June 9, 2016
Bank of Japan

Japan's Economy and Monetary Policy

Speech at a Meeting with Business Leaders in Akita

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(English translation based on the Japanese original)

Introduction

It is my pleasure to have the opportunity today to exchange views with administrative, financial, and business leaders in Akita Prefecture. I would like to take this opportunity to express my sincerest gratitude for your cooperation with the activities of the Bank of Japan's Akita Branch. Today, before exchanging views with you, I would like to first explain the Bank's view on Japan's economic activity and prices and then move on to the Bank's thinking on the monetary policy management.

I. Recent Developments in and Outlook for Economic Activity at Home and Abroad

Overseas Economies

Let me start by talking about overseas economies. The Bank somewhat lowered its projections for GDP growth in the April 2016 *Outlook for Economic Activity and Prices* (Outlook Report) from its projections in the January Outlook Report, due mainly to weaker exports reflecting the slowdown in overseas economies. Overseas economies have continued to grow at a moderate pace, but the pace of growth, especially in emerging economies, has decelerated somewhat. The Chinese economy, looked at from a somewhat longer-term perspective, is in the process of transitioning from manufacturing sector- and investment-driven growth to service sector- and consumption-driven growth. While this transition in itself is desirable, the Chinese economy in the process has decelerated due to downward pressure from adjustments in excess production capacity in the manufacturing sector. Other emerging economies and commodity-exporting economies as a whole also have remained subdued, reflecting the spread of the effects of the deceleration in the Chinese economy and the protracted decline in commodity prices. Against this background, global financial markets -- especially since the turn of the year -- have been volatile, and given the temporary but significant decline in stock and crude oil prices, economies -- particularly commodity-exporting ones -- have decelerated, and global trade has been weak. Reflecting these circumstances, the IMF in its April 2016 *World Economic Outlook* (WEO) revised down its projection for global growth this year from the projection in the January WEO (Chart 1).

In contrast, advanced economies have continued to see firm growth. The U.S. economy has been on a recovery trend on the back of household spending supported by a favorable employment and income situation. The European economy also has continued to recover moderately, supported by an increase in private consumption. Looking ahead, it is likely that advanced economies will continue to register firm growth. As for emerging economies, the Chinese economy is likely to broadly follow a stable growth path as authorities proactively carry out both fiscal and financial measures to support economic activity, although the growth pace is expected to be somewhat slower than in the past. Other emerging economies and commodity-exporting economies are expected to remain subdued for the time being, but growth rates are then likely to gradually increase, due mainly to the effects of the economic stimulus measures and the recovery in advanced economies.

This is the baseline scenario for overseas economies, but risks are skewed to the downside. Developments in emerging and commodity-exporting economies including China are still particularly uncertain. The fact that volatility in financial markets has not yet been dispelled also warrants attention. Moreover, uncertainty over the timing of the next policy interest rate hike in the United States is affecting global financial markets, particularly emerging markets. In addition, there are various political risks such as the referendum in the United Kingdom later this month regarding a so-called "Brexit" -- that is, whether Britain should leave the European Union (EU). Going forward, the Bank will need to continue to closely monitor whether these uncertainties surrounding overseas economies will either clear up or grow.

Corporate Sector

Next, I will touch on Japan's economy. First, in the corporate sector, profits are at record levels (Chart 2). This is attributable to the fact that the real economy is improving and to factors such as the low crude oil prices and the past correction of the yen appreciation. The pace of improvement in corporate profits is expected to temporarily slow down, especially in the manufacturing sector, mainly because of the slowdown in overseas economies. However, corporate profits are projected to follow an improving trend, given that the past decline in crude oil prices will continue to have positive effects and the rise in demand at home and abroad is expected to raise sales volume growth.

On the back of the high corporate profits, firms have maintained their positive stance toward fixed investment. Figures on business fixed investment plans in the March 2016 *Tankan* (Short-Term Economic Survey of Enterprises in Japan) show that investment by large firms is likely to have increased by about 10 percent on a year-on-year basis in fiscal 2015 and that by small firms by about 4 percent. Moreover, investment plans for fiscal 2016 are vigorous for this time of the year. Going forward, business fixed investment is projected to continue to see a moderate uptrend, mainly due to continued high levels of corporate profits along with the further decline in real interest rates under "Quantitative and Qualitative Monetary Easing (QQE) with a Negative Interest Rate."

Household Sector

Next, I would like to explain developments in the household sector. The increase in economic activity and the high levels of corporate profits have led to a steady improvement in the employment and income situation. With the number of employees increasing at a relatively high pace, the active job openings-to-applicants ratio has been 1.34, marking the highest level seen since 1991, while the unemployment rate has been 3.2 percent, the lowest level seen since 1997 (Chart 3). Furthermore, the employment conditions DI in the March *Tankan* indicates that many firms feel that there is a shortage of labor. These labor market conditions mean that Japan's economy can be regarded as being at full employment. Because of the continued tightening of labor market conditions, there is growing upward pressure on wages. This clearly can be seen in the relatively large increase in part-time employees' hourly cash earnings, which tend to closely reflect supply and demand conditions in the labor market. Moreover, regarding the wages of full-time employees, annual base-pay increases -- a practice that had disappeared during the period of deflation -- were observed for a third consecutive year in the labor-management wage negotiations this spring. Thus, high corporate profits have continued to feed through to employee incomes.

Against this background of steady improvement in the employment and income situation, private consumption has been resilient. Since the turn of the year, however, consumer sentiment has become cautious against the backdrop of volatile financial markets, contributing to relatively weak developments in some indicators of private consumption. With the improvement in the employment and income situation likely to continue, the current weakness in private consumption is likely to be temporary, but close attention needs to be paid to developments in private consumption, including by pensioners, who are less likely to benefit from the improvement in the employment and income situation.

