1 Trends of JGB Market in FY2018

(1) Review

In the first half of FY2018, a global stock market uptrend continued amid U.S. economic expansion and corporate earnings improvement, although market participants grew conscious of risk factors such as protectionist trade policy moves and European countries' political trends. In the second half, however, the bond market environment greatly changed as investors tended to be conservative amid rising concern about global economic deceleration. In the JGB market, interest rates, which had remained stalled in a narrow range, began to easily fluctuate reflecting overseas long-term interest rate trends as the BOJ decided on "Strengthening the Framework for Continuous Powerful Monetary Easing" (☞) to enhance the sustainability of "Quantitative and Qualitative Monetary Easing with Yield Curve Control."

☞Ref: Column 2 "Strengthening the Framework for Continuous Powerful Monetary Easing" (P14)

From April to June, the U.S. benchmark long-term interest rate rose beyond 3% for the first time in several years on robust U.S. economic expansion and the Federal Reserve Board's continued interest rate hikes. From mid-June to early July, bonds came under growing buying pressure as concern rose about U.S.-China trade disputes. In the meantime, the JGB market, though influenced by overseas market developments, remained in a narrow range, with market participants expecting the current monetary policy to be prolonged.

As it was speculated in late July that the BOJ would consider making its long-term interest rate control more flexible in view of JGB market functionality, the 10-Year JGB yield rose to 0.10% for the first time in about one year. As the BOJ at its Monetary Policy Meeting in late July decided on "strengthening the framework for continuous powerful monetary easing" and indicated its intent to allow the 10-Year JGB yield to move upward and downward at about double the range of around plus or minus 0.1 percent, the 10-Year JGB yield rose to 0.145% briefly in early August, with market participants trying to look for a ceiling level. However, the yield fell back below 0.1% later as the BOJ implemented surprise JGB purchase operations in the long-term zone. In September, the 10-Year JGB yield soared to 0.155% briefly as investors increased risk appetite in response to robust U.S. economic indicators.

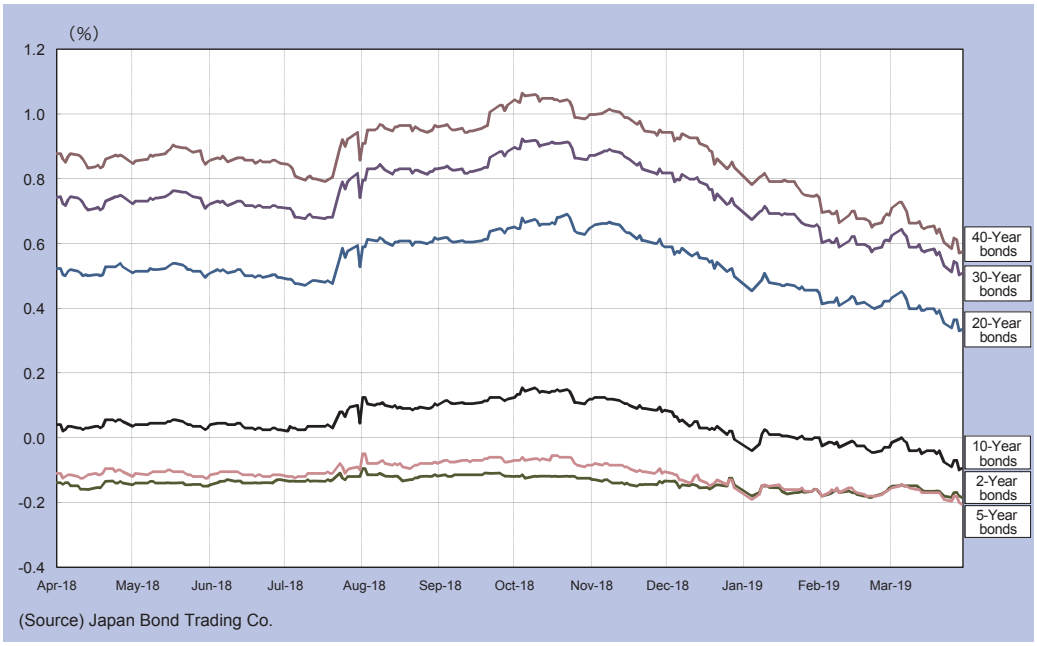
As the benchmark U.S. long-term interest rate rose above 3.2% in early October, however, stock prices in the United States turned down after hitting precarious historical high, leading stock prices to decline in many other countries. Towards the end of 2018, investors' risk-off attitude rapidly grew as uncertainties over the world economy increased on the escalation of U.S.-China trade disputes, the United Kingdom's negotiations to exit from the European Union and the U.S. government shutdown. Furthermore, crude oil prices declined substantially on concern about a deteriorating supply-demand balance, indicating that inflationary pressure would moderate. As a result, interest rates in Japan and other countries substantially declined.

