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Summary of Discussion at Financial Markets Panel
(Forty-first Meeting)

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Topic	Normalization of US monetary policy
Date	June 20, 2017 (6:00pm – 8:30pm)
Participants	**Mr. Kazuto Uchida,** Managing Executive Officer, Global Markets Unit, Bank of Tokyo-Mitsubishi UFJ **Mr. Yukio Egawa**, Chief Strategist, Research Division, Shinsei Securities (Absent) **Mr. Amane Oshima,** Managing Executive Officer (Joint Head of Markets Unit), Mizuho Corporate Bank **Ms. Yuri Okina,** Vice President, Japan Research Institute **Mr. Izuru Kato,** President and Chief Economist, Totan Research **Mr. Yukinobu Kitamura**, Professor, Institute of Economic Research, Hitotsubashi University **Mr. Takashi Kozu,** President, Ricoh Institute of Sustainability and Business **Ms. Miyako Suda,** Special Advisor, Canon Institute for Global Studies **Mr. Hajime Takata,** Senior Executive Officer and Chief Economist, Mizuho Research Institute (Absent) **Mr. Katsuyuki Tokushima,** Senior Research Fellow, NLI Research Institute **Ms. Naoko Nemoto,** Financial Economist, Asian Development Bank Institute (Absent) **Mr. Shinichi Fukuda,** Professor, Graduate School of Economics, The University of Tokyo **Mr. Kaoru Hosono,** Professor, Faculty of Economics, Gakushuin University **Mr. Noriyuki Yanagawa,** Professor, Graduate School of Economics, The University of Tokyo (Absent) **Mr. Toshiaki Watanabe,** Professor, Institute of Economic Research, Hitotsubashi University **Tetsuya Inoue,** General Manager, Financial Technology and Market Research Department, Nomura Research Institute (Organizer) **Katsutoshi Takehana,** Senior Researcher, Financial Technology and Market Research Department, Nomura Research Institute (Secretariat)

Key Discussion Points

1. **Financial and economic developments and the dual mandate**
2. **Labor market conditions and the wage structure**
3. **Debate regarding monetary policy normalization**

1. Financial and economic developments and the dual mandate

Inoue (Organizer):

・We are going to discuss the normalization of monetary policy by the Fed and its implications for the BOJ in the future. I will briefly review the economic and financial conditions in the US.

・Real GDP growth rate has been decelerating since 3Q of last year. Nevertheless, effective growth rate of 1Q was close to its potential rate, excluding the negative contributions by business inventory. Moreover, deceleration in private consumption seemed to be due to temporary factors. Positive signs in business investments and exports were also encouraging.

・Among the elements of private consumption, deceleration in automobile sales has attracted attention. We should note, however, rest of the elements have remained resilient. Policy makers have confidence in private consumption, because its backgrounds have been firmer. Earnings income on macro terms have been growing steadily, and household net worth has grown rapidly thanks to favorable conditions of stock and house markets. Broad range of indicators suggest high level of consumer confidence, although the levels are somewhat lower than in late last year. Household burden of debt has been declining according to the ratio of debt to disposable income. Contributions of residential investment to GDP has been diminishing. Interestingly, elasticity of refinancing activities to mortgage rates has become weaker, while that of house purchase has become stronger. Level of inventory of existing home is considerably low, implying tight conditions of the market.

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・ISM indices imply that manufacturing activities have improved substantially, and non-manufacturing activities have been catching up. According to the ISM, level of their DIs are consistent with the real GDP growth rates faster than 3% in recent months. NFIB indices for small and medium sized firms remain at historically high levels, although they have leveled off from the recent peak. Policy makers express bright outlook of business investments by referring to elevated level of corporate profits coupled with recovery of utilization of production facility. Moreover, we have observed the rapid recovery of business investment by mining sector, making positive contributions for the first time in quarters.

・Level off of long-term US Treasury yield is notable in financial market. Market participants have raised candidate reasons including diminishing prospects of large scale fiscal stimulus, changing expectations of policy normalization by the Fed, and deceleration in actual rate of inflation. Lower yields have eased financial conditions through tightening credit spreads. Against this background, aggregate outstanding amount of debt in the financial system continue to grow. Among all, consumer loans have grown rapidly. Its major contributors are auto-loans and credit card loans, rather than student-loans previously. Outstanding amount of consumer loans is approximately 2 trillion dollars, larger than its previous peak. With regard to auto-loans, borrowing by individuals with lower credit score has been gradually increasing, and its delinquency ratio has also been gradually rising, according to FRBNY. House prices have been growing at 5% annually from the nationwide viewpoint. Nevertheless, pace of price increase has been much faster at the areas where the housing price bubble was severe before the financial crisis. It is interesting to note that paces of increase in bank loans for broad-range of purposes have decelerate since 2H of last year, although issuance of corporate bonds remain elevated. While the appreciation of US dollar has diminished, the level of effective rate remain elevated. Last year, foreign authorities were active in liquidating their positions of US Treasury notes and foreign private investors were accumulating positions in MBS and corporate bonds in the US. Both directions of activities seem to be weaker in recent months.

