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Bank of Japan

Economic Activity, Prices, and Monetary Policy in Japan

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(English translation based on the Japanese original)

I. Economic Activity at Home and Abroad: Recent Developments and the Outlook

A. Overseas Economies

Let me start with developments in overseas economies.

The world trade volume, which had been sluggish, started to increase from the second half of 2016 and has seen an acceleration in the pace since the second half of 2017. The increase stimulated domestic demand worldwide, and such synergy effects led to advanced and emerging economies continuing their high growth in a well-balanced manner.

Looking at developments in detail, the U.S. economy has continued to expand. Both private consumption and business fixed investment have been increasing on the back of a historically low unemployment rate level and favorable corporate profits. The economy consequently has continued to mark relatively high growth, supported partly by expansionary fiscal measures. The European economy has continued to recover, although its growth pace has decelerated somewhat recently.

Among emerging economies, the Chinese economy has continued to see stable growth on the whole. Domestic demand has been underpinned by an uptrend in exports as well as the authorities' swift policy actions, including economic measures in response to the recent heightening of uncertainty. In the NIEs and the ASEAN countries, domestic demand has been resilient as exports have been following an uptrend. Commodity-exporting countries such as Brazil and Russia -- which had been somewhat slow to recover -- have been recovering moderately, with their inflation rates being stable recently.

As for the outlook, overseas economies are expected to continue growing firmly. According to the July 2018 *World Economic Outlook Update* released by the International Monetary Fund, the global growth rate is projected to be in the range of 3.5-4.0 percent going forward.

Nevertheless, uncertainty over the outlook for the global economy actually has been heightening. Specifically, the global economy has come to face two main downside risks: an economic downturn triggered by the implementation of protectionist trade policies and capital outflows from emerging economies stemming from growing uncertainty in global financial markets.

Protectionist trade policies involve risks that could affect not only the countries concerned but also the global economy. Since the global supply chain is established based on international trade and outward investment, such risks in the global economy could become significant. The consequences for global economic growth are unclear, and I expect that the framework for international coordination will be restructured, considering that international trade and outward investment have been the driving force of the global economic expansion since the 1980s.

As for the second downside risk to the global economy -- capital outflows from emerging economies -- amid a rise in U.S. interest rates, the currencies of some emerging economies with high vulnerability have been depreciating recently, triggered by trade issues. The depreciation has not spread to or affected currencies of other emerging economies thus far; however, if the capital flowed out from a wide range of countries and regions due to a heightening of uncertainty in the global financial markets, the world trade volume might decline, as I described earlier, and economic growth might decelerate further through a deterioration in households' and firms' sentiment reflecting a fall in asset prices. I will keep my eyes on these risks in particular when assessing future developments in the global economy.

B. Recent Developments in Japan's Economy

Next, I will talk about developments in Japan's economy.

With overseas economies continuing to grow, Japan's economy has continued to expand moderately on the back of highly accommodative financial conditions and the underpinnings through government spending. The economy is in the process of shifting from growth led by external demand to growth accompanied by a recovery in domestic demand, and such growth path has started to appear gradually in regional economies. According to the July 2018 *Regional Economic Report* released by the Bank of Japan, the Tohoku region assessed its economy as having continued to recover moderately. The real

GDP growth rate on an annualized basis marked a slightly negative figure for the January-March quarter of 2018, due in part to temporary factors such as bad weather conditions, but returned to a positive figure of 3.0 percent for the April-June quarter. The output gap -- an indicator of the utilization of labor and capital -- has continued to widen moderately in positive territory, suggesting that demand has recovered to a level at which there is almost no shortage. Firms have increased fixed investment so as to respond to growing supply-side constraints, leading to an expansion of supply capacity and a rise in productivity. As a result, Japan's economy has maintained well-balanced and self-sustaining growth on both the demand and supply sides.

