Minutes of the Meeting of JGB Market Special Participants (85th Round)

- 1. Date: Monday, March 23, 2020
- 2. Place: Held in writing
- 3. Gist of Proceedings:

1. Reopening and auction methods of nominal interest-bearing bonds in FY2020

► The Financial Bureau gave the following explanation about reopening and auction methods of nominal interest-bearing bonds in FY2020.

• The reopening and auction methods of nominal interest-bearing bonds for the following fiscal year are discussed at this meeting in March every year and will be decided based on opinions from the participants. Today, we would like to hear your opinions on the proposal of the Financial Bureau regarding the reopening and auction methods of nominal interest-bearing bonds in FY2020 which are presented in page 3.

• Since FY2015, the reopening method of 10-Year Bonds has not been changed, in which reopening is applied when the redemption date of the new issue is same as the previous issue and the gap between the coupon rate and the market yield on the auction date is not wider than about 30 bps.

Since most of the opinions were supportive of the current method when we heard opinions from market participants in advance, we suggest maintaining the current method of reopening regarding the 10-Year Bonds in FY2020.

• Since the vast majority of the participants support the current method of reopening 20-Year, 30-Year, and 40-Year Bonds, we suggest reopening those bonds in principle in FY2020, building up four issues of 20-Year Bonds and 30-Year Bonds and one issue of 40-Year Bonds.

• Regarding the auction method for 40-Year Bonds, we had believed it appropriate to continue maintaining the Dutch-style method (single-yield auction method) because the market for the 40-Year Bonds is not mature enough with a limited investor base and lower liquidity compared to other term bonds.

· When we heard opinions from participants about the auction method for 40-Year Bonds in

advance, some of them supported changing the method to the conventional method (multipleprice auction method) because the investor base has been expanding, with a stable demand expected, and there is a discontinuity observed in the price formation before and after the auction.

• On the other hand, others supported the Dutch-style method since the low yield of 40-Year Bonds has been restraining the improvement of the liquidity and the issuance amount of 40-Year Bonds will be increased in FY2020. It is better to observe the influence by maintaining the Dutchstyle method. In addition, some of them stated that the Dutch-style method has a better chance of attracting US investors because the US Treasury also employs this method as well.

Furthermore, some argued that the Dutch-style should be maintained from the perspective of consideration of a heightened volatility in the market, operational risks associated with measures against the spread of COVID-19 infection and depletion of liquidity.

• In addition, in interviews before and after the bonds auction during periods of high volatility, it has been heard that the Dutch-style method provided market participants with a certain level of reassurance.

• As mentioned above, certain number of participants supported the transition to the conventional method. However, the majority of them supported the continuation of the Dutch-style method in terms of the number and the share of successful bids.

• We recognize that the market for 40-Year Bonds has not been matured enough. Although liquidity of 40-Year Bonds has been gradually increasing, the current trade volume of 40-Year Bonds have not surpassed that of 30-Year Bonds when the auction method transitioned from Dutch-style method to the conventional method.

• Under these opinions and circumstances, as shown in page 4, we suggest maintaining the Dutch-style method in FY2020 for the aim of stable issuance, when the issuance amount of 40-Year Bonds will be increased.

• We would like to hear your opinions on the matter again. The reopening and auction methods of nominal interest-bearing bonds for FY2020 will be decided based on this meeting today.

• Summarized below are the views and opinions expressed by the attendees:

· We agree to the proposal of the Financial Bureau. It is appropriate to maintain the current

method from the perspective of sustaining the liquidity of the secondary market and repo market in consideration of the scale of the purchase by the Bank of Japan (BOJ). In addition, regarding the auction method of 40-Year Bonds, the maintenance of current Dutch-style method will contribute to a stable issuance, considering the increase in the issuance amount in FY2020 and the current unstable market environment.

• We support the proposal of the Financial Bureau. The current method of reopening 10-Year Bonds is substantially close to the reopening as a general rule since it is difficult for interest rates to fluctuate by more than 30 bps in a few months under the current monetary policy. As the purchase by the BOJ in the zone is conducted continuously on a monthly base of \$1.4 trillion, we support maintaining the status quo from the perspective of ensuring liquidity per one issue.

