Summary of Discussion at Financial Markets Panel
(Thirty-eighth Meeting)

June 13, 2016

Topic	The Bank of Japan's negative-interest-rate policy (NIRP)
Date	April 21, 2016 (9:30am - 12:00pm)
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Key Discussion Points

1. **Economic and financial conditions under NIRP**
2. **NIRP as pillar of QQE; future outlook**

1. Economic and financial conditions under NIRP

Inoue (organizer):

・We discussed the Bank of Japan’s negative-interest-rate policy (NIRP) at the open conference on March 14, but I would like to revisit this policy today inasmuch as its effects and side effects have changed over time. Specifically, I would like to discuss economic and financial conditions under NIRP, the role of NIRP under QQE, and the outlook for the future.

・The reference material show that volatility in short-term interest rates increased sharply around the end of FY2015 and the start of FY2016. At the same time, transaction volume in the call market has decreased since negative interest rates were implemented on February 16. The distribution of the three-tiered structure of current account balances at the BOJ varies greatly by financial subsector. By setting the portion subject to negative interest rates differently for each financial institution, the BOJ sought to promote arbitrage transactions. Meanwhile, the JGB yield curve underwent a sharp flattening. This was probably due partly to the expectation that QQE—and the time needed for the BOJ to achieve its inflation target—would be prolonged, and partly also to portfolio rebalancing, inasmuch as investors in short- and medium-term bonds have shifted funds into the super-long sector. Incidentally, the results of the BOJ’s February Bond Market Survey suggest market participants feel JGB market liquidity aggravated sharply around the time NIRP was introduced, although trends in transaction volume and turnover suggest its market liquidity has been deteriorating ever since QQE was adopted.

・The yen’s real effective exchange rate has recently turned higher, but from a long-term perspective it remains at low levels. The yen behaves differently against EUR, AUD, and emerging market currencies (excluding Asian currencies) than it does against the US dollar, and its recent strength may have been prompted not just by a correction in the strong US dollar but also by factors specific to individual economies. Japan's external portfolio investment was running at an elevated level in CY2015 and has been rising sharply since February this year, a phenomenon that may reflect a rebalancing of portfolios in response to negative interest rates. The prices of ETFs and J-REITs are also rising as trading becomes more active. However, it would probably be premature to try to assess the impact of negative interest rates on bank lending so soon. From a somewhat longer-term perspective, banks are adopting a more forward-leaning lending stance at a time when loan balances continue to increase but momentum is sluggish.

・The Tankan business conditions DI indicates manufacturers and non-manufacturers face very different conditions. Nevertheless, corporate earnings remain high when measured by the ratio of current profit to sales. Growth in foreign direct investment (FDI) can also be viewed as a kind of portfolio rebalancing in the broad sense of the term. While Asian countries were the main destination for this investment in the years following the global financial crisis, more recently North America and Europe have become more prominent. Meanwhile, labor market conditions have continued to improve, and while the wage hikes won at the spring labor negotiations were not as large as expected, the overall direction is favorable—growth in real wages, for example, has accelerated. That said, consumer sentiment as reflected in the Consumer Confidence Index has sagged since the start of 2016, perhaps in part because of mounting instability in domestic and overseas financial markets.

Mr. Kato:

・Transaction volume in the call market fell dramatically after negative interest rates were introduced on February 16. Outstanding loans (both secured and unsecured) previously amounted to ¥17–18 trillion, but under NIRP this figure has averaged less than ¥5 trillion and at its highest has been in the ¥6 trillion range. The BOJ originally argued that the three-tiered structure for current account balances would stimulate arbitrage transactions, but that has not been the case. There are a number of reasons for this. First, ordinary deposit rates may have fallen to 0.001% but are still positive, prompting insurance companies to take money they had been lending out on the call market and place it in ordinary bank deposits instead. Second, investment trusts have shifted excess funds to the banking books of trust banks and kept them out of the call market (although that shift is reversing now that trust banks began assessing a 0.1% charge on such deposits this week). This is why the average uncollateralized call rate has recently fallen to around minus 0.07%. Additionally, regional banks and other regional financial institutions are seeking funding on the call market on days when they have unused "basic balances," which attract a 0.1% rate of interest.

Mr. Fukuda:

・Are regional financial institutions earning a spread between the negative rates in the call market and the rate paid by the BOJ on basic balances?

Mr. Kato:

・Yes. Regional financial institutions tend to be very careful about obtaining too much funding at the beginning of the reserve maintenance period, but towards the end of the period they become more active borrowers. On the whole, however, there are relatively few players seeking funds in the call market, and transaction volume remains low. And since there are numerous institutions that must pay the BOJ 0.1% on their balances, an imbalance exists between supply and demand. Agriculture, forestry, and fisheries-related financial institutions and other institutions with surplus funds have stayed away from the call market because they cannot invest large amounts there even if they lower the interest rate they are willing to accept.