Looking at developments in more detail, in the corporate sector, exports have been on an increasing trend on the back of the steady growth in overseas economies, and business fixed investment also has continued to increase. Robust fixed investment has been supported by corporate profits and business sentiment maintaining their improving trend. In fact, the ratio of current profits to sales has continued on such a trend as well, and the Bank's September 2018 *Tankan* (Short-Term Economic Survey of Enterprises in Japan) showed that the diffusion index for business conditions remained at a high level in positive territory, albeit with a slight decline. Against this background, business fixed investment plans for fiscal 2018 have been very active. This suggests that firms' expectation for an increase in demand gradually has started to become more evident with the economic growth rate staying positive for more than two years. According to a survey on planned capital spending conducted by the Development Bank of Japan, a rise in the proportions of investment aimed at enhancing production capacity and at saving labor to address labor shortage can be observed not only in the manufacturing industry but also in the services industry. Expansion in business fixed investment seems to be contributing to steady improvement in labor productivity.

Let us turn to the household sector. Labor market conditions have continued to tighten steadily, as evidenced by the fact that the unemployment rate for August 2018 declined to 2.4 percent, a level that essentially represents a situation close to full employment, and that the active job openings-to-applicants ratio for August 2018 remained as high as 1.63, a level registered for the first time in about 44 years. Reflecting labor shortage, wages have been increasing steadily, albeit at a moderate pace. Private consumption has been increasing moderately, albeit with fluctuations, on the back of such improvement in the employment and income situation.

C. Outlook for Japan's Economy

As for the outlook, Japan's economy is likely to maintain its moderate expanding trend, with a virtuous cycle from income to spending being maintained in both the corporate and household sectors, mainly against the background of highly accommodative financial conditions and the underpinnings through government spending. Although there is uncertainty over the outlook for overseas economies, exports are likely to maintain their increasing trend for the time being. A virtuous cycle in which supply and demand grow in a well-balanced manner has been working in both the corporate and household sectors, and thus business fixed investment and private consumption are also likely to follow an uptrend. The impact of the consumption tax hike scheduled for October 2019 on households will likely be smaller than that of the previous hike in 2014, owing to such government policy actions as fiscal easing measures, including the application of a reduced tax rate and the provision of free education.

According to the Bank's July 2018 *Outlook for Economic Activity and Prices*, in terms of the median of the Policy Board members' forecasts, the real GDP growth rate for fiscal 2018 is projected to be 1.5 percent, but that for fiscal 2019 and 2020 is expected to decline to 0.8 percent, which is almost the same level as the potential growth rate, because of such factors as a cyclical slowdown in business fixed investment and a fallback in demand related to the 2020 Tokyo Olympic Games.

As I mentioned earlier, the real GDP growth rate might turn out to be lower than the median of their forecasts, depending on how much the protectionist moves and capital outflows from emerging economies would affect the economy and to what extent such impact would spread. The Bank will continue to examine developments at home and abroad while paying due attention to such downside risks.

II. Prices

A. Recent Developments

Next, I will turn to price developments.

The year-on-year rate of increase in the consumer price index (CPI) for all items less fresh food has remained only moderate, in the range of 0.5-1.0 percent. The delay in growth in the CPI is unlikely to be attributable to a mere shortage of demand, but rather can be explained by various factors other than those on the demand side. In what follows, I will elaborate on three factors behind the current environment surrounding prices in Japan -- one placing upward pressure on prices and two constraining inflation.

The first factor is the positive output gap that has been placing upward pressure on prices. As I mentioned when describing economic developments, the output gap turned positive in 2016, and it has been widening recently. Thus, upward pressure on prices surely exists in the economy.

