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Bank of Japan

"Quantitative and Qualitative Monetary Easing with Yield Curve Control": After Half a Year since Its Introduction

Speech at a Reuters Newsmaker Event in Tokyo

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Introduction

I would like to express my sincerest gratitude for the opportunity today to explain the Bank's monetary policy.

Half a year has passed since the Bank introduced "Quantitative and Qualitative Monetary Easing (QQE) with Yield Curve Control" in September 2016. This new framework has been working smoothly. Today, looking back at developments in the global economy and the global financial markets since 2015, I would like to explain the background to and thinking behind the adoption of the new policy framework, following the introduction of a negative interest rate. Then, I would like to talk about the current situation of and outlook for Japan's economy, as well as the Bank's stance on monetary policy going forward.

I. The Background to the Adoption of "QQE with Yield Curve Control" and Thinking behind It

A. Turbulence in Global Financial Markets and the Introduction of a Negative Interest Rate

Turbulence in Global Financial Markets

Let me look back at developments in the global financial markets since summer 2015. Investors' risk sentiment started to worsen against the background of the slowdown in emerging economies, including China, and uncertainties regarding those economies. In particular, after the turn of 2016, the global financial markets rapidly became destabilized due to heightened concerns regarding emerging economies, which were triggered by the significant decline in the Shanghai stock prices (Chart 1). The decline in commodity prices, including crude oil prices, exacerbated the situation. Under such circumstances, pessimistic views about the outlook for the global economy prevailed, such as the "secular stagnation" hypothesis. Major economies faced the common policy challenges of how to address low growth, as well as low inflation under low interest rates, and this topic was hotly debated at international fora such as the Group of Twenty (G-20) Finance Ministers and Central Bank Governors Meeting.

Naturally, such headwinds for the global economy had a significant negative impact on Japan's economy as well. In financial markets, the yen appreciated and stock prices declined. On the inflation front, the year-on-year rate of change in the consumer price index (CPI) excluding fresh food turned negative in 2016 for the first time in three years, due to the effects of the decline in crude oil prices since summer 2014. Inflation expectations -- which play a key role in achieving the price stability target of 2 percent -- weakened, reflecting the headwinds for the global economy that I mentioned earlier, after having remained more or less flat amid the significant decline in crude oil prices (Chart 2).

The Introduction of a Negative Interest Rate and Its Effects

It was against these backgrounds that the Bank introduced "QQE with a Negative Interest Rate" in January 2016 in order to address these strong headwinds and achieve the price stability target of 2 percent.

To reduce real interest rates amid weakening inflation expectations, nominal interest rates needed to be lowered further. The negative interest rate aimed at an additional reduction in the levels of short- and long-term interest rates by pushing down the short end of the yield curve, in combination with purchases of Japanese government bonds (JGBs).

The introduction of a negative interest rate produced significant effects in terms of lowering nominal interest rates. Specifically, JGB yields declined considerably across the entire yield curve (Chart 3). As a consequence, lending rates as well as issuance rates for CP and corporate bonds also declined clearly. The lending attitude of financial institutions became more positive. There was no doubt that the negative interest rate made financial conditions more accommodative, supporting firms' and households' economic activities in Japan against the headwinds for the global economy.

At the same time, however, it became necessary to take account of the impact of the negative interest rate on the functioning of financial intermediation in a broad sense as the yield curve had headed toward flattening by more than expected. Specifically, Banks' basic business model consists of raising short-term funds and investing in long-term assets, and there was little room for declines in interest rates on deposits, which are the main funding tools. This means that the flattening of the yield curve at a low level reduces the spread between deposit and lending rates, thereby squeezing banks' profits. If profits were squeezed for a long period of time, this would affect their financial soundness cumulatively and exert adverse effects on the functioning of financial intermediation. In addition, an excessive decline in the levels of interest rates such as those with long and super-long maturities lowers the rate of return on insurance and pension products and might have a negative impact on economic activity by leading to a deterioration in people's sentiment.

B. Thinking behind "QQE with Yield Curve Control"

Based on such recognition, the Bank conducted in September 2016 a comprehensive assessment of developments in economic activity and prices as well as policy effects since the introduction of QQE. In light of the findings of the assessment, it introduced "QQE with Yield Curve Control" as a means of enhancing and strengthening the previous policy frameworks. The new framework consists of two components (Chart 4).

The first is an inflation-overshooting commitment. Specifically, this is a commitment that the Bank will continue expanding the monetary base until the year-on-year rate of increase in the observed CPI exceeds 2 percent and stays above that level in a stable manner. The key point is that the commitment is based on the observed CPI, and not the outlook. The price stability target needs to be achieved on average over the business cycle. Thus, it naturally is assumed that there would be phases when the observed CPI exceeds 2 percent. Considering that it takes some time for monetary policy to have an impact on economic activity and prices, it is exceptional for a central bank to make such a strong commitment that is based on the observed CPI. Since the global financial crisis, the Federal Reserve in the United States and some other central banks introduced "forward guidance," in which a central bank provides information about the future course of monetary policy. It is common for a central bank to design the forward guidance based on its forecast. However, in Japan, where the observed CPI has been below 2 percent for a long period, in order to raise inflation expectations to around 2 percent and anchor them firmly at that level, it is essential that the public actually experiences inflation at or above 2 percent for some time and thereby the perception takes hold among them that prices of goods and services tend to go up every year by around 2 percent. With this in mind, the Bank committed itself to continue with large-scale monetary expansion until such situation is achieved through this unique inflation-overshooting commitment.