・Another reason why the kind of arbitrage foreseen by the BOJ has not materialized to a meaningful extent is the shape of the yield curve. In Switzerland, which adopted negative interest rates before Japan, the rates on repo transactions and overnight loans are around minus 0.75%, while the 10-year government bond is yielding minus 0.3%. Both rates are negative, but the fact that the curve is positively sloped means investors can earn a spread by borrowing in repos and investing further out on the curve. In Japan, in contrast, the yield curve is either flat or negatively sloped, preventing investors from making money this way. Other reasons for the lack of call market transactions include concerns about the rumors that might start if a financial institution were to invest at negative interest rates as well as concerns about the legal interpretation of applying negative interest rates to a loan contract. In the repo market, in contrast, transactions have declined about 10% under NIRP, but market functions remain largely intact, perhaps in part because the transactions involve the lending or sale of bonds.

・In the commercial paper market as well, issuance rates initially remained around zero because the computer systems of the Japan Securities Depository Center (JASDEC), which is responsible for registering and administering commercial paper, were not prepared for negative interest rates. But the amount of paper issued at negative rates has been gradually growing since JASDEC upgraded its systems. Dealers in the money market and elsewhere are earning a spread by buying commercial paper at yields of zero or less and then selling it to the BOJ. Since non-financial corporations tend to hold back on issuance towards the end of the fiscal year, causing supply/demand to tighten, the BOJ was buying commercial paper at heavily negative yields. This prompted it to set a ceiling on the price it was prepared to pay, even if purchases did not reach the expected amount.

・In April we have also seen a marked reduction in 3-month T-Bill rates. This appears to be the result of dealers targeting large spreads in a market where the closing values reported by JSDA serve as the reference rate for the BOJ's buying operations the next day. In an attempt to curb extreme movements in yields, the BOJ has capped the maximum offers by a single participant. The market calls this trade–where investors take advantage of market distortions to earn spreads by selling to the BOJ–the "BOJ trade".

Mr. Oshima:
・After NIRP was announced, all banks began managing their current account balances more carefully and tried to keep them below their allotted basic balance, but one of the results of this was a decline in call market activity. Meanwhile, the growing need for ordinary deposits among investors seeking places to put their money and financial institutions having no remaining basic balances has prompted the megabanks to begin charging large depositors fees, as was mentioned earlier. Consequently, more investors are having to weigh the costs of such deposits with the negative costs of NIRP, which is part of the reason why negative interest rate transactions are becoming more common in the call market. Contributing to this situation is the fact that the megabanks were unable to process negative rate transactions immediately because their systems were not designed with the possibility of negative interest rates for ordinary deposits or call deposits in mind (although perhaps they did consider negative repo rates), and because time was needed to obtain legal interpretations of negative interest rates in loan and derivative contracts.

Mr. Kato:
・According to the reference materials, BOJ estimates based on actual data for January 2016 indicate that of the ¥96.5 trillion in current account deposits belonging to the city banks, ¥1.6 trillion was subject to negative interest rates, but that figure fell to ¥615 billion in the February reserve maintenance period. When special factors are excluded, I suspect that city banks managed their current account balances in such a way as to almost completely avoid negative interest rates. It should be noted, however, that city bank balances subject to negative rates rose to ¥2.1 trillion in the March reserve maintenance period.

Mr. Oshima:
・The city bank balances subject to negative interest rates immediately after NIRP was implemented were quite small since the basic balances were set based on actual average outstanding balances in 2015. These balances increased in March because funds with nowhere else to go ended up in bank deposits. At the risk of generalizing, it makes sense for banks to accept such deposits even if they have to bear the cost of negative rates if they can expect to gain business that will eventually generate revenues in excess of those costs.

Mr. Fukuda:
・Why did the balances subject to positive interest rates increase from February to March?

Mr. Kato:
・There is a possibility that players who had unused positive-rate balances modestly increased their current account balances.

Inoue (organizer):
・Did financial institutions' more careful management of their current account balances at the central bank affect their response to BOJ's QE operations?

Mr. Oshima:
・The primary dealers, at least, are participating in JGB auctions with the intention of selling what they buy to the BOJ, as was previously the case.

Mr. Egawa:
・In the commercial paper market it has become standard practice to issue paper at zero yields, as a result of which yields no longer reflect differences in the creditworthiness of the issuers. Securitizations were traditionally priced off swap rates, and even now newly issued products are issued at yields such as TIBOR +20bp or TIBOR +40bp. The only securitizations priced off JGBs are RMBS issued by the Japan Housing Finance Agency, which typically carry spreads of 40-50bp over the on-the-run 10y JGB. Since securitizations still offer positive absolute yields of 30–50bp, there is strong demand for them among investors. However, for issuers, the cost of issuing such debt is higher than with other methods, since they must still offer yields of several dozen bp above a base rate, as per historical practice, even in today's extreme low-interest-rate environment. With some exceptions, there are relatively few incentives for issuers to raise funds via securitization.

