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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 growth in world trade volume, which had decelerated to a level below 1 percent on a year-on-year basis at the beginning of 2016, rebounded later in the year, and recorded a high growth of over 5 percent in the latter half of 2017. Amid increasing world trade volume, the annual growth rate of the global economy rose to nearly 4 percent in 2017. This global economic growth accompanied by world trade expansion was well balanced, in that it occurred simultaneously in both advanced and emerging economies.

However, the global economy started to slow from the latter half of 2018 due mainly to the effects of China's deleveraging measures, the U.S.-China trade conflict, and a slowdown in the European economy. Growth in world trade volume fell from around 5 percent in early 2018 to 1 percent at the end of the year. The outlook for the global economy for 2019 was revised downward by 0.2 percentage point in the April 2019 *World Economic Outlook* released by the International Monetary Fund.

Given this situation, since the start of 2019, policy stances in some countries and regions have shifted to address economic slowdown. For example, the United States and Europe have been cautious in raising interest rates, and China has adopted economic stimulus measures.

In China, measures had been discussed from an early stage of an economic slowdown that started in the beginning of 2018 due mainly to the effects of deleveraging measures and the start of an adjustment phase in IT-related goods. As the U.S.-China trade conflict intensified in the latter half of 2018, economic stimulus measures were introduced at the start of 2019. This comprehensive package of measures extended from monetary policy to fiscal policy, namely, from gradually introducing funding support for firms to tax cuts worth nearly 2 trillion yuan.

Despite the signs of slowdown that have been observed recently, overseas economies are expected to continue their moderate growth partly due to materializing of the effects of stimulus measures and progressing of global adjustments in IT-related goods. Their growth rates are likely to start increasing in the latter half of 2019. Nevertheless, the outlook for overseas economies is highly uncertain, as the political and social issues -- including trade conflicts -- need to be addressed. Thus, it is important to carefully monitor economic developments for the time being.

B. Recent Developments in Japan's Economy

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

Japan's exports and production have shown some weakness recently, having been affected by the slowdown in overseas economies, particularly China. On the other hand, domestic demand has been firm compared with external demand, and business fixed investment has continued on an increasing trend. Private consumption has also been increasing moderately against the background of steady improvement in the employment and income situation. A virtuous cycle from income to spending has continued to operate.

From the latter half of fiscal 2016 through the beginning of fiscal 2018, Japan's economy generally maintained growth at a pace above its potential, which was estimated to be in a range of 0.5-1.0 percent. While economic growth in fiscal 2016 was led by external demand -- in other words, recovery and expansion in the global economy -- this changed from around fiscal 2017 to growth led by an expansion in domestic demand. Such growth paths started to bring about moderate growth in regional economies through fiscal 2018. Although Japan's economic growth rate has somewhat decelerated since the latter half of fiscal 2018 due mainly to natural disasters and slowdown in overseas economies, Japan's economy has continued growing at about the same pace as its potential growth rate. The output gap -- an indicator of the utilization of labor and capital -- has continued to widen moderately in positive territory, suggesting that the economy has maintained well-balanced growth on both the demand and supply sides.

Next, I will elaborate on developments in Japan's economy from two aspects, the household sector and the corporate sector.

In the household sector, employment has continued to expand over the past six and a half years. As for labor market conditions, the unemployment rate has remained at a low level, in the range of 2.0-2.5 percent, and the active job openings-to-applicants ratio has continued to be well over 1. Reflecting these tight supply and demand conditions in the labor market, the labor force participation rate mainly of women and seniors is increasing and employee income is also rising. These factors are underpinning the moderate increase in private consumption.

Turning to the corporate sector, corporate profits have remained at a high level, although exports and production have shown some weakness recently. This suggests that overall corporate profits have been underpinned by the nonmanufacturing sector: the decline in profits in the manufacturing sector, which is dependent on external demand, has been offset by high profits in the nonmanufacturing sector, which is dependent on domestic demand. This is also evident from developments in the diffusion index for business conditions, which were noted in the Bank of Japan's *Tankan* (Short-Term Economic Survey of Enterprises in Japan). With the positive economic growth that has been sustained since 2016, firms have increased business fixed investment in the expectation of a future expansion in demand. This is how economic growth, initially led by external demand, has come to be upheld by domestic demand, which involves a wider range of industries. Accordingly, economic growth has been maintained for a prolonged period. Compared with past averages, the year-on-year rate of increase in the business fixed investment plans for fiscal 2019 has turned out to be relatively high, underpinned by domestic demand-related investment, although the rate is lower than that for fiscal 2018.

Thus, since around 2017, changes on the supply side have begun to be observed through an increase in the labor force participation rate due to labor shortage and an enhancement in production capacity by business fixed investment. With these changes, I consider Japan's economic structure to have started to gain robustness that can also withstand changes in external demand. I will explain this point later in detail.

