

Ryuzo Miyao: Economic activity and prices in Japan and monetary policy

Speech by Mr Ryuzo Miyao, Member of the Policy Board of the Bank of Japan, at a meeting with business leaders, Nagano, 13 November 2013.

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Introduction

Thank you for giving me this opportunity to exchange views with people representing Nagano Prefecture, who have taken time to be here despite their busy schedules. Please allow me to express my gratitude for your cooperation with the activities of the Bank of Japan's Matsumoto Branch and the local office in the city of Nagano.

Today, I will review economic activity and prices in Japan, whose economy has been recovering moderately, and then discuss the Bank's monetary policy. My concluding remarks will touch briefly on the economy of Nagano Prefecture. Following my speech, I would like to listen to your views on the actual situation of the local economy and to your candid opinions.

I. Recent developments in economic activity and prices

A. *Moderate recovery in Japan's economy*

Economic activity in Japan stopped weakening after the turn of 2013. Domestic demand remained resilient, partly due to the effects of monetary easing and various economic measures. Overseas economies were gradually heading toward a pick-up. Against this background, the economy then returned to a moderate recovery path around the middle of the year (Charts 1 and 2).

I will elaborate on the recent developments in Japan's economy. As for external demand, although some emerging economies other than China and commodity-exporting economies have shown signs of weakness, overseas economies as a whole are gradually heading toward a pick-up. Specifically, (1) the U.S. economy continues to recover moderately against the backdrop of firm private demand, (2) the European economy has stopped weakening, and (3) the Chinese economy has been stabilizing. On the back of these factors and partly supported by developments in foreign exchange rates, exports have generally been picking up, albeit at a moderate pace. As for domestic demand, business fixed investment as a whole has been picking up, as corporate profits and business sentiment are improving; in addition to the resilience in business fixed investment in the nonmanufacturing sector, positive developments have started to be seen in that in the manufacturing sector. While public investment has continued to increase, as positive effects of various economic measures have come to take hold fully, housing investment has also been increasing. Private consumption has remained resilient, reflecting an improving trend in consumer sentiment from a somewhat long-term perspective as well as recent improvement in the employment and income situation. Reflecting such developments in domestic and external demand, industrial production has been increasing moderately. An improvement in activity in the nonmanufacturing sector, including services and construction, has been more evident than that in production in the manufacturing sector.

As for the outlook, Japan's economy is expected to continue its moderate recovery (Chart 3). To elaborate, overseas economies – mainly the advanced economies – are expected to gradually pick up. Emerging economies other than China and commodity-exporting economies, some of which are exhibiting weakness, will likely continue to lack growth momentum for the time being. However, from a somewhat long-term perspective, their growth rates are likely to start picking up again with an improvement in the advanced economies. Under these circumstances, exports and industrial production are expected to increase moderately, and domestic demand is expected to remain firm. The pick-up in

business fixed investment will become pronounced as moves to undertake postponed investment for maintenance and replacement spread in tandem with continued improvement in corporate profits. Private consumption is expected to maintain its resilience, underpinned by an improvement in the employment and income situation. In this way, a virtuous cycle will operate more clearly both in the corporate and household sectors.

Meanwhile, as for prices, the year-on-year rate of change in the consumer price index (CPI) for all items less fresh food turned positive in mid-2013 and has recently been in the range of 0.5–1.0 percent, as prices of energy-related items such as petroleum products and electricity have been rising and cost increases have been passed on to selling prices with resilient private consumption. As for the outlook, although the upward pressure from energy-related items will weaken gradually, the year-on-year rate of change in the CPI is expected to continue to follow a rising trend as medium- to long-term inflation expectations will rise with a moderate improvement in the aggregate supply and demand balance.

What I have presented is generally consistent with the path toward achieving the 2 percent price stability target, which I described in a speech in April 2013 at a meeting with business leaders in Gifu.¹ In that speech, I presented a path consisting of the following five stages: (1) recovery in the world economy; (2) accommodative financial conditions, reflected in asset prices and foreign exchange rates; (3) a gradual rise in the potential growth rate of Japan's economy accompanied by an increase in business fixed investment and structural reforms; (4) an improvement in the output gap amid firm household spending; and (5) a gradual heightening in inflation expectations. I then emphasized that, with this path, it was important that the year-on-year rate of change in the CPI rise above 1 percent during fiscal 2014. I continued that, if the virtuous cycle of the five-stage path was maintained thereafter and the medium- to long-term trend inflation rate increased toward 2 percent, the actual inflation rate was expected to approach the 2 percent price stability target. After about half a year, although the recovery in the world economy – the first stage of the path – has lagged somewhat behind and household spending – the fourth stage – has turned out to be somewhat stronger than expected, it can be judged that the path is generally on track to achieve the 2 percent price stability target. In particular, the recovery in private consumption, as well as in the nonmanufacturing sector, affects a wide range of economic activity, and therefore may support upward pressure on a broad range of prices.

B. Risks to the outlook for economic activity and prices

As I have described, Japan's economy is likely to continue its moderate recovery. However, both upside and downside uncertainties exist over the economic outlook, such as the following, and I am paying slightly more attention to the downside risks overall.

First, there is uncertainty regarding developments in overseas economies. In particular, some emerging economies other than China and commodity-exporting economies are facing structural problems such as current account deficits, and thus pose downside risks. I also recognize that attention should be paid to the possibility that the recovery in the U.S. economy and the world economy may be delayed depending on the consequences of the fiscal problem in the United States.

Second is developments in households' employment and income situation. For domestic demand to continue to maintain its firmness in the future, the key issue is whether a virtuous cycle whereby improvement in the employment and income situation supports consumption will be maintained. In this regard, despite some downside risks, I see a possibility that the mechanism of upward momentum may operate, about which I will explain in the next section.

¹ For details, see Ryuzo Miyao, "Economic Activity, Prices, and Monetary Policy", Speech at a Meeting with Business Leaders in Gifu, Bank of Japan, April 18, 2013.