Outlook for Japan's Economic Activity

In sum, although exports and production are expected to remain sluggish for the time being, domestic demand is likely to follow an uptrend, with the virtuous cycle from income to spending remaining in place in both the household and corporate sectors, and exports are expected to increase moderately on the back of emerging economies moving out of their deceleration phase. Japan's economy is likely to be on a moderate expanding trend at a rate generally above its potential.

II. Price Developments in Japan and the Outlook

Let me now turn to the developments in and outlook for prices in Japan.

Price developments in Japan changed significantly following the introduction of QQE in April 2013. The year-on-year rate of change in the consumer price index (CPI, all items less fresh food), which had been minus 0.5 percent just before the introduction of QQE, increased to as high as 1.5 percent in April 2014, excluding the effects of the consumption tax hike (Chart 4). Since then, the year-on-year rate of change has declined and currently is around 0 percent. This is because private consumption continued to be relatively weak after the consumption tax hike in April 2014 and because there was a substantial fall in crude oil prices since the summer of that year.

However, excluding the effect of the decline in energy prices, the underlying trend in inflation has continued to improve steadily. The year-on-year rate of change in the CPI for all items excluding fresh food and energy -- which was negative before the introduction of QQE -- has remained positive for 31 consecutive months since October 2013, and has been about 1 percent recently. This is the first time since the late 1990s, when Japan's economy fell into deflation, that sustained price increases have been observed.

Looking ahead, how the year-on-year rate of change in the CPI for all items less fresh food will develop in the short run depends on developments in import prices, which are influenced by changes in energy prices and foreign exchange rates, but the most important factor is the underlying trend in inflation. This trend is determined by the output gap of the economy as a whole and by medium- to long-term inflation expectations -- that is, views on the outlook for prices. Reflecting sluggish exports and production, the output gap is more or less unchanged; going forward, however, with economic growth likely to be generally above the potential growth rate, the output gap is expected to move into positive territory and gradually increase further from the second half of fiscal 2016. Thus, upward pressure on wages and prices due to the tightening of supply and demand conditions is likely to steadily increase.

Meanwhile, although medium- to long-term inflation expectations appear to be rising on the whole from a somewhat longer-term perspective, they have weakened recently. The results of various surveys on inflation expectations as well as developments in break-even inflation (BEI) rates -- calculated using the yields of inflation-indexed Japanese government bonds (JGBs) -- imply that inflation expectations have been declining since end-2015. Nevertheless, when assessing developments in inflation expectations, it is necessary to also take account of firms' price- and wage-setting stance and households' spending behavior. In particular, wage developments warrant attention. Past experience shows that wages and prices move roughly in tandem, so a sustainable rise in prices is unlikely to be achieved without an increase in wages. As mentioned earlier, in the annual labor-management wage negotiations this spring, a rise in base pay was agreed for the third year in a row. Moreover, wage increases have been spreading to small firms. Therefore, the mechanism in which inflation rises moderately accompanied by wage increases has been operating. Consequently, as actual inflation rises, medium- to long-term inflation expectations are likely to follow an increasing trend and gradually converge to around 2 percent -- the price stability target. Against this backdrop, firms' wage- and price-setting stance is likely to shift further toward raising wages and prices.

Taking a closer look at the results of the annual labor-management wage negotiations this spring, however, the rise in base pay was somewhat less than that of last year, particularly in large firms, partly because confidence on the side of both labor and management was affected by the heightened uncertainty regarding developments in overseas economies and by the volatility in financial markets since the turn of the year. The Bank will assess carefully how firms' price-setting stance develops this fiscal year, given the results of the annual labor-management wage negotiations.

In sum, the underlying trend in inflation is projected to continue improving steadily as the output gap is expected to move into positive territory and gradually increase further and as medium- to long-term inflation expectations will follow an increasing trend. Therefore, the year-on-year rate of change in the CPI for all items less fresh food is likely to be about 0 percent for the time being, but the rate of change is projected to accelerate toward 2 percent as the effects of the decline in energy prices dissipate. The Bank's April 2016 Outlook Report -- taking into consideration oil prices in the futures market, which reflect forecasts by market participants -- assumes that Dubai crude oil prices will rise moderately from the recent 35 U.S. dollars per barrel to the range of 45-50 dollars per barrel toward the end of the projection period, that is, fiscal 2018. Based on this assumption, the Bank projects that the timing of the year-on-year rate of change in the CPI for all items less fresh food reaching around 2 percent -- the price stability target -- will be during fiscal 2017. Comparing the projections in the April Outlook Report with those in the January Outlook Report, the projected rate of increase in the CPI for fiscal 2016 is lower, mainly reflecting downward revisions in projections for real GDP growth and wage increases.

III. The Bank's Monetary Policy Management

Effects of "QQE with a Negative Interest Rate"

I would now like to turn to the Bank's monetary policy management.

The Bank introduced "QQE with a Negative Interest Rate" at the January 2016 Monetary Policy Meeting (MPM). Global financial markets had been volatile since the turn of the year, and there was an increasing risk that an improvement in the business confidence of Japanese firms and conversion of the deflationary mindset might be delayed and that the underlying trend in inflation might be negatively affected. "QQE with a Negative Interest Rate" was introduced in order to preempt the manifestation of this risk and to maintain momentum toward achieving the price stability target of 2 percent.

"QQE with a Negative Interest Rate" continues with the QQE framework employed so far but enhances monetary easing effects by adding the new dimension of a negative interest rate. The basic concept of transmission mechanisms of the Bank's policy has not changed. Let me explain in more detail. First, QQE raises inflation expectations through the Bank's strong and clear commitment to achieving the price stability target of 2 percent and through large-scale monetary easing to underpin the commitment. Second, QQE puts strong downward pressure on nominal interest rates across the entire yield curve through massive purchases of JGBs. These two channels result in a decline in real interest rates. The decline in real interest rates boosts business fixed investment and housing investment through a decline in interest rates on business and housing loans. The boost in economic activity improves the output gap, which together with rising inflation expectations, lifts prices. "QQE with a Negative Interest Rate" exerts stronger downward pressure on interest rates across the entire yield curve by lowering long-term yields through the Bank's continued massive purchases of long-term JGBs as well as by lowering short-term interest rates through applying a negative interest rate to part of the current account balances held by financial institutions at the Bank. This results in further lowering real interest rates and enhances the transmission of policy effects I just mentioned.