Mr. Tokushima:

・The figures for current account balances by financial subsector make it clear that trust banks' balances have increased far in excess of the BOJ's estimates. Because this led them to begin levying fees on the deposits (money in trust) of investment trusts and pension funds, it prompted the latter to seek ways to reduce the cash positions needed for redemptions or rebalancing. Investment vehicles and pension funds that are unable to do that may ultimately have to pass on the costs to investors and pension beneficiaries.

・It has become increasingly difficult to issue municipal bonds now that the coupon on some short- and medium-term bonds has fallen to 0.002%. The turmoil in this market is so great that some are asking the BOJ to add municipals to its buying operations. And as negative yields extend out to the 10-year sector of the JGB curve, the wide spreads between municipals and JGBs are also an issue. A variety of options are being considered to ensure that investors can continue to earn positive returns, including reallocation of revenues of underwriting fees.

・In the corporate bond market, conditions vary substantially depending on whether the bonds in question are eligible for purchase by the BOJ. Those that are eligible sometimes trade at negative yields. Corporate bonds were traditionally priced off JGBs, but this has become increasingly difficult, particularly in the case of short-term bonds. And since yields on 5- to 7-year JGBs turned negative on January 29, followed by the 10-year sector in April, corporate bonds are gradually being priced solely on the coupon, with high coupons eliciting tremendous demand from investors regardless of the risk involved, underscoring the deterioration in market functions.

Mr. Egawa:

・Municipal bonds, FILP bonds, and RMBS issued by the Japan Housing Finance Agency were traditionally priced off JGBs in both the primary and secondary markets. But now that this no longer works, is there any talk of adopting an alternative benchmark?

Mr. Tokushima:

・The corporate bond market adopted the practice of pricing corporate bond issues rated AA and higher off JGBs about ten years ago. Recently nearly all corporate bond issues, including those with an A rating, have been priced this way. Investors argued that it would be more appropriate to price these bonds off JGBs than swap rates, which also take into account bank credit risk premia, but in recent years demand has been stronger for issues priced off swap rates because of higher absolute yields. The argument could be made that it would be better to stop pricing these securities off JGBs, inasmuch as that market is no longer functional, and standardize on swap rates. It is also consistent with investors demands after all. However, issuers are unlikely to agree with this view, and as a result we find ourselves without any appropriate yield targets.

Mr. Kozu:

・If pricing of securities differs depending on whether they are eligible for BOJ purchases or not, we might be able to say that funds which would ordinarily be remitted to the national treasury as seignorage-derived non-tax revenues are being redistributed by the rules created under BOJ monetary policy. Its appropriateness itself should probably be subjected to debate. Additionally, non-financial companies do not appear to be raising more funds in net terms even though the current financial environment presents a major opportunity for them to do so. Of course more companies may start to take advantage of current conditions to lower their funding costs as financial institutions update their systems incorporating negative rates. But it remains to be seen whether that would lead to new loan demands, although companies would almost certainly refinance existing loans, as has been the case with residential mortgages. In the end, I am afraid that this policy alone will lead to creation of new businesses only in very limited cases.

Mr. Tokushima:

・Negative interest rates will have an adverse overall impact on businesses unless they lead to increased capital investment. They not only increase the cost of retirement benefit obligations by reducing the discount rate that must be applied, but they reduce the investment yields on reserves, sowing the seeds of unfunded pension liabilities in the future.

Mr. Egawa:

・The Financial Law Board, which is administered by the BOJ, published a summary of the main issues involved in the legal treatment of negative interest rates in the context of loan and swap contracts. The Board concluded that since the interest paid on loans and deposits represents compensation for use of the principal, there is no need for the lender to pay interest to the borrower even if TIBOR is below zero and interest rates as calculated turn negative. Swap contracts, meanwhile, merely represent an agreement regarding mutual payments of money, so if the reference rate turns negative the direction of the cash flows will simply reverse. An article by a lawyer in *Kinzai Weekly* also suggested that for a bank owned by shareholders to lend out money at negative rates, generating what is effectively a guaranteed loss, might constitute a betrayal of its duty to shareholders. This issue may be an important one going forward.

Ms. Suda:

・The core problem with negative interest rates is that they have distorted the functions of a wide range of markets, and not just the government bond market. Businesses hold large amounts of cash, but their sensitivity to the cost of fees and negative interest rates may lead them to trim their balance sheets. Nor do we see any companies taking advantage of this opportunity to push ahead with restructuring or reduce idle assets. Similarly, most of the households who have refinanced home mortgages have either used the money to pay back the mortgage early or simply saved it, with few choosing to spend it. Additionally, the decline in pension fund assets due to falling interest rates is a serious problem as more attention focuses on longevity risk.

Mr. Oshima:

・Inasmuch as interest rates on loan contracts cannot be made negative, companies may respond to a decline in market interest rates by issuing corporate bonds and using the proceeds to pay down bank borrowings. Banks will probably try to attract such borrowers by offering other services to compensate them for the negative interest rates they could earn by issuing bonds, but if that causes funds to return to the banks, the balances subject to a negative interest rate will increase. To avoid this outcome banks will probably have to buy credit products with lower ratings or super-long-term bonds. In any case, it would lead to stresses on bank balance sheets and, in the end, the broader financial system.

