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Japan's Economic Outlook Under Uncertainty

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Introduction

Good afternoon, ladies and gentlemen, it is my pleasure to address the distinguished audience at the Daiwa Investment Conference. My title today is Japan's economic outlook I was also told by the organizer to say something interesting about monetary policy. I will try to do so, although I am not sure how successful I can be, because good monetary policies are traditionally meant to be boring. So if you find my remarks on the monetary policy boring, it means the policy is good. If not, what can I say? I will leave some time after the presentation so that I can answer any questions you might have.

Japan's Growth and Inflation Outlook

Let us first look at Japan's near-term economic and inflation outlook. The left panel on Slide 1 shows growth forecasts by various institutions including the Daiwa Institute of Research (DIR) and the Bank of Japan. The growth rates are generally expected to slow down to levels around the potential growth rate, which is currently estimated to be slightly below 1%. The slightly higher growth rates for FY 2020 forecast by the government and the Bank of Japan probably reflect the positive effects of the government's fiscal package intended to more than offset the negative impacts on the economy arising from the consumption tax increase scheduled for October this year.

On the inflation front, the CPI growth rate is forecast by all institutions to remain weak relative to economic activities. Even according to the Bank of Japan's projection, which is the most optimistic among the forecasts shown on this table, the inflation rate will only reach +1.5% in FY 2020, still distant from the price stability target of 2%.

With regard to the outlook for economic activity, I think risks are skewed toward the downside, due particularly to mounting uncertainties ranging from continued low visibility regarding US economic policies to risks of a "No Deal Brexit" as well as other geopolitical concerns. With regard to the outlook for prices, risks are also skewed toward the downside, because medium- to long-term inflation expectations remain muted in Japan.

However, I don't intend to intimidate you too much because economic indicators remain solid so far. As shown on the left panel of Slide 2, corporate earnings remain at higher levels despite a setback in the latest quarter. The high level of corporate earnings is translated into an upward trend in capital expenditure, shown in the middle panel. Meanwhile, against the backdrop of an acute labor shortage, the unemployment rate has fallen to around 2-1/2 percent which suggests full-employment.

Over the medium-term, I think it is an absolute must for Japan's economy to elevate its potential growth rate. Slide 3 shows development of Japan's potential growth rate in the black solid line and the contributors in bars. The potential growth rate used to be around 4% until the late 1980s. It has been on an almost secular decline since then and dropped to temporary negative levels before bouncing back to where it is now at a level slightly below 1%.

The chart suggests that the challenge for the Japanese economy going forward is how to raise the potential growth rate. Higher labor participation complemented by an increased labor force from overseas is a prerequisite. It would be equally important to improve labor productivity, particularly in the labor intensive industries such as the service sector. Steady progress is being achieved in many of the areas under Abenomics, and I remain cautiously optimistic about the future of the Japanese economy.

Evolution of Monetary Policy

Now let me talk about monetary policy. Looking back, Japan was in a unique position in the sense it had encountered policy challenges a decade ahead of others. These policy challenges at the time had been considered Japan-specific. The home-grown financial crisis of the 1990s was followed by a severe downturn in the economy and a protracted period of deflation.

Slide 4 compares policy interest rates in major economies. You can see that Japan's policy rate in red declined during the 1990s as the Bank of Japan responded to the aftermath of Japan's home-grown financial crisis. The policy rate reached zero lower bound as early as around the turn of the century, way ahead of other central banks that later faced the same problem. It is for this reason that the Bank of Japan had to embark on an unconventional monetary policy a decade earlier than its peers. When the Global Financial Crisis broke out, the situation became even more acute for the Bank of Japan, because unlike other major central banks that had room for policy rate cuts, margin for further rate cuts was almost exhausted. The Bank had no option but to revert to an unconventional policy.

Slide 5 describes the transition of the BoJ's monetary policy. The direction of this evolution can be broadly described by the following four approaches. The numbers shown horizontally on top of the table indicate the four basic approaches. Meanwhile, the vertical side of the table shows the sequence in which the different policy packages were introduced.

