues with market participants and adopted a flexible operational framework, which helped to stabilize the market.

Inflation outlook gap between the bank and economists, and promotion of communication with the latter

As mentioned earlier, according to the Bank’s baseline scenario, the core CPI inflation (*excluding* the direct effects of the consumption tax hikes) is projected to reach around 2 percent toward the latter half of the projection period of fiscal 2013–15. As shown in Chart 9, the median of the Policy Board members’ forecasts is 0.7 percent for fiscal 2013, 1.3 percent for fiscal 2014 (3.3 percent *including* the effects of the tax hike), and 1.9 percent for fiscal 2015 (2.6 percent *including* the effects of the tax hike).[7]

Now let me show you the projections on core CPI-based inflation envisaged by about 40 economists. Chart 10 shows the evolution of the economists’ forecasts for inflation

[7] There is a large gap between the maximum and minimum Policy Board member inflation forecasts, suggesting the presence of divergent views. This divergence widens somewhat for fiscal 2015.

(*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 chart indicates that a divergence of views was also present among economists for fiscal 2014 and 2015. Next, a comparison was made between the average of the economists' forecasts and the median of the Bank's Policy Board members' forecasts. Chart 11 indicates that a clear convergence was present for fiscal 2013, as a result of adjustments made mainly by the economists. A moderate degree of convergence was also observed for fiscal 2014, while a relatively large difference still remained between the projections for fiscal 2015.

The observations I have described suggest that a degree of uncertainty exists regarding the path toward 2 percent and the time it will take to achieve the 2 percent target. These differences appear to reflect differing views between the Bank and economists, with respect to (1) the pace of improvement in the employment and income situation in Japan, (2) the pace of the rise in long-term inflation expectations, and (3) the ability of firms to raise their sales prices owing to the healthier prospects for profitability.

The views of economists and market participants are particularly important for the Bank. This is because financial markets influence the behavior of households and firms through changes in interest rates, foreign exchange rates, and financial asset prices, but these financial market indicators reflect the valuations of economists and market participants for various financial assets as well as their expectations of future inflation and economic developments. These financial indicators respond directly to changes in market conditions caused by (present and anticipated) monetary policy measures, in addition to the release of the latest macroeconomic data, news, and exogeneous shocks. Thus, to help narrow the perception gap between the Bank and these groups, it is important for the Bank to 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.

Communication to enhance public understanding on the importance of the 2 percent target

The Bank needs to increase its dialogue with the public to promote understanding of the importance of the 2 percent target. In January 2013, the Bank judged that setting the 2 percent price stability target was important for the economy. This judgment took into account, for example, (1) the scope needed to avoid another deflationary period, (2) the scope needed for the conduct of flexible monetary policy in normal periods to avoid the zero lower bound in the recessionary phase of the economy, (3) the upward bias in the CPI statistics, and (4) the need to align with the global standard of a price stability target. Moreover, achieving sufficiently high nominal GDP growth rates is essential for the economy to boost firms' and households' economic growth expectations.

In Japan, the majority of households continue to 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.

Communication about the 2 percent pinpoint target

Some argue that the Bank should adopt an *inflation target range*, rather than an *inflation target point*. I believe that the Bank should maintain the current inflation target point (that is, 2 percent). The idea of applying a *range* to the inflation target should not be ruled out and might be examined after the actual inflation rate exceeds at least 1 percent in a stable manner and after it is judged that inflation expectations are likely to rise toward 2 percent. However, the premature introduction of a range may result in the actual inflation rate getting stuck at the *lower* bound of the range, making it harder to achieve the 2 percent target. A more important concern in this case is that the markets and the public may mistakenly assume that the Bank's intention to achieve the target has weakened, undermining the credibility of monetary policy.

Communication on achieving the 2 percent target in a stable manner

Lastly, the expression "in a stable manner" contained in the second description of the Bank's forward guidance may give the impression of ambiguity in terms of its description of the conditions. This expression, however, appears to be appropriate at present, because the formation of long-term inflation expectations entails uncertainty. In addition, judgment on how and when long-term inflation expectations will be stabilized at around 2 percent is likely to require a clear understanding of the features and movements of a range of indicators measuring inflation expectations. Nevertheless, as economic activity and prices firmly improve and as the process of increasing inflation expectations becomes clearer with an enhanced understanding of their developments, I think that the second description of forward guidance could be refined with more specific information about what constitutes "in a stable manner" from a longer-term perspective.

I would like to end my presentation here. Thank you for your kind attention.

