

**Minutes of the Advisory Council on Government Debt Management
(53rd Round)**

1. Date: Monday, November 4, 2020 10: 00 a.m. - 11: 30 a.m.

2. Place: International Conference Room at the Ministry of Finance (web meeting)

3. List of Proceedings

1. Monetary policy management in response to the spread of COVID-19 (Eiji Fukuda, Deputy Director-General of the Bank of Japan)
2. Challenges on the issuance and absorption of JGBs in COVID-19 pandemic (Shigeru Yoshifuji, Advisory Member, Senior Managing Executive Officer of the MUFG Bank, Ltd.)
3. Current status and the Outlook of Japanese Government Bond (JGB) issuance

First, Mr. Fukuda, deputy director-general of the Bank of Japan (BOJ), talked about “Monetary policy management in response to the spread of COVID-19 outbreak” (Document 1) and Second, Mr. Shigeru Yoshifuji, advisory member, senior managing executive officer of the MUFG Bank, Ltd., talked about the “Challenges on the issuance and absorption of JGBs in COVID-19 pandemic” (Document 2). After that, the members exchange opinions freely.

▶ Views expressed by the members have been summarized (by the Financial Bureau) below:

- According to the graph on the right side in page 18 of the explanatory material of Mr. Yoshifuji, the impact of the increase in the issuance amount on this occasion is exceptionally significant. Therefore, we consider it necessary to use our imagination for future action to take.
- Regarding Stage 1 (“Occurrence of Crisis and Response”), I think that the refunding risk will be linked to short-term interest rates in the short-term perspective and to exchange rates in some cases. I believe the trust in currencies is now maintained somehow due to globally adopted reflationary policies so as to respond to the spread of the COVID-19. However, since the trust in currencies is easily undermined and lost in the situation that normalization and solution are discussed in the future, I believe we must be prepared for the normalization and solution. For example, as far as monetary policies are concerned, since it is possible to assume the worst scenario in the case where refinancing costs will increase if interest rates are raised and in the case where the Japanese currency cannot be protected unless interest rates are raised, a contradictory scenario will be created.

- Regarding Stage 2 (“Recovery from Crisis”), since the refinancing cost goes to the upper left (Stage 1) largely, I believe it will take a long time to correct the weighted average maturity . Although it will be important to keep an open dialogue with the market, we believe that we will enter into a stage where it should be discussed how to control the term premium referred to in the Fischer Equation and it will be eventually important to consider how to appeal the importance of the fiscal discipline after the state of emergency.
- Since structural reforms are emphasized in Suganomics, the market is at ease at the moment. However, since a large cost was incurred in responding to the state of emergency this time, I have realized the importance of starting at some point the discussions about how to share the incurred costs among us all including the tax system as the next stage.
- The BOJ has been the largest investor in the past few years, and in that sense, the presence of the BOJ in the dialogue with the market is indispensable. I reinforced my belief that it is very important to keep good harmony among the BOJ, the market and the debt management office.
- On this occasion, the issuance amount increased by about 100 trillion yen compared to the initial issuance plan. While I believe it was inevitable to increase the issuance amount mainly based on short-term bonds as an emergency measure, I am of the view that it will be important to consider how to extend the weighted average maturity in a sustainable response for the future.
- Although the weighted average maturity has been shortened due to a sudden increase in the issuance amount to respond to the coronavirus pandemic, the actual situation is such that the weighted average maturity in terms of flow-basis has not been extended since around 2016 when the negative interest rate was introduced.
- When considering the situation that the weighted average maturity has not been extended in such a situation where interest rates are submerged underwater, we are of the view that the situation at least in the past few years was such that we should have tried to extend the weighted average maturity regardless of the COVID-19 issue. In this sense, I believe it is an important subject how to tackle the issue of extending this weighted average maturity.
- Under negative interest rates, the 20-year bonds are subject to carry and roll-down strategies similar to conventional 10-year bonds, and in that respect, it is considered that the focus of investment is gradually shifting to 20-year bonds.
- Most bonds with a maturity less than 10 years are submerged underwater due to the purchase by the BOJ so the market is not functioning properly. As a result, JGBs with a maturity over 10 years will be handled by investors, resulting in that the 20-year bonds will be considered as the benchmark. Of course, there are difficulties in the situation where the JGB futures market is not working properly. However, we might expect that the 20-year bonds would serve as a benchmark.