Third is the effects of the consumption tax hikes. The hikes will have adverse effects on households' real disposable income, but the effects are likely to be mitigated to some extent by, for example, the government's various economic measures. On this basis, whether these effects will slow the economy by more than expected depends on the employment and income situation and developments in prices at each point in time. Therefore, attention should be paid to the effects of the consumption tax hikes.

Fourth, firms' and households' medium- to long-term growth expectations are subject to uncertainty. These expectations may be either raised or lowered depending on firms' innovations, such as their creative efforts to boost demand, on progress in regulatory and institutional reforms, and on future developments in tax reforms.

C. *Issues to be considered regarding private consumption and inflation expectations*

1. Sustainability of the resilience in private consumption

The current economic recovery is characterized by domestic demand-led growth, led by private consumption in particular, as opposed to recovery in the past that typically was led by external demand such as exports and production (Chart 4). In what follows, I will take up the topic of sustainability of the resilience in private consumption and explain its background as well as the issues I consider to be important with regard to anticipating developments in economic recovery.

a. Improvement in consumer sentiment: rise in stock prices and improvement in the employment and income situation

Favorable consumer sentiment is one factor that underpins private consumption. The Consumer Confidence Index, which is a major indicator for consumer sentiment, has been improving significantly since end-2012. It is often noted that this is attributable to the rise in stock prices during the same period (Chart 5). Looking at developments in stock prices, their uptrend continues on the back of the improvement in corporate profits and more accommodative financial conditions. Some take the view that, through the improvement in household sentiment, the rise in stock prices only boosts consumption by the wealthy and the elderly who hold stocks. Even so, it is reasonable to say that higher stock prices have been stimulating spending by those people who are willing to spend. It should be noted that wealth effects for the elderly seem to spill over into the working segment of the population, as seen in, for example, greater consumption related to grandchildren and increased demand for three-generation family trips.²

One factor that could affect consumer sentiment more broadly is the employment and income situation. For example, if firms offer more jobs and the number of employees rises, the overall outlook for income improves, thereby making consumer sentiment more favorable. An improvement in the employment and income situation could make people more willing to borrow and spend more confidently. In fact, a strong correlation is observed between the active job openings-to-applicants ratio – which represents the number of job openings relative to the number of job seekers – and the Consumer Confidence Index (Chart 6). Employment conditions as suggested by the active job openings-to-applicants ratio and the unemployment rate deteriorated in the wake of the Lehman shock, but thereafter have been on a recovery trend. If this trend continues, consumer sentiment is likely to be underpinned at a high level.

² The October 2013 issue of the *Regional Economic Report* released by the Bank contains a review of regional features of recent developments in consumption (available in Japanese).

b. Sustainable improvement in income: rise in labor productivity

A rise in labor productivity is important in terms of providing support for improvement in economic activity and income in the longer run, as this means strengthening the foundations for Japan's economic growth. If prospects for a sustainable improvement in income are widely acknowledged, private consumption will continue to be resilient. Labor productivity per worker has been growing steadily, albeit at a moderate pace, and this trend has been firmly taking hold despite such significant events as the Lehman shock and the Great East Japan Earthquake (Chart 7).

Looking at a breakdown by industry, labor productivity in the nonmanufacturing sector has been exhibiting higher growth in the past couple of years (Chart 8). The level of labor productivity in the nonmanufacturing sector is still lower than that in the manufacturing sector. In addition, it remains difficult to increase value-added in some segments of the nonmanufacturing sector, due in part to various regulations. However, labor productivity in the nonmanufacturing sector as a whole continues to show higher growth than in the past, and has been exceeding the level seen before the Lehman shock. Developments in labor productivity include the effects of cyclical economic recovery, but the underlying trend reflects a pick-up in economic growth potential from a somewhat long-term perspective. For example, reports on interviews with firms and other relevant information across regions suggest steady progress in firms' efforts to create demand, such as for high value-added services, and to make active fixed investment, with both being done across a wide range of areas such as wholesaling and retailing, construction and real estate, accommodations, and eating and drinking services.³

Recent developments in the underlying trend of labor productivity in the nonmanufacturing sector show a strong correlation with developments in private consumption (Chart 9). There is a possibility – although this interpretation should be taken with care – that the rise in productivity has been boosting prospects for a sustainable improvement in income, leading to higher growth in private consumption.

The rise in labor productivity in the nonmanufacturing sector may also be exerting upward pressure on a broad range of prices through the growth in consumption (Chart 10). It can be considered that this rise has exerted a positive influence on the inflation rate through an improvement in the supply-demand balance, as its effects of increasing value-added and demand would more than offset its effects of generating price competition through cost cuts and subsequently exerting downward pressure on prices.⁴

In the manufacturing sector, the rise in labor productivity in terms of value-added in Japan has come to a pause. However, looking at the corporate sector, firms have been steadily enhancing their ability to make profits on a global basis. Overseas, for example, they are increasing their production, fixed investment, and parts procurement. In the manufacturing sector, corporate profits have recently been growing rapidly, helped in part by developments in foreign exchange rates, and stock prices are firm, as are those in the nonmanufacturing sector (Charts 11 and 12). It should also be noted that Japan's net income from the rest of the world exceeds the historical peak (Chart 13). If the current account surplus is maintained

³ See the October 2013 issue of the *Regional Economic Report* released by the Bank (only the summary of the report is available in English) and the report on the features of and background to business fixed investment in the nonmanufacturing sector of the Chubu region released by the Bank's Nagoya Branch on October 18, 2013 (available in Japanese).

⁴ Empirical studies also indicate that a rise in productivity will improve the supply-demand balance in a sustainable manner, thereby exerting positive effects on the inflation rate. For example, see Ryuzo Miyao, "Nihon no Keiki Hendou Youin: Jikeiretsu Bunseki karano Shiten (Sources for Japan's Economic Fluctuations: A Perspective from Time-Series Analysis)", *Gendai Keizaigaku no Chouryuu* (Contemporary Trends in Economics), Toyo Keizai Inc., 2011, pp. 35–65 (available in Japanese).

through an improvement in the income balance, the country's net assets will increase, thereby exerting positive effects on consumption.