Mr. Kozu:

・Governor Kuroda has declared that the BOJ will take rates further into negative territory if necessary. What sort of impact would that have?

Mr. Egawa:

・According to the reference materials, lending rates in countries that have taken rates further below zero, such as Switzerland, Sweden and euro-area, are far higher than they are in Japan.

Inoue (organizer)

・Europe had “normal” interest rates until just a few years ago, whereas rates in Japan have been low for an extended period of time. Consequently, the impact of negative interest rates on financial institution earnings is likely to be different. Ignoring this difference and simply assuming that the lack of problems in Europe gives Japan the all-clear would probably be irrelevant.

Mr. Fukuda:

・But financial institutions do have significant capital gains on their bond holdings now that long-term interest rates have plunged under NIRP.

Mr. Oshima:

・The extent of these gains varies at each institution depending on its JGB portfolio. While they may provide a boost to earnings for half a year, beyond that the negative impact on investment returns is likely to be much greater. And inasmuch as share prices have also fallen, I think the overall impact on bank earnings will be negative.

Mr. Fukuda:

・Is it possible for the BOJ to continue expanding the monetary base by ¥80 trillion a year?

Mr. Oshima:

・There shouldn’t be any problem this year, but I think it will be difficult to meet this target next year and beyond.

Mr. Kato:

・The Ministry of Finance plans to issue about ¥130 trillion in JGBs in FY16, and the BOJ’s gross purchases of JGBs will amount to around ¥120 trillion, so it should be possible to maintain a balance between supply and demand even if we assume that investors will continue to hold their super-long-term JGBs without selling them to the central bank. However, that would not be the case if new issuance were to decline on a favorable turn in tax revenues. On the other hand, a loss of fiscal discipline would be possible if the MOF were to take advantage of the favorable negative-interest-rate environment to increase JGB issuance, although looser JGB supply/demand would facilitate the supply of base money by the BOJ.

Ms. Nemoto:

・It would become more difficult to expand the monetary base if there were a rebalancing of personal financial assets or if an increase in bank lending reduced banks’ demand for excess reserves.

Mr. Kozu:

・The BOJ could now purchase any amount of JGBs if it removed the ceiling on the prices it pays at buying operations, although purchasing at higher prices would increase the risk of eventual losses. One issue that deserves greater discussion is whether the BOJ should be free to use seignorage in any way it sees fit.

Mr. Fukuda:

・The government is benefiting from the issuance of debt at negative interest rates, and I think these returns should be taken into account when assessing the risk of BOJ losses.

Mr. Kozu:

・Inasmuch as the "BOJ trade" provides a kind of subsidy to financial institutions, intuitively the public sector as a whole may also bear losses.

Inoue (organizer):

・What sort of approach has the BOJ taken to setting the floor for the yields it pays in its buying operations?

Mr. Kozu:

・I see that the BOJ is not so much setting the level based on a specific view of interest rates but it is simply excluding outlier offers.

Mr. Kato:

・Inasmuch as this policy is designed to lower real interest rates, I wonder the BOJ really needs to stop rates from falling. The yield floor for commercial paper purchases and the ceiling on offers to sell T-Bills were probably intended to rectify excesses in the BOJ trade, but they have amplified uncertainty since they were perceived by market participants as constituting sudden rule changes.

Inoue (organizer):

・When our Financial Markets Panel previously discussed Europe's negative-interest-rate policy, it was argued that financial institutions were able to accept negative rates at the extreme short end of the curve if the yield curve itself were positively sloped.

Mr. Oshima:

・The most important issue facing the BOJ is how to prompt a steepening of the curve and ensure that bank lending and other transmission mechanisms operate as originally intended.

Ms. Suda:

・The BOJ adopted NIRP in order to lower rates at the short end of the curve, but the entire yield curve has flattened as a result.

Mr. Fukuda:

・While it is difficult for politicians to do anything to help financial institutions facing difficulties, they would probably have to do something if senior citizens were to start complaining. That would increase the expectations and pressure placed on the BOJ by politicians.

Ms. Nemoto:

・I do not think we can expect domestic business investment to grow given Japan's declining population and the constraints on the labor supply. However, businesses' appetite for growth is being expressed in increased foreign direct investment and cross-border M&A, a trend that is supported by low funding costs. The dividends and licensing fees and service revenues received from overseas by Japanese companies now represent some 40% of exports. And while investment in China has slumped, direct investment in countries like Vietnam, India, and the Philippines continues to grow at high rates, a trend likely to continue as Japanese companies target local consumption demand in south-eastern Asia. That said, insurance companies were responsible for ¥7 trillion of last year's ¥10 trillion in in-out M&A, reflecting competitive conditions in this specific industry. Therefore, we need to exclude this special factor when trying to forecast the situation in FY17 and beyond.