The policy has already exerted the intended effects on interest rates. Following the introduction of the negative interest rate policy, a large part of the JGB yield curve has declined substantially, with rates up to a maturity of over 10 years having turned negative. Lending rates, including interest rates on housing loans, clearly have declined. Issuance rates on CP and corporate bonds also have declined to a considerable degree. In the March *Tankan*, financial institutions' lending attitudes as perceived by firms improved further following the introduction of the negative interest rate policy, and those for all industries and enterprises were at a level last seen in the late 1980s. Firms' perception of borrowing costs is that these have declined notably (Chart 5).

Going forward, these policy effects on interest rates are likely to steadily spread to both the real economy and the price front. However, it will take some time for the monetary policy effects to spread. In addition, global financial markets -- partly due to uncertainties regarding the outlook for emerging and commodity-exporting economies -- remain volatile, and this has become a headwind that has restrained the effects of accommodative financial conditions on economic activity and prices from being exerted. As I noted earlier, the projection of the CPI in the April Outlook Report is lower than that in the previous report, mainly reflecting the downward revision of projections for real GDP growth and wage increases. Nevertheless, the Bank did not take additional monetary easing measures at the

April MPM because, due to the reasons I just mentioned, the Bank judged it appropriate to examine the extent of the penetration of policy effects.

To avoid any misunderstanding, I would like to clarify that there has been no change in the Bank's commitment to achieving the price stability target of 2 percent at the earliest possible time. Transforming people's deflationary mindset and raising inflation expectations through this commitment is itself the aim of overcoming deflation, and at the same time the starting point of the effects of QQE and "QQE with a Negative Interest Rate." Firms' and households' inflation perceptions have changed markedly under this commitment. While the Bank at the April MPM judged that it would be appropriate to examine the extent of the penetration of effects of "QQE with a Negative Interest Rate," this does not preclude additional monetary easing if necessary. As for the outlook for Japan's economic activity and prices, risks -- such as uncertainty over the global economy and volatility in financial markets -- continue to be skewed to the downside. Therefore, the Bank will continue to carefully examine these risks at each MPM, and take additional easing measures in terms of the three dimensions -- quantity, quality, and the interest rate -- if it is judged necessary for achieving the price stability target.

The Aims of "QQE with a Negative Interest Rate"

So far, I have explained the Bank's thinking on the negative interest rate policy. However, I am aware that there has been a range of criticisms. While these are a variety of issues, I would like to talk about two in particular.

The first criticism is that many do not feel the benefits of the negative interest rate policy. It certainly is true that those who have no housing loans and whose financial assets mostly consist of deposits, such as pensioners and the elderly, do not enjoy benefits from the decline in borrowing rates and instead only suffer from a decline in interest income. As interest rates have been low for two decades, I have full sympathy for those who have been disadvantaged as a result.

However, what I would like you to understand is that the effects of monetary policy should not be measured by the profits and losses arising from financial transactions with your bank. By pushing real interest rates below the natural rate of interest -- that is, the interest rate at which the economy neither accelerates nor decelerates -- and stimulating the economic activities of firms and households, monetary easing will increase aggregate demand and push up prices. To give you an example: if a drop in firms' funding costs were to occur, they will undertake businesses and projects that otherwise would not have been profitable. In this case, firms' fixed investment increases, and employment and wages will rise as well. Under QQE and "QQE with a Negative Interest Rate," firms' funding costs are much lower than the expected return from new businesses and projects. Looking at the *Financial Statements Statistics of Corporations by Industry, Quarterly*, for instance, firms' return on assets (ROA) is somewhere around 4 percent, while average interest payments -- firms' funding costs -- amount to only about 1 percent (Chart 6). Firms' ROA exceeds their funding costs by a larger margin than ever before. This means that if a firm borrows money now to start a business, it will gain a return from the business that far exceeds the interest of the loan to pay. The highly accommodative financial conditions stimulate investment by firms in new businesses and projects. If firms increase their investment, the benefits will also spread to households in the form of increases in employment and wages. As monetary policy affects the entire economy in the way I just described, it is necessary to consider its effects from the perspective of the economy as a whole.

Meanwhile, with regard to the 2 percent price stability target, I am often asked why it is necessary that prices rise year after year. To answer this question, let me ask you to recall that more than 15 years of deflation have stymied the dynamics of the economy like a chronic disease. You therefore can see why moderate inflation is a good thing. Under deflation, the economy fell into a vicious cycle in which a decline in prices led to a decrease in firms' sales and profits, which in turn resulted in wage restraint, a downturn in consumption, and a further decline in prices. If we can reverse the deflationary mindset and economic entities started behaving based on the premise that prices will rise moderately, the exact opposite would happen; that is, a virtuous cycle would arise in which firms' sales and profits increase and wages also rise. What the Bank is aiming to achieve is this kind of virtuous cycle. This will likely benefit a broad range of economic entities.

When I provide this explanation, I am sometimes asked: if we try to achieve a rise in prices and prices do rise but wages do not, won't this be bad for the economy? However, as I mentioned earlier, a rise in prices without a rise in wages is not something that normally happens. If firms' sales and profits grow through increases in the prices of goods and services, wages paid to workers will increase accordingly. In fact, past data show that the rate of increase in hourly wages and that in consumer prices have generally moved in tandem (Chart 7). The Bank is aiming at a situation in which the economy expands on the basis of mild inflation accompanied by wage increases. After having experienced protracted deflation, it may be difficult to actually imagine such a situation now in Japan. However, I would like you to recall that, until the mid-1990s, people conducted their economic activities on the premise of moderate inflation and took for granted that wages and prices would increase.