In addition, regarding 20-Year, 30-Year, and 40-Year Bonds, although we, as an investor, believe that it is desirable to have a variety of issues from the perspective of book value diversification, we also support maintaining the status quo from the perspective of ensuring liquidity per one issue.

• We agree to the proposal of the Financial Bureau. It is appropriate to continue with the current method since there has been no adverse effect observed on liquidity and repo market in the current reopening method.

• There is no problem with the current reopening method regarding 10-Year, 20-Year and 30-Year Bonds. Regarding 40-Year Bonds, it is desirable to keep the Dutch-style method from the perspective of market maturity as the Financial Bureau explained. Also, it is difficult to foresee the effect of the increase of the issuance amount by ¥100 billion from ¥400 billion to ¥500 billion per one auction in FY2020.

• We consider it appropriate to continue with the current method from the perspective of ensuring sufficient liquidity of individual issues.

• There is no need for providing a special rule only for 10-Year Bonds. Reopening should be applied in principle to 10-Year Bonds as well to provide 4 issues per year. However, we do not have a strong objection to the current rules because they will be reopened almost surely under the implementation of the current yield curve control.

• We agree to the proposal of the Financial Bureau. Price formation before and after the auction of 40-Year Bonds is affected by the imbalance in supply and demand in the market due to

bimonthly issuance, rather than by the Dutch-style method. In future, it is necessary to review the situation including the pros and cons of monthly issuance when the market for 40-Year Bonds matures further.

• We agree to the proposal of the Financial Bureau. In future, regarding the auction method for super long-term bonds, it is necessary to review the fixed idea of transitioning from the Dutch-style method to the conventional method when the market matures. We agree to the point made by the Financial Bureau that the Dutch-style method provided market participants with a certain level of reassurance, which was heard in interviews before and after the bonds auction during periods of high volatility. Further, it is not reasonable to say that the conventional method is superior to the Dutch-style method since it is adopted in the US market as well, which is said to have the best liquidity and functionality. If the auction method for super long-term bonds is changed to the Dutch-style method, we believe that investment from US customers accustomed to Dutch-style method is expected to increase, leading to the stability of price and the reduction in issuance costs in the long run.

• We agree to the proposal of the Financial Bureau. Since the effect of Outright Purchase of JGBs continue to be large, we hope that the current reopening method will be maintained in order to ensure liquidity. Although we feel that the investor base for 40-Year Bonds has been expanding, its liquidity is not sufficient yet compared to other term bonds. Since the issuance amount of 40-Year Bonds will be increased in FY2020, we support the current Dutch-style method. However, there is a room to review the transition to the conventional method in future.

• It is desirable to maintain the current reopening method. However, the advantage of transitioning to the conventional method should be shared with market participants while it is acceptable to maintain the Dutch-style method in FY2020. As more than 10 years have passed since the first issuance of 40-Year Bonds, the liquidity of the 40-Year Bonds market has been sustained at similar level as other bonds. Therefore, it is necessary to find the appropriate timing to introduce the conventional method in consideration of the convenience of investors because there is a discontinuity observed in price formation before and after the auctions by the current Dutch-style method. We suggest introducing the conventional method from FY2021 to help improve liquidity further as it has been gaining supports from investors.

• 40-Year Bonds have been auctioned at higher prices, resulting in poor bidding after the auction. We continually request a full transition to the conventional method to improve the function of the market to find appropriate prices. We have no objection to the other parts of the

proposal.

2. Issuance amount of Inflation-Indexed Bonds in the April-June 2020 quarter

► The Financial Bureau gave the following explanation about the issuance amount of Inflation-Indexed Bonds in the April-June 2020 quarter:

• As shown on page 6, the JGB Issuance Plan for FY2020 announces issuance of Inflation-Indexed Bonds four times a year for the amount of 4400 billion per each time while stating that

"the issuance amount may be adjusted in a flexible manner in response to market circumstances and demands of investors, which will be determined based on discussions with market participants." Also, as shown on page 7, it is stipulated about Buy-Back Auctions that "detailed methods will be determined by considering market circumstances based on discussions with market participants." Therefore, we would like to hear your opinions about the amounts of issuance and Buy-Back in the April-June quarter at today's meeting.