The second component of the new policy framework is yield curve control. Under this framework, the Bank sets the levels of short- and long-term interest rates as the operating targets in the guideline for market operations, instead of the amount of increase in the monetary base and the amount of JGB purchases in the previous frameworks. It will facilitate the formation of a yield curve that is considered most appropriate for maintaining the momentum toward achieving the price stability target of 2 percent, taking account of developments in economic activity and prices as well as financial conditions. In the current guideline for market operations, the Bank sets the short-term policy interest rate at minus 0.1 percent and the target level of the 10-year JGB yields at around 0 percent.

Yield curve control is designed to enable the Bank to conduct monetary policy in a more flexible manner, depending on the situation, compared to the previous frameworks in which the amount of JGB purchases was fixed. For example, the impact of a unit amount of the Bank's JGB purchases on long-term yields varies depending on the economic and inflation conditions as well as the state of the JGB market. In the previous frameworks that set the amount of JGB purchases as the operating target, the yield curve could deviate either upward or downward from the one that the Bank deemed appropriate. In contrast, yield curve control -- by setting the specific target level of the 10-year JGB yields -- enables the Bank to conduct JGB purchases in a flexible and effective manner to achieve the target, making the policy framework more sustainable.

It often is argued that the Bank's JGB purchases are approaching the limit. My response to this argument is as follows. First of all, the Bank has been conducting JGB purchases smoothly so far, and I do not think it will face difficulties in the near future. Even if JGBs to be purchased by the Bank become scarce at some point in the future as the supply-demand conditions in the JGB market tighten, the impact of a unit amount of its JGB purchases on long-term yields accordingly should become more significant, with all else being equal. Put differently, the Bank can have the same degree of effect in lowering interest rates with a smaller amount of JGB purchases. In financial markets, some argue that the Bank will have difficulties with JGB purchases in the future and lose its control over long-term interest rates eventually. That will not happen. In fact, yield curve control is designed to be highly sustainable.

II. Improvement in the Global Economy and Current Situation of and Outlook for Japan's Economy

A. Current Business Conditions and Outlook

Next, I would like to talk about developments in the global economy since the second half of last year, as well as the current situation of and outlook for Japan's economy and prices amid these global economic developments.

Up until around last autumn, financial markets were dominated by pessimistic views regarding the outlook for the global economy. With the benefit of hindsight, it appears that the global economy hit bottom in the first half of last year. Since the middle of last year, various economic indicators have improved, and a salient feature is that improvement in manufacturing activities and international trade has become clear in both advanced and emerging economies (Chart 5). The global economy since the outbreak of the global financial crisis has been characterized by what has been labeled "slow trade," a phenomenon of the trade volume having remained sluggish relative to the economic growth rate, but this trend now appears to be changing. In addition, following the presidential election in the United States, business sentiment -- especially among U.S. firms -- has greatly increased, reflecting expectations that the growth rate will accelerate on the basis of proactive economic policies by the new administration. As a result, the growth momentum of the global economy is steadily gathering pace (Chart 6).

Amid these favorable developments in the global economy, improvements have been observed in Japan's economy as well. One is that a pick-up in exports and production is becoming evident. Against the backdrop of strong global IT-related demand and progress in inventory and capital stock adjustments in emerging economies, the range of items in which exports are increasing has steadily widened and the growth in exports is gradually becoming more sustained. Production is picking up as well, reflecting moderate increases in domestic and overseas demand as well as progress in inventory adjustments. Under these circumstances, corporate profits are improving and business fixed investment is on a moderate increasing trend.

Another is that private consumption is picking up. Despite steady improvements in the employment and income situation, such as the drop in the unemployment rate to about 3 percent and moderate wage growth, private consumption showed relatively weak developments in the first half of last year. This was likely due mainly to the impact on consumer sentiment of the negative wealth effects resulting from the decline in stock prices. In recent months, consumer sentiment has been improving steadily, partly due to the recovery in stock prices, and the Consumption Activity Index (CAI), which the Bank compiles by combining various sales and supply-side statistics, has picked up since last summer (Chart 7).

Japan's economy is more firmly making steps toward a recovery. Going forward, with the virtuous cycle from income to spending being maintained in both the corporate and household sectors, the economy is likely to continue growing at a pace above its potential.

B. The Current Situation of and Outlook for Prices

Next, I would like to turn to inflation. As mentioned earlier, partly as a result of the decline in crude oil prices, the year-on-year rate of change in the CPI excluding fresh food had been in negative territory during 2016, and most recently it is 0.1 percent. However, looking at the year-on-year rate of change in the CPI excluding fresh food and energy, while this was around minus 0.5 percent before the introduction of QQE, it turned positive in autumn 2013 and has remained so for more than three years since then. This is the first time this has occurred since Japan's economy fell into deflation in the late 1990s. Japan is no longer in deflation, which is commonly defined as a sustained decline in general prices (Chart 8).

That being said, even in terms of the CPI excluding fresh food and energy, the rate of increase in prices has been slowing since the beginning of last year, and stagnant in recent months. This is perhaps because firms have refrained from revising prices upward in response to the lackluster private consumption mentioned earlier, and because the yen's appreciation during last year affected the prices of consumer durable goods and other items.

As a result, recent price developments have been somewhat sluggish, but we believe that the momentum toward achieving the price stability target of 2 percent has been maintained and the year-on-year rate of change in the CPI excluding fresh food is likely to increase toward 2 percent. Let me mention three channels for higher inflation going forward. First, improvement in the output gap, as seen in the tightening of labor market conditions, will lead to an increase in the inflation rate mainly through wage increases. Second, energy prices will start to push up the CPI, while the downward pressure of the past yen appreciation will gradually abate. Third, these developments, with the Bank's strong commitment to achieving the price stability target of 2 percent, will lead to higher medium- to long-term inflation expectations among the public.