With this in mind, overcoming deflation as soon as possible through decisive monetary easing is absolutely essential to returning Japan's economy to a sustainable growth path, while the Bank will be watchful of the various effects of its low interest rate policy including negative interest rates.

The Impact on the JGB Market

The second criticism I often hear concerns the impact of "QQE with a Negative Interest Rate" on financial institutions and financial markets. I recognize that the policy has various effects on financial institutions -- not only in terms of their profitability, but also on their trading practices as well as their information and computer systems. Moreover, in terms of the impact on financial markets, I am also aware of concerns that, with the Bank continuing with large-scale purchases of JGBs, supply and demand conditions in the JGB market are becoming extremely tight, and that conducting the negative interest rate policy under these circumstances would have distorting effects on the JGB market and thereby cause great damage to liquidity and functioning of the market. I would like to talk about this second point today.

Let me start by highlighting that the Bank makes its utmost efforts to ensure the stability of financial markets by conducting its market operations as flexibly as possible while engaging in a close exchange of opinions with market participants. In addition, the Bank carefully monitors the liquidity and functioning of the JGB market from a variety of angles. Last year, it started to conduct and publish the *Bond Market Survey*, which reports the results of surveys of market participants on the liquidity and functioning of the JGB market. Moreover, the Bank regularly compiles and publishes a wide range of JGB market liquidity indicators in the futures market, the cash JGB market, and the repo market. Some indicators certainly suggest that there has been a decline in liquidity since the start of this year (Chart 8). However, these indicators tend to fluctuate substantially and have shown large changes on occasion. Moreover, as was the case with bid-ask spreads, there are indicators that temporarily widened but improved thereafter. The JGB market is a mirror of market participants' outlook for economic growth and perception on prices. There is no doubt that this market is significantly affected by the unconventional large-scale monetary easing; therefore, the Bank will continue to carefully monitor the developments in liquidity in and the functioning of the JGB market, so that the mirror will remain clear.

Conclusion

In concluding, let me touch on the economy of Akita Prefecture.

The economy of Akita Prefecture continues to recover moderately as a trend. In terms of employment and income, the active job-openings-to-applicants ratio has been above 1 for 17 months in a row -- the longest period ever -- and labor market conditions have been tightening. Moreover, against the background of rising labor shortages, moves toward wage increases are continuing. Under these circumstances, private consumption has been firm. Although some weakness in firms' production activities can be observed due to the deceleration in emerging economies, looking at the *Tankan* results of the Akita Branch of the Bank of Japan, corporate profits and fixed investment plans for this fiscal year have increased for four years in a row, with the increase particularly strong in manufacturing, suggesting that corporate profits and fixed investment plans are resilient.

That being said, business sentiment differs considerably depending on the industry and firm size, and business sentiment among small and very small nonmanufacturing firms has been slow to improve, partly because such firms have fallen behind in capturing demand from outside the region. In addition, Akita Prefecture faces substantial structural changes, such as population aging and decline, which is more severe than in many other prefectures. An urgent issue is to provide a necessary infrastructure that allows the young to be active and settle in the prefecture. Akita's comprehensive strategy for the future formulated by the prefectural government in October last year contains measures to attract people to settle in the prefecture and to counter the falling birth rate, in addition to measures for the promotion of industry.

Although Akita faces a variety of challenges, it is blessed with an abundance of resources that could become a key to regional revitalization; namely, important industrial clusters such as in the electronic parts and devices industry and the machinery industry, ample agricultural and forestry resources, and major potential tourist attractions. In the aviation industry, the prefecture and local firms are cooperating in efforts to establish business relationships with major aircraft manufacturers, and shipments have increased in recent years. In alternative energy, Akita now has one of the largest wind power generation capacities nationwide, and there have been moves toward the commercialization of biomass and geothermal electricity generation. In agriculture, there has been progress in developing competitive agricultural products to reduce Akita's dependence on rice farming. And in tourism, it boasts a range of unique festivals and events in the various regions within the prefecture. Apart from the Namahage Festival on the Oga Peninsula, which is well known throughout Japan, and the Omagari fireworks, Akita Prefecture offers a great variety of tourist attractions such as the historically valuable samurai residences in Kakunodate and the hot spring resorts of Nyuto Onsen and Tamagawa Onsen. In order for Akita Prefecture's economy to develop further, it is of great importance to continue to effectively utilize these resources.

The Bank, centering on its Akita Branch, hopes to contribute as much as possible to the initiatives in the prefecture to vitalize the region. In closing, I wish all the best for the further development of the economy of Akita Prefecture.

Thank you.

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June 9, 2016

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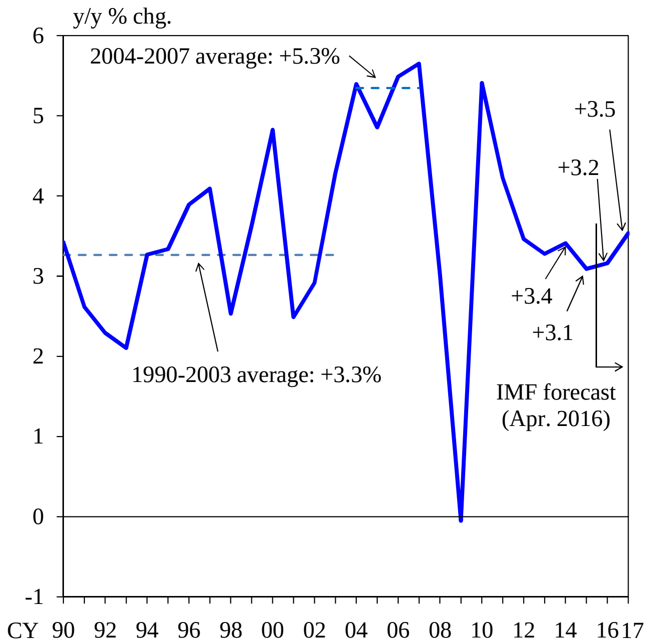
Deputy Governor of the Bank of Japan

Chart 1

World Economic Outlook Released by the IMF

Real GDP Growth Rate



Projections for Major Economies

y/y % chg.