・Average monthly increase of non-firm pay role has decelerated to approximately 160 thousands. Nevertheless, Chair Yellen explains that labor condition has been tightening, because it is still larger than the number of new entrants to labor market. Range of indicators suggest that number of long-term unemployed workers has become smaller than the level before the financial crisis. And number of part-time jobs due to economic reasons also decreased, suggesting that the US labor market is under full-employment. Current rate of inflation measured by PCE core indicator is around 1.5%. Chair Yellen explained that losing momentum of inflation is largely due to temporary factors including reduction in prices of mobile phone services and prescription drugs. More concerning fact for the Fed would be some signs of deceleration in inflation expectation, implied both by market indicators and survey results.

・Taking into considerations of these developments, FOMC mostly maintained its economic outlook at its June meeting. They made slight downward revision of long-term unemployment rate due to lack of inflation momentum in spite of continuous expansion of employment. Nevertheless, FOMC confirmed that view that tightening labor conditions would accelerate the rate of inflation in the end. As a result, expected path of policy rate has largely been unchanged with some small upward revision for 2018. Interestingly, the market had fully priced in the policy rate hike at June FOMC meeting well in advance of the event, but expressed skepticism further hikes this year. Communication policy become all the more important.

Mr. Uchida:

・Views on the US economy are mixed. Some see the pick-up in business investment as signaling the start of a cyclical expansion, but at the same time there is a clear divergence between soft and hard data, a sense that commodity prices have already put in their top, and a slump in demand for motor vehicles. Employment is a lagging indicator, so it is not appropriate to argue that full employment will elicit fresh capital spending. I myself am not bearish on the US economy and expect it will drive the global economy now that China has entered a slowdown, but I think we do need to keep a close eye on the outlook given that the long economic expansion that followed the 2007-2009 recession is now very mature.

・A comparison of credit market conditions with those prevailing when Lehman Brothers failed reveals a number of common factors: personal debt as a percentage of disposable income is not particularly high, and financial instruments are growing increasingly complex. One difference is the higher correlation that now exists between the prices of various assets. The traditional inverse correlation between stock prices and interest rates meant that credit products and share prices tended to be adversely affected during periods of rising rates. Today, however, the correlations between all assets, including credit instruments, equities, and exchange rates, are at all-time highs in both developed and developing economies. In effect, central bank credit creation has transformed global economies and assets

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into financial instruments.

・Yield curves have flattened as a result. The decline in long-term government bond yields is attributable in part to supply and demand, but I expect that if Japanese and European monetary policy remains accommodative, the US Treasury curve will undergo further flattening due to international arbitrage even if the Fed continues to normalize monetary policy. As there are also signs of a financial bubble in the US, I am closely watching the impact of policy rate normalization and balance sheet adjustments on the broader economy.

Inoue (Organizer):

・Would we need to take financial system stability into account when thinking about monetary policy normalization? Also, can policy authorities accurately identify the risks posed by the shadow banking sector, which is expanding again in the US?

Mr. Uchida:

・That is an excellent question. The Fed needs to avoid triggering a discontinuity in interest rates, and on this point it seems to be skillfully managing its communications with the market, including the use of frequent forward guidance. That said, I think regulation and supervision of shadow banking is relatively lax given that the sector's total assets have risen to roughly three-quarters the total assets of regulated financial institutions.

Mr. Kato:

・I think the Fed has smoothly managed its communications regarding plans to shrink the balance sheet. However, the market probably does not agree that there is a need to rush ahead with normalization at a time when the inflation rate is actually declining. The Fed has argued that it needs to gradually start raising rates now because inflation will eventually turn higher if labor market conditions remain as strong as they are. However, I do not think it has presented a sufficient cost-benefit analysis of the current policy relative to a scenario in which it delays rate increases. I suspect the Fed feels uncomfortable when it sees real long-term interest rates in negative territory and its own asset holdings at a historic high in spite of an unemployment rate that is at a 17-year low. But it is difficult for market participants to tell whether the Fed's decision to rush ahead with normalization is due to a sense of crisis among policymakers or to a political judgment—i.e., that it would be best to begin the normalization process before President Trump announces his choice for the next Fed chair. The resulting uncertainty surrounding Fed policy decisions is probably helping to depress long-term bond yields.

Mr. Oshima:

・From an investor's standpoint, I find it very difficult to envision an increase in US long-term rates. Historically, rate hikes and a flattening of the yield curve eventually brought us to what could be identified as the brink of recession. This time, however, it is much harder to identify the turning point for the business cycle.