As foreign interest rates remained at low levels against the backdrop of the Federal Reserve Board's more dovish interest rate hike scenario and international organizations' downward revision of economic growth projections from January, the 10-Year JGB yield tended to stay negative. As the Federal Reserve Board and the European Central Bank indicated the suspension or postponement of interest rate hikes, interest rate declines in major countries accelerated towards the March end of Japan's FY2018. The U.S. benchmark long-term interest rate fell below 2.4% briefly, while the 10-Year JGB yield temporarily dropped to minus 0.100%, the lowest since August 2016. As investors purchased JGBs with longer terms

to maturity to secure yields in the belief that there would be no factor for rising interest rates in the immediate future as uncertainties about the world economy were difficult to quickly resolve, the JGB yield curve flattened greatly from the initial curve for FY2018.

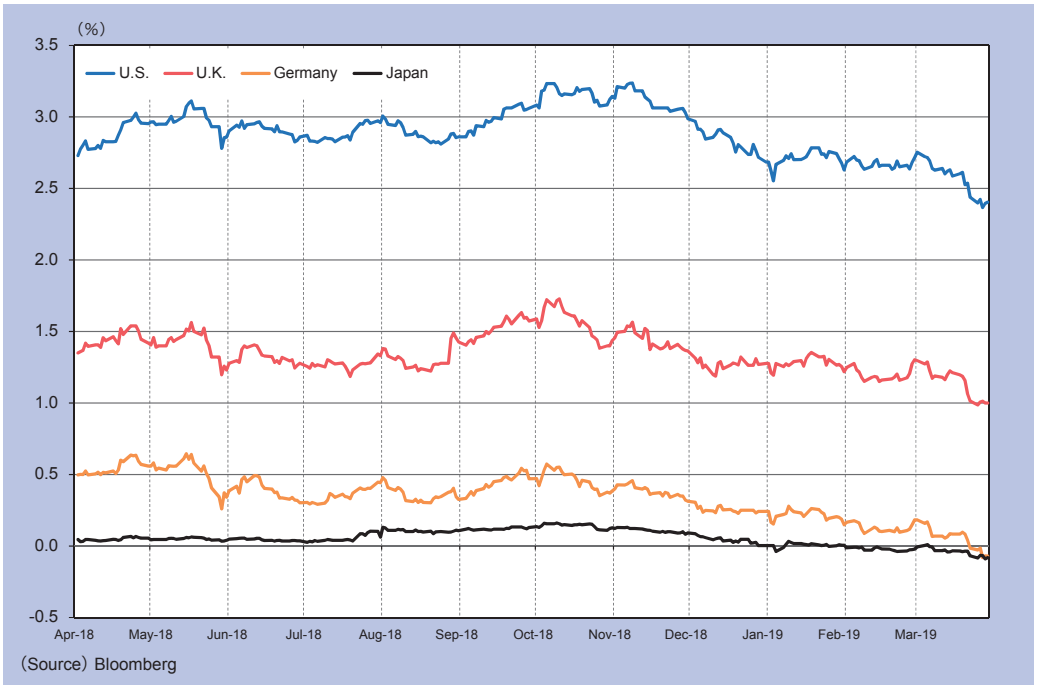
The external environment for the JGB market is plagued with numerous fluctuation factors including global monetary policy normalization at a crossroads and political developments in each country.

Fig.1-1 JGB Yield Trends by Maturity



(Source) Japan Bond Trading Co.

Fig.1-2 10-Year Government Bond Yields (U.S., U.K., Germany, Japan)