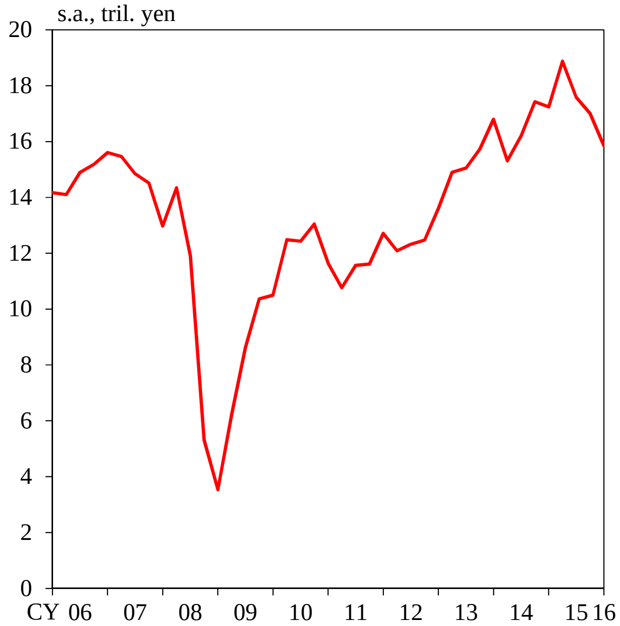
	2014	2015	Projections 2016	Projections 2017
World	3.4	3.1	3.2 (-0.2)	3.5 (-0.1)
Advanced economies	1.8	1.9	1.9 (-0.2)	2.0 (-0.1)
United States	2.4	2.4	2.4 (-0.2)	2.5 (-0.1)
Euro area	0.9	1.6	1.5 (-0.2)	1.6 (-0.1)
Japan	0.0	0.5	0.5 (-0.5)	-0.1 (-0.4)
Emerging market and developing economies	4.6	4.0	4.1 (-0.2)	4.6 (-0.1)
China	7.3	6.9	6.5 (0.2)	6.2 (0.2)
ASEAN5	4.6	4.7	4.8 (0.0)	5.1 (0.0)

Notes: 1. Figures in parentheses are the differences from the January 2016 WEO projections.
2. ASEAN5 are Indonesia, Malaysia, the Philippines, Thailand, and Viet Nam.
Source: IMF.

Chart 2

Corporate Profits and Business Fixed Investment

Current Profits



Tankan: Business Fixed Investment Plans

y/y % chg.

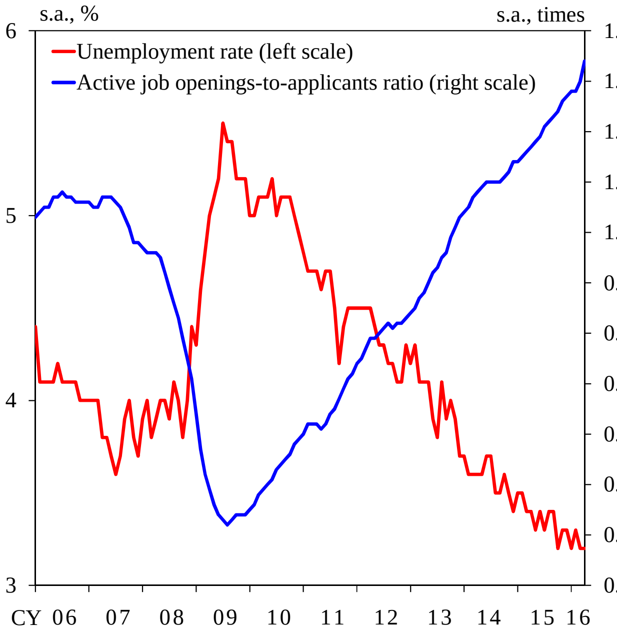
		FY2015 (Forecast)	FY2016 (Forecast)
Large enterprises	Manufacturing	+ 13.3	+ 3.1
	Nonmanufacturing	+ 8.1	- 2.9
	All industries	+ 9.8	- 0.9
Small enterprises	Manufacturing	+ 4.8	- 22.0
	Nonmanufacturing	+ 3.5	- 18.0
	All industries	+ 3.9	- 19.3
All enterprises	Manufacturing	+ 10.8	- 0.9
	Nonmanufacturing	+ 6.7	- 6.8
	All industries	+ 8.0	- 4.8

Note: Figures for business fixed investment plans of the *Tankan* include land purchasing expenses but exclude software investment.
Sources: Ministry of Finance; Bank of Japan.