The second factor is the persistent deflationary mindset that has been constraining inflation. There is no doubt that the prolonged deflation in Japan's economy had been caused mainly by the shortage of demand. The negative output gap, which represents excess labor force and capital, had lasted for a protracted period amid sluggish demand. In response to the prolonged demand shortage, firms tried to lower sales prices to compete by constraining fixed investment and cutting fixed costs such as personnel expenses, thereby causing a decline in the supply capacity of the economy -- that is, the growth potential. This cyclical economic downturn that exerts downward pressure on the economy's long-term growth potential by affecting the supply capacity is called "hysteresis." As the hysteresis was entrenched deeply in Japan's economy, firms became more cautious in setting sales prices and households became less tolerant of price rises. In other words, the persistent deflationary mindset has taken hold due to the hysteresis.

The third factor -- which has been newly identified -- is an improvement in productivity through firms' efforts to expand supply capacity that can result in constraining inflation. Once the output gap turned positive, it became difficult for the corporate sector to respond to the increased demand with their existing supply capacity. Therefore, firms have been actively making efforts to improve productivity, mainly by eliminating low profitability businesses that were barely profitable under excess supply, and by increasing fixed investment aimed at saving labor. Thus, it appears that firms are dealing with cost increases by improving productivity rather than passing them on to sales prices. I will explain this point later in more detail.

In summary, price developments have been affected by the combination of the three factors: (1) the positive output gap; (2) the persistent deflationary mindset that took hold due to the hysteresis; and (3) the improvement in productivity through the expansion of supply capacity. Inflation is taking longer to arise than initially expected, partly because the corporate sector's efforts to achieve higher productivity by expanding supply capacity have started to show results that offset the rise in prices due to the widening of the positive output gap since 2017.

B. Outlook

Regarding the third factor -- the improvement in productivity through the expansion of supply capacity -- it is difficult to assess accurately how long that will continue to exert downward pressure on prices. If the effect of such improvement is powerful, some degree of upward pressure on wages can be fully absorbed, increases in cost will not be passed on to sales prices, and thus it will take more time to see inflation. Nevertheless, there is a limit to which productivity can improve, and the effect of constraining inflation is expected to wane gradually. If the economy continues to expand moderately and the output gap remains positive, the inflation rate will rise gradually. If inflation actually comes in sight, the corporate and household sectors will expect that prices will rise; in other words, inflation expectations will increase. Then, the deflationary mindset will be dispelled gradually, which eventually will lead to achievement of the price stability target of 2 percent.

III. Monetary Policy

A. Basic Framework for the Current Monetary Easing Policy

The basic framework for the Bank's current monetary easing policy is Quantitative and Qualitative Monetary Easing (QQE) with Yield Curve Control introduced in September

2016. The outline of this framework is that, with the aim of achieving the price stability target of 2 percent under yield curve control -- in which short- and long-term interest rates are controlled -- the Bank sets the short-term policy interest rate at minus 0.1 percent and the target level for 10-year Japanese government bond (JGB) yields at around 0 percent, and also purchases JGBs to facilitate the formation of these interest rates consistent with yield curve control. For about two years, the Bank has implemented yield curve control under this framework and has been able to maintain short- and long-term interest rates at their target levels on the whole. However, the price stability target of 2 percent has not been achieved, and as I described earlier, it has become evident that it will take more time than expected to see inflation. As it has become necessary to continue with powerful monetary easing, the Bank decided on new measures to further strengthen the framework for monetary easing in July 2018.

I will briefly explain two points that I consider to be particularly important among the set of policy measures introduced in July 2018.

The first is the introduction of forward guidance, which guides the future policy path. This guidance commits to the continuance of the policy guideline into the future by stating that "The Bank intends to maintain the current extremely low levels of short- and long-term interest rates for an extended period of time, taking into account uncertainty regarding economic activity and prices including the effects of the consumption tax hike scheduled to take place in October 2019."