• In the January-March quarter, as shown on page 8, we conducted an auction of issuance for the amount of ¥400 billion in February and decided to conduct Buy-Back Auctions for the amount of ¥20 billion every month. As shown on page 9, the result of the auction of issuance in February was comparable with those of past auctions.

The results of the Buy-Back Auctions and Outright Purchase of JGBs by the BOJ are shown on page 10. Although there was a fluctuation in the bid-to-cover ratio in the Buy-Back Auctions conducted by March 4, the results were generally in line with market conditions. On the other hand, the Outright Purchase of JGBs by the BOJ have been resulting in significantly lower prices compared to the closing price of the prior day.

• The situation of the secondary market is shown on pages 11 to 13. The graphs on page 11 and 12 show a significant deviation in movements from the trend, which is happening globally.

Page 13 shows detailed movements. The BEI had been moving in a stable manner until New Year holidays at around 0.2%. However, the BEI fell nearly to zero since February when the risk-off sentiment was strengthened due to the spread of COVID-19 infection. The interest rates on Inflation-Indexed Bonds could not keep up with the fall in interest rates on nominal bonds.

Thereafter, with the further spread of COVID-19 infection and the decline of crude oil prices, the BEI in Europe and the United States fell sharply, followed by the sharp fall of the BEI in Japan, which stands currently at around -0.15%.

• Under such circumstances, we asked for opinions from the participants in advance and found that many have been supporting reducing the issuance amount of Inflation-Indexed Bonds for the April-June quarter or increase the Buy-Back amount significantly since the balance of supply and demand has deteriorated. Inflation-Indexed Bonds were sold globally with the decline of crude oil prices and the risk-off sentiment due to the spread of COVID-19 infection.

In addition, many have been supporting the cancellation of the Non-price Competitive Auction II for Inflation-Indexed Bonds. There were opinions that the cancellation has a limited effect on the market in view of the supply and demand environment. Also, there were opinions that additional issuance at the Non-price Competitive Auction II in large amounts would adversely affect the market sentiment and its cancellation would contribute to an improvement in the balance of supply and demand.

• In this situation, as shown on page 14, we are considering conducting an additional Buy-Back ¥300 billion in March. The method will be competitive auction with an upper limit set on the maximum purchase price spread. The upper limit level of the purchase price will be ¥100 while the specific value will be officially announced at the time of the offer. However, the purchase price for some issues will not be exactly ¥100 because the standard price differs for each issue. Further, the time of publication of results will be changed from the usual 12:35 to 14:00 for processing.

For the April-June quarter, we are considering issuing Inflation-Indexed Bonds in the amount of ¥300 billion, which is reduced by ¥100 billion from the previous quarter, and carrying out Buy-back Auctions in the amount of ¥50 billion every month.

In FY2020, we are considering adopting the reopening and the Dutch-style method for 1 issue per year, in the same manner as in FY2019. The Non-price Competitive Auction II will not be conducted for the time being. Regarding the cancellation of the Non-price Competitive Auction II, necessary amendments will be made in April for the "Principal Terms and Conditions for JGB Market Special Participants Scheme", as shown on page 15.

We will keep a close watch on the market environment and other factors and take appropriate responses flexibly according to the situation.

• This is the overall explanation of the market situation for Inflation-Indexed Bonds and the proposal.

We believe that the development of the Inflation-Indexed Bonds market is an important issue in debt management policy. We would like to hear your opinions again as it will be decided following the discussion at today's meeting as to the additional Buy-Back in March 2020, the issuance amount in the April-June quarter and the adoption of the reopening method in FY2020. ▶ Summarized below are the views and opinions expressed by the attendees:

• There are hardly any buyers of the on-the-run issue for long-term holding purposes. In addition, currently, existing long-term holders have been selling off-the-run issues. Under these circumstances, we strongly support the Financial Bureau's proposal of conducting an additional Buy-Back for the amount of ¥300 billion in March in order to swiftly respond to the unstable market. It will provide a sense of reassurance to the market and promote its sound growth.

