Minutes of the Advisory Council on Government Debt Management
(51st Round)

1. **Date: Friday, October 25, 2019 (10:00 a.m. to 12:00 p.m.)**

2. **Place: Central Government Building No. 4, No. 1 Special Conference Room**

3. **List of proceedings**

1. Current state and future trends of the JGB market environment

(Inaida Yosuke, Nomura Securities Co., Ltd.)

2. Current debt management policy

First, Mr. Inaida Yosuke from Nomura Securities Co., Ltd. provided explanations on the current state and future trends of the JGB market environment (Document 1). After that, the members exchanged opinions freely.

➢ Views expressed by the members have been summarized (by the Financial Bureau) below.

▪ From the prudence point of view, it is necessary to recognize that the holding ratio of the super long-term bonds has increased to some extent among the small and medium-sized financial institutions.

▪ Previously, bond market investors investing mainly in JGBs focused primarily on gaining income. However, considering the current yield curve, interest rates of JGBs with maturity until 12~13 years are in the minus zone, and the market's functioning has almost been lost. The super long-term zone is the only place where the market's functioning still remains effective. If banks seek to earn income, or, in some cases roll-down in the current situation, they have no option but to turn to the super long-term zone—albeit while taking risks—because of a maturity mismatch. As for life insurance companies, their investment assets have had long durations. In this ultra-low-interest rate situation, it is very important to have the viewpoint of how to make use of the super long-term zone as the only sector where the market's functioning remains effective.

- On the other hand, with regard to the short- to medium-term zone under negative yield, the market’s functioning still remains for foreign investors since JGBs for such tenors are relatively cheap for them. From that viewpoint, now is the moment consider how much importance should be given to the foreign investors. As for domestic investors, it is important to think how to develop and handle the super long-term zone in the future.

- Economic conditions have drastically changed from the previous year. It is important to consider how to handle the market’s functioning, which has been getting lower. If this is a temporary phenomenon, it may be somewhat acceptable. However, we are entering the phase where we need to discuss policy measures more, considering the prolonged low market’s functioning.

- The current economic downturn may prove short-lived. On the other hand, in the future, the FRB and the ECB may discuss the possibility of tolerating an inflation rate rise above 2% or changing their monetary policy frameworks in order to delay or avoid interest rate hikes. Considering the latter case, it is necessary to ponder what to do with the market's functioning in Japan since there is a risk that the global low-interest-rate environment will last very long regardless of the economic cycle.

- Under the premise of the independence of the Bank of Japan's (BOJ's) monetary policy, it is clear that the market's functioning is declining because of the policy that has been implemented until now. If this is raising the risk of negative effects on smooth issuance of JGBs, it may be a good idea to consider the possibility of cooperation between the Ministry of Finance and the BOJ despite the independence of the monetary policy.

- This may be a very unorthodox suggestion, but how about calling bonds with a maturity of one year to around 10 years "green bonds"—calling all of the Fiscal Investment and Loan Program Bonds that are related to green projects "green bonds"—and offering slightly higher interest rates than on ordinary JGBs so that ordinary investors can purchase the bonds, thereby issuing two types of bonds, as a way to develop the short- and medium-term zones?

- Until now, the 10-Year JGB has been the benchmark and, naturally, its trading volume has been the largest. However, we feel that over the past several years, the 20-Year JGB has been taking over as the benchmark. I think that one of the factors behind this change is the fact that the interest rate on the 10-Year JGB turned negative, but it is also true that we have entered an era when not only insurance companies and pension funds, but also regional banks and Shinkin banks have come to trade in the 20- and 30-Year JGBs.
- The most liquid product in the JGB market is the long-term bond futures transaction, which mainly represents the 7-Year JGBs in the cash bond market. Market participants can hedge the 10-Year JGB using the futures transaction, but it is much difficult to hedge 20-Year and 30-Year JGBs since the tenor gap between the cash bond and futures contract will be wide in those tenors.t
- If the issuance authority intends to increase the issuance of bonds in the super long-term zone even a little bit in the future in light of investors' needs, we, both as a market participant and as a primary dealer, believe that it will be necessary to enhance the hedging and price discovery functions and increase the liquidity.
- In that sense, it is necessary to encourage market participants to more actively trade in JGB futures in the super long-term zone at meetings of the Advisory Council on Government Debt Management.