(Source) Bloomberg

Fig.1-3 Yield Curve Trends

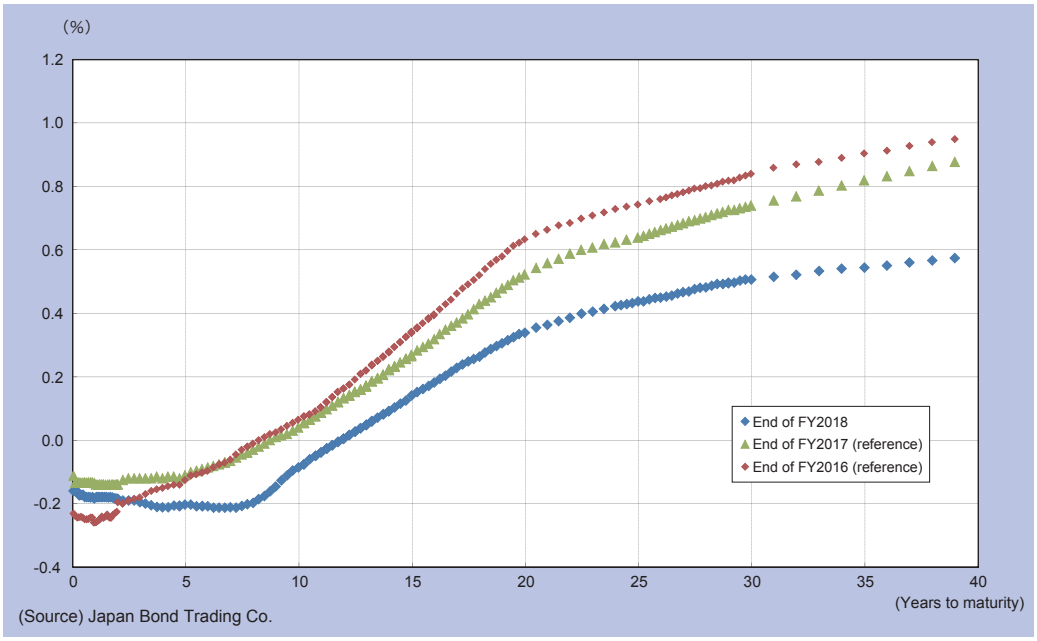
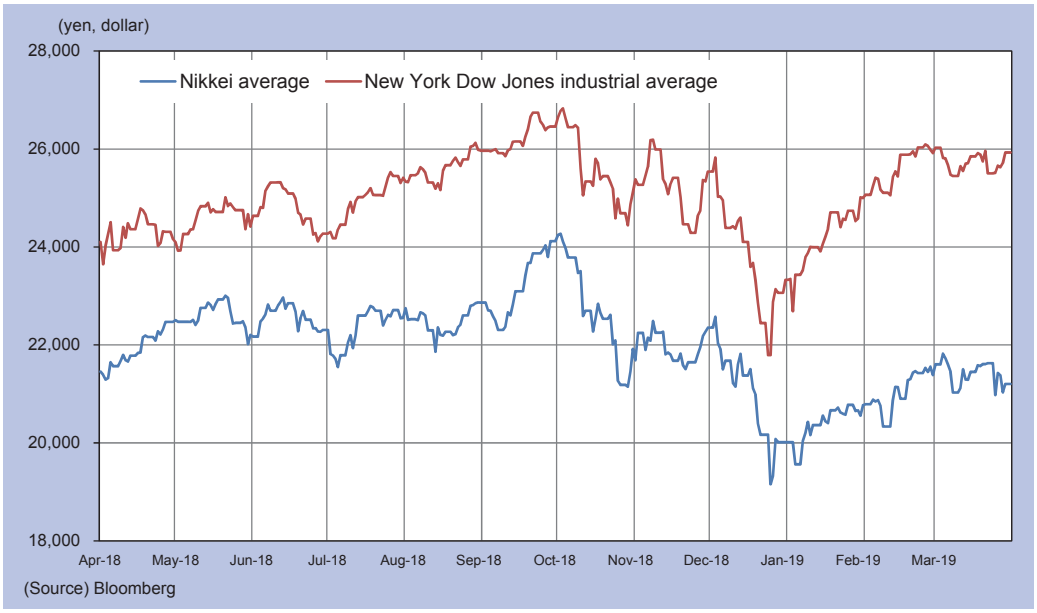