Let me elaborate on these factors. The tightening of labor market conditions is exerting upward pressure on wages. As I have mentioned repeatedly, the Bank aims at a moderate rise in the CPI inflation accompanied by a rise in corporate profits and wages. Recently, private consumption is picking up amid the steady improvement in the employment and income situation. If this situation continues, firms are expected to be more proactive in their price setting again.

Meanwhile, the contribution of energy prices to the year-on-year rate of change in the CPI, which was more than minus 1 percentage point, has been shrinking gradually and is currently more or less neutral. Going forward, assuming that crude oil prices will remain roughly flat, as indicated by prices in futures markets, the contribution will turn slightly positive in fiscal 2017. It should be noted, however, that this will be temporary and fall off again in fiscal 2018. The Bank does not intend to achieve the 2 percent target by simply depending on rising energy prices. In order to achieve the 2 percent price stability target in a sustainable manner, it is necessary for actual increases in prices to lead to higher medium- to long-term inflation expectations through the adaptive formation mechanism, resulting in an increase in the underlying trend of the inflation rate.

III. The Bank's Stance on Monetary Policy Going Forward

Lastly, I would like to explain the Bank's stance on monetary policy going forward.

As I explained earlier, yield curve control can facilitate the formation of the yield curve that is deemed most appropriate for maintaining the momentum toward achieving the price stability target of 2 percent, taking account of developments in economic activity and prices as well as financial conditions. The Bank will continue to conduct monetary policy based on this principle.

Let me elaborate on this point. In assessing developments in economic activity and prices, the Bank takes into account both its outlook for those developments and risk factors as presented in the *Outlook for Economic Activity and Prices* (Outlook Report). Regarding financial conditions, it takes into consideration the effects of the prevailing interest rate environment on the functioning of financial intermediation.

Based on this framework, the current situation can be explained as follows. With regard to economic and price developments, there is still a long way to go to achieve the price stability target of 2 percent, although an improvement has been observed. As described in the January 2017 Outlook Report, the momentum toward achieving the 2 percent target is maintained but not yet sufficiently firm. As for risk factors, risks to both economic activity and prices are skewed to the downside, and developments in medium- to long-term inflation expectations warrant particular attention. According to the Policy Board members' forecasts for prices presented in the Outlook Report, which are higher than those of private-sector economists, the timing of the year-on-year rate of change in the CPI reaching 2 percent will likely be around fiscal 2018. Taking all of these elements into account, there is no reason to reduce the level of monetary accommodation at the moment in terms of economic and price developments. In this regard, let me add that the Bank's monetary policy should be designed to achieve the price stability target of 2 percent, responding to the situation in Japan's economy. The Bank will not raise the target level of the long-term interest rates just because of a rise in such rates in other countries.

Next, let me make an assessment of the current situation in terms of financial conditions, or the effects on the functioning of financial intermediation. There is no need for now to raise interest rates, either in terms of the short-term policy interest rate or the target level of the long-term interest rates. The investment environment for insurance and pension products has become more favorable as super-long-term interest rates have increased compared to those in September 2016 (Chart 9). Banks have maintained their positive lending attitude, although yields in the short- to medium-term zone -- which affect banks' profits to a large extent -- have remained negative and the spread between deposit and lending rates has been on a declining trend (Chart 10). The amount outstanding of bank lending has been increasing at an annual rate of around 2.5 percent to 3.0 percent. These developments show that the functioning of financial intermediation for supporting economic activity has not been impaired. Nevertheless, the effects of low interest rates on the functioning of financial intermediation would be cumulative with the passage of time. The Bank will continue to examine such effects while keeping in close communication with financial institutions.

Let me summarize our assessment. From any of three aspects -- the economy, prices, and financial conditions -- it is obvious that the Bank should maintain the current yield curve and thereby make the most of the improvement in the global economy, with a view to achieving the price stability target of 2 percent at the earliest possible time.

I would like to add one thing on this point. The guideline for market operations is decided at each Monetary Policy Meeting in line with the thinking that I have just explained. The conduct of market operations including JGB purchases is determined practically to implement the guideline in a smooth manner. As a result, such factors as the amount of JGB purchases at each individual auction may vary depending on financial market conditions. However, this has no implications for monetary policy going forward.

Conclusion

Since the introduction of QQE in April 2013, the Bank has reviewed the framework of monetary easing several times, in response to changes in the environment. However, there has been absolutely no change in its commitment to achieving the price stability target of 2 percent at the earliest possible time. I believe that "QQE with Yield Curve Control," consisting of an "inflation-overshooting commitment" and "yield curve control," is the best possible framework that we can devise at present, given the situation in Japan -- the formation mechanism of inflation expectations, transmission channels of monetary easing, and the conditions in the financial system. Under this framework, the Bank will realize the maximum effects of monetary easing.

Thank you very much for your attention.