Chart 1

Major Differences between QQE and CME

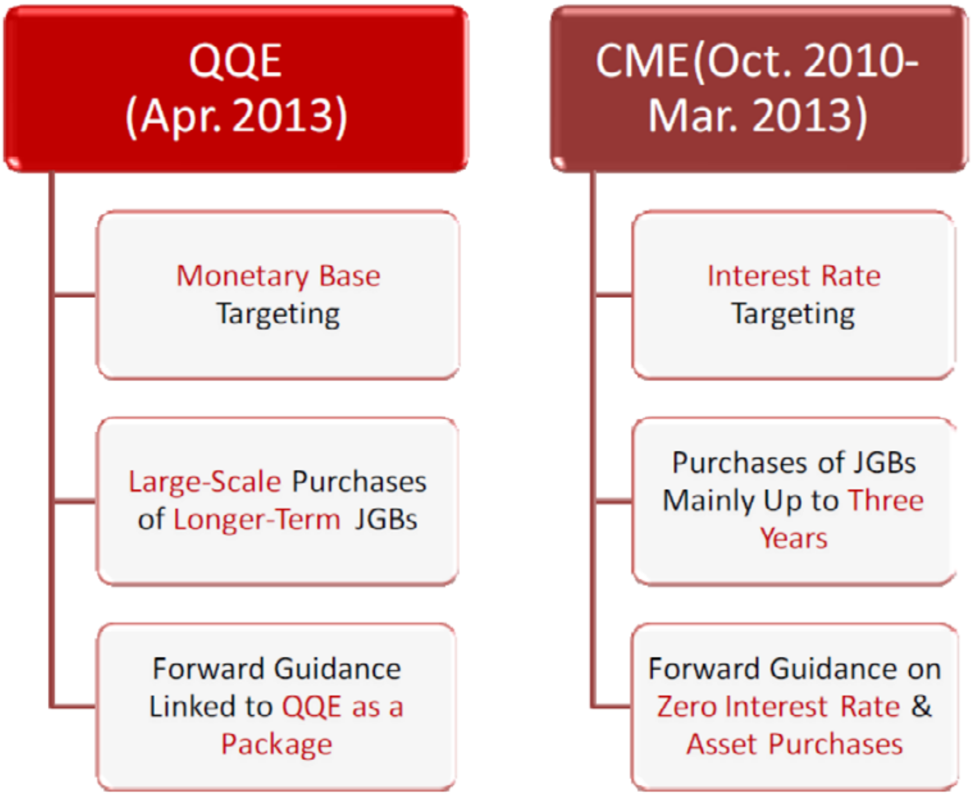


Chart 2

The Bank of Japan's Forward Guidance

The First Forward Guidance Description

The Bank will achieve the 2% target at the earliest possible time with a time horizon of about two years.

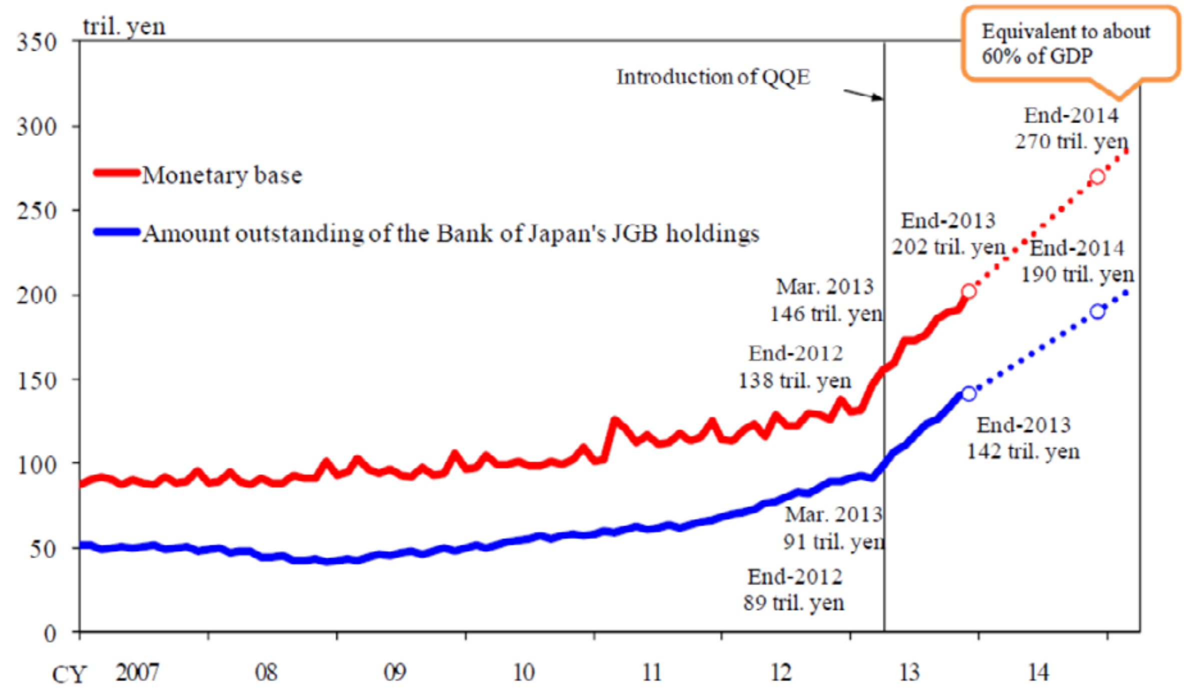
"2 %, in about two years, doubling the amount outstanding of the monetary base and JGB holdings . . ."