Mr. Fukuda:

・When a Japanese company acquires a foreign business, does it typically fund the purchase in yen? That would leave it exposed to substantial currency risk.

Mr. Oshima:

・Funds are typically raised in yen and converted into foreign currency. However, that leaves businesses exposed to heavy forex risk and could lead to losses in excess of hedges depending on how far the yen rises.

Mr. Kitamura:

・Is it correct to assume that Japanese companies engaging in overseas M&A are undertaking strategic investments based on a long-term perspective? Or are many of them still taking the approach that they need to invest overseas first and come up with a strategy later?

Ms. Suda:

・While some companies have well-defined overseas investment strategies, others still have failed investments from the past that they are unable to exit.

Mr. Fukuda:

・I think many companies have based their strategies on the rather simplistic view that the domestic market will probably contract, while overseas markets will not.

Mr. Kozu:

・As for global economic growth, the IMF had been of the view that 4% growth was possible, but it now looks increasingly likely that growth will be somewhere near 3%. This 1ppt gap is generating oversupply, and the question now is how to make the necessary adjustments in the world's excess production capacity, particularly in the energy and steel sectors. This will be an issue not only for Japanese enterprises but also for firms in other countries.

Mr. Oshima:

・Businesses are taking a more cautious approach to investment than in the 1980s and 1990s. Not all overseas M&A projects are exposed to currency risk: some firms have utilized JBIC loans, and others have chosen to fund their investments in dollars. My impression upon visiting Myanmar was that Japanese businesses have been quite successful, inasmuch as there are more than 130 stores selling Japanese food products.

Mr. Egawa:

・Last year Japanese insurance companies announced a number of overseas M&A deals. Were these deals internally financed? Also, issuance of dollar-denominated subordinated debt increased. Was the main objective of this issuance to obtain dollar funds?

Mr. Tokushima:

・Inasmuch as there are relatively few attractive domestic investments, I suspect insurers probably tapped policy reserves to fund their overseas acquisitions. Their issuance of subordinated debt appears to have been intended not so much to secure dollar funding as to diversify their funding sources (regulatory capital). Inasmuch as life insurers traditionally had substantial yen-funded dollar investments, the issuance of subordinated debt was probably deemed necessary in order to reduce currency risk. I do not think it was done to fund overseas M&A activity.

2. NIRP as pillar of QQE; future outlook

Mr. Fukuda:

・One frequent criticism of NIRP is that is that it was introduced too suddenly. Do you think the reaction would have been different if the BOJ had taken more time in its adoption?

Mr. Oshima:

・The decision seemed particularly sudden inasmuch as Governor Kuroda had repeatedly insisted the BOJ would not introduce negative interest rates. Additionally, the policy forced firms to urgently address a number of thorny practical issues, including the question of how to interpret negative interest rates in the context of loan and swap contracts, how to achieve systems compliance, and how to alter derivative pricing models.

Ms. Suda:

・It is standard practice when making a major policy change to engage in dialogue with market participants to confirm that the new policy is feasible. One cannot help but wonder exactly what the BOJ was thinking. The "Q&A" releases that were intended to help explain the new policy also seemed to be subject to ad hoc revisions based on outside reactions. All of this leaves me concerned not only about the content and timing of the new policy but also its implementation. Moreover, it is difficult for financial institutions and businesses to explain the concept of investing at negative yields to customers and shareholders.

Mr. Kato:

・For instance, I think it would have been fine if the BOJ had issued a directive asking firms to investigate a negative-interest-rate policy that was to be implemented several months later. While some issues could probably have been resolved with more time, however, with others there was simply nothing that could be done. I also received the impression that the decision was made unilaterally by Mr. Kuroda and his supporters on the Policy Board, which suggests there may not be adequate sharing of information among Board members.

Mr. Kitamura:

・The BOJ should have discussed the policy beforehand with those likely to be affected inasmuch as it entails significant costs.

Mr. Egawa:

・When we include systems-related issues as well as psychological constraints, I think NIRP has created a variety of costs.

Mr. Kozu:

・Just as credit risk never disappears no matter how far interest rates fall, there is always a floor for nominal interest rates and so. It is dangerous for the BOJ to discuss the possibility of taking interest rates below zero without specifying exactly which interest rates it is talking about. For example, a negative policy rate is possible, and it is technically possible for the central bank and financial institutions to carry out transactions at negative rates. But the same cannot be necessarily said of the real interest rates faced by households and businesses. It is those rates that are crucial to achieving improvements in the output gap.

・Under basic models of economic growth, a decline in real interest rates leads to increased household consumption. However, households in fact face the uncertainty of not knowing how long they will live. Japan's population will continue to age over time and this leads to a question whether lower real interest rates will actually boost consumption. Another question is whether lower real rates in Japan truly prompt businesses to invest domestically as the trend of globalization continues. It is worrying to me if the BOJ is arguing that "we can take the policy rate as far below zero as we want, and the resulting negative real interest rates will boost consumption and investment, thereby reducing the output gap" without firstly clarifying these issues.