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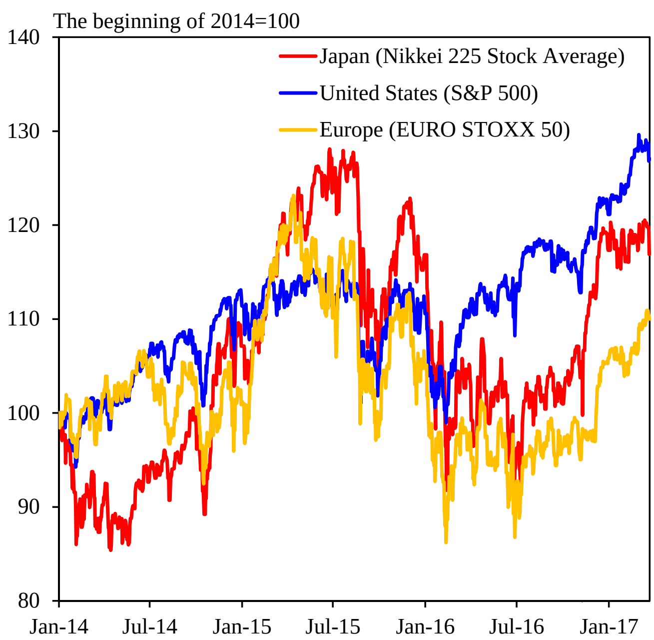
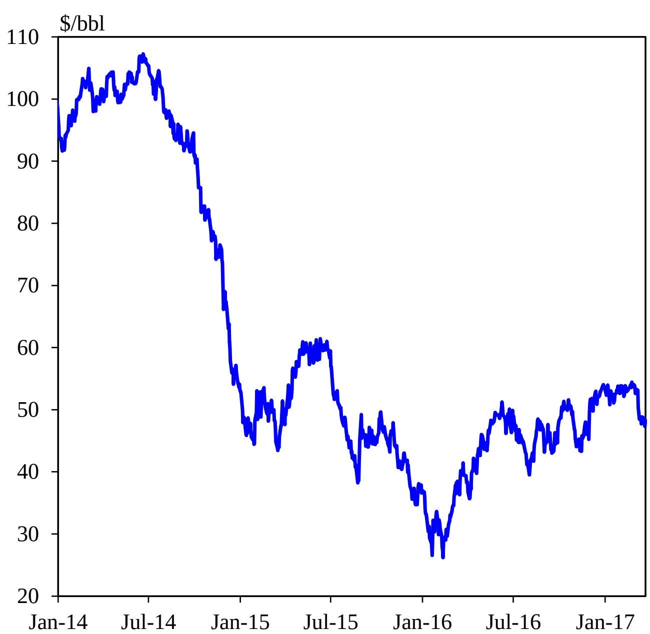
Chart 1

Developments in International Financial Markets

Stock Prices in Major Economies

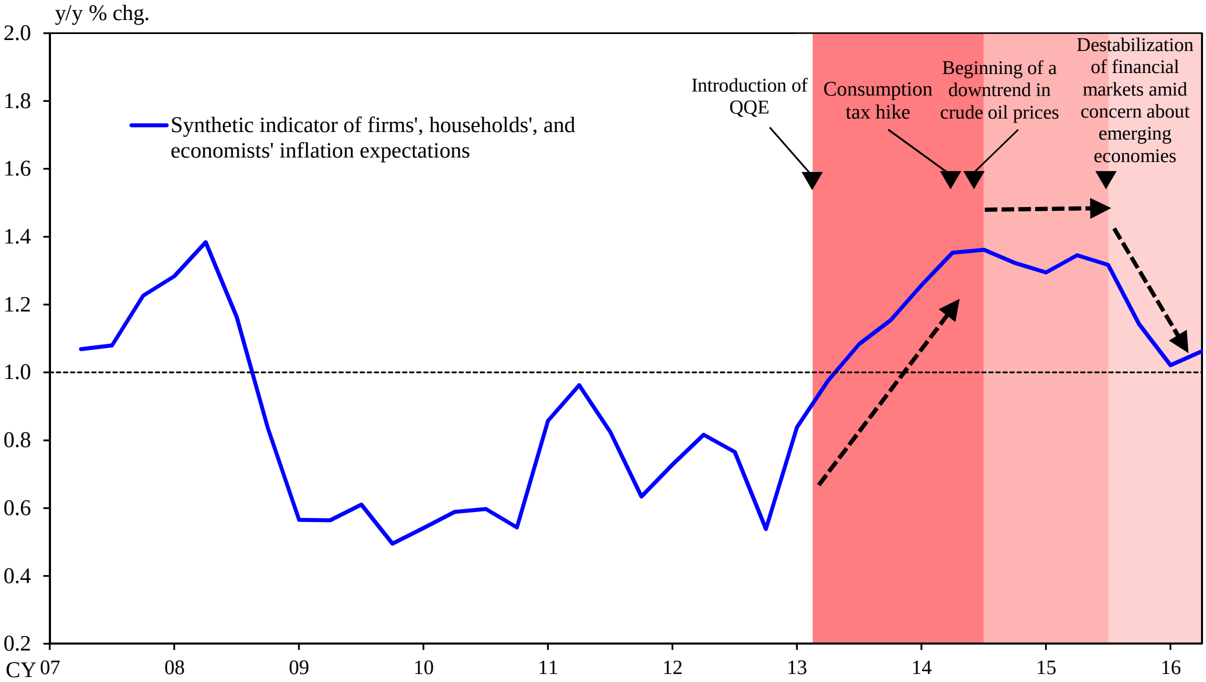


Crude Oil Prices (WTI)



Source: Bloomberg.