C. Outlook for Japan's Economy

Japan's economy has maintained its moderate expanding trend. However, uncertainty over the outlook for the economy remains high. The outlook is highly susceptible to two factors: developments in overseas economies, especially those in China, and the impact of the consumption tax hike scheduled for October 2019. As for the consumption tax hike, the impact on the economy is likely to be limited, as the government has already introduced policy measures to ease such impact. However, if slowdown in overseas economies is still observed in October 2019, downward pressure on Japan's economy may increase. In this regard, the effects on Japan's economy of developments in overseas economies, including the consequences of trade conflicts, need to be carefully examined.

According to the Bank's April 2019 *Outlook for Economic Activity and Prices*, the medians of the Policy Board members' forecasts for the real GDP growth rate are 0.8 percent for fiscal 2019, 0.9 percent for fiscal 2020, and 1.2 percent for fiscal 2021. The forecasts are made assuming that (1) the global economy is likely to turn toward a moderate recovery in the latter half of 2019, (2) the effects of the scheduled consumption tax hike on the economy are expected to be limited, and (3) infrastructure-related public investment is expected to maintain its growth, mainly reflecting policy measures to strengthen the functions of important infrastructure, even after the fallback in demand related to the 2020 Tokyo Olympic Games.

II. Prices

A. Recent Price Developments in Relation to Structural Changes in the Inflation Mechanism

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 continued to rise moderately, at nearly 1 percent. On the other hand, the output gap widened after turning positive in the October-December quarter of 2016, and reached a high level that exceeded 2 percent at the end of 2018. In theory, the widening output gap should place upward pressure on prices, but there are no signs of inflation at the moment.

I consider the reason for inflation being constrained to be structural changes in Japan's inflation mechanism. As moderate economic growth has continued, since around 2017, changes in the supply capacity of the economy -- specifically, for labor and capital -- have begun to constrain inflation.

In what follows, I will elaborate on the structural changes in the inflation mechanism by dividing the elements into two factors placing upward pressure on prices and three constraining inflation.

The first factor that places upward pressure on prices is the positive output gap, as I mentioned earlier. As the output gap widens, the upward pressure on prices increases.

The second factor is the behavior of firms to increase sales prices by passing on and absorbing cost increases, such as increases in raw materials costs. As I will explain in the following section, however, while the tolerance of households for price rises remains low, the range of products and services that cost increases can be passed on to is limited, for example, those that consumers cannot easily replace with other items.

As for factors constraining inflation, the first factor is that the deflationary mindset of the public, deeply embedded through experiencing Japan's past economic downturns, has been exerting downward pressure on prices. In response to the prolonged sluggishness in demand after the burst of the bubble, firms lowered sales prices by restraining costs through, for example, reining in labor costs and cancelling business fixed investment. Such behavior by firms caused a decline in the supply capacity of the economy -- in other words, its growth potential -- both on the labor and capital sides. The phenomenon in which a cyclical economic downturn exerts downward pressure on the economy's long-term growth potential by affecting the supply capacity is called "hysteresis." As hysteresis became embedded in Japan's economy, firms started to be more cautious in setting sales prices and households became less tolerant of price rises. Consequently, prices remained sluggish for a protracted period. The behavior of firms to pass cost increases on to sales prices -- which I mentioned -- has not grown widespread so far, and I find this partly attributable to the persistent deflationary mindset that has been constraining inflation.

The second factor is that upward pressure on wages has been weak. While the year-on-year rate of change in wages remains positive, this is not to say that the rate of increase is accelerating. The mechanism -- namely, one in which firms pass labor cost increases on to sales prices, thereby causing a rise in prices -- is therefore not necessarily working. This is basically because the increase in non-regular employees reflecting the increased labor force participation of women and seniors is working as labor slack. In other words, it is causing a slackening of the labor market even amidst an intensifying labor shortage. In fact, the number of employed persons continues to increase while being accompanied by a rise in the labor force participation rate. It can also be confirmed that the proportion of non-regular employees with relatively low wages is continuing to rise moderately.

The third factor is that an improvement in labor productivity has constrained inflation, which has been observed since around 2017. With the labor shortage growing more acute, the corporate sector has been urged to increase labor-saving investment through utilizing the Internet of Things (IoT) and artificial intelligence (AI), as well as investment intended for domestic capacity expansion. Progress in labor-saving investment is also suggested by the fact that software investment has been expanding recently in some previously labor-intensive industries of the nonmanufacturing sector, such as construction as well as accommodation and food services. Labor-saving investment leads to an improvement in labor productivity through a rise in capital intensity, which represents capital per worker. Firms are facing upward pressure on labor costs fueled by the labor shortage. Given the low tolerance of households for price rises, firms have been trying to deal with cost increases by improving labor productivity rather than passing them on to sales prices. This is due to their fear of losing market share through raising prices. In short, an improvement in labor productivity has been acting as a constraint on inflation.