In addition, we agree with the proposal of changing the issuance amount in May to \$300 billion and conducting auctions for Buy-Back for the amount of \$50 billion every month. The total Buy-Back amount in the April-June quarter, when added to the planned Outright Purchase by the BOJ, exceeds the issuance amount. This will be accepted by the market as an active stance of the Financial Bureau to engage in maintaining liquidity until the market is restored to a fair level, which will help investors to return to the market.

We have no objection to the cancellation of the Non-price Competitive Auction II for the Inflation-Indexed Bonds for the time being.

• We agree to the proposal of the Financial Bureau to reduce the issuance amount and increase the buy-back amount.

The additional buy-back in March is expected to work effectively. However, when the issuance environment deteriorates further, it will be necessary to introduce some measures, including offering the options to buy-back the off-the-run bonds in accordance with the amount of successful bids on auctions.

• We agree to the additional Buy-Back for the amount of ¥300 billion in March. Although the BEI in overseas markets have fallen, it is conspicuous that the BEI in Japan has fallen into the below zero range by a large margin. However, the recent selling pressure of overseas investors can be absorbed by this Buy-Back. The setting of the upper price limit is reasonable.

We agree to the both proposals that the issuance amount per each auction is reduced from the current ¥400 billion to ¥300 billion and the monthly amount of Buy-Back is increased from the current ¥20 billion to ¥50 billion. We also agree to the temporary suspension of the Non-price Competitive Auction II.

• We agree to the proposal of the Financial Bureau from the perspective of maintaining the stability and ensuring liquidity of the market.

We request the Financial Bureau to reduce the issuance amount per each auction to ¥300 billion.
Also, the amount of Buy-Back should be increased to ¥50 billion as long as the prices of Inflation-Indexed bonds are below par value. In addition, we support the proposal of the additional Buy-Back by setting the upper limit to ¥100.

• We support the issuance of ¥300 billion in May and the amount of Buy-Back of ¥50 billion monthly in the April-June quarter.

The bid-to-cover ratio in the most recent auction of Inflation-Indexed Bonds in February was around 3.7 times, a slight increase compared to that of the previous auction and it was confirmed that the appetite for buying of investors continue to be strong. On the other hand, currently, in the wake of a global risk-off caused by the concern over the spread of COVID-19 infection, risk reduction has been in progress in the markets. In such a situation, the prices of Inflation-Indexed Bonds, which are low in liquidity, have been fluctuating in a wide range. Under the circumstances, a temporary reduction in the issuance amount and increase in the amount of Buy-Back provides a sense of reassurance to market participants from the perspective of the balance in supply and demand. Also, it will boost the potential demand of investors in the future.

• We agree to the proposal of the Financial Bureau. While the risk-off has been in progress globally, prices of Inflation-Indexed Bonds have sharply fallen to a theoretically very low price due to the unwind of positions. It is uncertain whether there is a demand in the next auction. On the other hand, it is necessary to continue the issuance for the purposes of market development. We request the Financial Bureau to continue watching the trends of Inflation-Indexed Bonds through an increase in the amount of Buy-Back and a reduction in the issuance amount and holding dialogue with market participants.

• The BEI is currently in the negative range. A concern over the global economic downturn associated with the spread of COVID-19 infection has been growing. In addition, considering the domestic price trends, it is predicted that the demand for investment in the future will decrease. Therefore, it is appropriate to reduce the issuance amount and increase the amount of Buy-Back.

• It is appropriate to deal with the situation by reducing the issuance amount and increasing the Buy-Back amount. The cancellation of the issuance due to the temporary deterioration of the balance of supply and demand will undermine the policy course of diversification of JGB products.

• The additional Buy-Back in March for the amount of ¥300 billion will contribute to the improvement of the balance in supply and demand of Inflation-Indexed Bonds which have fallen

sharply to an unreasonable level due to the drop in liquidity. For sound market development, it is indispensable for Inflation-Indexed Bonds to be traded at a fair level of above zero in terms of BEI provided with guarantee of principal. Therefore, it is very important to conduct temporary Buy-Backs and cancel auctions in a situation where the BEI falls below zero in future.