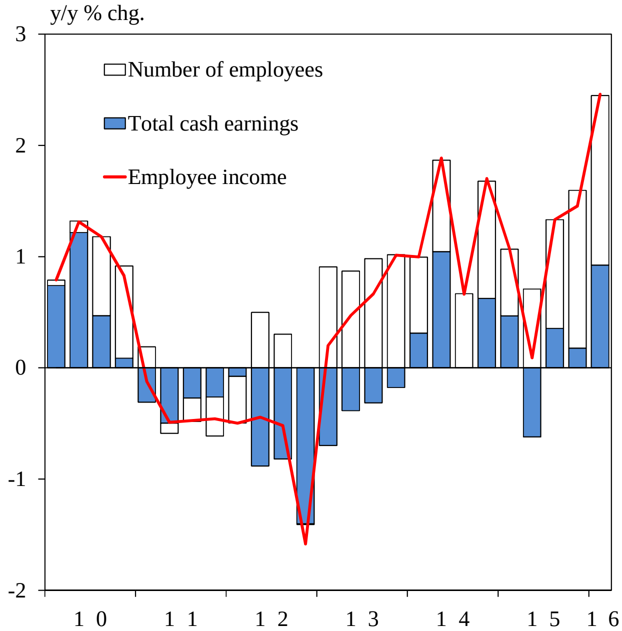
Chart 3

Employment and Income Situation

Unemployment Rate and Job Openings-to-Applicants Ratio



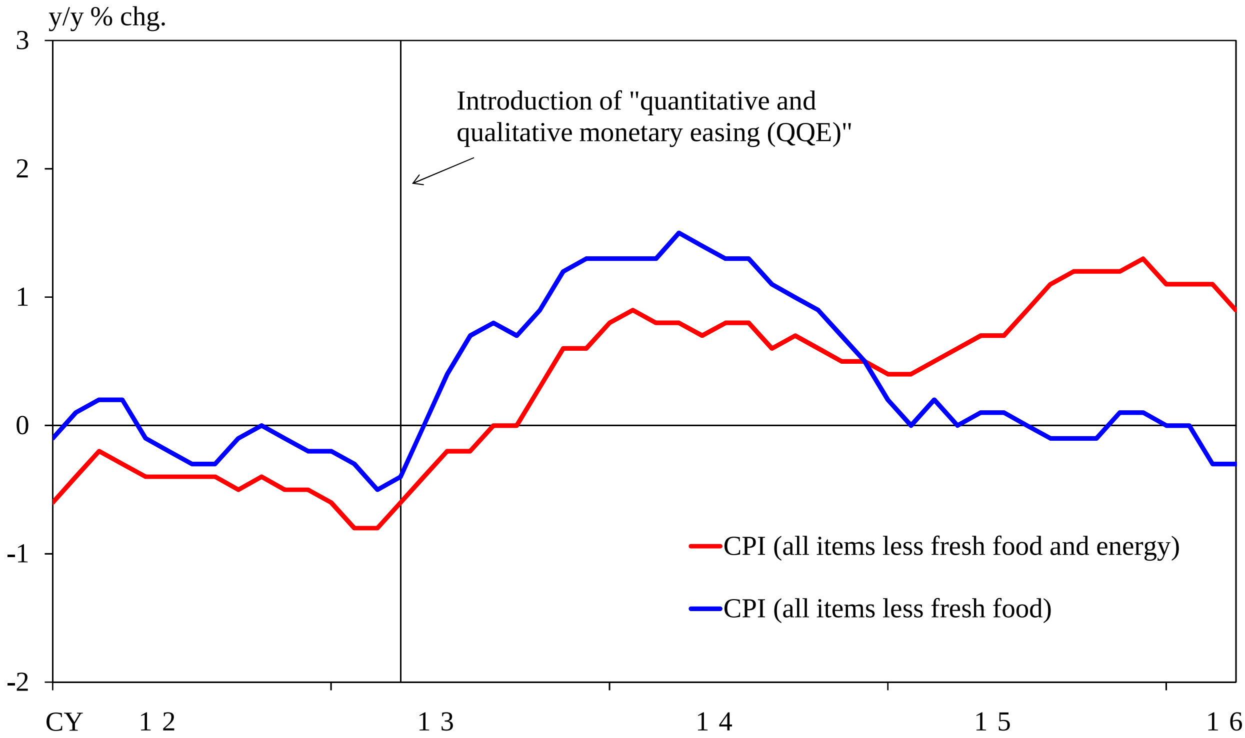
Employee Income



Notes: 1. Q1 = March-May, Q2 = June-August, Q3 = September-November, Q4 = December-February. Figures for 2016/Q1 are March-April averages.
2. Figures for "employee income" are calculated as the "number of employees" (Labour Force Survey) times "total cash earnings" (Monthly Labour Survey).
Sources: Ministry of Internal Affairs and Communications; Ministry of Health, Labour and Welfare.

Chart 4

Consumer Prices

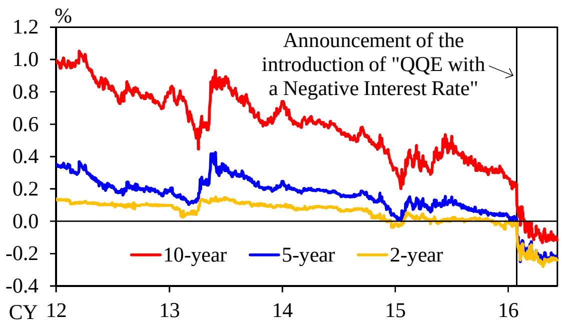


Note: Figures are adjusted to exclude the estimated effects of changes in the consumption tax rate.
Figures for the CPI (all items less fresh food and energy) are calculated by the Research and Statistics Department, Bank of Japan.
Source: Ministry of Internal Affairs and Communications.