・When we break down nominal long-term interest rates into their three components—the risk premium, inflation expectations, and the natural rate of interest—we can see that the risk premium is currently at all-time lows. This is attributable to the growing popularity of passive investment strategies at a time of few investment opportunities, which has led to a corresponding lack of market movement. This is a trend I expect will continue going forward. Nor are inflation expectations likely to rise any time soon: in addition to structural changes such as falling productivity growth and the impact of digital innovation, wage inflation is being kept in check on a global basis. Finally, the natural rate of interest—the economy's potential growth rate—is likely to decline in the developed economies inasmuch as aging populations and quantitative easing are serving as obstacles to economic renewal. These structural factors will create natural demand for longer-term US Treasury securities. Long-term rates might come under upward pressure if the Fed's balance sheet adjustments were a little more disorderly, but ironically its successful communications strategy has prevented that from happening. And unless the large-scale fiscal stimulus championed by Mr. Trump is actually implemented, there are no more reasons why long-term US interest rates should rise. This suppression of long-term rates is also likely to have an impact on US corporate bond yields.

Mr. Tokushima:

・I think another two rate hikes by the Fed before the end of 2017 would have little impact on long-term rates; the market would merely view them as being part of the normalization process. That could lead to a more severe surplus of funds and absence of investments.

Ms. Okina:

・The working-age population in the US is not growing very fast, and sectors where employment is expanding, such as healthcare and leisure, do not lend themselves to improvements in labor productivity. The Republican Party, in contrast to initial expectations, is not only postponing policies that would lead to enhanced productivity but is even supporting measures that would keep out highly skilled foreign workers. The prospects for Trump administration economic policies substantially lifting the potential growth rate are bleak.

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Ms. Suda:

・The Fed's position that it cannot wait any longer to hike rates even though observed inflation is weak can be viewed as an expression of its desire to have room to lower the policy rate in response to some future shock. The Fed was able to raise rates only once in 2015 and 2016, and while inflation is somewhat weaker than forecasts suggested, I suspect it would like to push ahead with rate hikes now, while there is nothing expressly preventing it from doing so.

・The global decline in dollar liabilities may be one reason why long-term US rates are not rising. A weak currency is generally favorable for the real economy in emerging markets, but if that country has substantial dollar-denominated debt, it needs to mimic US rate hikes in order to maintain a stable exchange rate and financial system. Many emerging economies historically followed US monetary policy, but the only ones to raise rates in response to the Fed's recent hike were Mexico and Hong Kong. The US action therefore widened the interest rate differential between the US and most emerging economies, which probably prompted further fund inflows to the US and a corresponding drop in US interest rates.

Mr. Oshima:

・China has seen a shift from borrowing in USD to those in RMB since the summer of 2015, perhaps in part because of the issue described by Ms. Suda. On the other hand, I think the Fed's decisions are also affected by emerging markets' real economies: this March, for example, the Fed rushed to raise rates in response to news of an economic recovery in China, while subsequently it shifted to a stance of gradual increases after seeing a slowdown in China's economic momentum.

Mr. Kato:

・In the first part of June, Joseph Stiglitz and 21 other economists sent a letter to the Fed questioning its inflation target. They argued that the central bank should expand its scope for rate cuts in response to negative shocks by raising the policy rate and the inflation rate, inasmuch as a decline in the neutral rate of interest has made it more difficult for the Fed to stimulate the economy with cuts to the policy rate. For market participants, however, the argument that we should raise the inflation target at a time when the actual inflation rate refuses to pick up is unpersuasive inasmuch as it does not specify any means for achieving this goal. This stands in sharp contrast to the situation in Japanese markets, where the more common view is that the BOJ should lower its inflation target.

Mr. Fukuda:

・But when we look at the gap between observed and targeted inflation, actual inflation in Japan is around zero today despite a target of 2%, whereas US inflation is still accelerating (although it is running below forecasts). I think an increase in the target would be more realistic in that sort of environment. Mr. Stiglitz basically tends to focus on the distribution of income, and he opposes making economic assessments based on data alone. He believes that a recovery in which Wall Street alone prospers while other regions remain depressed is not a real recovery. As such, I suspect he is arguing that a higher inflation target is needed to foster a more broad-based economic expansion.

Ms. Suda:

・Central bankers attending the Jackson Hole symposium were united in their opposition to a proposal by former IMF Chief Economist Olivier Blanchard for a 4% inflation target. Nevertheless, Fed Chair Janet Yellen said in her post-FOMC press conference in June that this was an important issue for future discussion.