- It is important to maintain the market's functioning in both the JGB market and the interest rate market. That is because such functioning includes a macro built-in stabilizer function and a fiscal discipline-generating function. For example, there is also an approach of generating the market's functioning and trading motivations by using technology and innovation. Although there may be both support for and opposition to the use of high-frequency trading because of its various risks, algorithm-based trading is one way of using technology. As Japanese market system is centralized very much, there may be affinity with high-frequency trading. What is happening in the JGB market at present is that the arbitrage technique is supporting the market's functioning by generating trading incentives, so it is important to provide firm support to new types of trading like this. Introducing green bonds is also a way of increasing trading incentives.
- As for the macro environment in Japan, the country is a unique financial market in that there is a strong home bias because of its status as the largest creditor nation in the world. Therefore, it is important to develop the JGB market by strengthening the market's

functioning.

- In the bond market, government bonds serve as a very important benchmark. While the market's functioning in Japan has been lost because of the low interest rates, that in the United States still remains effective. It is important to hold careful discussions on this point from the global perspective.

Next, the Financial Bureau explained the current debt management policies (Document 2). After that, the members exchanges opinions freely.

➢ Below is a summary of the Financial Bureau's presentation.

(Basic approach)

- Issuance of JGBs based on market demand is crucial for stable and smooth issuance and minimization of funding cost in the medium to long terms. Since projected issuance amounts of JGBs remain at a high level far beyond 100 trillion yen, secure issuance based on assessment of demand trend over the medium to long term, rather than opportunistic issuance, leads to cost minimization and stable and smooth issuance.

(Current bond issuance and future forecasts)

- The issuance amount of JGBs has been declining, which has fallen below 150 trillion yen recently. This is because the attempt to extend the weighted average maturity has led to a decline in the issuance amount of Refunding-Bonds, despite an increase in the outstanding amount of JGBs. The net issuance, which represents the amount of issuance minus the amount of redemption, of super long-term bonds was higher than 20 trillion yen while that of medium- and long-term bonds has turned negative, resulting in the extension of the weighted average maturity on a stock basis. The weighted average maturity of JGBs has become the longest internationally except for the United Kingdom.
- The issuance amount of Refunding Bonds is projected to remain almost flat over the next 10 years. While projected net issuance in the super long-term zone stays positive, that in

other zones remains flat or negative, which implies a continuous extension of the weighted average maturity on a stock basis for a while.

(Investor trends)

- Although the JGBs holdings by banks have been trending downward since the introduction of the Quantitative and Qualitative Monetary Easing policy by the BOJ, the pace of decline has recently been moderating due to demand for collateral use and other purposes. On the other hand, as the amount of their current account deposits at the BOJ has continued to increase, they have a potential for investments in JGBs

- The outstanding amount of JGB holdings by life insurance companies showed an upward trend between 2008 and 2012, with their holdings of bonds in the super long-term zone also increasing. However, the amount has remained almost flat since 2013 while purchases of foreign bonds have been increasing instead. The reason behind this is the risk that duration matching of assets and liabilities under the low interest rates environment would fix losses. It suggests that their investment trend may change in the future depending on the movements of interest rates.

- It has been pointed out that there is the possibility that the changes in the population demographics in the future may lead to decrease in insurance premium revenues or development of needs for new insurance plans. Since the change in needs for insurance plans would have an influence on the investment style of life insurance companies, it is necessary to keep a close watch on the change in the composition of their liabilities from both sides of amount and quality

- Accompanied by the discussions on the international regulations on insurance companies which will be newly introduced in 2025, an advisory panel was established at the Financial Services Agency in June 2019 and discussions on domestic regulation have started as well. Depending on the specifics of the regulations and the timing of introduction, the demand for JGBs is expected to change before or after the preparation for the regulatory compliance. Close observation on these developments are important for considering the JGB issuance plans in the future.