Second, regarding the target level for the long-term interest rates under yield curve control, the Bank made clear that, while it will maintain the target level at "around zero percent," the level of 10-year JGB yields might move upward and downward to some extent, mainly reflecting market participants' views on economic activity and prices. With the continuation of powerful monetary easing measures, there had been a growing concern that the market functioning was deteriorating, as seen in the extremely narrow range of movement in the long-term yields and a decrease in the trade volume of JGBs among market makers. Given this situation, the Bank judged it appropriate to maintain the market functioning by allowing the level of the long-term yields to move upward and downward to some extent while maintaining the target level at "around zero percent." Furthermore, in relation to the sustainability of the monetary easing policy, the Bank also made it clear that it might increase or decrease the amount of exchange-traded fund (ETF) purchases depending on market conditions, while maintaining the annual pace of increase at about 6 trillion yen.

The aim of these policy measures is to maintain the basic framework for QQE with Yield Curve Control, and thereby strengthen the sustainability of monetary easing, taking into account the side effects. In consideration of this sustainability, the Bank recognizes that the cumulative easing effects will strengthen further.

B. Future Conduct of Monetary Policy

The Bank will continue to conduct monetary policy that is basically in line with the framework for monetary easing measures provided in the forward guidance announced in July. For the time being, I consider it appropriate to continue with powerful monetary easing measures to achieve the price stability target while closely monitoring the financial system stability and the situation of and changes in economic activity.

In doing so, it is important to assess the sustainability of the monetary easing policy by constantly examining its side effects as well as comparing and weighing these with the easing effects. It should be noted that there is a risk of accumulation of imbalances both in financial markets and economic activity when the Bank maintains accommodative financial conditions in order to achieve the price stability target in a favorable macroeconomic environment where aggregate demand exceeds aggregate supply. Therefore, it is important to examine the sustainability of the monetary easing policy from a broader perspective than before.

As for financial imbalances, there is a risk that financial intermediation will not function well. Under the low interest rate environment, such side effects may arise if (1) financial institutions' capital bases deteriorate cumulatively with a decrease in their profitability, or (2) financial institutions proceed with taking risks to secure profits and their loan assets deteriorate reflecting changes in the external environment, leading to impairment of their financial strength. The Bank will examine the risks in the financial system through various means such as on-site examinations and off-site monitoring, in addition to its *Financial System Report*, and when necessary, encourage financial institutions to address these risks. As for monetary policy, it is important for the Bank to make policy decisions in an appropriate manner while examining the risk of accumulation of these financial imbalances.

The Bank should aim at achieving the price stability target by cautiously and persistently continuing with powerful monetary easing measures, thereby maintaining the positive output gap for as long as possible without disturbing the balance in the economic and financial environment as a whole.

IV. Changes in the Economy's Supply Capacity and Conduct of Monetary Policy

I have mentioned factors associated with the expansion of the economy's supply capacity as the causes of the delay in growth in prices. In the following, although there will be a degree of overlap with some of the points I touched upon earlier, I will describe somewhat longer-term changes in the supply capacity of Japan's economy and how monetary policy should be conducted in response to the changes.

A. Changes in the Economy's Supply Capacity and Their Background

Let me start with supply and demand conditions in Japan's economy as a whole. Until the first half of 2016, even under the Bank's powerful monetary easing measures conducted over more than five and a half years, supply had exceeded demand -- in other words, the output gap had been negative, which indicates shortage of demand. Thereafter, the output gap turned positive as demand shortage was eliminated, and it remained in positive territory even after 2017. The economy is currently in a situation of excess demand, where demand in the overall economy surpasses supply. However, in this situation, the supply capacity has been expanding moderately. Such progress in expansion can be explained by facts such as utilization of the workforce of women and the elderly in the labor market as well as considerable expansion in business fixed investment, particularly aimed at saving labor.

In the short run, the expansion of supply capacity can lead firms that face severe competition to constrain prices, as I mentioned when describing price developments. In the medium to long run, however, labor-saving investment will likely contribute to raising

Japan's growth potential through productivity improvement and technological progress, such as utilization of the Internet of Things (IoT) and artificial intelligence (AI). The impact of such expansion of supply capacity on Japan's economic activity and prices needs to be determined, but the exertion of the impact would take time. While changes in the demand side that are brought about by policy measures can be observed in a relatively short time, changes in the supply capacity -- excluding developments resulting from external shocks such as fluctuations in crude oil prices -- take longer because it takes some time to carry out investment. Therefore, more time would be required for economic activity and prices to change through changes in the supply capacity, compared to changes in the demand side. It is becoming more important than ever to examine the development of time-consuming structural changes in the economy from various viewpoints.