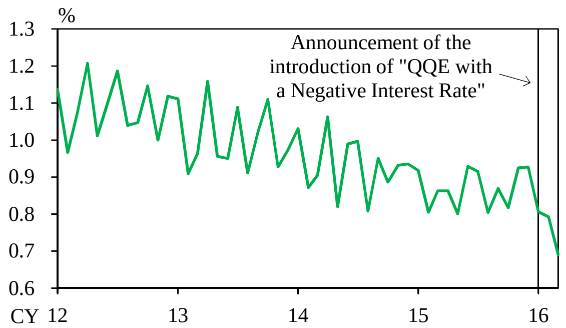
Chart 5

Effects of QQE with a Negative Interest Rate

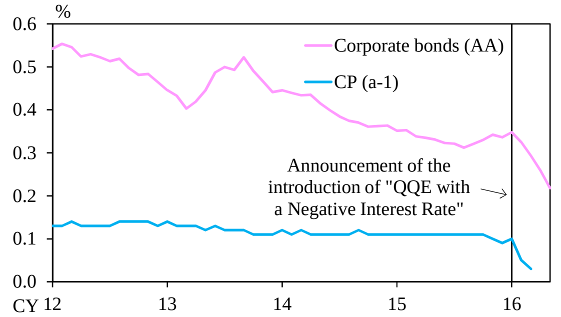
JGB Yields



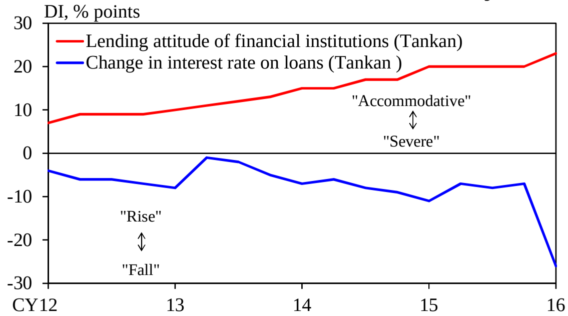
Average Contract Interest Rate on New Loans and Discounts



Issuance Rates on CP and Corporate Bonds



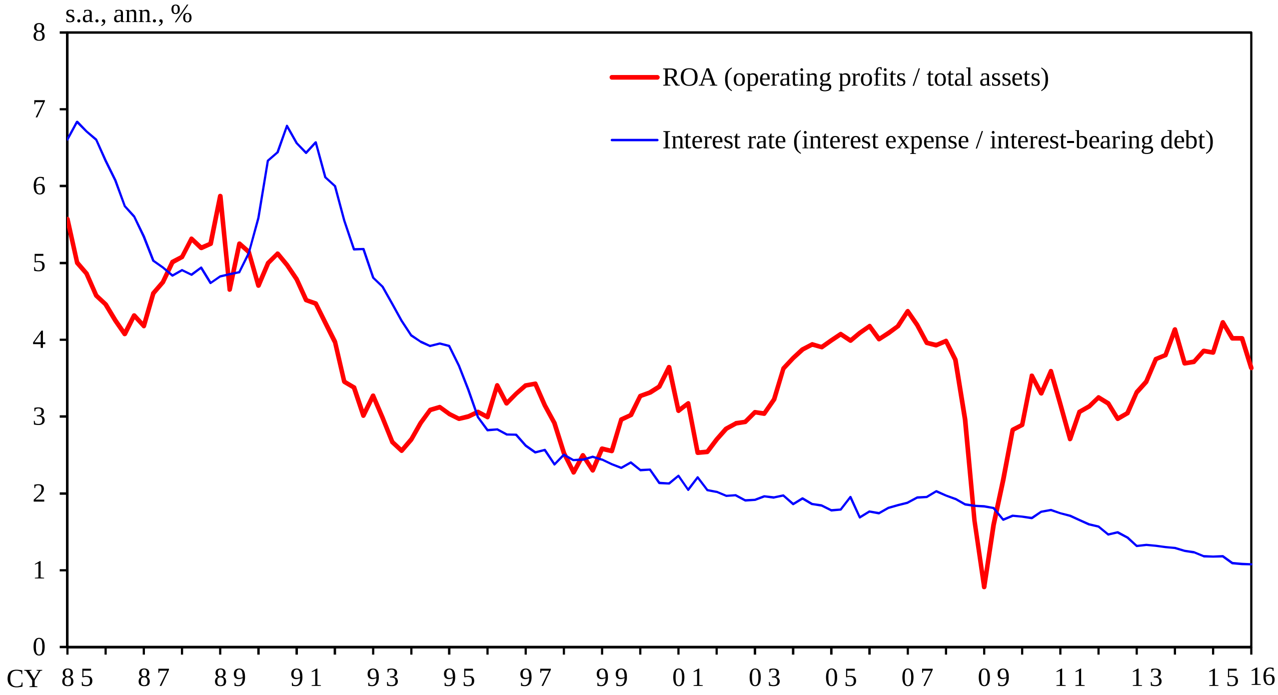
Financial Conditions as Perceived by Firms



Notes: 1. Figures for the average contract interest rate on new loans and discounts are those of domestically licensed banks.
2. Figures for issuance rates on CP are monthly weighted averages of CP with a maturity of three months.
Figures for March 2016 are averages of weekly data up to March 18.
3. Figures for issuance rates on corporate bonds are the averages for domestically issued bonds launched on a particular date. 6-month backward moving average. Bonds issued by banks and securities companies, etc., are excluded. Bonds are classified based on the highest rating among the ratings from Moody's, S&P, R&I, and JCR.
Sources: Bloomberg; Bank of Japan; Japan Securities Depository Center; Capital Eye; I-N Information Systems.