- Looking at a comparison of investors' funding sources and the duration between Japan and the United States, the share of banking sector is higher in Japan, which results in the shorter duration of funding sources. Close observation on the trend in entire funding sources is also necessary for considering the JGB issuance plans from the medium to long term perspective in the future.

(Current liquidity of the JGB market)

- The transaction volume and turn-over ratio for JGBs have improved slightly since the latter half of last year. The improvement of the bond market functionality in Japan has been stalling due to the recent interest rate situation, according to the bond market survey conducted by the BOJ. On the other hand, the GC-SC spread and the amounts of bids accepted for Securities Lending Facility have stayed stable. It suggests that the supply-demand imbalance of specific issues was largely improved.

- Liquidity Enhancement Auctions have been conducted for the purpose of improving the supply-demand imbalance of specific issues. The issuance amount for Liquidity Enhancement Auction increased after the global financial crisis and when the BOJ introduced the Quantitative and Qualitative Easing policy. However, the total amount of JGBs issuance has turned to decrease. Also, the amount of Outright Purchases of JGBs by the BOJ has declined recently. Although reduction in the amount of on-the-run issues was mainly discussed when considering the issuance amount of JGBs thus far, Liquidity Enhancement Auction should be included into the discussions as well under these situations.

(Promotion of appropriate debt management)

- Regarding the cost-at-risk analysis, trial calculation of future costs and risks based on the recent yield curve indicates that both costs and risks will be lower compared with the results of the previous trial calculation because of the recent declines in interest rates and volatility. In addition, trial calculation of the impact on the ratio of interest payment to general account expenditure premised on the mechanical pattern of interest rate movements indicates that the impact could change depending on the shape of the yield curve.

- In the estimate which was made in FY2013, the issuance amount of Refunding Bonds projected to increase by around 30 trillion yen over the following 10 years. At that time, it was intended to extend the weighted average maturity on a flow basis from the viewpoint of curbing the growth in the amount of Refunding Bonds. As a result, the latest estimates projects a roughly constant transition in the issuance amount of Refunding Bonds, which means the advantage of extending the weighted average maturity has been diminished. In addition, the discussion at the Advisory Council on Government Debt Management held three years ago included the need for a revision in such policy course of extending the weighted average maturity on a flow basis and a formulation of the JGB issuance plan in a flexible manner in light of investors' demand in the medium- to long-term.

- The outstanding amount of front-loading Refunding Bonds increased in the last fiscal year even though the initial plans had intended a certain amount of reduction for the past two years. The amount may increase in the current fiscal year as well, depending on the market circumstances because the financing need was reduced by 1.5 trillion yen in June this year and the amount of excess revenue from calendar-based market issuance is expected to surpass the amount estimated in the initial plan by one trillion yen or more under the current negative interest rate environment.

- Some measures were employed for curbing the issuance of front-loading Refunding Bonds recently. For example, the amount of issuance from non-price competitive auction II and excess revenues from calendar-based market issuance listed on the issuance plan have been increased in light of the results at the time of formulating the initial plan. However, introduction of further measures needs to be considered. For example, revising issuance plans in the middle of the fiscal year in accordance with the gap between the plan and the results, decreasing the maximum amount of bidding for the non-price competitive auction II from 15% to 10% and lowering the floor of the coupon rate on JGBs from 0.1% to 0.001% are under consideration. Examples of such revisions of issuance plans during the fiscal year can be seen in other major countries. Germany, the United Kingdom and France formulate government bonds issuance plans before each fiscal year and revise the plans during the fiscal year.

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- Regarding the cost-at-risk analysis, the most important factor for considering future scenarios is risk tolerance in the market. In the case of banks, the earning-at-risk analysis is equivalent to the cost-at-risk analysis. Banks are observing the risk of change in net interest income (NII), in the so-called EVE under the IRRBB regulation, and in market price. As the EVE risk is usually larger for bonds with a longer maturity, risk premium is desirable, but there are strong needs in the super long-term zone because of a sense of security about purchases by the BOJ.