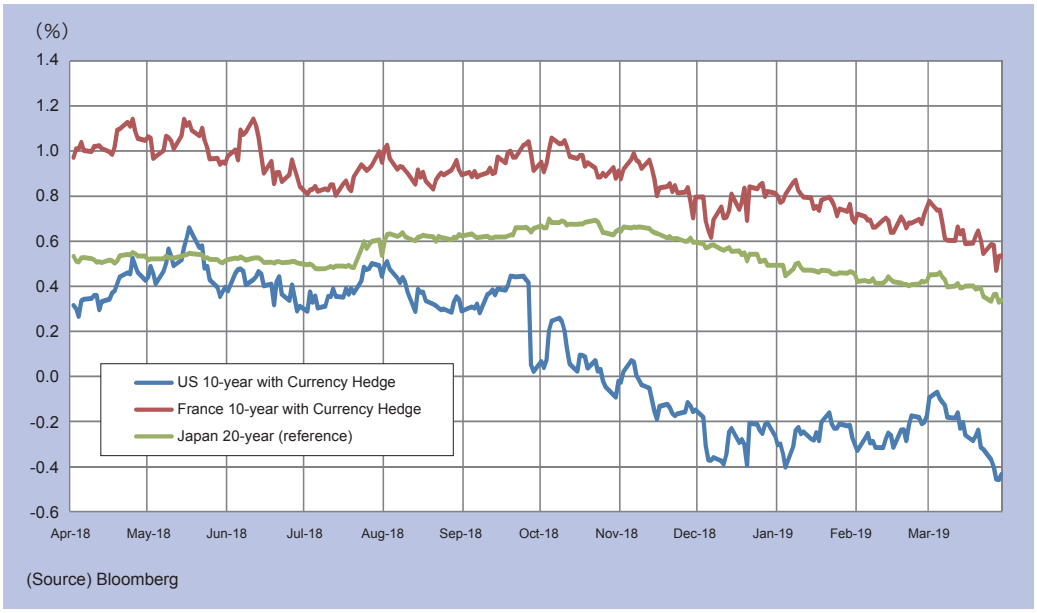
Fig.1-4 Nikkei Average and NY Dow Jones Average Trends



(2) Investor Trends

Under expectations that the BOJ's Quantitative and Qualitative Monetary Easing with Yield Curve Control policy would be prolonged, investors have shifted their funds not only to longer-term JGBs but also to local government bond, FILP agency bond, corporate bond and other credit markets, as well as foreign bond markets. As for foreign bond investment, investors are selecting non-sovereign bonds in the United States and Europe, as costs for raising dollar funds are rising amid the normalization of U.S. monetary policy. Since late 2018, meanwhile, European and U.S. interest rates have dropped substantially in response to investors' growing risk-off attitude amid concern about the future course of the global economy, reducing the attractiveness of foreign bond investment for Japanese investors. They are now exploring new investment targets.

Fig.1-5 10-Year U.S. and France Government Bond Yield Trends with Hedge Cost Considered



(Source) Bloomberg

Column 2 Strengthening the Framework for Continuous Powerful Monetary Easing

❶ Details of "Strengthening the Framework for Continuous Powerful Monetary Easing"

The Bank of Japan at its Monetary Policy Meeting in July 2018 admitted that it would take more time than previously expected to raise the inflation rate to the "price stability target" of 2% and decided on measures to persistently continue powerful monetary easing through "Quantitative and Qualitative Monetary Easing with Yield Curve Control."

The measures included (1) the introduction of forward guidance for policy rates, (2) the more flexible implementation of market operations and asset purchases to curb the adverse effects including a decline in market functions, and (3) other adjustments in order to increase the market's confidence in and expectations on the continuation of monetary easing.

The details are as follows:

(1) Forward guidance for policy rates (Note)

The Bank intends to maintain the current extremely low levels of short- and long-term interest rates for an extended period of time, taking into account uncertainties regarding economic activity and prices including the effects of the consumption tax hike scheduled to take place in October 2019.

(Note) The Bank at its Monetary Policy Meeting in April 2019 decided on the "clarification of forward guidance for policy rates," stating, "The Bank intends to maintain the current extremely low levels of short- and long-term interest rates for an extended period of time, at least through around spring 2020, taking into account uncertainties regarding economic activity and prices including developments in overseas economies and the effects of the scheduled consumption tax hike."

(2) More flexible implementation of "Quantitative and Qualitative Monetary Easing with Yield Curve Control"

a) Long-term yield control

The Bank will purchase Japanese government bonds (JGBs) so that 10-year JGB yields will remain at around zero percent. While doing so, the yields may move upward and downward to some extent mainly depending on developments in economic activity and prices. With regard to the amount of JGBs to be purchased, the Bank will conduct purchases in a flexible manner so that their amount outstanding will increase at an annual pace of about 80 trillion yen.

b) Purchasing ETFs and J-REITs

The Bank will purchase exchange-traded funds (ETFs) and Japan real estate investment trusts (J-REITs) so that their amounts outstanding will increase at annual paces of about 6 trillion yen and about 90 billion yen, respectively. With a view to lowering risk premia of asset prices in an appropriate manner, the Bank may increase or decrease the amount of purchases depending on market conditions.