The current delay in inflation can be considered to be a result of the combination of these three constraining factors at work, even with the output gap remaining positive.

Of the factors I have mentioned, the second factor -- upward pressure on wages being weak -- and the third factor -- an improvement in labor productivity constraining inflation -- can be understood collectively through the concept of the real wage gap.[1] The real wage gap is defined as the deviation of real wages from labor productivity. Put differently, a positive real wage gap implies that the rate of change in real wages exceeds that in labor productivity. In such cases, firms must raise their sales prices in order to make up for the labor cost increases, which leads to inflation. The real wage gap currently remains in negative territory, and firms have so far managed to absorb upward pressure on wages by raising labor productivity. These developments suggest that upward pressure on prices will not increase easily.

B. Outlook

Predicting the outlook for prices under such a complex inflation mechanism has become more challenging than before. For example, if labor market conditions remain tight and the number of people who wish to work as non-regular employees -- whose increase has caused a slackening of the labor market -- begins to decrease, it is likely that wage growth will accelerate, leading to a rise in prices through the passing of cost increases on to sales prices. However, it may take more time to see inflation if wage increases are absorbed by an improvement in productivity, thereby causing a delay in the passing of cost increases on to sales prices.

Having said that, there is a limit to which productivity can improve. If the output gap remains positive and the economy continues to grow moderately until wage increases act sufficiently as a factor in raising prices, this eventually will lead to achievement of the price stability target.

III. Monetary Policy

A. Current Monetary Easing Policy and Its Basic Framework

The basic framework for the Bank's current monetary easing policy introduced in September 2016 is Quantitative and Qualitative Monetary Easing (QQE) with Yield Curve Control. Under this framework, with the aim of achieving the price stability target 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

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[1] For details, see Kimura Takeshi and Koga Maiko, "Keizai hendō to mittsu no gyappu -- GDP gyappu, jisshitsu kinri gyappu, jisshitsu chingin gyappu," *Bank of Japan Review*, no. 2005-J-3, February 2005.

government bond (JGB) yields at around 0 percent. It also purchases JGBs to facilitate the formation of these interest rates consistent with yield curve control.

Subsequently, in July 2018 -- as I have described so far -- given the assessment that it would take time to achieve the price stability target, the Bank introduced a set of additional policy measures, including forward guidance and conducting JGB purchases in an increasingly flexible manner, to enhance the sustainability of monetary easing while maintaining its basic framework.

Furthermore, at the Monetary Policy Meeting held in April 2019, members of the Policy Board shared the view that uncertainties regarding the outlook for economic activity and prices, including developments in overseas economies, remained high and that it was highly likely that the price stability target would not be achieved during the projection period, that is, through fiscal 2021. Based on this view, the Bank judged that it was important to further clarify its unchanged policy stance to persistently continue with current accommodative monetary policy. Under these circumstances, with the aim of further strengthening public confidence in the sustainability of the monetary easing policy, the Bank decided to clarify its forward guidance and take measures contributing to the smooth implementation of fund-provisioning and to market functioning, such as expanding eligible collateral for the Bank's provision of credit.

Alongside the implementation of these policy measures, the Bank will continue with large-scale monetary easing. In carrying out its policy, I find it essential for the Bank to persistently continue with monetary easing by examining matters from a broad perspective, including developments in financial markets and the financial system as well as economic activity and prices, while carefully considering the balance between the positive effects and side effects of continuing monetary easing.

B. Future Conduct of Monetary Policy

The Bank will persistently continue with the current powerful monetary easing in line with the recently clarified forward guidance for policy rates. Let me raise the following as points requiring particular attention in the future conduct of monetary policy: (1) the effects of the slowdown in the global economy on Japan's economy; (2) heightening uncertainty regarding the inflation mechanism; and (3) the balance between the positive effects and side effects of continuing monetary easing.

The first point warrants considerable attention for the time being in predicting the outlook for Japan's economic activity. Specifically, such factors as the extent of the effects of stimulus measures in China and the timing of their emergence need to be carefully examined.

Regarding the second point, the effects of monetary policy on prices are no longer straightforward in the sense that an improvement in labor productivity constrains inflation -- as I have mentioned -- and uncertainty in this context is likely to remain high. Considering that an increase in labor productivity in itself is not detrimental to Japan's economy, being fixated on the resultant delay in inflation and proceeding with additional easing to confront it should much rather be avoided. This can also be said in terms of seeking a balance between the positive effects and side effects of monetary easing.