- Under these circumstances, I believe it is important to nurture the market for super long-term bonds more. Regarding life insurance companies, there are stable needs for super long-term bonds to a certain extent in order to comply with the economic value-based solvency regime scheduled to be introduced in 2025. Currently, the longest JGB maturity of bonds is 40 years, while 50-year bonds have been issued already as private-sector corporate bonds. When considering that 50-year bonds have been issued this year as FILP, Fiscal Investment and Loan Program, agency bonds, I believe that the issuance of 50-year bonds will be a subject for discussion in the future. When considering the development of the entire bond market, nurturing of the benchmark, or the formation of a yield curve within the risk-free rate framework, it is important to nurture the market for super long-term bonds in a situation where interest rates are so low and that where such a situation will be prolonged, and when considering that part is the only one frontier left with a certain market function, it seems that the issuance of 50-year bonds may be inevitable. In addition, in such a case, I believe it important to consider all options, including a private offering, in addition to the auction method.
- A large amount of government bonds are issued in each country. Since there is a worldwide competition for survival among bonds, I often call it as the Sovereign World Cup. In order to win the survival race, it is important to maintain both the current account balance and the fiscal discipline. In that sense, I believe it is indispensable for both the government and the private sector to be aware of the importance of keeping the current account balance and the fiscal discipline as a national competitiveness. In addition, since such awareness will help us respond to additional measures in the future, it is important for the market to send messages including fiscal discipline.
- The situation this time is different from those in the past in that investors' demands are poles apart, such as a strong demand of short-term bonds for collateral or arbitrage, lack of demand for medium-term bonds and strong demands for super long-term maturity bonds. Under these circumstances, I believe that it is a very special situation for us to enter into a phase where the weighted average maturity should be extended for the next few years.
- At the time when super long-term bonds are playing the benchmark role, while it is considered unavoidable to extend the weighted average maturity by increasing the issuance, we need to be considering whether or not this is truly desirable in the medium to long term. The reason is that the interest rate risk of super long-term bonds is very high. It is very hard to imagine that interest rates of super long-term bonds will be stable for decades in Japan independently from other overseas markets. When the demands for medium- to long-term bonds are being lost depending upon the monetary policies adopted by the BOJ, I am doubtful of whether it is right to place a focus on the issuance of super long-term bonds in issuing JGBs from the perspective

of market stability and monetary policy management by the BOJ in the future. We need to consider the matter carefully.

- I believe that the matters related to super long-term bonds will be given careful consideration by the Ministry of Finance based on a variety of analyses including Cost-at-Risk analysis. However, since there are needs from investment in the super long-term zone in the current yield curve structure of yen interest rates, I appreciate from the perspective of investors that investment opportunities will increase. On the other hand, however, if the issuance amount and the amount of interest rate risk increase sharply in a short period of time beyond the risk tolerance of investors, interest rates will increase, affecting the risk management and financial matters. Therefore, when the issuance amount of super long-term bonds is increased, it should be done over a long period of time under careful consideration.
- According to the Committee for a Responsible Federal Budget, CRFB, which is an independent, non-profit, bipartisan public policy organization, it is expected that the US fiscal balance will deteriorate by about \$ 5 trillion in 10 years regardless of whether US President Donald Trump is reelected or Mr. Biden wins. In addition, if the Democratic party wins the presidency, the U.S. Senate, and the U.S. House of Representatives, there is a possibility that a few trillion dollars will be spent further on measures against the COVID-19 infections in the new year. A simple addition of the two figures will add up to \$ 8 trillion in 10 years, which will cause a further deterioration in the US fiscal balance. As a result, the debt balance as a percentage of US GDP will be at a fairly high level and will surely exceed its highest level after the war.
- A large amount of JGB issuance is increasing on an unprecedented scale. Initially, the increase in issuance was focus on short-term bonds allowing smooth and stable issuance. According to a cost-at-risk analysis, however, the risk is expanding. In order to control the long-term risk, I feel it is necessary to make a shift from short-term to long-term bonds and super long-term bonds.
- Since long-term bonds are issued at an interest rate around zero under the yield curve control, I believe in terms of costs that the focus will be placed on the issuance of 10-year bonds. Taking into consideration the risk of Japanese economy in the long run, I also believe it an option to issue super long-term bonds to a certain extent because of a risk of refinancing bonds with a maturity of over 10 years.
- Life insurance companies are expanding their investment in super long-term bonds to address the introduction of the economic value-based solvency regulation. In addition, regional financial institutions are managing super long-term bonds to obtain capital gains due to roll downs, and the expected return on the 20-year bonds is currently almost 1%. If all these matters are taken