2. People's inflation expectations: forward-looking expectation formation

People's inflation expectations have been rising on the whole. For example, in terms of short-term inflation expectations such as those for fiscal 2013 or for a year ahead, many indicators – including the results of surveys conducted on households, economists, and market participants – show a gradual rise. Medium- to long-term inflation expectations, such as for five and ten years ahead, are also rising, according to surveys conducted on economists (Chart 14).

Let me elaborate on how people form expectations of future inflation rates. Generally speaking, there are two ways to predict economic variables. One is backward-looking expectation formation, where past results are directly used to form expectations. A typical example is that the inflation rate for the previous period is simply assumed as the expected future inflation rate. In this case, expectations for future inflation rates are fixed to actual past inflation rates.

The other is forward-looking expectation formation, where future inflation rates are predicted in line with the underlying mechanism of future developments in economic activity. As an example, let us simply consider the Phillips curve and assume that prices rise when economic activity improves. Given this, when prospects for a sustainable improvement in economic activity are widely acknowledged in view of efforts to strengthen the foundations for economic growth and the spread of policy effects, people expect a rise in prices based on the relationship between economic activity and prices at a future point in time – in other words, inflation expectations will rise. Meanwhile, in the corporate sector, better prospects for economic activity and sales will enable firms to ease price competition and pass higher costs on to selling prices. As a result, prices for the present period will likely incur upward pressure, thereby shifting the entire observed Phillips curve upward, or making the curve steeper than before.

In the actual formation of inflation expectations, aspects of both the backward-looking and forward-looking formations are considered to coexist. This is called hybrid-type expectation formation. Based on past experiences, the aspect of backward-looking expectation formation is prominent in Japan. On the other hand, the government and the central bank have been strongly pursuing initiatives to work on forward-looking expectations. The government has been working to raise expectations for economic growth by increasing public spending and promoting regulatory and institutional reforms. The Bank has set the 2 percent price stability target and has been conducting large-scale monetary easing with the aim of achieving this target at the earliest possible time, and thereby continues to provide strong support from the financial side to ensure sustainable economic recovery. In the corporate sector, if there is a continuation of nonmanufacturing firms' innovations and fixed investment that I mentioned earlier, their labor productivity will rise further, which could lead to continuous improvement in the income outlook.

Taken altogether, with the prospect of sustainable improvement in economic activity, it is possible that the proportion of people who are oriented to forward-looking expectation formation will increase. Of course, whether Japan's economy will move in line with the scenario I mentioned earlier is uncertain, as the environment surrounding firms and households remains severe. At the same time, however, macro data and information from interviews with firms – both of which indicate sustainable improvement in consumption and income – as well as the recent gradual rise in medium- to long-term inflation expectations suggest that Japan's economy as a whole seems to be gradually moving in line with this scenario. Taking account of this mechanism, I see some possibility that medium- to long-term inflation expectations will rise.

II. Monetary policy

A. Conduct of Monetary Policy

Let me now explain the policy framework of quantitative and qualitative monetary easing (QQE) introduced at the Monetary Policy Meeting held on April 3 and 4, 2013, and the state of progress in its implementation (Charts 15 through 18).

First, the Bank conducts money market operations so that the monetary base will increase at an annual pace of about 60–70 trillion yen. Second, it purchases Japanese government bonds (JGBs) so that their amount outstanding will increase at an annual pace of about 50 trillion yen, and the average remaining maturity of the Bank's JGB purchases will be about seven years. Third, it purchases exchange-traded funds (ETFs) and Japan real estate investment trusts (J-REITs) so that their amounts outstanding will increase at an annual pace of about 1 trillion yen and about 30 billion yen, respectively. And fourth, for CP and corporate bonds, the Bank continues with these asset purchases until their amounts outstanding reach 2.2 trillion yen and 3.2 trillion yen, respectively, by end-2013; thereafter, it will maintain these amounts outstanding.

The Bank will continue with QQE, which consists of the measures I have just cited, aiming to achieve the price stability target of 2 percent, as long as it is necessary for maintaining that target in a stable manner. It will examine both upside and downside risks to economic activity and prices, and make adjustments as appropriate.

As a result, calculated on a stock basis, the monetary base and the amounts outstanding of JGBs as well as ETFs will double in two years. The ratio of the monetary base to nominal GDP is expected to increase to about 56 percent by end-2014. This not only stands above the other advanced economies, but also is more than three times larger than the ratio before the Lehman shock.

The amounts outstanding of the monetary base and JGBs at end-October 2013 stood at about 189 trillion yen and about 132 trillion yen, respectively, and accumulation of the amount outstanding of the monetary base and purchases of assets have been progressing smoothly.

B. Issues to be considered regarding QQE

1. Policy effects of QQE

More than six months have passed since the introduction of QQE, and its effects, together with those of the government's various economic measures, have emerged in the form of improvement in economic activity as well as in financial market developments. In financial markets, long-term interest rates have been stable at a low level of around 0.6 percent. Stock prices have risen by more than 30 percent compared with at the beginning of 2013, and this growth exceeds that in European and U.S. stock prices. Financial institutions' portfolio rebalancing has not made marked progress yet, but households are increasingly investing in financial assets such as investment trusts. In terms of economic activity, real GDP in Japan registered a relatively high growth rate for two consecutive quarters through the April–June quarter of 2013. The unemployment rate has declined to around 4 percent – a level seen before the Lehman shock. On the price front, the year-on-year rate of change in the CPI for all items less food and energy has improved to around 0.0 percent, and inflation expectations appear to be rising on the whole, considering market indicators and the results of various surveys. Given that the effects of monetary policy on economic activity and prices appear with a time lag, these improvements in economic activity and prices can be partly attributable to the effects produced by successive monetary easing measures implemented before the introduction of QQE. In any case, it seems that the implementation of a large-scale monetary easing and a commitment to continuing with it as long as it is necessary for maintaining the 2 percent price stability target in a stable manner are underpinning the improvement in economic activity and prices.