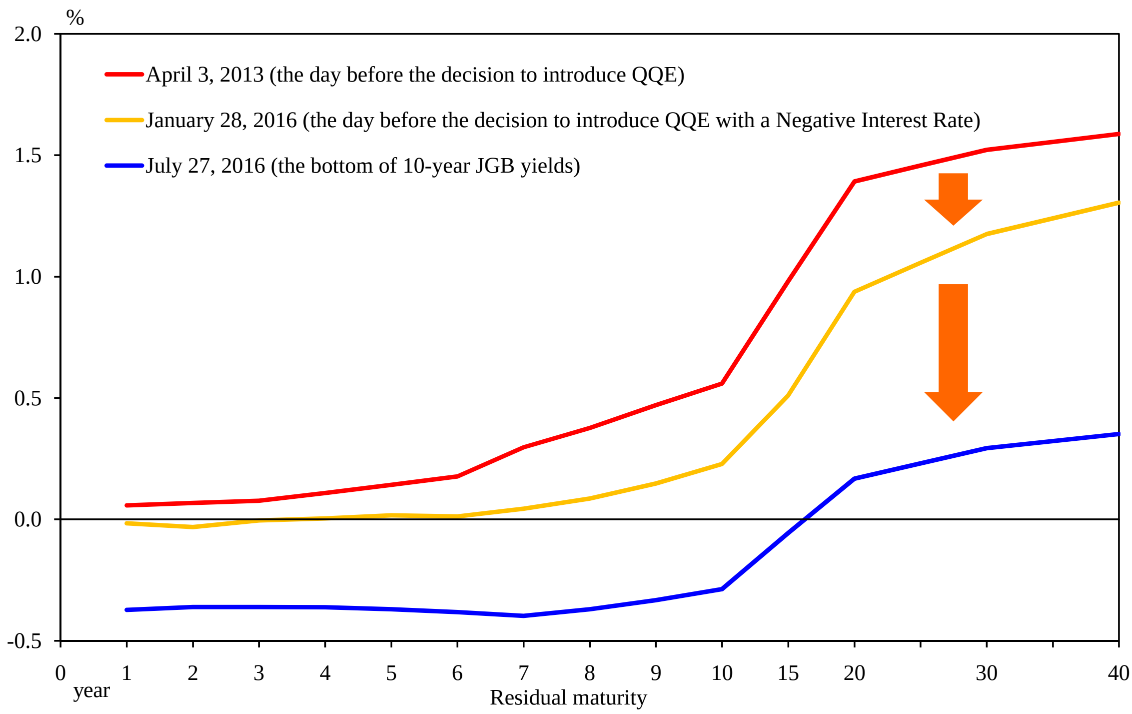
Inflation Expectations after the Introduction of QQE



Notes: 1. Inflation expectations of firms, households, and economists are represented by the *Tankan*, the "Opinion Survey," and the "Consensus Forecasts," respectively.
2. Semiannual data from the "Consensus Forecasts" up through 2014/Q2 are linearly interpolated. "Opinion Survey" figures exclude inflation expectations by respondents whose annual inflation expectations were +5% percent or greater and -5% percent or smaller. The output prices DI in the *Tankan* represents the difference between the share of firms that raised prices in the preceding three months and the share of firms that lowered prices.

Sources: Consensus Economics Inc., "Consensus Forecasts"; Bank of Japan.

Changes in JGB Yield Curve since the Introduction of QQE with a Negative Interest Rate

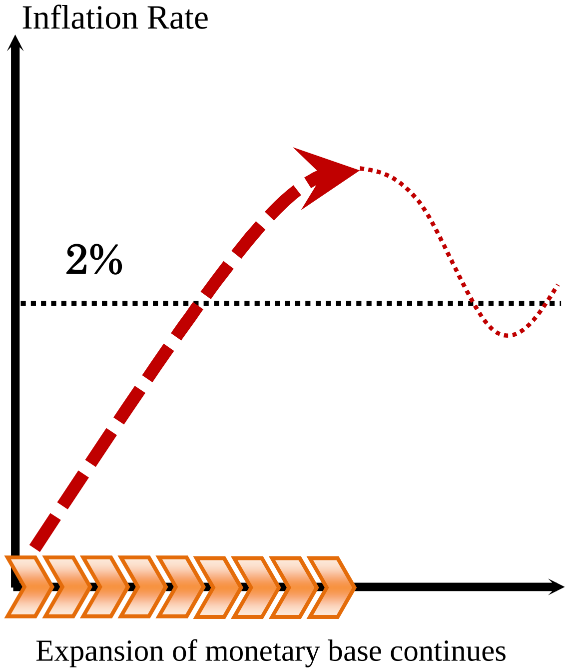


Source: Bloomberg.