into consideration, the demand for super long-term bonds is expected to continue to increase. In addition, although regional financial institutions play a key role in regional revitalization and are making tremendous efforts to extend loans to the region, their earning performance still continues to be difficult. In the meantime, while the gap between deposits and loans widens in favor of deposits, I feel that the management of marketable securities will be developed into one of the pillars of earnings. To that end, it is necessary to earn profits by investing in super long-term bonds to a certain extent. In order to achieve such an objective, it will be important to foresee the movement of the yield curve which was introduced four years ago. In addition, although super long-term bonds are not under the yield curve control, we believe it important to build a market where such a market function works.

- In addition, green bonds are issued in Germany and other countries. Such a method of issuing bonds may play a key role in examining the way of government spending and securing current account surplus in the sense of competitiveness. In Germany, funds are used for knowledge and innovation support for climate and environmental issues, acceleration of shift to a renewable energy-centered economy, or development of methods for farmers to implement organic and environmentally friendly agriculture, based on the Green Bond Principles. Since these seem to be fields in which both public and private sectors alike will likely to expand investments in Japan in order to boost long-term growth and competitiveness, I feel the need to take these matters into consideration as well in days to come.
- In the era of 100-year life, people in their 60s find it difficult where to invest their money and I feel that there is a very high demand for asset management for about 30 years. For example, I suspect it might be compelling to issue pension payment type super long-term bonds with amortization rights for JGBs for Retail Investors from the perspective of stable issuance of JGBs.
- Although it is expected that US monetary policy will be normalized from 2023, I believe that the problem is the inflation rate. The Fed says it will tolerate a certain level of inflation for the time being. I believe, however, that the issue of whether or not inflation will rise is important in these discussions. In particular, when there is concern over the trade friction and technology friction, I believe it is one of the risk factors that one of the factors that have held down prices in the last 30 years will disappear.
- We suspect that demand for investment will increase considerably due to the implementation of measures against global warming and regional revitalization among other causes in the future. For example, if Japanese government stops gasoline cars and switches to electric cars, at least power equivalent to 22 nuclear power plants in full operation will be required according to a simple calculation of how much power is needed. This will be a considerable investment.

Alternatively, the use of hydrogen instead of diesel for shipping will also mean a big investment. The environmental targets of the Suga administration have been published and they may create investment demand in the private sector. However, if the fiscal deficit does not decrease because of the investment, interest rates will be affected.

- Regarding a balanced spread in bond maturities, we believe it necessary not only to consider costs, but also to prepare ourselves for any eventuality. For example, if long-term interest rates rise, some financial institutions may run out of capital. It is the government that should lend a hand in such an eventuality with a cost. Therefore, I believe it necessary to consider the maturities in a well-balanced manner.
- Only short-term to medium term bonds are subject to the BOJ's yield curve control. However, the demand of market for JGBs exist over 10 years. I am of the view that it may be an option for the BOJ to adopt the policy to lower the yield curve, not only of the short-term zone, but also of all zones by buying little by little in all zones in future. In this case, I suspect that positive interest rates may be achieved in each of the short-term, medium-term and long-term zones.
- The Green Bond Principles have been issued in Europe, but they are somehow ambiguous. Currently, the “90% green 10% gray” and “80% green 20% gray” green bonds are issued. In order to improve this situation, it will be necessary to provide a consistent green bond rating in the green bond market. For example, a green bond close to 100% may be provided with the triple A rating, while a green bond close to 80% may be given the double A rating. In this manner, the green bond will become a good program. The problem is that the definition of green bonds is not so currently.
- I believe that the stable issuance of JGBs depends greatly on the monetary policy of the BOJ. Although such a monetary policy neither ends in a short period of time, nor will last forever, it is important to consider diversification from a broader perspective.
- Currently, long-term government bonds, as long as 100 years, are issued in other countries. As mentioned earlier, green bonds etc., are issued in France, the Netherlands, and recently Germany. In addition, it is said that the EU will do the same next year and if Mr. Biden wins the presidential election, green bonds will be discussed also in the United States. Although it is difficult currently to introduce such a super long-term bond because of the 60-year redemption rule, I believe it necessary to discuss diversification of issuance for the future, including perpetual bond, foreign currency-denominated bond, etc. I believe that green bonds will be at the top of the list of priorities for consideration among these government bonds.
- I believe that there are needs for super long-term bonds. In addition, since life insurance