A final assessment of the effects of QQE on economic activity and prices can be made only after it is lifted, but I would like to explain at this point my empirical analysis on the effects of the quantitative easing (QE) policy – adopted by the Bank during 2001–06 – on the macroeconomy.⁵ The result, although tentative, showed that the QE policy had a certain effect on economic activity (production), and that a transmission channel through asset prices – namely, stock prices and foreign exchange rates – had been working. The QE policy's effect on prices, however, was not as clear as that on economic activity. One possible way of interpreting this result is that prices had been less responsive to an improvement in economic activity brought about by the policy – that is, a slope of the Phillips curve had been relatively flat during the period of quantitative easing.

Therefore, I think that the key issue is whether QQE will make the Phillips curve steeper than before or shift the entire curve upward in line with the mechanism I explained earlier. As I mentioned, inflation expectations could be more forward looking in the current phase of economic recovery that is led mainly by private consumption. Initiatives taken by the government and the corporate sector to achieve economic growth are likely to strengthen such effects by enhancing confidence in sustainable improvement in economic activity. I will continue to carefully examine efforts made by each economic entity as well as future developments in the Phillips curve to see if there is any progress in terms of a change in the slope or an upward shift.

2. Communication regarding the conduct of monetary policy

Central banks in advanced economies are making efforts to increase transparency, aiming at appropriate communication to the public regarding their policy conduct. Specifically, such efforts include the following. First, clarifying the policy target by, for example, using numerical expressions. Second, explaining the outlook for economic activity and associated risks, which form the basis for policy decisions. Third, making public the process of policy formulation through release of the minutes of policy meetings and through press conferences. And fourth, communicating to the public, as necessary, regarding the future conduct of monetary policy and factors relevant to policy decisions, such as guidance with regard to continuation of monetary easing. Through all these efforts, it becomes easier for market participants and the public to predict the future course of monetary policy and utilize such prediction in their decision-making.

On the other hand, there are in fact challenges to central banks' communication with financial markets and the public, as uncertainties surround the economy and policy effects, particularly in the current situation where unconventional policies are taken. In the United States, since May 2013, given the prospects for economic recovery, the Federal Reserve had been suggesting the possibility that it might start reducing the pace of its large-scale asset purchases – known as “tapering”, in view of the prospect that the size of asset purchases would gradually be reduced – by end-2013. It thus enhanced communication regarding economic conditions and economic indicators that were necessary to initiating the tapering. In response, financial markets rapidly factored in the future normalization of policy, thereby causing the surge in U.S. long-term interest rates.

The Federal Reserve postponed the start of tapering in September, which was the timing initially considered most likely by the markets, due in part to the slow pace of recovery in employment and the deadlock caused by the fiscal debate. The Federal Reserve might have been aware of the risk that the greater-than-expected rise in interest rates would actually impair the economic recovery. Long-term interest rates edged down thereafter but have been at a level of around 1 percentage point higher than that seen before May.

⁵ For details of the analysis and the result, see Ryuzo Miyao, “Central Banking Further into Uncharted Territory”, Speech at the Foreign Correspondents’ Club of Japan, Bank of Japan, May 28, 2013.

A series of events the Federal Reserve has experienced seems to be instructive for the Bank of Japan for the future. The Bank will continue to aim at making better communication to the public.

Concluding remarks: the economy of Nagano prefecture

My concluding remarks will touch on the economy of Nagano Prefecture.

The postwar development of the economy of Nagano Prefecture has been supported mainly by manufacturing, such as of electric machinery, general machinery, and transportation equipment. However, because this is a manufacturing-oriented economy, it had been experiencing a relatively large adverse impact from the Lehman shock and the yen's appreciation in recent years. As for nonmanufacturing, firms had been facing a difficult situation on the whole, mainly because public works had been declining due to the fiscal consolidation of municipal governments and because the number of tourists had been decreasing, reflecting a declining population of skiers. However, both the manufacturing and nonmanufacturing sectors have recently headed toward a moderate pick-up on the back of a recovery in exports and an increase in public works.

Indeed, Nagano Prefecture has many advantages, such as a high level of technological capability in *monozukuri*, or manufacturing, and abundant resources related to tourism and agriculture. It also is worth noting that the average life expectancies for both men and women in the prefecture are the longest in Japan, and the employment rate of elderly people also ranks top in the nation. This suggests that the prefecture possesses the latent strength to maintain its economy's vitality even in the midst of such structural changes as the aging population and declining birth rate.

With the aim of making greater use of these advantages, Nagano Prefecture has formulated a strategic plan to promote *monozukuri* industry in the prefecture, encouraging cooperative efforts among those in industry, government, and academia to improve competitiveness, mainly in manufacturing, and to cultivate the industry's next generation of human resources. Moreover, I heard that some financial institutions in the region have together established an investment fund to enhance support for the business revitalization of small firms. I believe that both of these actions are of significant importance with regard to stimulating the regional economy.

Turning to transportation infrastructure, Nagano Prefecture is going to have two big events: an extension of the Hokuriku Shinkansen line and the launch of the Linear Chuo Shinkansen line. As a result, Nagano Prefecture will be linked much more closely not only with the Hokuriku region but also with the two major metropolitan areas of Tokyo and Nagoya. This could have an unprecedented impact on the industrial structure and demographic trends of Nagano Prefecture. I expect that the prefecture's economy will make full use of its potential by viewing such changes as strategic opportunities.

Charts

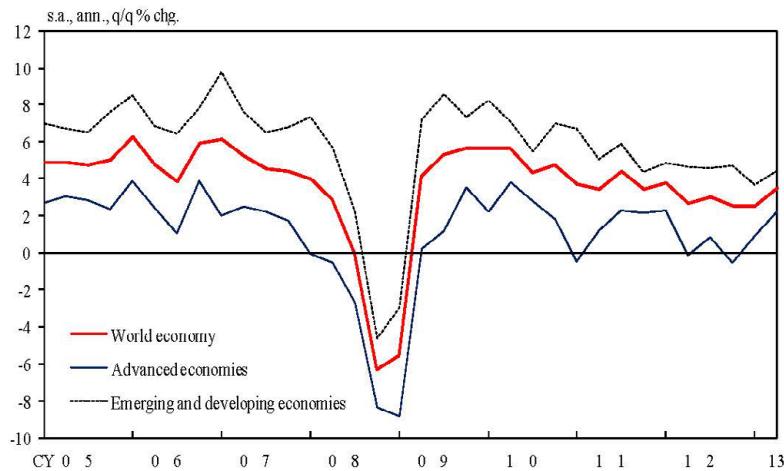
Speech at a Meeting with Business Leaders in Nagano

- Chart 1: World Economic Growth Rate
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Note: Charts are based on data released prior to November 8, 2013.