Mr. Fukuda:

・I understand what you're saying, but the primary transmission mechanism of Abenomics and the Kuroda BOJ's easing were a cheaper yen and higher share prices, not consumption and investment. NIRP was intended to devalue the yen and lift the stock market, but it seems to have had the opposite effect.

Mr. Kozu:

・Those channels are probably effective in so to speak short-term decisive battle lasting only a year or two. The problem now is that it has lasted longer than that.

Mr. Fukuda:

・Since the original goal was to achieve 2% inflation in two years, the program should have been wound down after two years.

Mr. Kitamura:

・There was not sufficient theoretical support for that position.

Mr. Fukuda:

・There was no theoretical support, but I suspect the BOJ set the supply of base money and its purchases of JGBs with a short-term perspective in mind.

Inoue (organizer):

・JCER President Iwata discussed estimates of the natural rate of interest at the open conference in March. If he is right, we cannot expect a meaningful policy effect until the real interest rates faced by households and businesses fall far enough.

Mr. Kozu:

・If macroeconomic policy is used to ensure demand equals current aggregate supply in the global economy, the result would be a bubble. In an economy characterized by excess supply capacity and at the same time rapidly changing demand, we should *not* try to maintain the real interest rate which exactly equates supply and demand all the time. I wonder whether there are companies that will invest in projects that are unprofitable without government subsidies. None of the textbooks I have read contains a diagram showing a negative marginal efficiency of investment. Investment must have a positive marginal efficiency. Projects that assume a negative investment efficiency will eventually become bad debts and are not sustainable socially.

Mr. Kato:

・In a February speech, Bank of England Governor Carney implicitly criticized negative-interest-rate policies by saying that the real objective of countries adopting NIRP was currency devaluation and that they were not seriously trying to boost consumption or investment. Former Fed Chairman Bernanke argued on his blog that while NIRP was possible in the US, it would only be a stopgap measure in the event that circumstances made it difficult to implement QE4. He also said that a variety of practical constraints meant that rates could not be taken that far below zero.

Ms. Suda:

・If exchange rates are the main transmission channel for this policy, the side effects are likely to outweigh the positive impacts as countries engage in competitive easing to bring inflation up to target levels. I think the greatest potential benefit of today's negative-interest-rate policies is the opportunity for countries to learn that excessive monetary easing with large side effects needs to be brought to an end.

Inoue (organizer):

・At the open conference mentioned earlier, many agreed that international coordination on this front was essential, inasmuch as the yen would almost certainly strengthen against other major currencies if Japan were to drop out of the monetary easing competition by itself.

Mr. Kitamura:

・The inability to take interest rates below zero is a "convention" that became established over a very long period of time. The zero bound can be overcome only in certain markets and for a limited period of time. I simply cannot ignore this or accept the authorities' argument that this new policy tool enables them to take rates further into negative territory. The BOJ's current actions, including its massive purchases of JGBs and its redistribution of income–as if it were a fiscal agent–go far beyond the mission of a central bank.

Mr. Kato:

・Denmark's central bank introduced negative interest rates in January 2015. Commercial banks initially passed the costs of this policy on to other banks. Subsequently, however, they began assessing fees on the deposits of pension funds, insurance companies, and non-financial businesses. In Switzerland, the official deposits of local governments are also subject to negative interest rates. Could Japanese banks ask non-financial corporations (assuming financial firms would be a non-starter) to accept negative rates on their deposits, even though they cannot borrow at negative rates? Regional banks have frequently told me this would be difficult, if not impossible.

Mr. Oshima:

・One of the changes following the adoption of NIRP has been the much greater attention paid to balance sheet control, including management of the BOJ's current accounts balance. Another thorny issue facing bank managers is the need to take into account the new leverage rules and shareholders' ROE demands. Another change is that the policy has made it easier for funds to flow to different sectors than in the past, which may lead to portfolio rebalancing by investors. REITs and urban real estate are two examples, and once the current uncertainty clears I think funds may also flow into the stock market. That said, simply taking interest rates further below zero will not necessarily lend further momentum to this process. Additionally, if the authorities do what they can to steepen the yield curve when the economic environment turns around, I think it may have a positive impact in the sense of creating an environment that facilitates investments by pension funds and insurers.

Ms. Nemoto:

・US banks are more efficient in the sense that dormant accounts can be closed after a certain amount of time. Japanese banks have many dormant accounts because there is no charge for maintaining accounts containing only a thousand yen or two. This results in substantial costs for banks. Assessing fees on savings deposits could help to bring about a change in the way depositors view their bank accounts.

Mr. Oshima:

・Banks are already moving in the direction of asking financial companies and other "professionals" to pay fees, while in the case of retail customers I expect they will undertake a variety of efforts to enhance the efficiency of branch and deposit management, including the use of "Fintech".

Inoue (organizer):

・If NIRP has not only created distortions in market functions but has also prompted banks and non-financial corporations to trim balance sheet bloat and review cost structures, I think it is serving as a kind of interest rate adjustment mechanism.