• While we agree to the proposal of the Financial Bureau regarding the additional Buy-Back in March, it is better to set an upper limit based on the BEI than the price, considering the disparity in the balance of supply and demand among issues.

• We agree to the proposal of the Financial Bureau. A reduction in the issuance amount and a significant increase in the amount of Buy-Back are reasonable, considering the fact that the BEI is currently trading at a level far below the theoretical price.

On the other hand, it is necessary for the Financial Bureau to make a statement that the issuance of Inflation-Indexed Bonds will be continued, clearly indicating to the market that the market development of Inflation-Indexed Bonds will be sustained.

• The proposal of the Financial Bureau of a reduction in the issuance amount and an increase in the amount of buy-back is reasonable.

The upper limit of the additional Buy-Back auction should be set to the price spread which corresponds to the spread between ¥100 and the price of the Inflation-Indexed Bond #24 referring to the Statistical Prices for OTC Bond Transactions, instead of the fixed upper limit price of ¥100. It will make the auction more effective, producing more stable result because there are differences in the balance of supply and demand and the market price per issue.

In addition, there is a possibility that the number of bids will decrease depending on the market conditions at the time of Buy-Back. In this case, the concern about the balance of supply and demand would remain for the subsequent issuances.

Therefore, the Financial Bureau should add wording such as "Buy-Back operations may be repeated depending on future market conditions" to show that this is not a one-time measure while ensuring a degree of freedom, which will contribute to market stability.

• We agree to the proposal of the Financial Bureau of increasing the amount of Buy-Back and suspending the Non-price Competitive Auction II for the Inflation-Indexed Bonds for the time being. On the other hand, the Financial Bureau should reserve the option to postpone the issuance as long as the bond prices remain below par value.

• The decline in BEIs has been observed globally, including Japan. As far as recent price movements

are concerned, the decline in Japan's BEI is considerably small compared to other currencies. While it is appropriate to take measures against extreme price declines in order to protect the investor base for Inflation-Indexed Bonds, there is no need to take extreme measures to improve the supply and demand balance when there are clear external causes, such as a significant drop in crude oil prices and selling of the Inflation-Indexed Bonds in other currencies.

In light of this view, although it is reasonable to reduce the issuance amount by ¥100 billion and increase the amount of monthly Buy-Back in the amount of ¥50 billion, the additional Buy-Back of ¥300 billion is unnecessary. It is also extremely difficult to set a fair upper limit for the Buy-Back price. There is a room for discussion since there are many factors to consider, including the BEI and indexation coefficient, which represents the distance from the floor value.

3. Liquidity Enhancement Auctions in the April-June 2020 quarter

► The Financial Bureau gave the following explanation about the Liquidity Enhancement Auctions in the April-June 2020 quarter:

• As shown on page 17, the JGB Issuance Plan for FY2020 states the following about Liquidity Enhancement Auctions:

(1) while it is assumed that a total of \$11.4 trillion will be issued in a year, including \$3.0 trillion and \$2.4 trillion with remaining maturities of 15.5 - 39 years and with remaining maturities of 1-5 years, respectively, in the same manner as in FY2019, and \$6.0 trillion with remaining maturities of 5-15.5 years, a reduction of \$1.2 trillion from FY2019, and

(2) "the issuance amount and its allocation among each zone may be adjusted in a flexible manner in response to market circumstances and demands of investors, which will be determined based on discussions with market participants."

Accordingly, we would like to hear your opinions about the amount of issuance for each zone for the April-June quarter.

• As shown on page 18, as assumed in the FY2019 JGB Issuance Plan, we have issued ¥400 billion in January and March (odd-numbered months of) with the remaining maturities of 1 - 5 years, ¥600 billion every month with the remaining maturities of 5-15.5 years and ¥500 billion in February (even numbered month) with the remaining maturities of 15.5 - 39 years in the January-march quarter.