(Chart 1)

World Economic Growth Rate

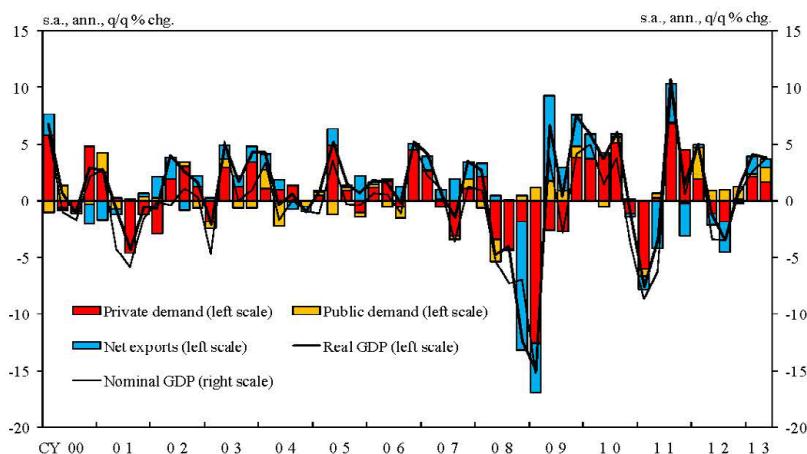


- Notes: 1. The world economy covers 189 countries. The advanced economies are the United States, the euro area (17 countries), the United Kingdom, and Japan.
2. The figure for emerging and developing economies includes estimated quarterly growth rates based on historical annual data on real GDP growth rates.

Source: IMF, "World Economic Outlook."

(Chart 2)

Japan's Economic Growth Rate



Source: Cabinet Office, "National Accounts."

(Chart 3)

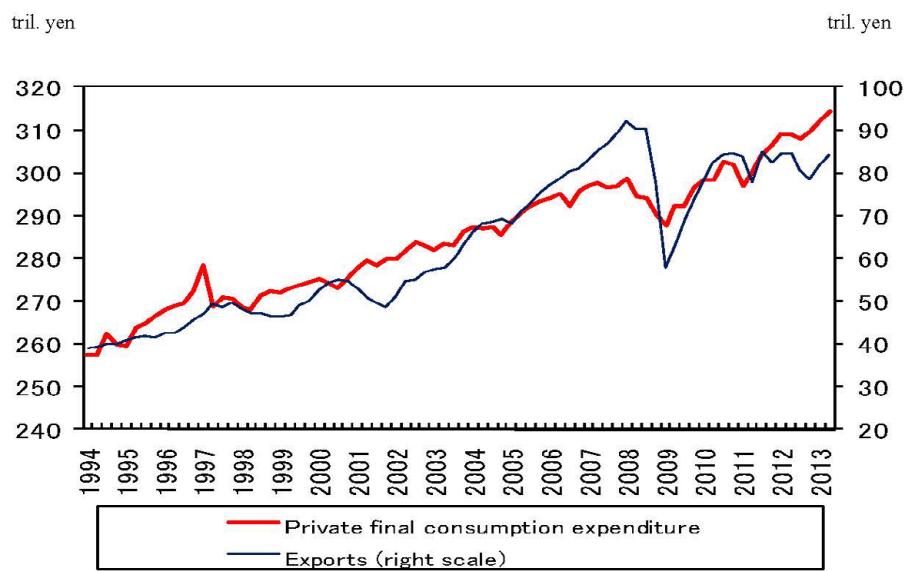
Outlook for Economic Activity and Prices

	Real GDP	CPI (all items less fresh food)	y/y % chg. Excluding the effects of the consumption tax hikes
Fiscal 2013	+2.6 to +3.0 [+2.7]	+0.6 to +1.0 [+0.7]	
Forecasts made in July 2013	+2.5 to +3.0 [+2.8]	+0.5 to +0.8 [+0.6]	
Fiscal 2014	+0.9 to +1.5 [+1.5]	+2.8 to +3.6 [+3.3]	+0.8 to +1.6 [+1.3]
Forecasts made in July 2013	+0.8 to +1.5 [+1.3]	+2.7 to +3.6 [+3.3]	+0.7 to +1.6 [+1.3]
Fiscal 2015	+1.3 to +1.8 [+1.5]	+1.6 to +2.9 [+2.6]	+0.9 to +2.2 [+1.9]
Forecasts made in July 2013	+1.3 to +1.9 [+1.5]	+1.6 to +2.9 [+2.6]	+0.9 to +2.2 [+1.9]

Note: Figures in brackets indicate the median of the Policy Board members' forecasts (point estimates).
Source: Bank of Japan.

(Chart 4)

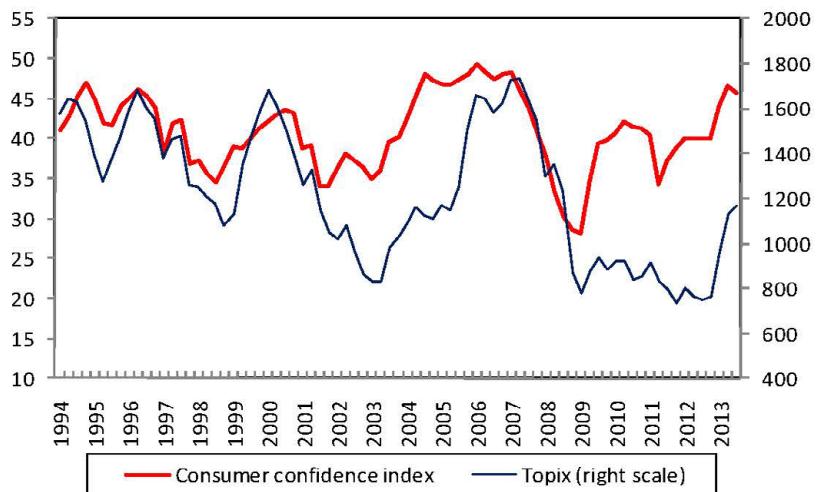
Private Consumption and Exports



Source: Cabinet Office, "National Accounts."