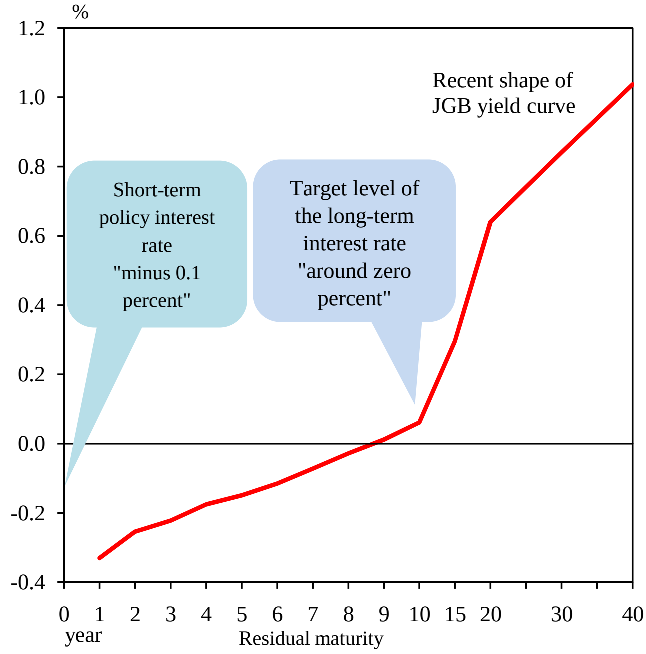
Chart 4

QQE with Yield Curve Control

Inflation-Overshooting Commitment



Yield Curve Control

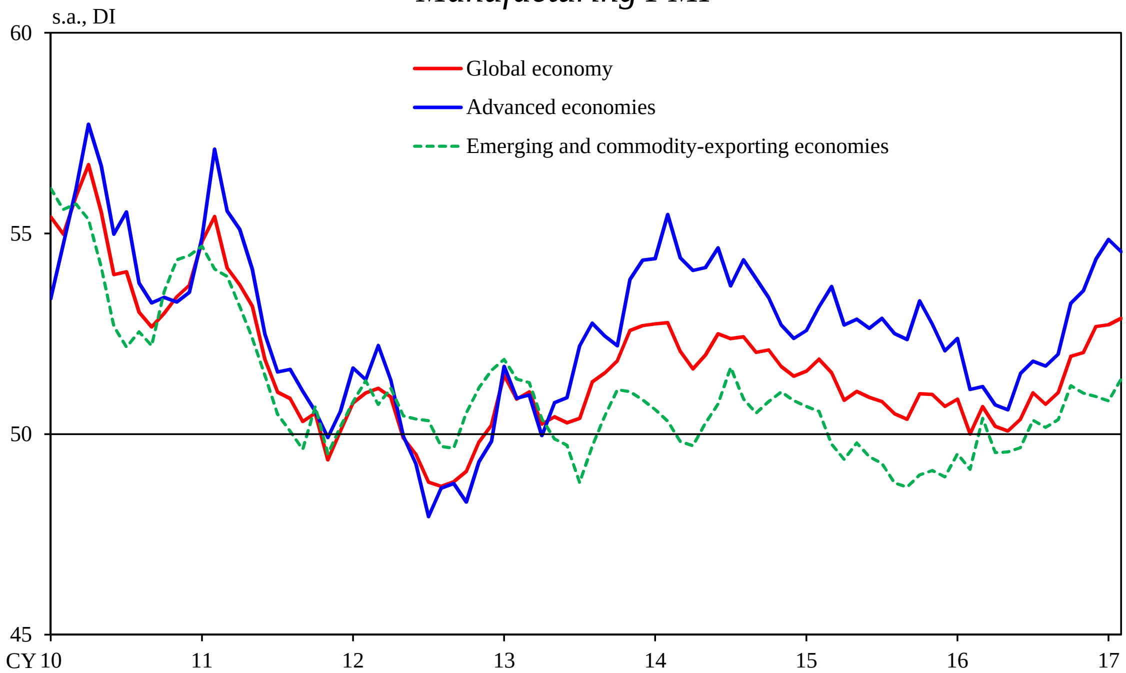


Source: Bloomberg.

Chart 5

Manufacturing Conditions

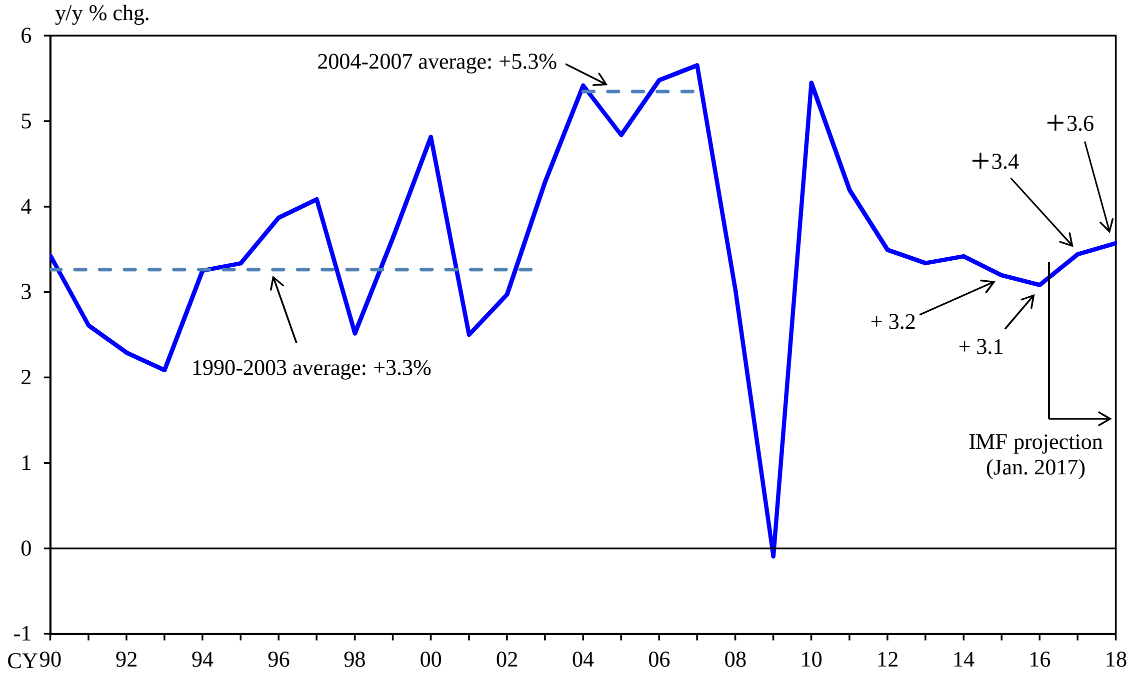
Manufacturing PMI



Note: Figures for the global economy are the J.P.Morgan Global Manufacturing PMI. Figures for advanced economies as well as emerging and commodity-exporting economies are calculated as the weighted averages of the Manufacturing PMI using PPP-adjusted GDP shares of world total GDP from the IMF as weights. Advanced economies consist of the United States, the euro area, the United Kingdom, and Japan. Emerging and commodity-exporting economies consist of 17 countries and regions, including China, South Korea, Taiwan, Russia, and Brazil.
Sources: IMF; IHS Markit (© and database right IHS Markit Ltd 2017. All rights reserved.); Haver.