The first approach is shifting the focus to longer-term interest rates. With the zero lower bound on short-term interest rates, this measure aims to pursue a decline in real interest rates by pushing down the longer-term interest rates, for which room remained for a further reduction. As the longer-term interest rates are essentially the average of the future path of short-term interest rates plus the term premium, there are two possible ways of reducing these rates.

One is to compress the term premium through purchases of government bonds, and the other is to effect long-term interest rates by making commitments to the future path of short-term interest rates and maintaining them at lower levels. The latter is called forward guidance.

The second approach is influencing risk premiums mainly through purchases of risk assets. This measure, referred to as qualitative easing in Japan and credit easing in the United States, aims to further reduce firms' and households' funding costs by facilitating declines in risk premiums of such assets as corporate bonds, CP, and equities.

The third approach is removing the zero lower bound by applying a negative short-term nominal interest rate. A central bank in Scandinavia for the first time after the global financial crisis developed

a method to apply a negative interest rate to the central bank's accounts held by private financial institutions.

Some central banks including the Swiss National Bank, European Central bank, and Bank of Japan introduced this thereafter, while making their own modifications as appropriate. In any case, I think it is of notable significance that the long-held belief that nominal interest rates cannot be negative was overturned, and that the idea evolved into an actual policy option.

The fourth approach is reducing real interest rates by influencing people's inflation expectations, instead of by cutting nominal interest rates. In the case of Japan in particular, where the deflationary mindset has become entrenched, it was judged necessary to de-anchor medium- to long-term inflation expectations that had been around zero percent to be re-anchored around two percent by exerting influence on people's expectations. This would require the central bank's strong commitment to achieving its inflation target, clear and consistent communication to the public, and determined actions to realize the commitment.

As you see from the vertical side of the table, the four approaches were introduced on a step by step basis in policy frameworks since 1999. It was in the Quantitative and Qualitative Monetary Easing (QQE), launched in April 2013, that all of the four approaches were incorporated in a full-fledged manner.

After launching the original QQE in 2013, monetary policy encountered one obstacle after another. Every time the Bank of Japan faced a challenge, it overcame the problem by improving the policy framework. It was like the evolution of Homo sapiens in adapting to the changing environment.

When we thought the initial quantitative easing was not sufficient, we raised the quantitative target. When we discovered the quantitative expansion only had a temporary impact on elevating inflation expectations, we shifted to a negative interest rate policy. Let me elaborate on this particular policy.

Negative Interest Rate Policy

Initially, we were concerned about some potential side-effects of the negative interest rate policy on banks' profitability, or intermediary function more broadly. But a Japanese modification was made, inspired by the Swiss National Bank, to introduce a three-tier structure. Slide 6 illustrates an outline of the three-tier system.

As you see in the chart, it was only the marginal pink portion of the excess reserves named the "Policy-Rate Balance" to which a negative rate of -10 bps was applied. The size of this portion was initially \ 10 trillion, which is equivalent to around 5% of total reserves. The green "Basic Balance" continued to receive +10bps. Meanwhile, the blue "Macro Add-on Balance" which received a zero percent interest payment, was so designed as to increase incrementally in accordance with the total growth of reserves to keep the pink "Policy Rate Balance" to remain around \10 trillion. Therefore, the average interest rate payment on total reserves was designed to be positive, and it still remains positive today.

I had thought the framework was cleverly designed to mitigate side-effects. But we made a miscalculation. The policy proved overly powerful. It flattened out the yield curve to the very long end, generating side effects such as biting into profitability of banks and undermining market functioning particularly of the JGB market. Then, we thought it might be a better idea to directly control the shape of the yield curve itself.

Yield Curve Control

This stream of thought led to the idea of Yield Curve Control (YCC), which is the latest version of QQE. Therefore, to me YCC appears to be the ultimate form of unconventional monetary policy.

YCC intends to facilitate the formation of a yield curve that is considered most appropriate for maintaining the momentum toward achieving the price stability target of two percent, while also taking into account the negative side-effects on the functioning of financial intermediation.

Under YCC, the operational target is the interest rate. The novelty is that the BoJ has two target rates. As shown in Slide 7, the short-term policy interest rate is set at minus 0.1% and the target level of the 10Y JGB yield at around zero percent. The BoJ is buying a necessary and sufficient quantity of JGBs to keep the rate targets. Thus, the quantity is determined endogenously. Currently, the BoJ is buying less than \40 trillion yen of JGBs on an annualized basis, which is less than half the size that they used to buy before the introduction of YCC. So the policy is more durable.