companies have long debts and have such needs, it is very important to meet such needs. On the other hand, when considering that a large amount of super long-term bonds are issued, its pros and cons should be monitored and handled carefully from the perspective of prudence in the long run in view of the balance sheet structure of regional financial institutions.

- I consider that the issue of the green bonds is an important matter for consideration. It is necessary to have a comprehensive view on the matter including data on interest rates in relation to the issuance of general bonds.

- Regarding interest rate trends after the US presidential election, I believe that if a bear steepener occurs in the United States, it will also affect Japan. Provided, however, that its impact will be mitigated by the BOJ's yield curve control. In addition, although all depends on the spread of the COVID-19 infections and other economic situations, I am of the view that extreme interest rate hikes will not continue because of the possibility that a policy to curb interest rate hikes will become necessary in the United States.

- The view on the outlook for inflation in the United States is divided and it is controversial whether deflation like that in Japan will occur or the yield curve will steepen in line with inflation expectations as before. Therefore, a close attention to its long-term effect should be paid.

- The needs of foreign investors vary depending on relative attractiveness in any of yen-denominated bonds and foreign-currency-denominated bonds, and investment methods vary depending on the respective interest rate levels. For example, the needs of foreign investors may depend on a variety of elements, such as the dollar/yen basis if their own currencies are used, the repo market fulfillment if the repo market is used, and rating status, etc.

- As far as the yield curve control goes, it is difficult for banks to manage super long-term bonds when the yield curve declines as a whole. On the other hand, if the yield curve and interest rates rise sharply, an adverse effect such as an increase in financial burden in some banks is expected and the cost of the burden will need to be considered, accordingly.

- The diversification needs to be promoted because, for example, the needs for floating rate bonds, which were issued lately only in small amount, may be increased according to the outlook on interest rates in the future.

Next, the Financial Bureau explained about “Current status and the Outlook of Japanese Government Bond (JGB) issuance” (Document 3). After that, the members exchange opinions freely.

▶ Below is a summary of the Financial Bureau's presentation:

(Current status surrounding the JGB issuance after the government response to COVID-19)

- A total of 253 trillion yen worth of JGBs which is the largest issuance amount in history was issued with the additional issuance of the first and second supplementary budgets, which was approximately 100 trillion yen. Funds were raised mainly by increasing the issuance of the short-term bonds. It should be taken into consideration, however, that these short-term bonds will be redeemed in the next fiscal year, refunding would be necessary then.
- The yield curve has slightly bear-steepened when compared to the time before the spread of the COVID-19.
- According to the QUICK monthly survey, more people responded that they pay attention to demand and supply of bonds as a variation factor for bond prices, as a difference between before and after the COVID-19. More people thought that demand and supply of bonds contributed to the decrease in interest rates before the COVID-19. Today, after the COVID-19, the situation has reversed and more people think that it contributes to the increase in interest rates. I consider that this is a significant change.
- At the PD meeting held in September this year, participants said that the situation of the COVID-19 in the future, changes in political situation both in Japan and overseas, changes in the issuance plan due to the third supplementary budget in the future, etc., among other factors, would increase the volatility of the market in the future.

(Future considerations in Debt Management Policy)

- Our basic goals for JGB Management Policy, “Easing the smooth and secure issuance of JGB” and the “Minimizing medium - to long - term fundraising costs” will obviously remain unchanged.
- According to our future estimation of the JGB issuance amount based on the “Economic and Fiscal Projections for Medium to Long term Analysis” conducted by the Cabinet Office, when we assume that the maturity compositions of the revised issuance plan in FY2020 that is maintained from FY2021 as well, it is expected that short-term bonds will continue to be issued on a considerable scale. As a result, it is expected that not only the amount of refunding bonds, but also the total issuance amount will continue at the same level as the current one in the future.
- Therefore, although depending on a variety of economic conditions, when such a time comes where it is possible to decrease the total issuance amount after when the pandemic settles down, it will be necessary to study the maturity composition in light of the market needs, while

controlling the issuance amount of refunding bonds by decreasing the amount of short-term bonds increased.