• The results of the recent Liquidity Enhancement Auctions are shown on pages 19-21, where the result of the tomorrow's auction for the remaining maturities of 1-5 years zone has not been

reflected. The results have been generally stable in each zone thus far. However, the auction for the remaining maturities of 5-15.5 years zone held on March 16 resulted in a long price-tail due to the recent increase in volatility.

• Under these circumstances, we asked opinions from market participants about the Liquidity Enhancement Auctions for the April-June quarter in advance. Many of the opinions supported reducing the issuance amount by ¥100 billion every month for the remaining maturities of 5-15.5 years in FY2020 and maintaining the current issuance amount for the other zones.

• Our proposal for the issuance amount for each zone in the April-June quarter is shown on page 22. We are considering issuing ¥400 billion in the May (odd-numbered month) for the remaining maturities of 1-5 years zone, ¥500 billion every month, by reducing ¥100 for each auction, for the remaining maturities of 5-15.5 years zone, and ¥500 billion in April and June (even-numbered months) for the remaining maturities of 15.5 - 39 years zone.

• We would like to hear your opinions once again and we will decide the issuance amount for each zone of Liquidity Enhancement Auctions in the April-June quarter, following the discussions at today's meeting.

► Summarized below are the views and opinions expressed by the attendees:

• We agree to the proposal of the Financial Bureau as it was generally supported by market participants to reduce the issuance amount for the remaining maturities of 5-15.5 years zone in Liquidity Enhancement Auctions in the discussion so far. There is no need to change the issuance amount for the remaining maturities of 1-5 years zone and 15.5-39 years zone as this is the first quarter of FY2020 and allocation in line with the existing discussion is desirable.

• The demand for the remaining maturities of 1–5 years zone and that for the remaining maturities of 15.5–39 years zone are strong from foreign investors and domestic investors, respectively, while the amount in the remaining maturities of 5–15.5 year zone has been reduced by ¥100 billion. We agree to the proposal of the Financial Bureau that the issuance amount of ¥400 billion in May (odd-numbered month) for the remaining maturities of 1-5 years zone, ¥500 billion every month from April to June for the remaining maturities of 5-15.5 years zone, and ¥500 billion in April and June (even-numbered months) for the remaining maturities of 15.5 - 39 years zone.

• We agree to the proposal of the Financial Bureau. The liquidity of JGB futures has been ensured, with issues with remaining maturities of around 7 years excluded from the Outright Purchase of JGBs by the BOJ. The reduction of \$100 billion in the remaining maturities of 5–15.5 years zone is appropriate.

• Due to an increased volatility, there was a long price-tail in the remaining maturities of 5-15.5 years zone in the Liquidity Enhancement Auctions conducted this month. Therefore, it is appropriate to reduce the amount of issuance in the zone. In addition, the idea was discussed and supported among market participants in the meeting last year.

• We have no objection to the proposal of the Financial Bureau. Since this is the first Liquidity Enhancement Auctions in FY2020, JGB issuance should be conducted based on the JGB Issuance Plan unless there are special reasons making changes.

• We have no objection to the proposal of the Financial Bureau for the April–June quarter. However, the issuance amount in the remaining maturities of 5-15.5 years may be reduced in future because the number of eligible issues for the Outright Purchases of JGBs by the BOJ has been decreasing in this zone while liquidity has been deficient in the remaining maturities of 3-5 years zone.

4. Latest JGB market situation and outlook for the future

► Summarized below are the views and opinions expressed by the attendees:

• Recently, COVID-19 infection is the biggest issue. Initially, in line with the fundamentals, such as concerns over a global economic downturn, interest rate declines and stock prices fall, there was a situation in which the interest rates of JGBs had decreased, with long-term interest rates falling to -0.2% on March 9. Since then, however, profit-taking and liquidation for risk aversion have continued, leading to an unstable market. The interest rates have continued to rise above the level of fundamentals. The Outright Purchases of JGBs by the BOJ has not successfully contained the rise of the interest rate. However, these movements will stop as early as today once most of the year-end financial results are released. Meanwhile, there is a growing concern over an increased issuance amount of JGBs for economic measures and deterioration of financial condition will contribute to the bear-steepening of the yield curve. However, asset purchases by central banks will offset that pressure, and above all, it is deniable that the adverse effect of the spread of COVID-19 infection on the global economy is significantly greater than the consensus