(Chart 5)

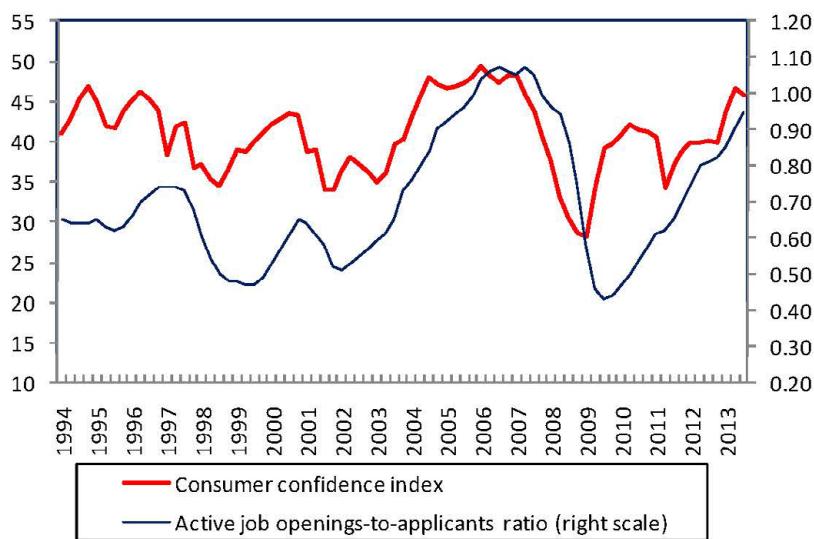
Consumer Confidence and Stock Prices



Sources: Cabinet Office, "Consumer Confidence Index"; Bloomberg.

(Chart 6)

Consumer Confidence and Active Job Openings-to-Applicants Ratio



Sources: Cabinet Office, "Consumer Confidence Index";
Ministry of Health, Labour and Welfare, "Report on Employment Service."

(Chart 7)

Labor Productivity per Worker

10 thous. yen



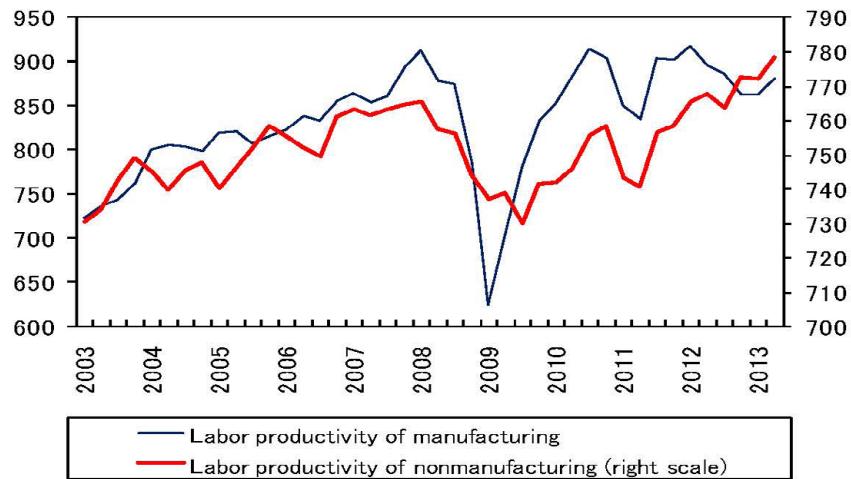
Sources: Cabinet Office, "National Accounts";
Ministry of Internal Affairs and Communications, "Labour Force Survey."

(Chart 8)

Labor Productivity of Manufacturing and Nonmanufacturing

10 thous. yen

10 thous. yen

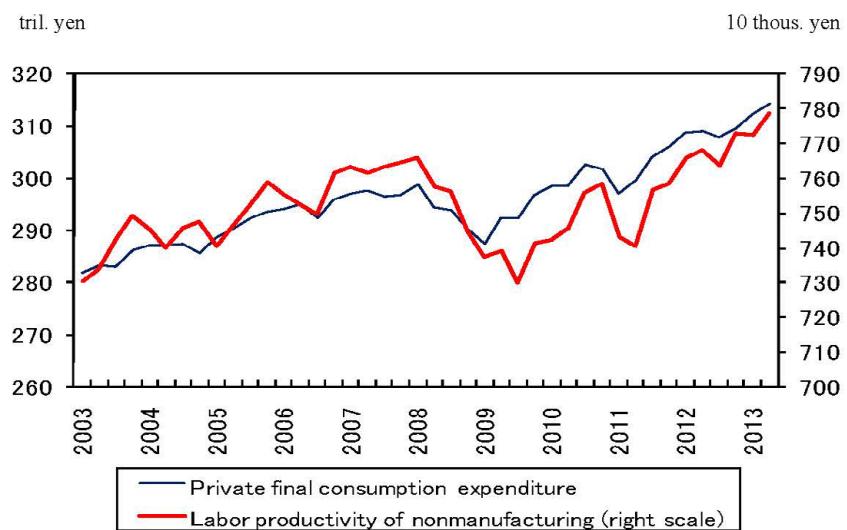


Note: The real GDP of each sector is based on the following calculation: total real GDP times each sector's weight induced using the "Indices of All Industry Activity."

Sources: Cabinet Office, "National Accounts";
Ministry of Economy, Trade and Industry, "Indices of All Industry Activity";
Ministry of Internal Affairs and Communications, "Labour Force Survey."