- One of the key points is which direction the debate on the BOJ's policy management will take. Discussing the reversal interest rate deeply may provide a cue for the debate. Negative interest rates have had different effects on corporations and individuals. Among individuals, the elderly are more prone to negative effects than the young. In the future, as the effects will become stronger due to the aging of the society, the reversal interest rate is expected to rise with the passage of time. In addition, there is a term structure with respect to the reversal interest rate itself, and from comments made by the BOJ's governor, it is assumed that the BOJ has the sense that the gap of the rate is small in the super long-term zone. If more qualitative matters are discussed in relation to the analysis, the debate may be deepened, making it easier to predict the future outlook.

- When thinking about the average maturity from the medium to long-term perspective, it is important to consider the optimal number of years remaining until maturity. As the share of JGBs held by the government sector is large on a stock basis in Japan, the government bears much of the interest rate rise risk. Theoretically, if bonds are issued in the super long-term zone, the yield curve is expected to steepen when there is demand. In the future, it is desirable to deepen debate on this matter.

- Although the 10-Year JGB served as the benchmark until now, we have the impression that the 20-Year JGB is taking over as the benchmark. It is not necessary to unilaterally extend the maturity, but considering the recent low-interest-rate environment, the market's functioning may remain effective only in the long-term zone. Therefore, it is important to consider what to do with bonds with a long maturity. In that sense, it is possible to discuss the idea of shifting emphasis from the 10-Year JGB to the 20-Year JGB. It may also become necessary to discuss what to do with the hedging function and the future of the 20-Year JGB.

- If we take into consideration that several corporate bonds with a maturity of around 50 years have been issued in the private sector, whether or not it is possible to extend the maturity of JGBs, including issuing 50-Year JGB, and what the maturity composition should be will become important points of discussion.

- In Japan, there are very few zones where the financial functioning remains effective compared with the situation in America. Therefore, it is important to consider how to invigorate such zones.

- In the United States, as the formulation and enactment of the budgets is basically under the jurisdiction of the Congress, it is difficult for the Department of Treasury to formulate issuance plans with predictability. On the other hand, in Japan, the formulation of the budget is under the jurisdiction of the Ministry of Finance. In Japan, where the debt-to-GDP ratio is around double that in the United States, the predictability of the JGB issuance plans is very important. Therefore, there are concerns over flexibly revising them.

- Even so, it is necessary to optimize the level of the amount of the Front-loading Refunding Bonds from the medium- to long-term perspective. Therefore, the issuance authorities should seek to optimize the level of the outstanding amount of the Front-loading Refunding Bonds after ensuring predictability for the market by listing the auction amount for "Non-price-competitive auction II" in consideration of the actual results or by including a larger reduction of the outstanding amount of the Front-loading Refunding Bonds in the initial plan.

- The most important thing to do is to reaffirm the basic objective of the debt management policy and then discuss plans for the next fiscal year.

- With respect to the cost-at-risk analysis, one option is to conduct a cost simulation based mainly on a growth-realizing case that the government is now envisioning and the baseline case, regardless of whether those scenarios will come true.

- Ultimately, the basic objective of the U.S. debt management policy is considering how to manage quarterly refunding. The approach that was developed by the United States in the 1980s and has been adopted by the country since then in order to enable stable, long-term fundraising and minimize the cost is the "regular and predictable" issuance. This is based on the idea that avoiding frequent changes in the maturities and issuance dates and making only minor changes are good in terms of both cost and risk. The simulation of the future situation that was presented at the previous meeting was also in line with that approach. In Japan as well, it is important to avoid taking opportunistic actions under the debt management policy.