In the latest modification in July 2018, while the target rates remained unchanged, the Bank of Japan expressed its intention that it was prepared to see a wider range for the 10Y yields to fluctuate. The range used to be 10bps on both sides of the target and this was doubled to 20 bps. This means the 10Y yield could rise up to around 0.2% under the current 10Y target of around zero percent.

This modification intends the yield curve to become a little steeper. This is based on the past analysis from which the Bank learned that it was the shorter end of the yield curve that has impact on the real economy, while the longer end had less to do with the economy. The Bank was also aware that a steeper yield curve would provide banks and institutional investors with more breathing room in terms of profitability and investment opportunities.

I think the QQE has produced remarkable effects. As a matter of fact, I think Japan's economy has never been better balanced in the past two decades.

Slide 8 shows how the shape of Japan's yield curve evolved over time. The QQE launched in April 2013 pushed the yield curve from (1) to (2). The low and flat yield curve labeled (3) in orange color at the bottom, which was an outcome of the negative interest rate policy, gradually shifted up after the introduction of Yield Curve Control to where it is now at (4). It has a slightly steeper slope than before, which should help banks improve profitability.

Profitability of Regional Banks

Then the question is whether this change helps in a meaningful way to alleviate side effects. Side 9 provides simulations to find out to what extent a rise in interest rates help improve regional banks' profitability. As shown on the left panel, we ran simulations based on two scenarios.

Case one is an upward parallel shift of the yield curve by 10bps, while Case 2 assumes a steepening of the yield curve where the 10Y yield rises by 20bps.

The right panel shows the results. In the case of a parallel shift, the regional banks' net interest income on a cumulative basis rose by \114 billion, which is 3 % of profits registered in FY 2017. In the case of a steepening yield curve, the results are slightly better with a cumulative profit improvement of \162 billion, which corresponds to 4% of FY 2017 profits. An overall implication of the simulations is that the impact of a modest rise in interest rates under Yield Curve Control would not dramatically improve regional banks' profitability. Therefore, rather than waiting for the Bank of Japan's policy

normalization, the regional banks need to embark on shifting toward new business models in a variety of ways to improve profitability. Obviously, such a move should be embarked upon sooner than later.

Market Functioning of JGBs

What about the functioning of the JGBs market? Slide 10 shows the results of the Bond Market Survey that the Bank of Japan conducts quarterly. The red line indicates the level of Diffusion Index (DI), where a negative number implies more market participants assess market functioning remains low and a positive number vice versa. The bars show changes in DI from the previous quarter.

You can see from the Slide that the levels of DI remain negative, implying there are more market participants who think the JGB market is not functioning well than those who think it is. However, the changes from the previous quarter showed improvements for two quarters in a row and is heading toward a level not seen since May 2015.

Why the Inflation Rate Remains Weak in Japan

And yet inflation rates remain stubbornly at lower levels in Japan. For example, the price of a Big Mac is cheaper now at \ 390 than it was thirty years ago. Likewise, the minimum travel charge for the Tokyo underground has changed little in the past thirty years. The fare that was \140 thirty years ago has climbed to \160 today; a rise of a mere \20, or 15% in thirty years. As shown in Slide 11, many reasons are cited for weak inflation, including those that are commonly observed in other economies.

For example, there is downward pressure on prices stemming from intensifying competition in such areas as mobile-phone services or from expansion of online shopping discouraging retailers from raising sales prices.

There are other reasons that are perhaps a bit more Japan-specific. They have to do with the deflationary mindset entrenched in behaviors of corporate firms and households alike. Firms' wage-setting behavior remains cautious and although wages are rising, the pace of increase is slower than the central bank would have liked to see.

The corporate price-setting stance remains cautious even though input prices have risen moderately but steadily. They are in a prisoner's dilemma in that any first move to a price increase brings the fear of losing customers.