Mr. Oshima:

・In that sense as well, the question of what to do about "quantitative" easing measures is an important one. I think a halt to further balance sheet expansion is worth discussing if it would lead to a steepening of the yield curve.

Ms. Suda:

・First, I think we need to assess the value of policies centered on "quantitative" measures. But simply saying that the policy is "having the desired effects" without providing any more detailed explanation and then making additions to monetary policy is problematic. As an outsider, it worries me that there is no clear guidance target for interest rates, and that all decisions are being left up to the BOJ's executives , based on an approach of fine-tuning the policy in response to the market's reactions.

Mr. Fukuda:

・Mr. Kuroda and other BOJ officials are arguing that negative interest rates have been effective. But inasmuch as few others seem to agree, I worry that the BOJ has become the proverbial emperor with no clothes.

Mr. Kozu:

・The BOJ argues that the flattening of the yield curve is an effect of this policy, but if economic agents actually believed that they should make pricing with an expectation of accelerating inflation. In light of this point, the BOJ needs to provide a more detailed explanation, e.g., "long-term interest rates have fallen in transition, but we expect those lower rates will stimulate the real economy and reduce the output gap, which in turn should lift inflation expectations, prompting a steepening of the yield curve." Otherwise, I think it will be difficult for the economy to escape from the clutches of the current deflationary equilibrium.

Mr. Fukuda:

・It strikes me as odd that the BOJ is emphasizing the decline in interest rates across the curve, including the super-long sector, when rates beyond 10 years should not be that important in terms of stimulating the real economy.

Mr. Tokushima:

・One of the positive effects of NIRP may have been the shift of personal financial assets from savings accounts into risky assets. Another is that the emergence of negative JGB yields out to the 10-year sector has provided an opportunity to lift the taboo on a number of topics. In the life insurance industry, for example, I think it will not only prompt companies to review their asset management practices but also promote substantial changes in the insurance business, inasmuch as it has become difficult for them to promise a fixed rate of return to individual customers or to provide *any* products other than variable life insurance. In any case, the longevity of the BOJ's existing monetary policy will be watched closely inasmuch as it will have a tremendous impact on the asset management industry, including pension funds.

Mr. Fukuda:

・The fact that the BOJ is revising down its forecasts with every Outlook Report is exacerbating uncertainty and undermining confidence in monetary policy. Economic forecasts should be neutral; must they incorporate a kind of "target"?

Ms. Suda:

・If what Mr. Fukuda is saying is correct, the BOJ's economic outlook is not so much a projection as an "expected value."

Ms. Nemoto:

・Not so considerable reduction in European banks' ROE is attributable to a number of factors, including the high absolute level of interest rates, a heavy reliance on market funding (which has made it easy to reduce funding costs), and diversified revenue sources that include fees and commissions. I think it is possible for Japan's major banks to follow in their footsteps, although it may be difficult for regional financial institutions to do the same.

Mr. Oshima:

・The major banks are unlikely to fall quickly into the red in the current environment inasmuch as they have diversified their sources of revenue. But they *will* need to transform their business models if they hope to consistently deliver the level of revenues that shareholders expect. The current low-interest-rate environment is especially tough for regional financial institutions, which have limited access to overseas markets and invest the majority of their surplus funds in JGBs.

Ms. Nemoto:

・S&P estimates that the net operating profits of regional financial institutions will decline some 14% once shrinking lending spreads are priced in. Regional financial institutions must go beyond just lending and start providing advice and solutions to their corporate customers, but once the profitability of lending operations falls this far it can dampen their enthusiasm for other initiatives as well. Here, we need to give them some incentives. In the end, the real estate sector is the only one in which lending is increasing, which creates its own concerns from a prudential standpoint.

Mr. Egawa:

・A special issue of Financial System Report by the Financial System and Bank Examination Department of the BOJ discussed regional financial institutions' investment trust holdings and pointed out the problems in terms of risk management. Today's reference materials show that banks and life insurers are increasing their external portfolio investment, and their overseas investment via investment trusts is almost certainly increasing as well. I have also heard that regional financial institutions are raising their investments in J-REITs simply because the BOJ is buying them. Unlisted, privately offered real estate investment trusts, whose price does not fluctuate on a daily basis, have also become more popular recently. Inasmuch as deposits provide most of regional financial institutions' funding, these developments are worrying from a prudential perspective.

Mr. Oshima:

・Most financial institutions and investors quickly added to their holdings of foreign bonds, including the long-term sector, in the week after the announcement of NIRP. Foreign bonds will almost certainly become one of the go-to options for asset managers hoping to achieve the ROEs sought by shareholders while keeping capital adequacy ratios above a desired threshold.