Mr. Oshima:

・The developed economies will need to discuss altering their inflation targets before long. If the US were to unilaterally raise its target or Japan unilaterally lowered its target, the resulting shifts in international capital flows and exchange rate fluctuations could threaten the stability of the financial system. The best approach, in my view, would be for all of the major economies to lower their inflation targets simultaneously and then proceed to remove quantitative easing and normalize the policy rate. When we look at domestic financial system stability, macroprudential policy—the tool that policy authorities in the developed economies use to prevent excessive investment—is currently under a variety of constraints. Adjusting the inflation target can also help prevent asset bubbles via the policy rate.

Mr. Fukuda:

・Underlying Mr. Blanchard's argument is Larry Summer's theory of secular stagnation. Many economists believe that observed economic growth, while above potential, is still substantially below the pre-GFC trend line for potential growth, and that the economy has not returned to its traditional growth trajectory in spite of tight labor market conditions. Based on this view, some argue that we need to raise inflation targets and continue monetary accommodation for an extended period of time.

Ms. Suda:

・On the question of whether the US recovery is simply late in

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coming or whether economic growth itself has slowed, Chair Yellen initially took the former position, arguing that we would eventually see a pent-up increase in wages. Over time, however, she has come to acknowledge that the US economy has undergone structural changes that have resulted in slower economic growth.

・Japan's experience suggests that while real interest rates are an important element of economic growth, so are expectations. In other words, the argument that the economy will grow if only real interest rates are pushed low enough is ignoring an important part of the story. Efforts to stimulate investment need to be rethought inasmuch as businesses develop their strategies from a longer-term perspective and not this sort of near-sighted approach.

2. Labor market conditions and the wage structure

Mr. Uchida:

・This March I participated in a Basel conference for economists where two issues were discussed: 1) the limitations of monetary policy and the mix with fiscal policy; and 2) the economic impact of digital innovation. Regarding the latter topic, discussion has tended to focus on the positive aspects of digital innovation, including increased business investment and higher productivity, but we must not ignore the negatives, which include the creation of digital "have-nots" and the need to restructure labor, which is excessive relative to the capital stock. It was therefore argued that we needed to boost overall demand on a global scale by engaging in more infrastructure investment, particularly in emerging economies.

Mr. Kozu:

・The world of manufacturing changed fundamentally starting in the 1990s. One fruit of the global peace was that it became possible to smoothly and reliably move goods around the world, on time and at low cost, whether by air, sea or land. That, in turn, made it possible to divide the production process and efficiently locate individual elements of the process in different countries. Since capital could also be moved freely, the uncertainties involved in direct investment were reduced substantially.

・Advanced production methods spread quickly around the world as a result, making it possible to produce high quality products in countries with lower wages. As goods prices have a natural tendency to converge on the low end, countries that cannot continually innovate will be unable to generate much profits. In contrast, there are numerous constraints on the export and import of services that would seem to make it possible to preserve margins domestically to some extent. However, the growing importance of digital services, which have a marginal cost of zero, means profits accruing to everyone except the originator will quickly fall to zero without continuous developments of new services. Even successful global enterprises like Amazon and Microsoft are able to maintain their profit margins only by continually shifting the scope of their businesses. Without innovation, secular stagnation will follow.

・In this sort of environment, a structural decline in the rate of growth in money term value-added in the developed economies is inevitable. This is not because value-added is less created. The utility to consumers actually increases but such changes in utility cannot be fully captured using existing price indices even with hedonic adjustments. As a result, the growth of value-added measured in money terms is bound to be on a declining trend.

Mr. Uchida:

・I agree. Digital innovation creates new value-added and qualitative value but requires that existing businesses implement dramatic changes. Innovation is what has allowed global firms like Amazon, Yahoo, and Google to remain profitable. Forward-looking banks are also developing business models based on increased penetration of mobile technology. The question is whether economic data can properly capture these structural changes. For example, price indices that are revised only once every five years are not always able to capture qualitative changes in economic activity, and that can lead to the misconception that prices are falling when in fact that is not the case.

Mr. Kozu:

・Higher labor productivity often results in higher wages and prices. But if workers emphasize job stability and do not demand higher wages, higher labor productivity will lead to lower output prices. Inasmuch as this is currently true for much of global manufacturing, I question whether raising the inflation target to 4% would necessarily lead to increases in observed inflation.

・Now that fluctuations in economic activity have become much smaller, I think we should perhaps start viewing economic data from a perspective of basis points instead of percentage points. With five-year fixed deposits earning an interest rate of only a few basis points, for example, the economic fallout from a 2ppt (200bp) increase in the consumption tax rate is likely to be really heavy. A similar change may be needed in our approach to the policy rate.

Mr. Fukuda:

・I agree with Mr. Kozu if we are talking about the nominal world.

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In real terms, however, the cause of the secular stagnation is a decline in the natural rate of interest, and we probably need a further decline in real interest rates as well. In theory, however, real interest rates are supposed to exceed the potential growth rate when the economy is in a normal state without dynamic inefficiency, so for real interest rates to be lower than the potential growth rate for an extended period of time is highly unusual from an economic standpoint.