The Second Forward Guidance Description

The Bank will continue with QQE, aiming to achieve the 2% target, as long as necessary for maintaining it in a stable manner (based on examining risks to economic activity and prices).

Chart 3

Monetary Base and JGB Holdings



Source: Bank of Japan.

Chart 4

Forward Guidance: The Bank of Japan and the Federal Reserve

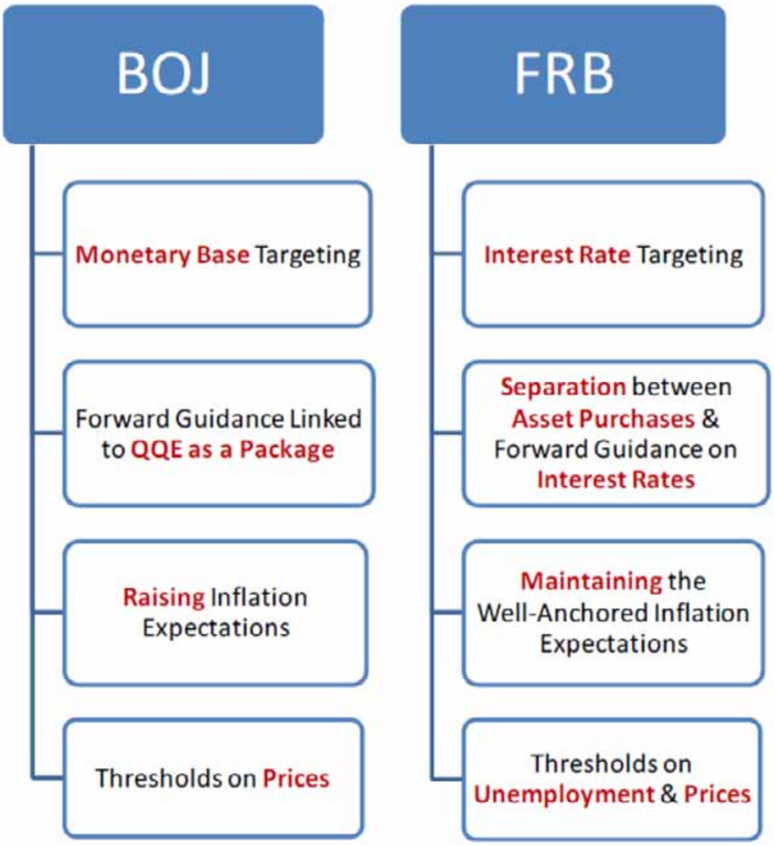
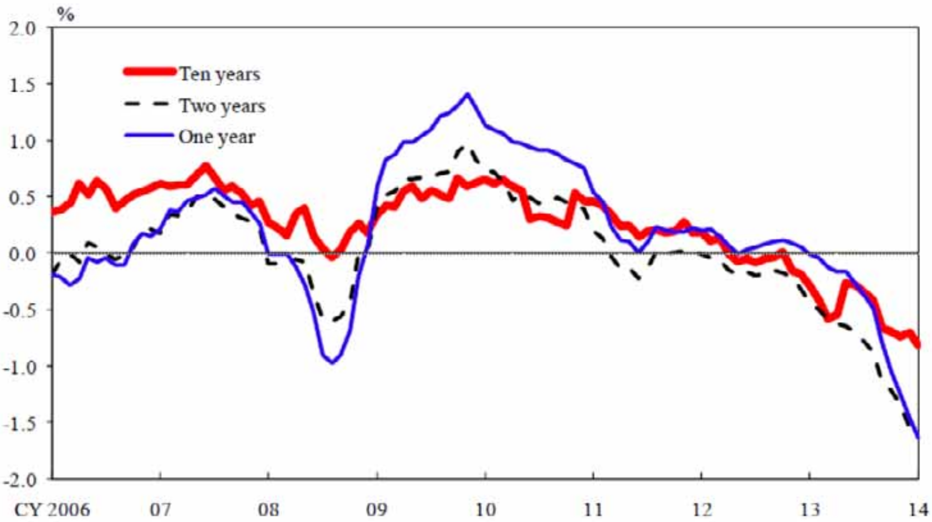