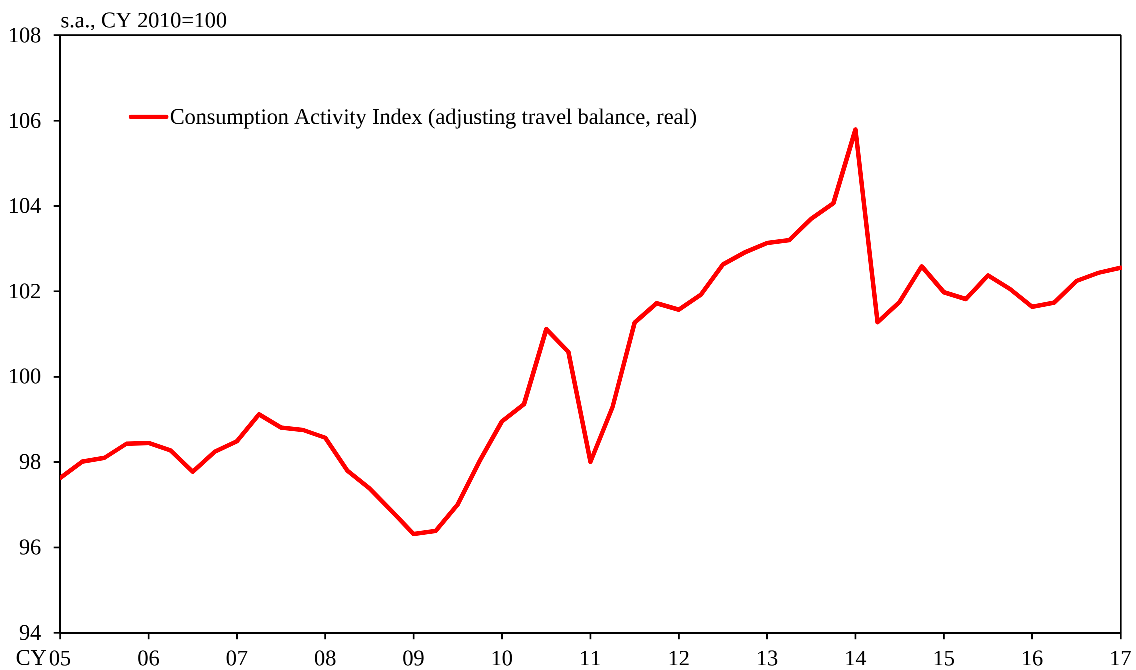
World Economic Outlook Released by the IMF

World Real GDP Growth Rate



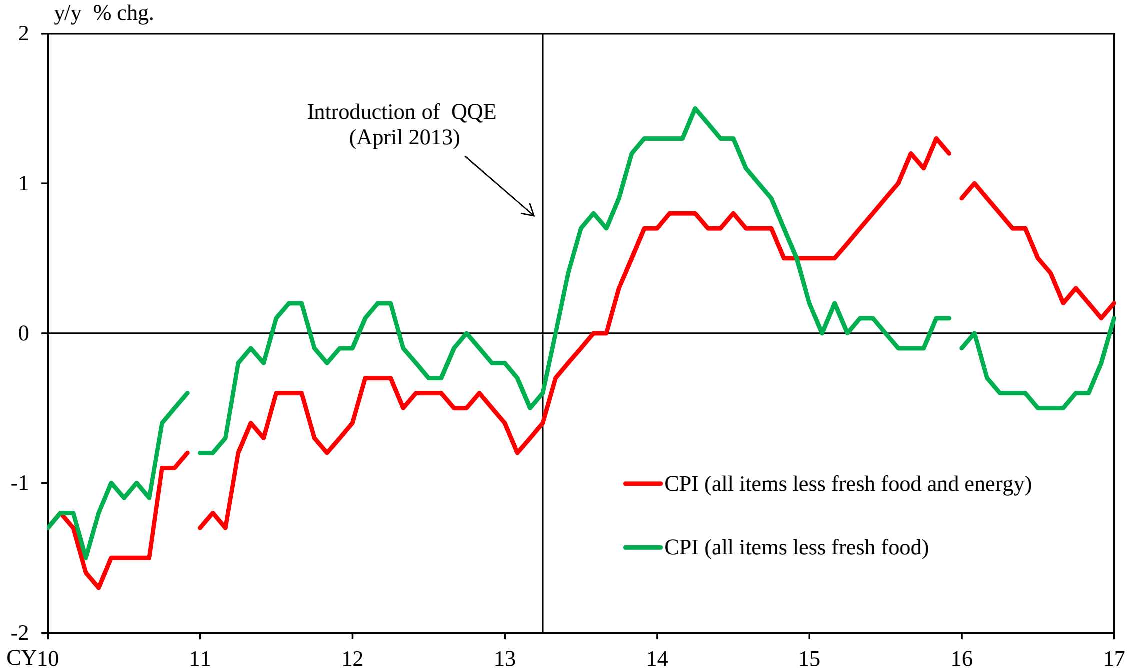
Source: IMF.