- We assessed changes in cost and risk in the issuance plan before and after the supplementary budgets and we found that both cost and risk increased as a result of the large increase in the JGB issuance amount totaling 100 trillion yen. The actual situation is such that while the average costs did not increase so much as expected due to the placement of focus on short-term bonds, the risk of future interest rate fluctuations for refunding has largely increased.
- Basically, there is a trade-off relation between cost and risk, but both are increasing this time. This is due to the fact that the total amount of issuance itself has increased significantly, and it is utmost important to first control the total JGB issuance amount in order to reduce both cost and risk in the future. Thus, it is necessary to consider the ideal maturity composition at JGB issuance in response to the market needs.
- Regarding the utilization of front-loading issuance of Refunding Bonds, there are times where it is necessary to increase the JGB issuance amount in the short run under an emergency situations such as the Global Financial Crisis, the Great East Japan Earthquake, etc. In a situation where the total issuance amount increases sharply, we have managed to control the calendar-based total JGB market issuance by using front-loading issuance so as to prevent a sharp change. We believe it will be necessary to take full advantage of its function as well in the future.
- When the long-term interest rate was decomposed into the potential growth rate, the expected inflation rate and the risk premium based on the concept of the Fisher equation, it was found that the risk premium which was positive before the decision to introduce the Quantitative and Qualitative monetary easing by the BOJ in 2013 has turned negative and continued to remain in that state. Since the risk premium is calculated as a residual, a variety of factors are included therein and the effect of the monetary policy of the BOJ would be also reflected here.
- If we look at the BOJ's JGB purchase ratio to issuance, it has basically been on a downward trend since the introduction of the yield curve control. However, we can see that the purchase ratio shorter than 10 years JGBs which are subject to the yield curve control in particular has increased in the short run. On the other hand, there is no considerable change in over 10 years JGBs and the downward trend continues. We will need to consider carefully the effect of the monetary policy and the attitude and the stance of the BOJ on the JGB market and interest rates.
- The JGB holding ratio by banks which has been reduced in recent years seems to have bottomed out and turned to increase most recently. We believe this is due to the increase in collateral demand.
- Regarding life insurance companies, we are of the view that there are needs for super long-term bonds in order to fill the duration gap between their assets and liabilities before the introduction of ICS (Insurance Capital Standard) in 2025. It will be necessary to pay close attention to how

their purchase pace will be developed toward 2025 or what difference in needs will be there before and after 2025.

- Although the amount for JGBs for Retail Investors has relatively increased in recent years, the amount of redemption is also at a high level. The redemption includes not only redemption at maturity but also redemption before maturity. This October, we have just introduced the fee system designed to give them incentives to hold JGBs for a long time.
- Until now, partly, the absorption of JGBs has been supported by excess savings of households and companies in the private sector. However, we believe it will be necessary to consider the possibility of depending on overseas investors for capital procurement when considering the future current account balance up to the decrease in savings due to aging and the competitiveness of Japanese companies.
- Although overseas investors play a relatively high role in the transaction of the secondary market, their JGB holding ratio except T-Bills is as low as about 7%. In view of such a situation, we believe it is necessary to conduct overseas IR activities aggressively and effectively in order to increase the number of overseas investors holding JGBs longer and stably.
- After the outbreak of the COVID-19, we could see that the JGB market was also volatile due to the limitations on working at the office and telework as well as actions taken by investors to avoid risks as a result of the declaration of the state of emergency by the government. We believe it will be necessary to be aware of strengthening the BCP system in order to ensure secure issuance of JGBs and their absorption under unexpected circumstances.