Chart 5

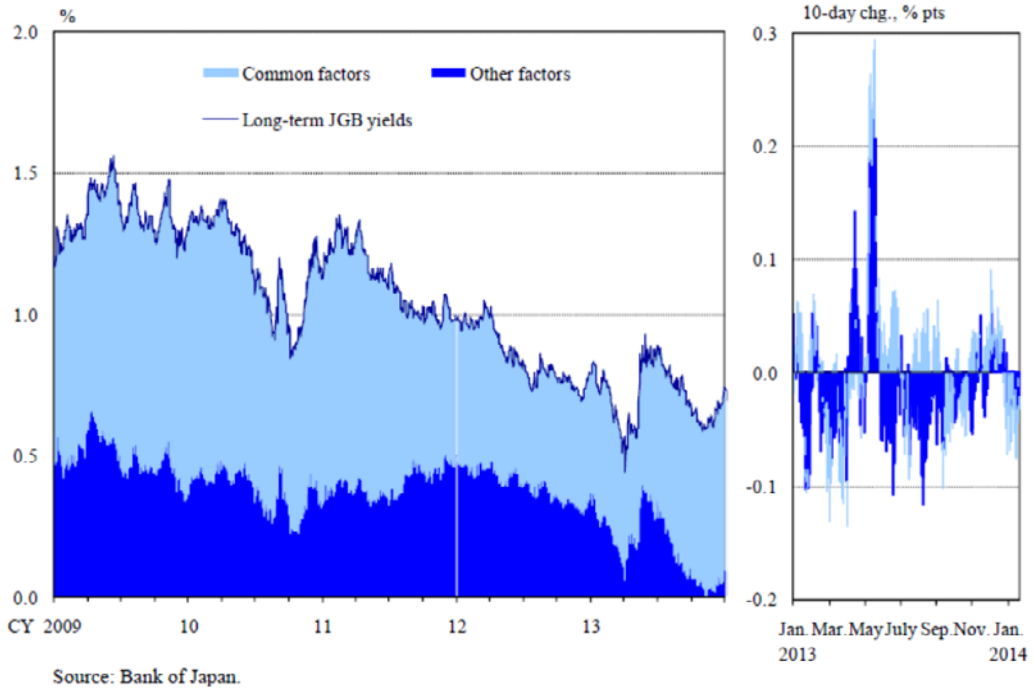
Long-Term Real Interest Rates in Japan



Note: Figures are estimates using bond yields and market participants' inflation expectations. The QUICK Bond Monthly Survey includes the tax effects from the September 2013 survey.

Sources: Bank of Japan; Bloomberg; QUICK.

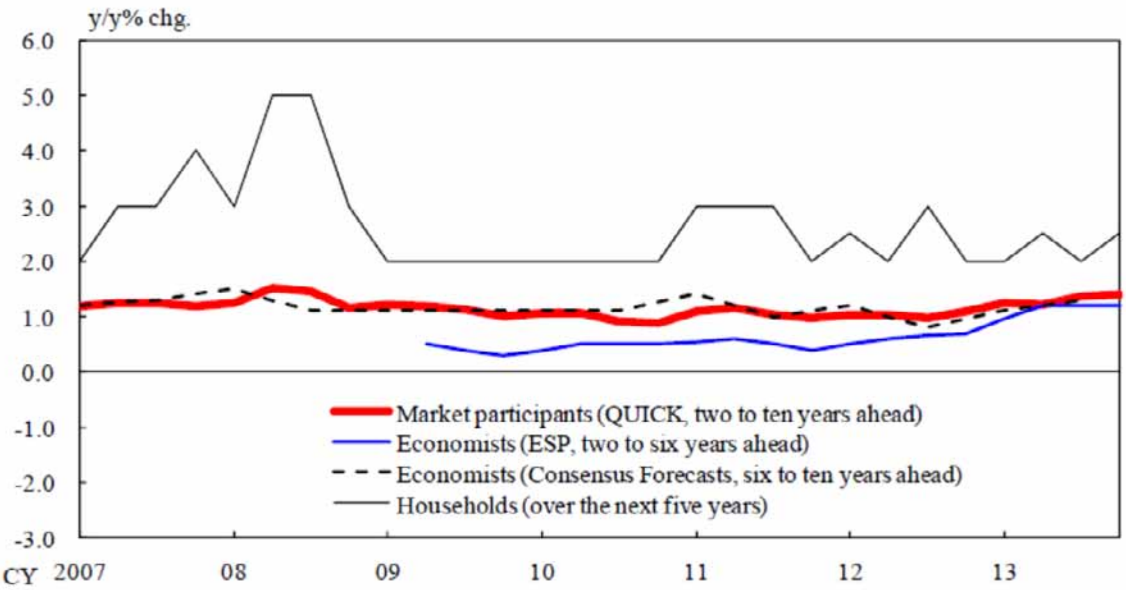
Decomposition of Long-Term JGB Yields



Source: Bank of Japan.