Mr. Kitamura:

・At a BOJ seminar last month, a factor analysis of regional Fed presidents' voting behavior at FOMC meetings was presented. The analysis focused on divergences in financial market and labor market data based on the location of the regional Fed branch. Stock prices and other financial market data reference nationwide data, so the economic conditions suggested by the New York Fed's financial market and labor market data are largely consistent with each other. But the data collected by other Fed branches often reveal a disparity between the two. In other words, we can lose the regional perspective by using macro labor statistics to capture developments in such indicators as the job offers-to-applicants ratio, the unemployment rate, and the number of employed persons.

Inoue (Organizer):

・The reference materials contain a summary of housing prices by region and show substantial disparities between regions—in the Midwest, where there is a concentration of traditional manufacturing industries, house prices have increased only modestly. As for voting behavior, the Fed has argued in the debate over central bank reforms that bringing the presidents of branches in districts with different financial and economic conditions into the voting process contributes to discussions that are constructive for the conduct of monetary policy.

Mr. Kitamura:

・The Fed compiles the "Beige Book" survey of regional economic conditions, but to what extent has this information been reflected in actual policy decisions?

Mr. Kozu:

・The eurozone is also characterized by wide economic disparities between countries, but there is only one policy rate.

Ms. Suda:

・The ECB has a division of labor whereby ECB board members set overall policy and the presidents of national central banks explain conditions in their own countries. The same is true at the Fed, where Federal Reserve Board members—who should ordinarily be leading the policymaking process—have recently been expressing an increasingly wide range of opinions. The three vacancies on the Board have also amplified the influence of outside opinions, and as a result I think current policy decisions reflect a wide range of opinions.

Mr. Oshima:

・Ideally, wages should rise because workers receive training or education, move to sectors conducive to enhanced productivity, and create new innovations. Today, however, employment tends to be fixed and protected with few opportunities for training. This prevents the effective utilization of resources and serves to depress growth rates. I think the lack of re-training opportunities and workstyle reforms that are needed to lift wages and growth rates has helped create a situation in which interest rates are unable to return to normal levels.

Ms. Okina:

・Two factors that have contributed to long-term growth in labor productivity in northern Europe are high IT intensity and favorable labor market policies. One problem for Japan is the absence of a flexible employment structure that allows workers to change jobs without the threat of long-term unemployment.

Mr. Oshima:

・The same is true of banks' mobile banking and payment systems—I applaud the countries of northern Europe for developing these systems and moving forward towards a cashless society. Trying to adopt such a system in Japan, however, could lead to widespread unemployment.

Mr. Kozu:

・Japan will soon enter an era of full-fledged labor shortages. In manufacturing, for example, domestic factories located outside the main cities already have difficulty finding workers, and if this state of affairs continues I think wages will eventually have to rise. The cost of employing irregular workers in regional districts is in fact increasing on average. This current mechanism is different from the one in play in, for example, the US, where wages eventually rise if the economic expansion continues for long enough. A book recently published by Yuji Genda argues that after two ongoing trends—the shift of workers aged 60 and over from regular to irregular employment and the correction of the M-shaped rates of labor force participation for women—run their course, Japan will lack new sources of labor, whether regular or irregular, and wages may start rising. When that happens, the Japanese economy might awaken from its 30-year-long slump and become prosperous once again.

Mr. Kitamura:

・Does it need to become prosperous again?

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Mr. Kozu:

・I use the term prosperous not only in a financial sense but in the sense of greater happiness for the people living here.

Mr. Kitamura:

・Sweden, for example, has a population similar to that of Kanagawa prefecture spread living in an area about the size of Japan. Such conditions are conducive to the adoption of electronic money. The cost of tabulating economic data means price data must be managed using cash register data and population data need to be captured directly from birth and death reports. Japan will require similar innovations as its population shrinks.

Ms. Okina:

・Japan's nursing care sector already suffers from severe labor shortages, but the regulation of wages prevents market principles from functioning.

Mr. Fukuda:

・The nursing sector suffers from a shortage of labor because wages are determined by regulations and fiscal policy instead of by supply and demand. Wages in the construction sector are rising in response to an ongoing labor shortage, but it remains to be seen whether this trend can be maintained even after the Tokyo Olympics. Meanwhile, office automation technology has produced a surplus of administrative staff. With manufacturers making greater use of robots, I suspect there really is no shortage of labor.

Mr. Kozu:

・I suspect there is still a surplus of labor in the manufacturing sector as a whole.