Chart 6

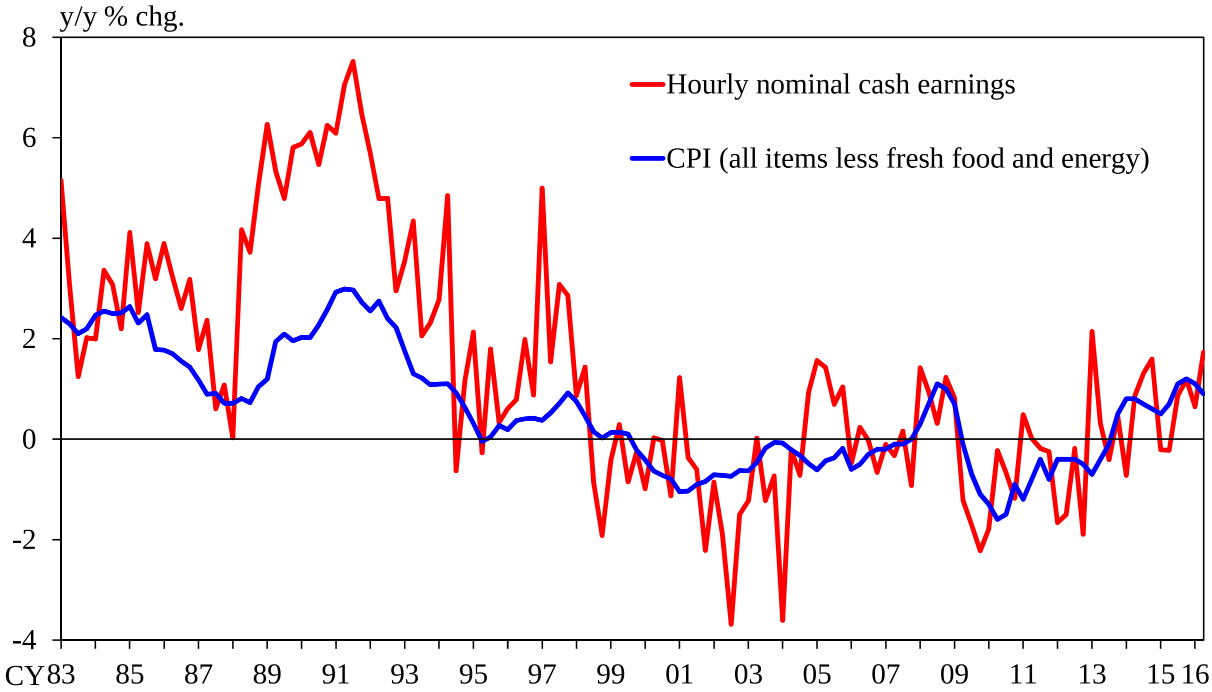
ROA and Interest Rate



Note: Figures are taken from the "Financial Statements Statistics of Corporations by Industry, Quarterly," and are the total for enterprises of all sizes and in all industries. The finance and insurance industries are excluded. Interest-bearing debt is the sum of long- and short-term borrowings, corporate bonds, and bills receivable discounted outstanding.
Source: Ministry of Finance.

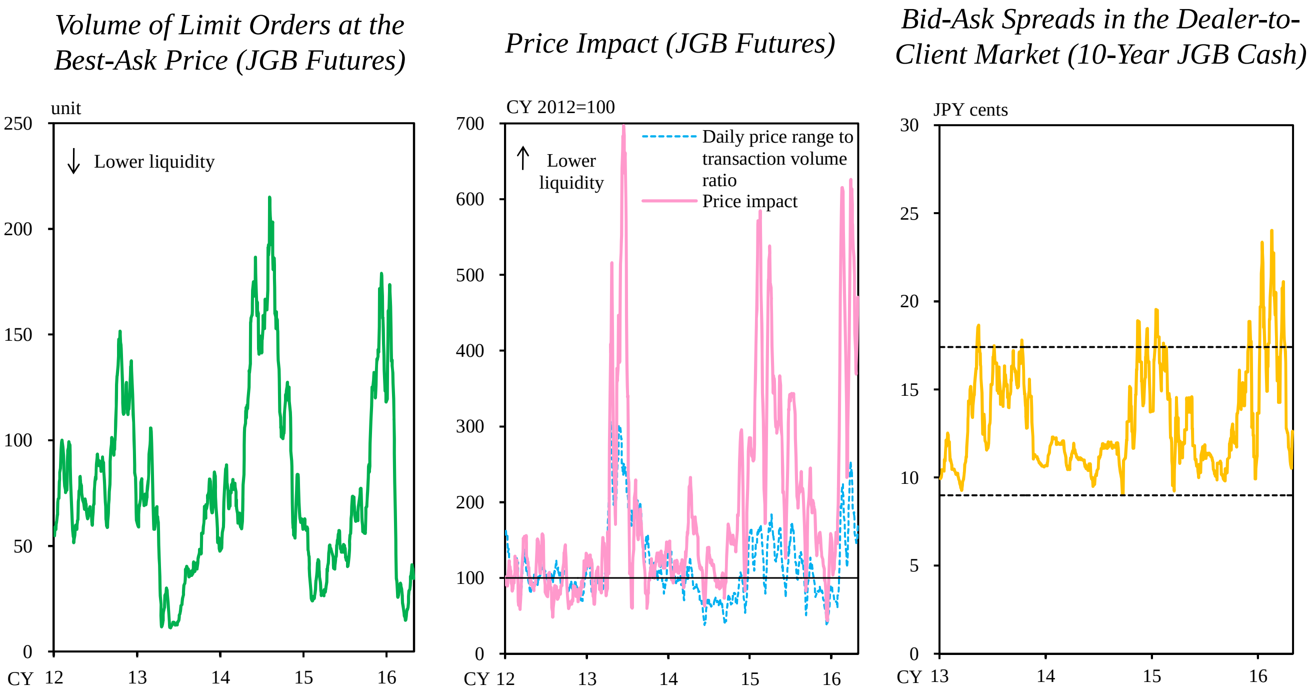
Chart 7

Wages and Prices



Notes: 1. Figures for hourly nominal cash earnings up through 1990/Q4 are for establishments with 30 or more employees.
2. Figures for the CPI (all items less fresh food and energy) are calculated by the Research and Statistics Department, Bank of Japan. Those are adjusted to exclude the estimated effects of changes in the consumption tax rate.
3. Figures for 2016/Q2 are those of April.
Sources: Ministry of Health, Labour and Welfare; Ministry of Internal Affairs and Communications.

Liquidity in the JGB Market



Notes: 1. 10-day backward moving averages.

2. Figures for volume of limit orders are calculated by taking the median of the volume of limit orders at the best-ask price with a 1-minute frequency within each business day. Figures for price impact are calculated by taking the average of each business day. In the chart of bid-ask spreads, dotted lines indicate the first/third quartile spreads between Jan. 2010 and Mar. 2013. For details of each indicator, see Kurosaki *et al.* (2015), "Liquidity in JGB Markets: An Evaluation from Transaction Data," Bank of Japan Working Paper Series, 15-E-2.

Sources: Nikkei Inc.; QUICK; Osaka Exchange, Inc.; Thomson Reuters.