B. Supply and Demand Balance and Monetary Policy

Next, I would like to describe how monetary policy should be conducted amid the change in the supply and demand balance of the economy.

Monetary easing under the past situation of a mere shortage of demand and that under the current situation of mostly balanced supply and demand conditions have been conducted within the framework of monetary easing policy, but the Bank's thinking behind conducting monetary easing measures has changed in accordance with changes in circumstances.

I would like to reemphasize that the price stability target under the current monetary policy must be achieved in a situation where supply and demand conditions are balanced and the economy is growing at a pace above its potential.

Looking at the current situation of Japan's economy from this viewpoint, the output gap has become positive and the economy has been growing at a pace above the potential growth rate. Nevertheless, the price stability target has not been achieved yet. As I described earlier, sluggish price developments are unlikely to be attributable to a mere shortage of demand, but rather are subject to a certain extent to the persistent deflationary mindset that took hold due to the hysteresis, as well as to the improvement in productivity through the expansion of supply capacity, which became evident once Japan's economy faced supply-side constraints.

In view of these changes in relation to monetary easing measures, in order to achieve the price stability target, it is appropriate for the Bank to maintain the positive output gap while monitoring supply-side developments more closely than before and at the same time continue conducting monetary easing measures cautiously while paying due attention to the financial system stability. Placing importance only on achieving the price stability target at the earliest possible time and rashly creating large excess demand as a policy is theoretically possible but undesirable in reality, considering such risks as an expansion of macroeconomic imbalances and heightening of instability in the financial system.

Prices in Japan are currently susceptible to the output gap, the hysteresis, and the supply-side factors, rather than to a mere shortage of demand. Among these three factors, it is becoming difficult to assess or predict when the hysteresis will diminish and to what extent the supply-side factors will constrain inflation. I must admit that the uncertainty regarding the process of price changes currently is heightening somewhat. Therefore, before concluding my speech, I will talk about the relationship between uncertainty and monetary policy.

C. Uncertainty and Monetary Policy

The uncertainty regarding price levels in a state of equilibrium has been heightening in advanced economies.[1] In Japan, the output gap already has become positive due to cultivation of demand owing to prolonged monetary easing measures; this does not lead to growth in prices, however, and the observed inflation rate is significantly far from the price stability target, which gives rise to the uncertainty regarding the process of price changes. Thus, it is becoming evident that the uncertainty resides in responsiveness of prices to monetary policy measures -- in other words, it is uncertain how much prices will rise given the extent to which the economy may be stimulated. I think that this uncertainty is closely

[1] Jerome H. Powell, "Monetary Policy in a Changing Economy" (remarks given at "Changing Market Structure and Implications for Monetary Policy," a symposium sponsored by the Federal Reserve Bank of Kansas City held in Jackson Hole, August 24, 2018).

related to that regarding the inflation mechanism itself, through which prices change in reflection of the supply-side factors and the hysteresis.

In view of these uncertainties, some consider it appropriate to conduct monetary policy with some degree of cautiousness.[2] This provides us with instructive insights in light of the recent developments in Japan's economy. As the uncertainty regarding the inflation mechanism itself is becoming evident in Japan, I believe that, for the time being, it is appropriate for the Bank to take time and continue with the monetary easing measures under the current framework of forward guidance while paying careful attention to their possible side effects.

Thank you for your attention.

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[2] William C. Brainard, "Uncertainty and the Effectiveness of Policy," *The American Economic Review*, vol. 57, no. 2, Papers and Proceedings of the Seventy-ninth Annual Meeting of the American Economic Association (May 1967): 411-425.