Chart 7

Survey-Based Long-Term Inflation Expectations



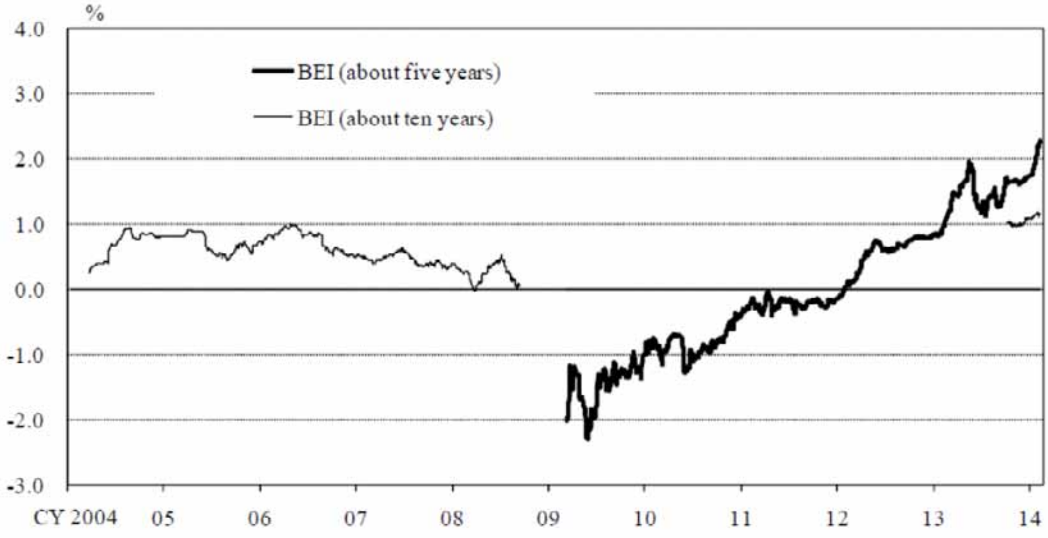
Note: Household and the ESP Forecast surveys exclude the tax effects from the June and October 2013 surveys, respectively; the QUICK Bond Monthly Survey includes the effects from the September 2013 survey. The tax effect is irrelevant for the period "six to ten years ahead" in Consensus Forecasts.

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

Chart 8

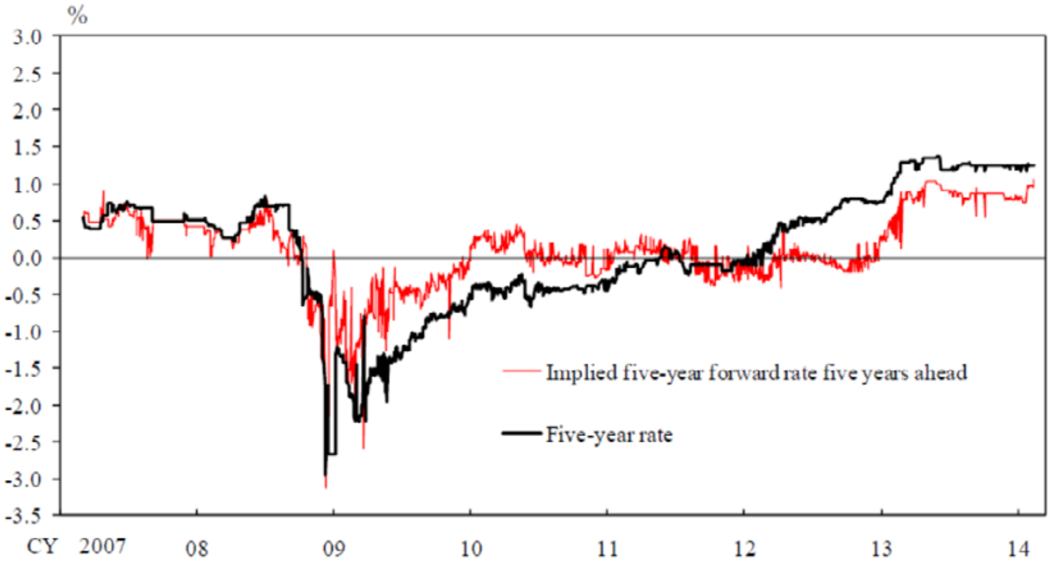
Market Data-Based Long-Term Inflation Expectations in Japan

(1) BEI Rates



Source: Bloomberg.