Ms. Suda:

・Manufacturing suffers from shortages of workers with certain skills, but I think most companies have far too many in-house specialists and no place to deploy them. It is also difficult to envision manufacturing wages rising only in Japan, although I suppose wages might increase in Japan if they also increased in the rest of the world. Instead of paying high wages to keep factories at home, the more realistic option for Japanese manufacturers is to shift production overseas, where productivity is high and wages are relatively low. The argument that a shortage of labor will lead to higher wages is no longer realistic, in my view.

3. Debate regarding monetary policy normalization

Inoue (Moderator):

・I would now like to talk about the Fed's normalization of monetary policy. Issues to discuss include the optimal size for the Fed's balance sheet and post-normalization policy tools. We have made some estimates of the Fed's future balance sheet based on the plans for the reinvestment policy presented at the June FOMC meeting.

Takehana (Secretariat):

・The Fed's reinvestment policy for Treasury securities effectively began in 2016, since there were few redemptions in 2015. Some $204.0bn of the Treasury securities held by the Fed matured in 2016, and the proceeds of these redemptions were reinvested. On the MBS side, redemptions totaled $338.0bn in 2015 and $387.0bn in 2016, and the entire amounts were reinvested in agency MBS. The Fed currently holds about $1.7trn in MBS, so it has reinvested about 20% of its holdings.

・At the end of May 2017, the (weighted) average remaining maturity of the Treasury securities held by the Fed was about 8 years, but a closer look at the distribution of remaining maturities shows a concentration in the sector with maturities less than five years. If the Fed carries out the reinvestment policy presented at the June FOMC meeting based on this maturity mix, reinvestments will stop completely in the third year, since monthly redemptions will drop below $30bn. As for MBS, the difficulty of projecting prepayments led us to carry out estimates for two rather extreme scenarios, namely, 1) a case in which the securities are redeemed using principal-equal payments and 2) a case in which annual redemptions as a percentage of holdings at the end of the previous year equal the figure for 2016 (about 22%). In the first scenario, there would be almost no reinvestments since the monthly redemptions of about $6bn would be far less than $20bn. In the second scenario, redemption proceeds would be reinvested for the first four years, but the amount would decline each year.

・The graph in the reference materials shows our forecasts of the Fed's total assets based on these redemption schedules, assuming its holdings of assets other than Treasury securities and MBS are constant. We estimate that total Fed assets would fall from $4.5trn at end-May 2017 to less than $3trn in Year 5 in the first scenario and in Year 3 in the second. We then re-ran the estimates for these two scenarios with two additional conditions for the liability side of the balance sheet: 1) that required reserves will serve as the floor for commercial banks' reserve balances; and 2) that demand for banknotes will grow at the same 4% annual rate as nominal GDP, producing a corresponding increase in the Fed's holdings of Treasury securities. In this case, we estimate that the Fed's total assets would hit bottom at a level of $2.8trn in the first scenario and

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$2.7trn in the second scenario and then begin growing again.

・Incidentally, the New York Fed published its own balance sheet projections in its latest annual report on open-market operations this April. Based on the assumption that the Fed would begin tapering its reinvestments in mid-2018 and would completely discontinue them by mid-2019, the New York Fed forecast the Fed's total assets would fall to $2.8trn in 3Q 2021 and then resume expanding.

Inoue (Organizer):

・The estimates presented by Mr. Takehana are based on currently available information. However, we do not know when the Fed will actually begin scaling back its reinvestments, how it will decide when to stop the process, or what its balance sheet will look like in terms of size or composition when the process is complete. The results of the New York Fed's Primary Dealer Survey offer some suggestions regarding the third point. First, when respondents were asked how large they expected the Fed's balance sheet to be at the end of 2019, the most common replies were $3.5–4.0trn (without a move to zero lower bound) and $4.5trn or more (with a move to zero lower bound). Second, when respondents were asked how large they expected the Fed's balance sheet to be and what they expected it to contain at the end of 2025, the average reply was that its assets would consist of 76% Treasury securities and 20% MBS and that its liabilities would consist of 50% current account deposits and 30% banknotes. When forecasting demand for banknotes over a seven- or eight-year horizon, of course, we need to take into account not only cyclical factors like interest rate elasticity but also longer-term factors such as the impact of Fintech. When considering future demand for reserve balances, we also need to consider the impact of the policy tools selected, including the use of an IOER.

・Finally, inasmuch as the Fed has argued that quantitative easing has worked by lowering long-term interest rates, we need to ask whether reductions to the balance sheet will have a symmetrical tightening effect, as well as considering the implications of raising rates simultaneously.

Mr. Uchida:

・I expect the normalization of the Fed's balance sheet will have almost no impact on the markets unless Japan and the eurozone begin removing quantitative easing sooner than expected or the Fed makes communication missteps. US banks' demand for both Treasury securities and reserve balances at the Fed has expanded since the financial crisis era in response to more restrictive financial regulation. Regulatory reforms for MMFs have also boosted demand for Treasury securities. The reference materials show estimates of the decline in long-term interest rates brought about by QE1-QE3, but I see little likelihood of long-term rates fully reversing their previous decline as QE is wound down.