the current market implies. No one in the market has experienced such a stoppage of the movement of people and goods in the world. Therefore, it is impossible to rule out the possibility that long-term interest rates in Japan will drop further, in addition to the US and German interest rates which have reached record lows because the central banks were forced to take further action. The BOJ is likely to reduce the interest rate deep into the negative range, and the long-term interest rates might fall to -0.35%. At the same time, we should be wary of the situation of the "If the mountain is high the valley is deep". We do not know yet how the economy recovers. It might be by the settlement of the spread of COVID-19 infection, by the development of vaccines and medicines or by the passage of time. In any situation, however, the long-term interest rates, which have fallen sharply, will rise rapidly when the movement of people and goods in the world will return to normal and concerns over the deterioration of economy are mitigated.

• Due to the progress in separation of offices and remote work, responding to the spread of COVID-19 infection, the operational risk has been greater than ever before. While central banks, including the BOJ, provide liquidity by implementing various operations, the effect of these operations has not been reflected in all sectors of the market, including the high dollar funding cost in the interbanking market and the low rate of CP with a low rating in the US.

Central banks will continue to provide sufficient liquidity persistently to ensure sufficient liquidity in all sectors over time. However, it is highly probable that while the dollar funding cost remains at a high level and the market is in turmoil, the value of the US dollar remains strong in the foreign exchange markets and market participants will hesitate to invest in JGBs by converting the dollar into yen.

It is highly probable that the problem of the COVID-19 infection will be prolonged. Each country has adopted active fiscal policy in addition to monetary policy. While an increased issuance amount of JGBs due to the implementation of economic measures will strengthen the pressure for interest rate rises, such pressure will be offset by the implementation of QE by the central bank of each country. Due to the existence of the large amount of front-loading Refunding Bonds, the need of the increase in the issuance amount of JGBs to the market is not very high. However, there is a sufficient room for an increased issuance of JGBs in the super-long term zone, including 30-Year and 40-Year Bonds, considering the recent flattening of the yield curve.

• Rough price movements in overseas market affected the yen interest rate market, leading to significant fluctuations particularly in derivatives. In the midst of this global turmoil, JGBs remained relatively stable except for bonds with remaining maturities of around seven years. As a result, the long-term interest rate has been showing an inconsistent movement, staying in the positive range, with the financial situation where the Nikkei Stock Average has fallen by about

30% since the beginning of the year. This shows that the Yield Curve Control policy is functioning, or the market is not functioning.

It is expected that each country will implement large-scale fiscal and financial stimulus plans, and the issuance of government bonds will be increased. However, while QE allows for an expansion of fiscal space, changes in the market structure will be produced. In Japan, the government has been losing the fiscal space rapidly through adjustment of front-loading Refunding Bonds. Also, there is a limit to the duration demand by the market.

• With the gradual worsening of the spread COVID-19 infection in Europe and the US, liquidity has declined significantly in the global financial market. Position liquidation has been proceeding rather than risk reduction, and the stock prices and bond prices have fallen significantly until the end of last week.

The ECB decided not to cut the interest rate at the meeting on March 12. Similarly, there was no reduction in interest rates in the Monetary Policy Meeting of the BOJ on March 16. As a result, prices of JGBs fell led by JGB futures which had been significantly expensive relative to other bonds in terms of the yield curve. The interest rate on the JGBs with the remaining maturity of 7 years rose from -0.4% on March 9 to 0.01% on March 19, a rise by 40 bps in only less than 2 weeks. Long-term interest rates rose in this period from -0.155% to 0.009%, a rise by about 25 bps. In line with the central banks of other countries, the BOJ conducted Outright Purchase of JGBs in five out of six business days including today from March 13 onwards, which is an unprecedented event in the market.

The response to the spread of COVID-19 infection in Europe and the US has only just begun and its impact on the global economy in the future is still unclear. When considering that the Tokyo 2020 Olympic Games is at risk of cancellation, it is hard to expect that the volatility of the market will improve significantly from April onwards. The long-term interest rates will fluctuate in the range between -0.1 and 0.15% in the April–June quarter.