(3) Other adjustments

a) Change in the size of the Policy-Rate Balance

The Bank, under the condition that yield curve control can be conducted appropriately, will reduce the size of the Policy-Rate Balance in financial institutions' current account balances at the Bank -- to which a negative interest rate is applied -- from the current level of about 10 trillion yen on average. This Balance is calculated assuming that arbitrage transactions take place in full among financial institutions.

b) Change in the amount of each ETF to be purchased

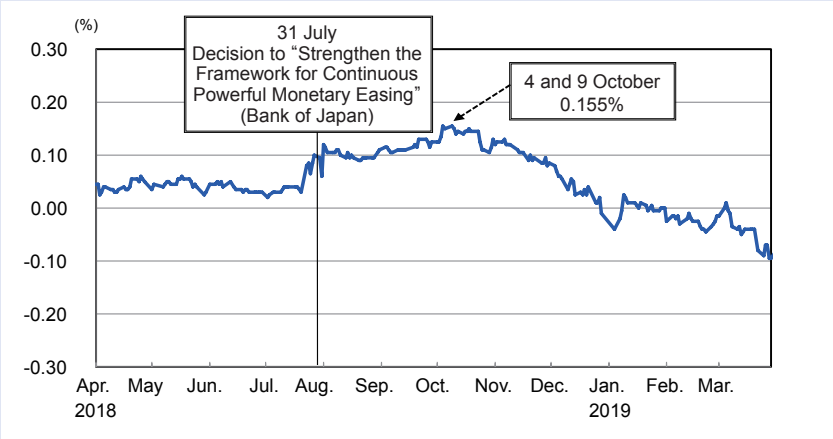
The Bank will revise the purchase amount of each ETF and increase that of ETFs which track the Tokyo Stock Price Index (TOPIX).

At a regular press conference after the Monetary Policy Meeting, BOJ Governor Haruhiko Kuroda referred to (2) a) above and said that the Bank would allow long-term yields to move upward and downward at about double the range of around plus or minus 0.1 percent to enhance the functionality of the JGB market.

❷ Impact on the JGB market

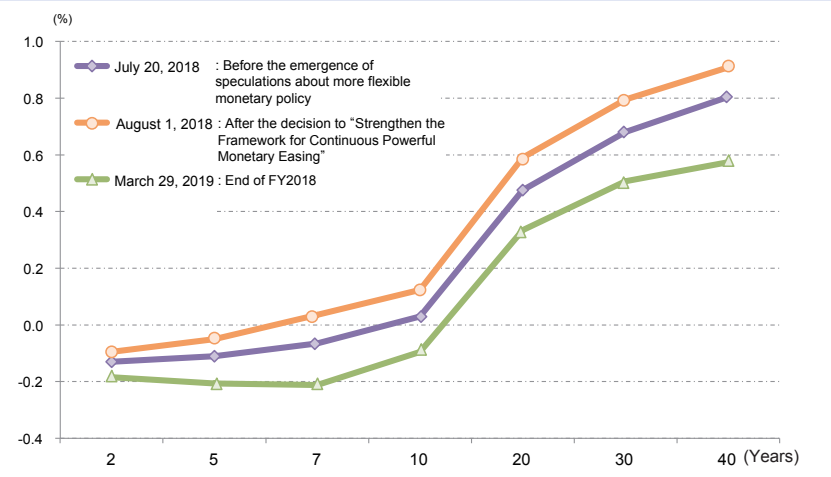
Under its policy of conducting JGB purchases in a flexible manner, the Bank of Japan has gradually reduced monthly JGB purchases and the money market operation frequency and changed money market operation schedules in efforts to enhance the functionality of the JGB market. Although there are JGB market function indicators based on various viewpoints to make it difficult to simply measure the market's functionality, JGB trading volume has shown a slight improvement following a downtrend seen in recent years. BOJ Governor Kuroda said: "Since July's Monetary Policy Meeting, cash and futures transactions have grown more active on the JGB market, with daily price fluctuations widening. In the first half of this year, JGB yields responded little to stock market or U.S. long-term bond yield fluctuations. Since the July meeting, however, the JGB market might have restored responses to such fluctuations. Therefore, I may conclude that market functionality has been improved from the past under JGB purchases conducted in a more flexible manner."
(a regular press conference by the Governor on October 31, 2018)
As the BOJ's quantitative and qualitative monetary easing is prolonged to expand cumulative JGB purchases, additional JGB purchases' downward pressure on interest rates is expected to increase. Market participants may keep close watch on the implementation of "Quantitative and Qualitative Monetary Easing with Yield Curve Control."

Fig.c2-1 10-Year JGB yield trend



(Source) Japan Bond Trading Co.

Fig.c2-2 Yield curve before and after BOJ decision to strengthen the framework



(Source) Japan Bond Trading Co.