Inoue (Organizer):

・In effect, you are saying that the Fed's balance sheet will stop shrinking and start expanding at some point because 1) changing supply and demand for Treasury securities means an end to Fed reinvestments is likely to have only a limited impact on interest rates, and 2) more restrictive financial regulation has increased banks' demand for reserve balances relative to the pre-GFC era.

Mr. Uchida:

・That's right. Extremely restrictive liquidity rules in the US are creating heavy demand for short-term Treasury securities and Fed reserve balances.

Mr. Kato:

・US Treasury deposits at the Fed previously amounted to only about $5bn, but the careful control of these deposits largely ended after zero interest rates were adopted. Similarly, it would appear that the director of market operations at the New York Fed no longer manages reserve balances on a day-to-day basis.

Inoue (Organizer):

・If ZIRP is responsible for less precise management of Treasury deposits at the Fed, will deposits start to be managed more carefully once market interest rates move back into positive territory?

Mr. Kato:

・Surplus Treasury deposits were traditionally entrusted to commercial banks. But now that they face tougher regulation in the wake of the financial crisis, commercial banks apparently do not want to see a revival of this practice, as it would mean massive inflows and outflows from their deposit accounts. The Fed, meanwhile, will need to pay interest on banks' reserve balances in order to maintain the level of excess reserves while controlling short-term interest rates, but if the yield curve is positively sloped the cost of paying the IOER should be fully offset by interest income from the Fed's bond holdings.

Mr. Uchida:

・There is little risk of the Fed recording a loss on its income statement unless it raises the IOER substantially, since the Treasury securities it acquired in QE1 and QE2 have fairly high

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yields and the MBS it purchased had spreads of 70–80bp over Treasuries. This is very different from the situations in Japan and Europe.

Mr. Fukuda:

・A paper previously released by the Fed argued that the costs involved would not be that significant, although Mitsuhiro Fukao has suggested that the same cannot be said of Japan.

Mr. Kato:

・The Fed paper noted by Mr. Fukuda assumed the Fed would sell its bond holdings, but the Fed's current strategy does not involve a sale of its bonds, which removes the need to consider capital losses.

Mr. Oshima:

・In 2013 the concern was that the Fed might drastically shrink its balance sheet to around $1trn, selling off its bond holdings in the process. But now the Fed plans to avoid an abrupt reduction in its assets, and when increased demand for banknotes is also taken into account the balance sheet is expected ultimately to settle somewhere in the range of $2.5–3.0trn. That is why market participants view the process of balance sheet normalization as being nearly complete and therefore not something that requires careful monitoring.

Ms. Suda:

・I think that QE1 was very effective but that the subsequent asset purchase programs were unnecessary. I expected the massive assets on the Fed's balance sheet would make an exit extremely difficult and entail costs in excess of the benefits. So it is with mixed feelings that I see the Fed approaching an exit without any apparent turmoil. The Fed is currently using a "corridor" to guide the federal funds rate while maintaining its massive balance sheet, but the concern remains that all this liquidity will serve as an obstacle to tightening when the economy picks up.

Mr. Kato:

・The economy has not reached the point of overheating in spite of all the monetary accommodation supplied by the Fed, so it may in fact be possible to wind down the policy smoothly. That would make it difficult to tell whether the large-scale policies that followed QE1 were successful or not.

Mr. Kozu:

・I think the basic idea of policy responses by central banks in the post-zero-bound world is that avoiding stagnation, by taking extreme actions now to prevent an future decline in economic growth via hysteresis, will lead to higher growth on average in the long-term.

Mr. Fukuda:

・Blanchard and others have written papers discussing the point mentioned by Mr. Kozu. In Portugal, for example, the policy authorities argued that a decline in the economy's potential growth rate due to hysteresis justified extreme action.

Mr. Kozu:

・Unlike changes in prices, changes in the whole quantity cannot be observed in real time, making it impossible in theory for economic agents to optimize their behavior along them. As such, in any analyses which place importance on quantity with macroeconomic models must start with the assumption that quantitative approaches will work, and therefore cannot provide a persuasive logic of their effectiveness. In practice, the Fed has not claimed to be focused on the quantity of base money, which is a central bank liability. Instead, it has consistently argued that the policy will stimulate the economy via interest rates, such as term spreads and credit spreads. This stands in sharp contrast to the BOJ, which continues to emphasize monetary base quantity in its communications.

Mr. Fukuda:

・There is a growing consensus among academic economists that quantity has at least had a signaling effect. In other words, many accept that the actions of both the Fed and the BOJ were significant in that they showed the central banks' determination to increase quantity and thereby guided expectations. On the other hand, there is a tendency in the US and elsewhere to reject the argument that quantity itself has had a direct impact on the economy.