Meanwhile, households' tolerance of price rises remains as low as ever. A typical housewife will, with surprising determination, migrate from one shop to another searching for the best value for her money. Price hikes of daily commodities would make headlines with a negative tone on the TV news and the newspapers.

Let me cite another reason for low inflation, which I personally view to be a powerful one at work. I think that low inflation has much to do with improving labor productivity in Japan. What I mean is that the acute labor shortage is driving firms to absorb wage cost pressures by labor-saving investments and by doing away with unnecessary or excessive services. Both of these measures contribute to improving labor productivity, which exert downward pressure on inflation, at least in the short run.

Real Wage Gap

Let us look into this mechanism in a little more detail. Slide 12 shows the development in what might be called the real wage gap. The thick line on the chart shows the development in real wages, which is currently on a steady upward trend. Meanwhile, the thin line traces labor productivity, which shows a robust upward trend in recent years.

The bars show the gap between real wage and productivity. You can see from the chart that labor productivity is growing at a faster pace than that of real wages. In other words, real wages are not catching up with the growth in labor productivity. This means a decline in the labor share and a fall in unit labor cost. This exerts downward pressure on inflation rates, at least in the short run.

From a macroeconomic perspective, this is a supply-side shock that contributes to alleviating inflationary pressures in the short run, and to elevating Japan's potential growth rate over the longer run.

Therefore, since such a good thing is happening to the Japanese economy, the Bank of Japan can be patient with low inflation rates. The latest revision to monetary policy in July 2018 was intended to improve the durability of the policy while minimizing side effects. I think the Bank of Japan will keep improving the framework whenever they think it necessary.

Some Thoughts on Normalization Policy

Admitting that the Bank of Japan's eventual normalization policy is distant and that nothing is made specific at this point, I will try to speak in a very generic way about what I think would be possible basic exit strategies. In this regard, revisiting the previous experience of exiting from an unconventional monetary policy would provide us with some useful insights.

The Bank of Japan has hands-on experience of exiting from Quantitative Easing Policy (QEP), a policy that lasted from 2001 to 2006. I headed the exit operation as the Director General of the Bank of Japan's Financial Markets Department.

The blue line on Slide 13 shows developments in the current account balance (reserves) at the Bank of Japan, which used to be the quantitative target under the QEP.

The reserve level had reached \ 30-35 trillion at its peak in the final phase of the QEP.

The basic exit strategy was to first reduce the balance sheet size to normal levels aligned with the legally required minimum reserves, shown in the red line in the chart, and then to embark on policy rate hikes. The exit operation started in March 2006, when the Bank of Japan declared the end to the QEP and reverted to a monetary policy framework in which the ON interest rate was the operational target.

Under the QEP, excess reserves had been mainly supplied by fund-providing short-term open market operation tools, which had an average maturity of six months during the final years of QEP. The maturities of the fund-providing operations had been gradually shortened in the run up to the initiation of the exit operation.

The balance sheet size was reduced basically by running off (i.e. not rolling over) the fund-providing operations as they matured.

However, watching the market reactions, from time to time, the Bank of Japan partially rolled over the fund-providing operations, and even supplied additional liquidity when judged necessary to calm the market. It was like maneuvering an aircraft for a smooth landing.

The mission to reduce the balance sheet size back to a normal level was completed approximately three months after the initiation of the exit operation. The Bank subsequently embarked on policy rate normalization by raising the policy rate from 0% to 0.25% in July 2006. This was followed by another rate hike by 25 bps in March 2007 bringing the policy rate to 0.5%.

The economy had been on course to warrant further rate hikes until it encountered the Global Financial Crisis, which forced the Bank of Japan to revert, yet again, to unconventional policies on a much bigger scale.

And here we are today, where the Bank of Japan's balance sheet size has expanded to \ 500 trillion, which is about X times as big as it used to be at the final stage of the QEP.

Key Features of the Expected Normalization Policy

What would the Bank of Japan's eventual exit strategy from QQE look like? Most likely, it will be pursued in a combination of down-sizing the balance sheet and policy rate normalization, just like the Fed has been doing in their normalization policy.