▶ Views expressed by the members have been summarized (by the Financial Bureau) below:

- FILP bonds are excluded from the future estimation of the JGB issuance amount. However, I think it appropriate to include them in the future estimation to have a better perspective on JGBs as a whole.
- When I ask people of some private financial institutions and investors about green bonds, they say that they are buying overseas green bonds, such as those issued by the World Bank or by the Asian Development Bank in order to make ESG investments, because green bonds are not available in Japan. The Japanese government needs to consider to issue green bonds to absorb the needs of these people.
- Although it may be optimistic, according to a growth realization scenario in the “Economic and Fiscal Projections for Medium to Long-term Analysis” by the Cabinet Office, the government spending which sharply increased temporarily in this fiscal year will decrease and the new JGB issuance amount will also decrease accompanied by a gradual recovery of tax revenue if the

effect of the COVID-19 subsidies and the economy is normalized. Even in the baseline case, a decrease in the new JGB issuance amount will continue until FY2026.

- Much of the temporary budget deficit that increased sharply according to the supplementary budgets of this fiscal year were financed by the increased issuance based on the discounted short-term bonds. I understand that this measure was taken based on the policy (“regular and predictable issuance”) to minimize the medium to long-term fundraising cost which has become a conventional practice in the market and this basic policy thereof were applied to 2-year bonds to 40-year bonds. On the other hand, short-term bonds were mainly issued with regarding to credit easing, considering the impact on corporate finance, etc.
- I expect that this problem will come to an end with the average maturity extension. This extension will result from the redemption of short-term bonds on the assumption of decreasing the new issuance of bonds and the regular and the predictable issuance. That is, the process for ending it will be based on the same principle to ensure the smooth and secure issuance of JGBs.
- In other words, I do not say that the lengthening of the weighted average maturity is necessary due to Cost at Risk analysis, but that it is necessary to issue JGBs in a highly stable and transparent manner while using the front-loading of refunding bonds on the assumption of the regular and predictable issuance.
- Some members mention the issuance of a perpetual bond today, though I believe the issuance of this bond was not meant, since the logic that the weighted average maturity needs to be lengthened due to the increase in risk was emphasized too much, such an argument would be conducive to helicopter money and cause fiscal discipline to relax and fiscal consolidation to go off-track.
- Sovereign rating for Japan is a single A and JGB interest rate is clearly much higher than that of US Treasury Bond yield in dollar basis. I do not believe that the lengthening of the weighted average maturity can be adopted aggressively considering that Japanese companies and Japanese banks are paying high foreign currency funding costs. I think that a further lengthening can be possible only when the financial condition is good and the international credibility is high. In order for the market to continue to send the message that both fiscal consolidation and fiscal discipline are important, the market should be transparent and stable. It is important to determine the maturity composition in a highly transparent manner through dialogue with the market without resorting to opportunistic or artful means.
- As a proxy variable of the inflation rate in the estimation of the interest rate risk premium, the trimmed mean value of the Consumer Price Index of the BOJ that is a little closer to the expected inflation rate among other indexes may be used. Also, an expected inflation rate index which shows distributed values in the Consumption Trend Survey by the Cabinet Office is

possible to be used by finding the center of the distribution and calculating in reverse using.

- Regarding the current account balance, we suspect that the stabilization of the JGB market may depend on the prospects for the decarbonized society. Although the current account balance may worsen due to a considerable investment required for the realization of a decarbonized society, the investment in its realization will lead to decrease the amount of the import of fossil fuels which amounted to 18 trillion yen in 2019 and may turn the current account deficit back to positive.

- At this time, I believe it necessary for both the government and the private sector to seriously work to strengthen the BCP system because of the increased market uncertainty under the declaration of the state of emergency as a result of the spread COVID-19. According to the mobility data, that is, the so-called GPS data of mobile phones, mobility to the office has returned fortunately in Japan at a considerably faster speed than in Europe and the United States. On the other hand, economic activities are being conducted without mobility back in place in Europe and the United States. Of course, this is a chicken or egg situation. It is unclear whether mobility returned quickly for the lack of the BCP system or the BCP system was not strengthened because mobility returned quickly. In addition, it is unclear why the adverse effect did not last long. Luckily, people in Japan just happened to get back to their office this time. Considering that there will be disasters or emergencies in future other than the COVID-19, I suspect it will be necessary for the government to urge the private sector for digitalization in line with the government referred to by the Prime Minister Suga.