(2) Inflation Swap Rates

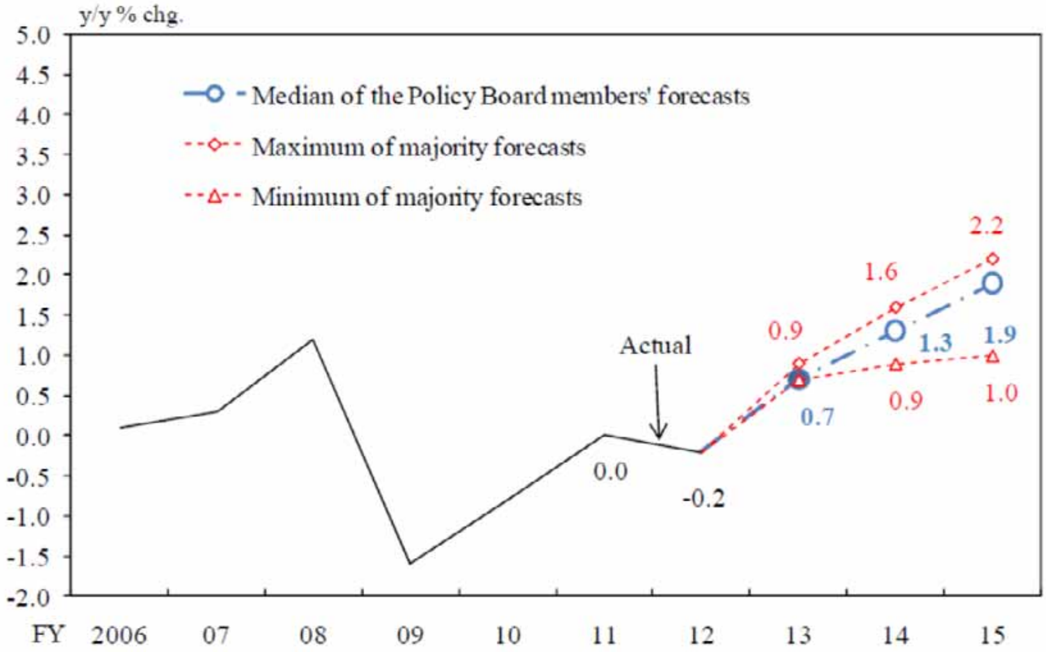


Note: Fixed interest rate of the zero coupon inflation swap.
Source: Bloomberg.