• Since the beginning of this year, concerns over an economic slowdown have risen globally due to the spread of COVID-19 infection, and the outlook is very uncertain. Currently, the risk-off sentiment has sparked a rush towards selling all assets both overseas and in Japan without correlation observed among markets. The JGB market also has continued to be highly volatile, but the Outright Purchase of JGBs by the BOJ has been active since last week. Therefore, the market will restore its stability gradually over time. However, since both the amount and speed of JGB purchases are slightly smaller and slower to those of FRB and ECB, the BOJ's strong commitment to JGB purchases will be a key to the normalization the JGB market.

• Due to the global turmoil caused by the spread of COVID-19 infection that we have never experienced so far, the risk tolerance of market participants and the liquidity of JGBs have fallen significantly in the JGB market.

• Due to a heightened concern over a global recession with the spread of COVID-19 infection and a concern over an increase in the issuance amount of government bonds associated with the large-scale fiscal expenditure by each country in addition to an increased reduction of risks by investors, the interest rates are undergoing large fluctuations globally. The volatility of JGBs is also high and the fluctuations of interest rates will continue for the time being.

• While the market liquidity has dropped significantly, there remains a further risk of confusion at the end of the fiscal year. Since there is no assurance that the market returns to normal even entering the new fiscal year, the market will continue to be unstable.

• Due to the turmoil in the global financial markets caused by the spread of COVID-19 infection, the liquidity of the JGB market has dropped significantly. It will take some time for the situation to become normal. We wish an improvement in the situation of the spread of the infection and an improvement in the risk tolerance of domestic investors.

• Due to the spread of COVID-19 infection, the market liquidity has dropped. At the time of the great financial crisis, the liquidity in the market has decreased significantly, even for a brief period of time. It is probable that further deterioration of the market environment would produce a considerable adverse effect.

• The market liquidity has dropped significantly because of split operations associated with measures against the spread of COVID-19 infection and an increased market volatility, in addition to the seasonal factor of the end of the fiscal year. However, the situation would improve in the new fiscal year.

• Currently, there are three uncertain factors in JGB market, including concerns over a decline in liquidity, concerns over selling of bonds by pension funds due to allocation changes and concerns over an increase in the issuance of JGBs associated with the large-scale fiscal expenditure. However, the JGB market would return to normal gradually in the medium-term, in light of the remaining capacity to increase the amount of Outright Purchase of JGBs and a worldwide economic downturn.

5. Matters explained by the Financial Bureau

The Financial Bureau gave the following explanation:

• First, the Financial Bureau informs you of the lowering of the lower limit of the coupon rate of interest-bearing bonds.

The Financial Bureau plans to lower the lower limit of the coupon rate of interest-bearing JGBs from 0.1% in the JGB Issuance Plan for FY2020. It has been decided that the lower limit of the coupon rate will be set at 0.005% in view of the system adjustment.

The Financial Bureau aims at its implementation after October this year while taking into consideration the preparation status of each company.

• Next, the Financial Bureau informs you of the revision of the frequency of publications, including the "State of Stripping of STRIPS" and others.

Currently, the Financial Bureau publishes the "State of Stripping of STRIPS," the "Changes in the Outstanding Amount of STRIPS (Principal-only Book-entry Transfer JGBs)," and the "Changes in the Outstanding Amount of STRIPS (Coupon-only Book-entry Transfer JGBs)" around the 10th of each month. In recent years, however, there has been no significant change in the separation status.

In light of such a situation, the Financial Bureau asked in advance for opinions on the change of the frequency of publications from the current "monthly" to "quarterly," and many of them agreed to the revision by saying that there is no problem in reducing the number of frequencies of publications in consideration of the current interest rate environment and customer needs, and there is no effect on the market and actual business.

Based on these opinions, the Financial Bureau will change the frequency of publication quarterly after the publication in April 2020 (for March results) onwards. The Financial Bureau will consider revising the frequency of publication in the event of a situation where large changes in the outstanding amount are observed continuously.

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