(Chart 9)

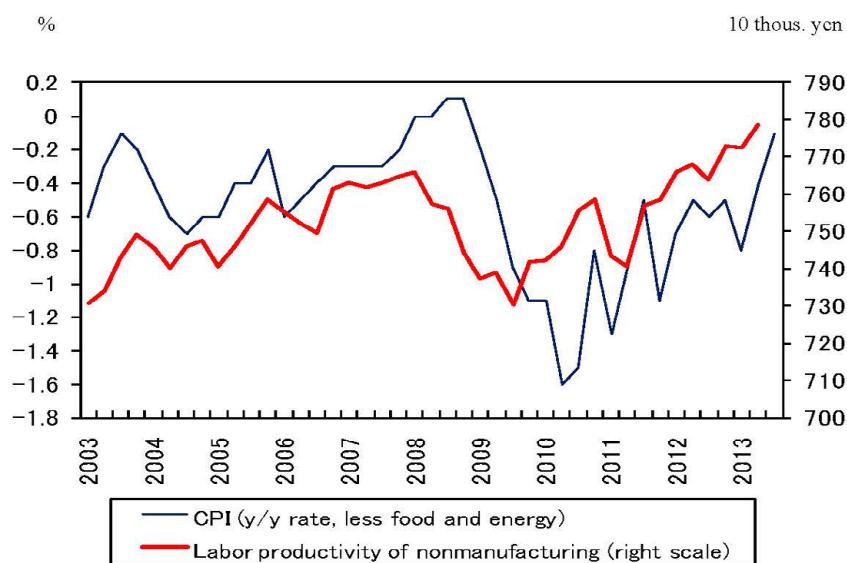
Labor Productivity of Nonmanufacturing and Private Consumption



Sources: Cabinet Office, "National Accounts";
Ministry of Economy, Trade and Industry, "Indices of All Industry Activity";
Ministry of Internal Affairs and Communications, "Labour Force Survey."

(Chart 10)

Labor Productivity of Nonmanufacturing and the Inflation Rate

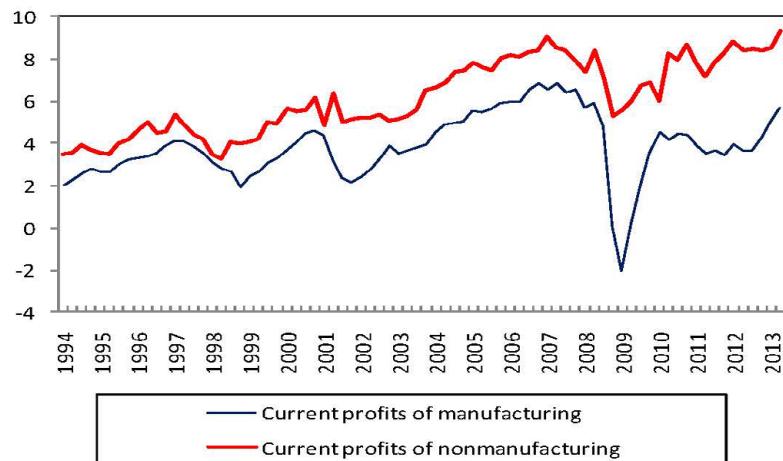


Sources: Cabinet Office, "National Accounts";
Ministry of Economy, Trade and Industry, "Indices of All Industry Activity";
Ministry of Internal Affairs and Communications, "Labour Force Survey,"
"Consumer Price Index."

(Chart 11)

Current Profits of Manufacturing and Nonmanufacturing

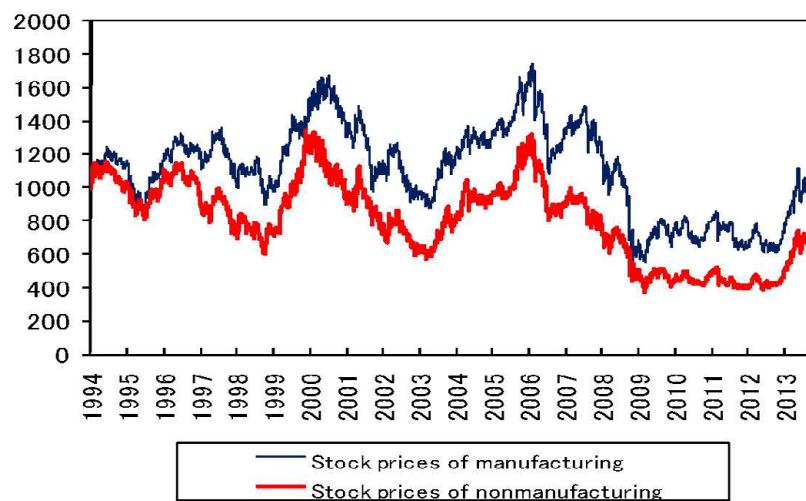
tril. yen



Source: Ministry of Finance, "Financial Statements Statistics of Corporations by Industry."

(Chart 12)

Stock Prices of Manufacturing and Nonmanufacturing



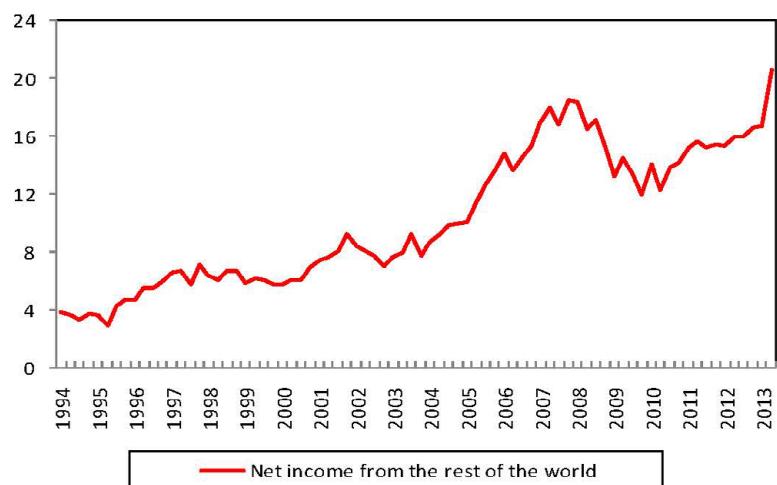
Note: The figures are the current total value divided by the total value as of January 4, 1994 which is regarded as the base value of 1,000. The figures include 17 and 15 sectors, respectively, which are listed on the Tokyo Stock Exchange. The figures are the averages of stock prices weighted by the value of each sector.