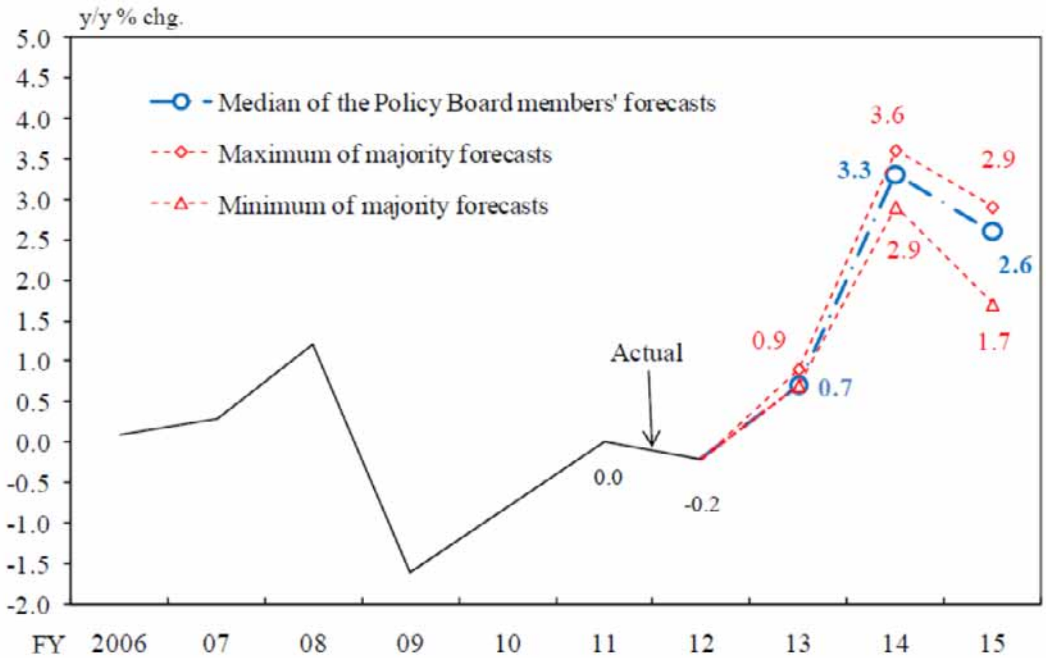
Chart 9

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

(1) Excluding the effects of the consumption tax hike



(2) Including the effects of the consumption tax hike

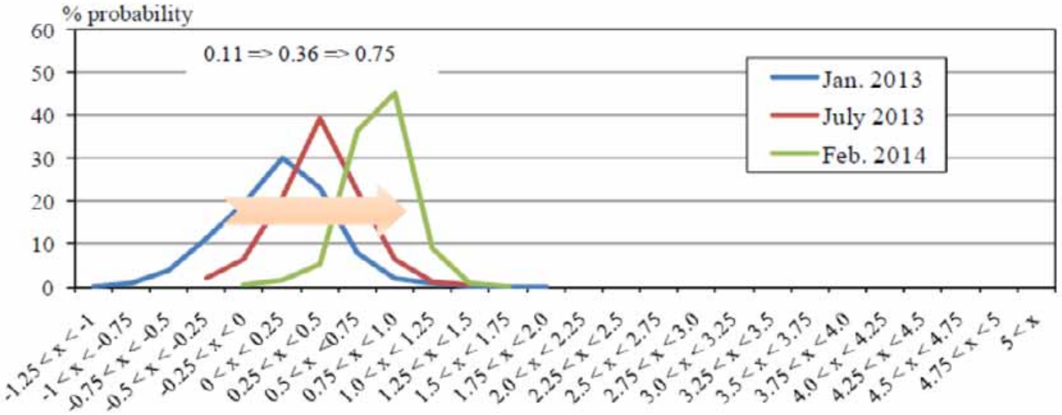


Source: Bank of Japan.

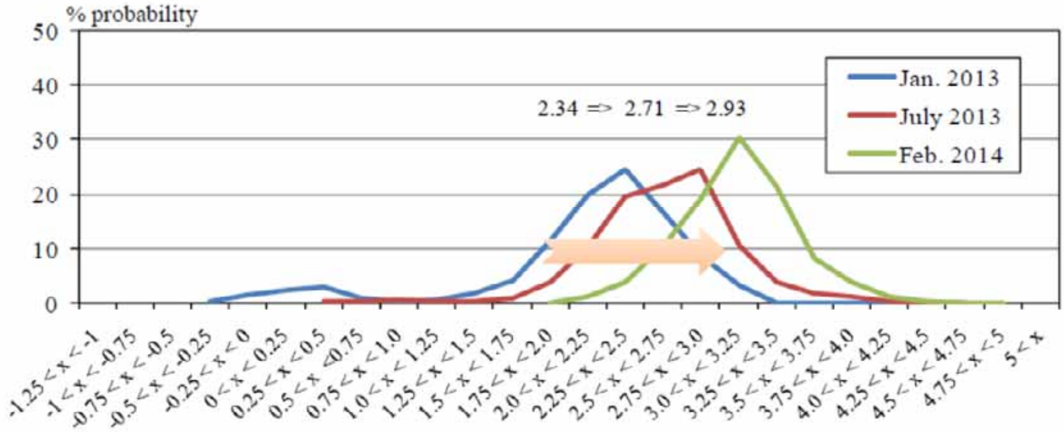
Chart 10

Distribution of Economists' Outlook for Prices (CPI)