- Regarding the market's functioning, the absolute price of an asset does not represent its actual value, but the relative price is fundamental. It is important to judge the value based on the relative price, for example by observing the yield spread between short- and long-term interest rates. It may be true that the price formation function is being distorted by the BOJ's purchases of JGBs, but domestic and foreign markets are still functioning based on the relative price.

- At present, there are few loan business opportunities in Japan, and it is necessary to both raise and loan funds in dollar. Whether or not the market's functioning remains effective in that respect is important. It is necessary to take it into consideration that everyone is taking actions based not only on the negative interest rates but also on the levels of the dollar fund-raising cost and the spread between short- and long-term interest rates.

- Foreign investors and regional financial institutions have recently been investing in bonds in the super long-term zones. However, foreign investors are making investments through an arbitrage approach based on a comparative analysis of whether it is better to invest in domestic bonds in local currencies or to invest in Japanese bonds by utilizing basis swap. Therefore, if the situation changes, they may move to the sell side. In addition, regional financial institutions also may sell JGBs for regulatory reasons. In that sense, there is the possibility that trading may become more active in the future in the super long-term zone as well.

- As the interest rates on yen-denominated, single-premium savings-type insurance products are low, the duration on the liability side has recently been stuck between 10 and 20 years. Since it is impossible to formulate products when the interest rate on the 20-Year Bond is 0.1 or 0.2%, sales have fallen to a fraction of the level before the introduction of the negative interest policy, resulting in a decline in our needs for bonds with a maturity of up to 20 years. However, if interest rates rise in the future, the needs for the 20-Year Bond will arise.

- In light of the introduction of the ICS in 2025 and the introduction of economic value-based regulation in Japan, the demand for the 30- and 40-Year Bonds may continue to exist due to the need to effectively fill the duration gap. On the other hand, there are more investment opportunities abroad, and foreign markets are more attractive. Therefore, the investment approach of earning returns abroad is expected to continue. As investors are unlikely to invest only in JGBs from the regulatory viewpoint alone, a gap will remain in 2025 and demand for bonds in the super long-term zone will last.

- In the cost-at-risk analysis, it is necessary to incorporate a scenario assuming major change. The longer the monetary easing continues, the more violent the shock to be caused at the time of change will be, so it is necessary to conduct a scenario analysis to examine whether the shock can be endured.
- At a time when demand from foreign investors is growing and volatility is increasing, it is necessary to consider the transition issue—whether domestic financial institutions can substitute when foreign investors sell the short-term zone.
- It is important to consider the effects that may be caused to the aging society not only through the domestic bond market but also through various other financial markets.

- According to the future estimates, there is a gap of around 10 trillion yen between the issuance amounts in FY2020 and FY2021. Therefore, from the viewpoint of the basic objective of achieving predictable, stable and smooth issuance, it is necessary to even out the issuance amount by using front-loading Refunding Bonds. To ensure stable issuance of JGBs, it is important to gradually reduce the amount of front-loading Refunding Bonds from a long-term perspective.

- Everyone would agree that while the market's functioning remains effective in the United States, that is not the case in Japan. However, from the political perspective, the influence of the United States is clearly declining, and in that respect, Japan may have a role to play.

→ (Explanations from the Financial Bureau)

- With respect to the cost-at-risk analysis, we will continue to consider what kind of analysis can be conducted based on the discussions at this meeting.

- As for the extension of the average maturity, it is necessary to conduct a study while watching how the needs will change in the short term and in the medium- to long-term. At the recent Meeting of JGB Market Special Participants, a primary dealer expressed the opinion that the issuance authority should be careful when thinking about the 50-Year JGB unless there are clear needs. At present, we are not considering issuing the 50-Year JGB.

- Regarding the revision of issuance plans during the fiscal year, we, as the issuance authority, think it to be important to secure predictability for JGB issuance. Within that scope, we will consider the specifics.

- Until now, we have quantitatively enhanced overseas IR activities. From now on, it will also be important to qualitatively enhance IR activities by collecting and utilizing various sorts of information. In the United States, there is an initiative to collect information of transactions. In Japan, it is important to consider what we can do as well.