Mr. Kato:

・In Sweden, the adoption of a negative-interest-rate policy drove housing prices high enough that some began to worry about a bubble. The salient difference with Japan is that Sweden's population is growing. A modest decline in interest rates is therefore enough to spark new housing demand even though the absolute level of home mortgage rates is higher than in Japan. And in Denmark, there are said to be relatively few seniors worried about retirement given the nation's generous welfare regime. The BOJ frequently cites the example of Northern Europe, but it should be remembered that conditions in Sweden and Denmark are very different from those in Japan.

Mr. Kozu:

・The relative paucity of cash circulating in the Northern European economies makes it easier for negative-interest-rate policies to have an impact.

Ms. Suda:

・Why are cash holdings increasing in Japan?

Mr. Fukuda:

・The growth in the number of foreign tourists is said to have played a major role in this.

Mr. Kozu:

・The raising of the inheritance tax and the adoption of the taxpayer identification system may also have something to do with it.

Mr. Kitamura:

・I wonder whether the inheritance tax really has anything to do with it inasmuch as more than 90% of people are exempted from the tax. And banks have not actually started using the taxpayer identification system yet.

Mr. Fukuda

・The impact of the inheritance tax may still be significant in monetary terms even if few people are required to pay it.

Mr. Kitamura:

・Even if we assume that the direct impact of a heavier inheritance tax has not been felt yet, people may still be setting aside more cash inasmuch as no one knows when their parents will die.

Ms. Suda:

・Depressed inflation expectations may be another reason why holdings of cash have increased in Japan. Additionally, average withdrawal amounts may have risen because of talk about the possibility of banks assessing fees on savings accounts or of deposit yields turning negative.

Mr. Kato:

・The real reason why holdings of cash have increased remains open to conjecture, but the impact on broader monetary policy cannot be that significant.

Mr. Egawa:

・Economists often focus on the cost of holding cash, but ¥100 million weighs only about 10kg and can be easily stored in a small safe. Apart from the risk of theft, the actual cost of holding cash for individuals and small business owners is negligible.

Mr. Kozu:

・In Northern Europe, the high opportunity cost of holding cash led many to move away from cash. Moreover, Europe has the ability to control the rate of population growth via immigration policy. In Japan it is clear that the population will decline over time, so any attempt to provide a temporary boost to housing demand by lowering real interest rates results only in consuming future demands. Additionally, loan-to-deposit spreads are much larger in Europe than in Japan. While Japan's NIRP is said to have been modeled after Europe's example, conditions in Japan differ in some ways, including how real interest rates works and the differences in earnings environment for banks.

Ms. Suda:

・Research analyzing the impact on consumption of a decline in real interest rates has concluded that the income effect is more important. In other words, consumption may actually fall in response to lower real interest rates.

Mr. Fukuda:

・The theoretical relationship between consumption and interest rates is not clearly established. Empirical analysis has also concluded that real interest rates do not have a significant impact on capital investment.

Mr. Kitamura:

・The relationship between real interest rates and consumption also depends on the average age of consumers. Economic models typically discuss abstract concepts like "consumers" and "representative households," but age is also a factor when dealing with actual households, and consumption behavior depends on a variety of factors, including whether a family has children.

Mr. Kozu:

・The conclusions of economic models that do not take the average age into account are somewhat irrelevant to Japan. Meanwhile, a recently published BOJ Review Series paper analyzed the relationship between corporate earnings and capital investment and presented estimates suggesting that companies where earnings had increased as a result of higher sales volume were more keen in undertaking capital investment than companies where earnings had improved as a result of changes in the terms of trade.

Ms. Suda:

・Companies see changes in the terms of trade as a temporary phenomenon and will not proactively engage in investment unless they need to expand production volume.

Mr. Fukuda:

・The terms of trade are influenced by exchange rates and oil prices, both of which are characterized by heavy uncertainty. Companies that are confident about the future may undertake investment and raise wages, but they are bound to worry whether a temporary increase in profits can be sustained.

Ms. Suda:

・The retirement of the baby boomer generation has finally prompted a decline in total personnel costs in some companies. The resulting changes in worker demographics may actually prevent employee income from increasing in spite of increases in base pay.

Mr. Kozu:

・In the meantime, some have suddenly changed their tune and began arguing that QQE was a complete failure. QQE definitely had an impact on the margin, however, and we need to assess it fairly.

Inoue (organizer):
・I think market participants have set a trap for themselves by taking an excessively pessimistic view of the impact of QQE.

Mr. Oshima:
・Negative interest rate transactions have now been observed in the call market, and as time passes NIRP may start to have the same kind of impact as rate cuts did in a world of positive interest rates. But as was discussed earlier today, trying to explain the policy without touching on key factors risks covering up significant issues, so we need to be careful here.

Mr. Fukuda:
・One short-term risk is continued yen appreciation. I think the MOF may soon have to act.

Mr. Oshima:
・While a strong yen weighs heavily on Japan's economy, unilateral action may not be particularly effective if the current state of affairs represents a kind of global equilibrium.

Inoue (organizer):
・Unfortunately we have run out of time and will have to end today's discussion here. I would like to thank all of the panelists for a lively exchange of views.

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