Mr. Kozu:

・We may conclude empirically that quantity has a signaling effect, but I think a strict discussion of the logic requires a more solid micro foundation in order to earn the trust of economic agents.

Mr. Hosono:

・When the Fed and the BOJ initially adopted these policies, everyone thought winding them down would be difficult, and those perceptions created a commitment effect.

Mr. Fukuda:

・Central banks cannot win the trust of economic agents with "cheap talk." As Mr. Hosono notes, it is only by tying its own hands that the Fed can earn the trust of others.

Inoue (Organizer):

・Are you saying that expanding the balance sheet acts as a de

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facto commitment since subsequent adjustments will take time?

Mr. Hosono:

・When the central bank substantially increases its asset holdings, the considerable impact on markets and the financial system makes it difficult to wind down the policy in a short period of time. Once people understand that, it becomes possible to keep interest rates in check.

Mr. Kozu:

・The current lack of investment opportunities is the flip side of the excessive supply of dollars as the US has continued to run current account deficits since the 1980s. The current reluctance of long-term interest rates to rise suggests that central bank balance sheets are too big for their economies, and I think central bankers are vaguely worried about this state of affairs. Using adjustments to the countercyclical capital buffer (CCyB) as a macroprudential policy tool is difficult in practice, which leaves central banks with an extremely limited range of options. I think central bankers would prefer to restrain the scale of their balance sheets as much as possible without causing market turmoil.

Ms. Suda:

・If we divide Fed officials into those holding the "Fed view" and those holding the "BIS view," Stanley Fischer has long been a supporter of the latter while Janet Yellen favored the Fed position. More recently, however, Chair Yellen appears to be moving closer to the BIS view and seems to have recognized the difficulty of using macroprudential policy tools.

Ms. Okina:

・CCyB would be difficult to administer from a political standpoint as well.

Mr. Kato:

・If central banks in Japan, the UK, and Europe also begin reducing the size of their balance sheets, people will start to pay more attention to the Fed's communications.

Mr. Oshima:

・Since the disparity between the scale of financial assets and the real economy continues to widen, market participants have a sense that all asset prices are not legitimate, but at the same time they are afraid of an extreme re-pricing of those assets. I think one reason why central banks continue to issue warnings to the markets is that otherwise they will not have the time needed to carry out balance sheet adjustments. However, this sort of approach is a race against the clock, since it weakens financial institutions by depriving them of investment opportunities. In this sense as well, Japan finds itself in a quandary.

Mr. Kozu:

・I don't think central banks believe that all necessary adjustments can be made with a re-pricing of assets. If a shock cannot be avoided, they would probably like it to be as small as possible. However, it is extremely difficult to dampen the shock once this much quantity has already been supplied to the markets.

Mr. Uchida:

・Only the US is currently in the process of normalization. Once inflation picks up and many countries embark on the process, the question of how to manage both the central banks' massive balance sheets and governments' debt management policies will become a major global issue. It may be necessary for countries to take drastic measures, such as issuing perpetual or non-marketable government bonds, to avoid severe turmoil. When the "Accord" between the Fed and the Treasury Department was in effect immediately after World War II, the risk of inflation increased after monetary policy and the debt management policy were made independent of each other, and ultimately the federal government used non-marketable government bonds to bring the situation under control.

Mr. Kato:

・Do many market participants believe we are in a period of secular stagnation?

Mr. Oshima:

・To some extent, yes.

Mr. Uchida:

・But it is odd that US share prices continue to rise at a time of secular stagnation.

Mr. Oshima:

・Stock prices have been supported by the debt bubble to some extent, and corporate share buybacks have also provided an artificial boost to equities. I suspect many market participants are concerned about a collapse in US credit markets as a risk scenario.

Mr. Kato:

・BOJ Governor Haruhiko Kuroda has prohibited discussion of an exit from quantitative and qualitative easing because of concerns that it would roil the markets. The Fed has made a variety of changes to its exit strategy, but with the exception of the "taper tantrum" in 2013 it has managed to avoid major market turmoil.

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Ms. Okina:

・There is a wide range of issues to discuss regarding an exit, including the question of who will bear the costs and how financial system stability might be affected. In that sense as well, it is not a good sign that attention seems to be focused exclusively on operational methodologies.

Mr. Fukuda:

・Winding down quantitative easing in Japan without market turmoil is not something the BOJ can accomplish on its own. The government will need to present a roadmap for fiscal consolidation, and take into account of the risk management to maintain the health of the financial institutions holding large quantities of government bonds.

Inoue (Organizer):

・As expected, we did not have time to discuss implications for the BOJ itself, but we have touched on a number of interesting issues. I hope to hold our next session relatively soon and continue this most interesting discussion. Thank you all for a lively exchange of opinions.

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