Consumption Activity Index



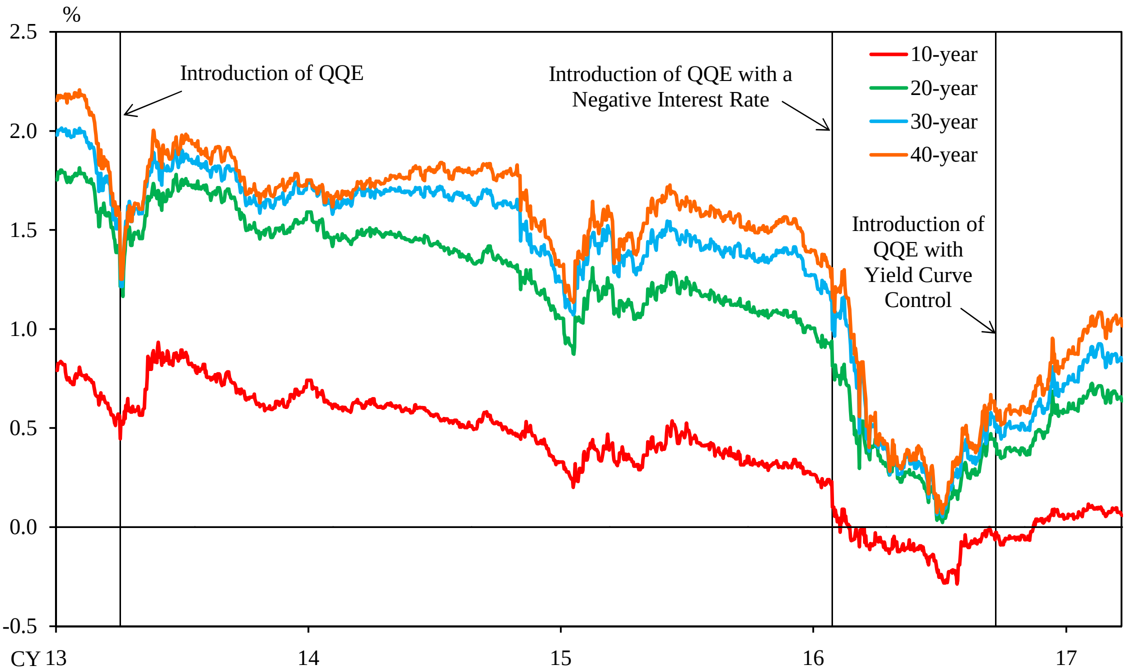
Note: Figures for the Consumption Activity Index exclude inbound tourism consumption and include outbound tourism consumption.
Sources: Cabinet Office; Bank of Japan; Ministry of Economy, Trade and Industry; Ministry of Internal Affairs and Communications, etc.

Consumer Prices



Note: Figures for the CPI are adjusted to exclude the estimated effects of changes in the consumption tax rate.
Source: Ministry of Internal Affairs and Communications.

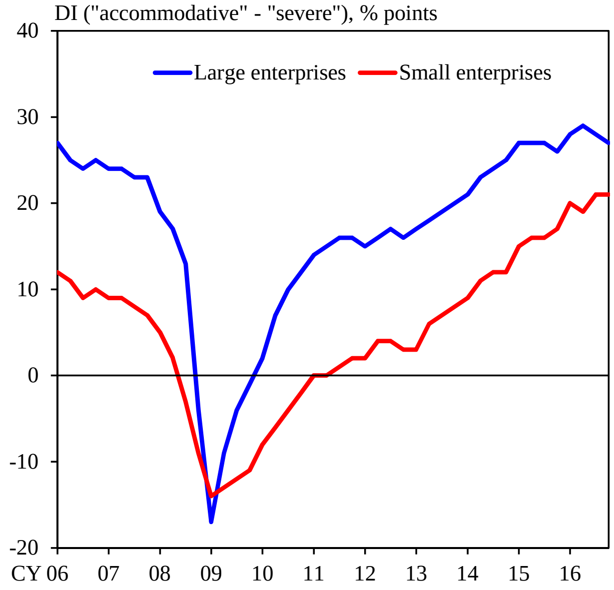
Super-long-term JGB Yields



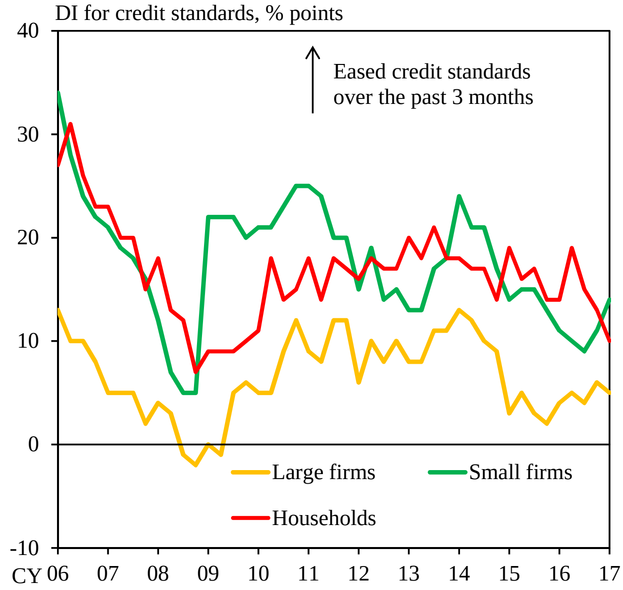
Source: Bloomberg.

Lending Attitudes of Financial Institutions

Lending Attitude of Financial Institutions as Perceived by Firms (Tankan)



Lending Policies of Large Banks
(Senior Loan Officer Opinion Survey on Bank Lending Practices at Large Japanese Banks)



Notes: 1. Data from the *Tankan* are based on all industries.
2. DI for credit standards is calculated as follows.
DI = (percentage of respondents selecting "eased considerably" + percentage of respondents selecting "eased somewhat" × 0.5)
- (percentage of respondents selecting "tightened considerably" + percentage of respondents selecting "tightened somewhat" × 0.5)

Source: Bank of Japan.