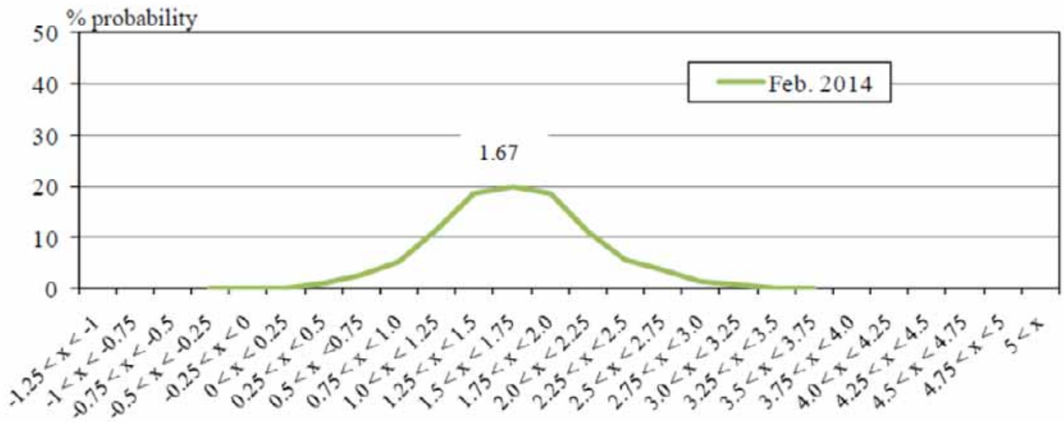
(1) FY 2013



(2) FY 2014



(3) FY 2015

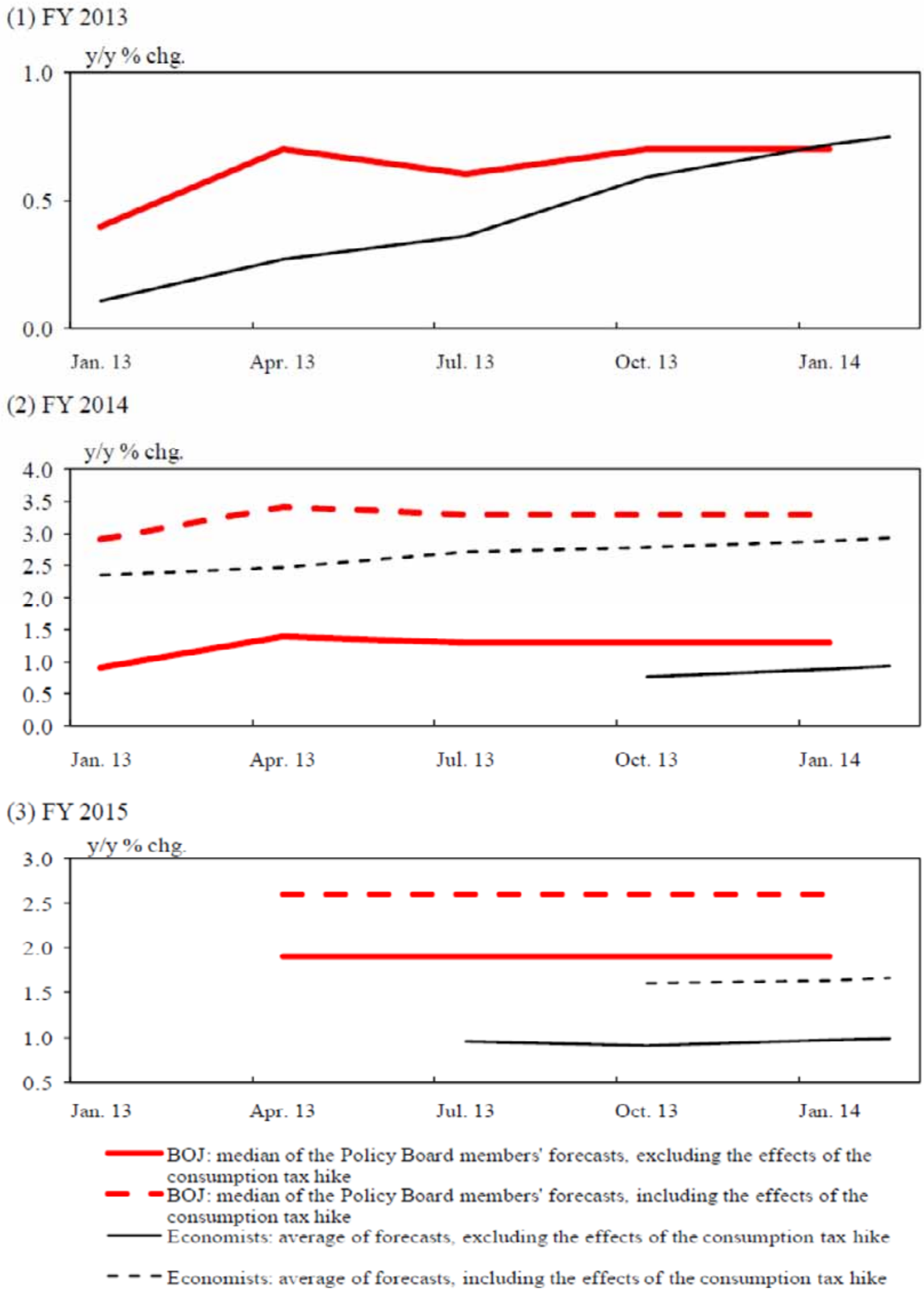


Note: For fiscal 2014 and fiscal 2015, the effects of the consumption tax hike are explicitly included in the February 2014 survey.

Source: Japan Center for Economic Research (JCER).

Chart 11

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



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