- We are entering the phase to normalize the maturity composition in which too much focus is placed on the issuance of short-term bonds. Although it is necessary to look at the investor's certain demand on the super long-term zone to normalize the maturity composition with regard to the current polarized JGB demand, high demand on short-term and super long-term, we also need to pay attention to the interest rate risk in this zone.

- I am also a bit concerned about the possibility that a variety of views on finance will be expressed. Since there is a possibility that a worldwide monetary expansion will occur and long-term interest rates will fluctuate in the United States if the US government decides to increase public spending, a high degree of uncertainty may occur. Since the finance in Japan, the crocodile's mouth is no longer the crocodile's mouth, I suspect that the current situation is such that it is highly important for the government to commit to a medium to long-term fiscal consolidation.

- In terms of the JGB issuance plan, I understand that it is desirable to balance the costs and risks of the JGB issuance in the light of the domestic and overseas economic conditions and the

market demands. At the same time, I believe that MOF should provide careful communication about the attitude toward fiscal discipline so as not to mislead investors both in Japan and overseas.

- A number of discussions were held about the maturity composition this time and I believe that the maturity composition is a very important matter as a policy measure. In the past, the trend of short-term interest rates was important when considering the movement of long-term interest rates and yield curve. However, since the zero interest rate environment has continued in the 2000s, particularly, the maturity composition has become a very important matter, accordingly.
- The most important theoretical point when considering maturity composition is the maturity composition faced by arbitrage traders. In other words, both theoretically and empirically, I feel that the maturity composition faced by arbitrage traders which is, in the case of Japan, the result of the maturity composition after deducting some JGBs owned by the BOJ, the pension funds and life insurance companies from total amount is very important in order to determine the trend of the yield curve and long-term interest rates.
- I believe that the US Federal Reserve has taken the biggest step this time against the COVID-19. At the time of the financial crisis a dozen years ago, there existed the so-called Japan Premium that Japanese banks had to pay to western banks in order to raise dollars. However, the US Federal Reserve has provided an unlimited amount of dollars to other countries including Japan on this occasion. Therefore, Japanese banks did not pay extra interest rates in order to continue their businesses overseas. I suspect that since the US Federal Reserve's policy has also affected the JGB market, the issuance of the large amount of JGBs on this occasion has been smoothly issued.
- Today, there was a discussion about future trends in the inflation rate in the United States. In that sense, it is unclear whether or not the Fed's policies will remain in their current state. That is, if there arises a problem with the policy for the management of JGBs, there will be changes in the transition of the inflation rate in the United States, resulting in changes in the policies of the US Federal Reserve. I suspect that the shock arising from them cannot be ignored.

→ (Explanation provided by the Financial Bureau)

- Since no preliminary calculations of the issuance amount of FILP bonds have been conducted in "Economic and Fiscal Projections for Medium to Long term Analysis" by the Cabinet Office or any sort are available, FILP bonds are excluded from the future estimation of the JGB issuance amount. As pointed out by the member, needless to say, it is appropriate to include them in the future estimation in order to have a better perspective on JGBs as a whole. Please understand

that the reason for the exclusion is solely due to data restrictions.

- We regard it as a basic principle to continue to be conscious of the regular and predictable issuance as duly pointed out and we believe it is necessary to issue JGBs in a highly transparent manner in the future as well.
- Regarding what kind of index should be used in substitution for the expected inflation rate for the estimation of the risk premium, CPI is used as a simple form. We think that even if we use the trimmed mean value of the Consumer Price Index of the BOJ, there will be no overall change.
- We recognize the importance of keeping strict attitude toward fiscal discipline. As regards the maturity composition, we are determined to keep a close dialogue with market participants in order to suppress the adverse effect on the market.
- As a general rule, we are of the view that it is desirable that the green bond market including corporate bonds will continue to grow. On the other hand, regarding the issuance of green bonds as JGBs, we believe that there are matters to be attended to regarding the budget system, such as how we view their becoming special purpose tax revenues, how we use the funded capital, how we build the subsequent follow-up system, etc. In addition, in terms of market, since it will be necessary to issue them with different names from those of JGBs for investors, there are several points to consider, such as what kind of demands are there for stable issuance, or whether or not liquidity can be secured. Under these circumstances, we are not considering issuing green bonds for the moment because a necessary amount can be raised with the existing JGBs. However, we regard it as a subject to be studied, while paying close attention to trends in other countries.