Sources: Cabinet Office, "National Accounts";
Ministry of Economy, Trade and Industry, "Indices of All Industry Activity."

(Chart 13)

Net Income from the Rest of the World

tril. yen



Source: Cabinet Office, "National Accounts."

(Chart 14)

Medium- to Long-Term Inflation Expectations

Survey period	Two to six years ahead	Seven to eleven years ahead
June 2012	0.6%	0.9%
Dec. 2012	0.7%	1.0%
June 2013	1.2%	1.4%

Source: Japan Center for Economic Research, "ESP Forecast."

Quantitative and Qualitative Monetary Easing (QQE)

1. Adoption of the monetary base control

- The monetary base will increase at an annual pace of about 60-70 tril. yen.

2. Increase in JGB purchases and their maturity extension

- With a view to encouraging a further decline in interest rates across the yield curve, the Bank will purchase JGBs so that their amount outstanding will increase at an annual pace of about 50 tril. yen.
- JGBs with all maturities will be made eligible for purchase, and the average remaining maturity of the Bank's JGB purchases will be extended from slightly less than 3 years to about 7 years -- equivalent to the average maturity of the amount outstanding of JGBs issued.

3. Increase in ETF and J-REIT purchases

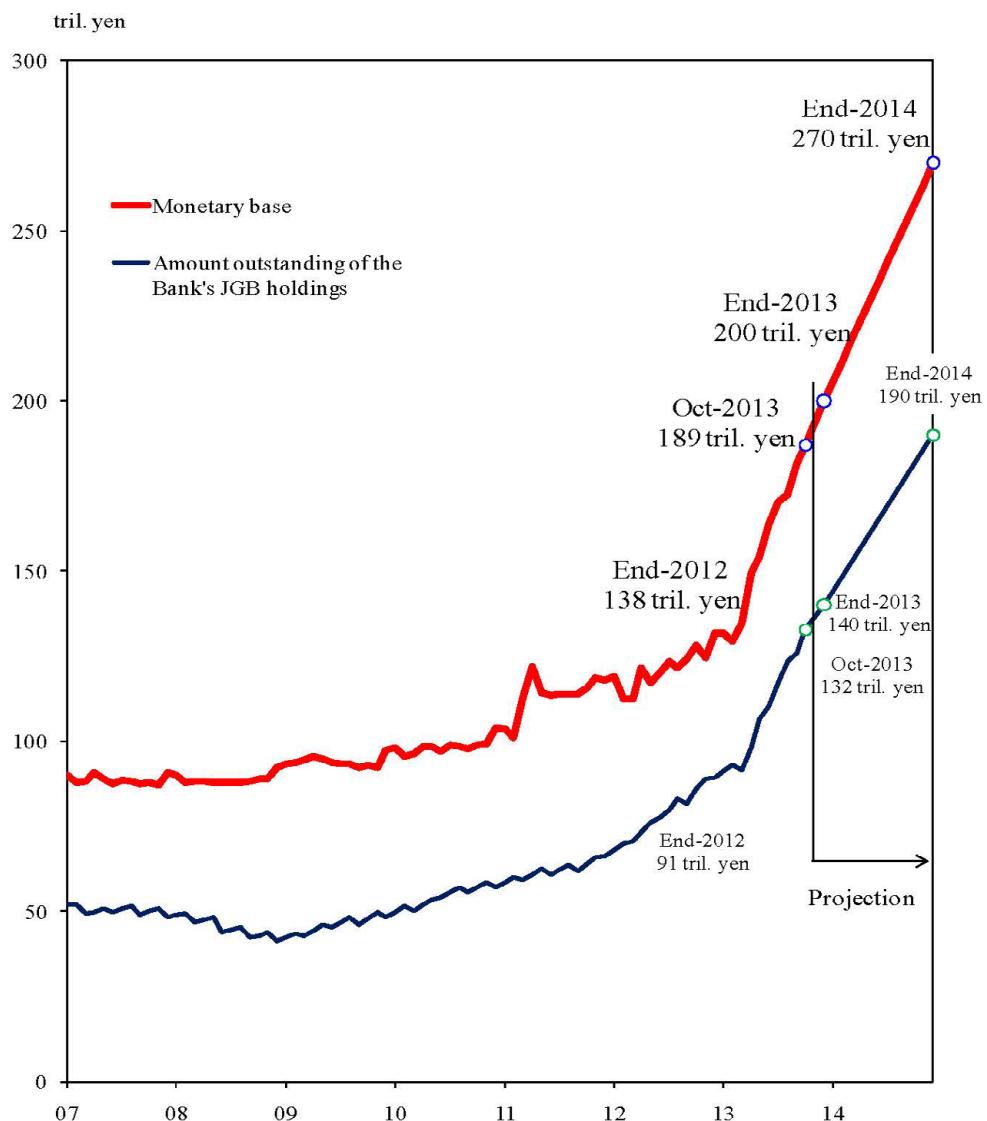
- With a view to lowering risk premia of asset prices, the Bank will purchase ETFs and J-REITs so that their amounts outstanding will increase at an annual pace of 1 tril. yen and 30 bil. yen, respectively.

4. Continuation of the QQE

- The Bank will continue with the QQE, aiming to achieve the price stability target of 2%, as long as it is necessary for maintaining that target in a stable manner.
- The Bank will examine both upside and downside risks to economic activity and prices, and make adjustments as appropriate.

(Chart 16)

Expansion in the Monetary Base and JGB Purchases



(Chart 17)

Balance-Sheet Projections

		End-2012 (actual)	End-2013 (projected)	End-2014 (projected)	tril. yen
Monetary base		138	200	270	

Breakdown of the Bank's Balance Sheet

JGBs	89	140	190
CP	2.1	2.2	2.2
Corporate bonds	2.9	3.2	3.2
Exchange-traded funds (ETFs)	1.5	2.5	3.5
Japan real estate investment trusts (J-REITs)	0.11	0.14	0.17
Loan Support Program	3.3	13	18
Total assets (including others)	158	220	290
Banknotes	87	88	90
Current deposits	47	107	175
Total liabilities and net assets (including others)	158	220	290

(Chart 18)

Transmission Channels