Of course, the balance sheet size this time around is substantially bigger and the excess reserves are supplied through purchases of JGBs. The average maturity of the JGB portfolio held by the Bank of Japan is estimated to be around seven years. This implies it takes a longer time for the JGB portfolio to run off than the fund providing instruments did in 2006, and the duration of the exit operation will inevitably become substantially longer.

Sequence-wise, given the length of the exit operations, I think it is likely that balance sheet contraction and policy rate hikes are going to take place simultaneously, unlike the previous exit operation in 2006, where balance sheet reduction preceded the policy rate hikes.

Slide 14 is provided to give you an idea of balance sheet size normalization. First, I want to warn you not to read the numbers suggested by the dotted lines. They give no implication whatsoever of what the exit policy looks like. There are a few variables that shape the basic features of policy normalization.

First, the timing at which the balance sheet size stops growing and the level of the balance sheet at which it happens.

Second, the length of the period in which the balance sheet remains the same size. In other words, the length of the period before some sort of tapering starts.

Third, the pace at which the balance sheet size is going to be reduced. The pace of balance sheet contraction can be controlled by partial reinvestment in JGBs out of maturing JGBs. There may be a trade-off here. If it is slower, the impact on financial markets may be mitigated, but the time required for normalization becomes inevitably longer.

Finally, what would be the level the balance sheet size finally ends up. The new equilibrium size will be larger than it used to be before the Global Financial Crisis (GFC) for the same reason that the Fed has indicated. There is stronger demand on the part of financial institutions for safe and liquid assets

after the GFC. Reserves with the central bank are a typical instrument that satisfies demand of this sort on the part of banks.

The monetary policy implementation framework will have to be amended accordingly with the new equilibrium. Therefore, the new normal would look quite differently from the old normal that we were accustomed to before the GFC.

I am not very concerned about the technical aspects of policy normalization, because the Bank has enough tools in the tool kit and sufficient skills as well as hands-on experience in the previous exiting operations from the QEP back in 2006. The tricky part, therefore, would be communication. This will be pursued in a most careful manner in order not to surprise the financial markets.

Meanwhile, some market analysts express their concerns that while the Bank of Japan currently enjoys huge profits arising from interest income paid on its JGB book, this could be reversed in a normalization process leaving the Bank with a deficit.

This is because while JGBs with low coupons remain on its balance sheet, interest rate payments on excess reserves will increase progressively in a normalization process. Critics add that this will be exacerbated by erosion in the Bank of Japan's seigniorage, which is the ultimate source of the central bank's profit.

The seigniorage is determined by the size of banknotes in circulation. Critics argue that the higher opportunity cost of holding cash as interest rates rise will result in a reduction in banknotes in circulation, and thus undermine the seigniorage.

Although such a possibility cannot be ruled out, Slide 15 suggests that there isn't a clear relationship between the level of interest rates and banknotes in circulation. It is likely that even if interest rates rise to some extent in the future, outstanding banknotes in circulation would not drop materially. This will ensure the seigniorage to remain intact.

Also, from a technical point of view, to address the possible impact of normalization policy on the central bank's profits or the capital base, the Bank of Japan has introduced in 2015 a provisioning system, an outline of which is shown in Slide 16.

The basic idea is to retain more reserves than otherwise while the Bank is profitable, and at a later stage, when the Bank becomes less profitable, as when the interest margin is squeezed for the reasons I mentioned, draw on reserves to compensate for the deterioration in profitability. This provisioning system is intended to smooth out possible fluctuation in the Bank of Japan's profits over the normalization process. This would be welcomed by the government as it ensures a stable transfer of revenue from the central bank to the government throughout the exit cycle.

Therefore, although the provisioning system is not intended to be an exit instrument per se, from my perspective at least, it is a part of the exit strategy in a broader sense as it will help keep the normalization process smoother than otherwise.

Concluding Remarks

I am not sure whether you found my remarks on monetary policy boring or interesting, but at least I hope you found it useful in better understanding the challenges faced by the Japanese economy and Japan's monetary policy. As we continue to navigate uncharted waters, I want to conclude my speech by reiterating the importance of collective and collaborative action by the international community to

minimize the uncertainties that could unduly hurt the global economy. Ten years on since the Global Financial Crisis, the lessons of that event must be learned because we simply cannot afford another one.

Thank you very much for your attention.