As for the third point, speaking of side effects, the side effect on the financial system -- namely, the profitability of financial institutions declining under the prolonged low-interest rate environment, leading to a weakening of their financial intermediation functions -- remains a grave issue in the future conduct of monetary policy.

Largely speaking, there are two patterns to the way in which side effects materialize. The first pattern is characterized by a gradual emergence of side effects. When interest rates decline due to monetary easing, lending margins of financial institutions narrow, given the limit to reducing loan interest rates, and their capital adequacy ratios remain under downward pressure as they are unable to secure profits commensurate with their risk-taking. In contrast, the second pattern involves a rapid emergence of side effects. With lending margins narrowing and yields on securities declining, financial institutions increase their amount of risk-taking in lending and investment in order to acquire profits. These investments and loans transform into impaired assets in the event of an economic downturn, and the capital adequacy ratios of financial institutions consequently plunge as credit costs in particular increase rapidly. In Japan, the number of debt-free firms has been increasing since the latter half of the 1990s, as the corporate sector has earned a reputation for creating a trend of producing surpluses. An increase in loans in such a situation requires careful monitoring, as it suggests both a decline in lending margins resulting from intensified competition and a rise in the leverage ratios of borrowing firms.

At the moment, the capital adequacy ratios of financial institutions appear to be at sufficient levels relative to regulatory requirements from a macroprudential perspective. Nevertheless, the fact that the figures have been on a trend of secular decline warrants attention. In the April 2019 issue of the *Financial System Report* (FSR), the heat map -- used to assess from a wide range of perspectives whether there are any signs of overheating or contraction in the financial system and to show the degree of deviation of various Financial Activity Indexes from their trends -- reveals some overheating although, overall, this is nothing in comparison to that observed during the bubble period in the late 1980s.

In addition to the analyses it releases in the FSR, the Bank will also examine risks in the financial system through various means, such as on-site examinations and off-site monitoring, 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 carefully examining the positive effects and side effects of policy measures, including the risk of accumulation of financial imbalances.

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

I will now describe somewhat longer-term structural changes in Japan's economy and how monetary policy should be conducted in response to these changes.

A. Structural Changes in Japan's Economy and Their Stages

With the Bank's monetary easing having been conducted for roughly six years since 2013, changes on the supply side have also come to be clearly observed since around 2017 due to a continued moderate expansion in demand. In elaborating on the structural changes in Japan's economy during the past six years, let me divide these changes into four stages: (1) economic expansion led by external demand and growth in outward investment by firms; (2) spillover to the domestic business fixed investment of firms; (3) rise in the labor force participation rate, reflecting an acute labor shortage; and (4) improvement in the robustness of the economy owing to these three stages of structural changes.

The first stage is economic expansion led by external demand and growth in outward investment by firms. The still ongoing economic expansion was initially led by external demand, in other words, growth in exports. Meanwhile, the share of exports in GDP also increased.

To take advantage of the growth in overseas economies, firms expanded their overseas production capacity through outward direct investment, including mergers and acquisitions. As a result, a breakdown of the current account indicates that the contribution of income generated through outward direct investment and outward portfolio investment has been on a consistent increase while that of transactions in goods, which previously was the main contributor, has shrunk.

The second stage is a spillover of positive developments to domestic business fixed investment by firms. Firms increased their domestic business fixed investment given the economic expansion led by external demand. When making a decision regarding business fixed investment, the following become key determinants: from a micro perspective, the present value of expected future cash flow of an investment, and from a macro perspective, the future economic growth rate. Since 2016, firms have proceeded with domestic business fixed investment, which they had long postponed, as positive economic growth in Japan continued and the economic outlook as seen by firms turned positive. Such active investment among firms is also suggested by a decrease in the average equipment age -- the number of years that have passed since installation -- since 2016.

The components of business fixed investment vary according to the external environment surrounding firms. These range from investment to renew facilities and equipment that had become obsolete -- as well as that aimed at saving labor to deal with acute labor shortage -- to investment in the services sector to meet increased inbound demand, to name a few. Business fixed investment is unlikely to come to a halt in the immediate future, considering, for example, that it is based on various incentives, and that some of it had been postponed due partly to the effects of the labor shortage in the construction sector. Moreover, considering that firms had postponed their fixed investment for a long time due to the effects of hysteresis, it is plausible that at the time of investment, they will decide to replace their facilities and equipment with the latest ones with higher productivity. The effects of expanding production capacity and saving labor can therefore be considered highly likely to steadily materialize. Alongside this, the increase in business fixed investment in the nonmanufacturing sector is also worth taking note of.

The third stage is a rise in the labor force participation rate, reflecting an acute labor shortage. The positive structural changes, namely, an increase in external demand spilling over to domestic demand and in turn leading to an increase in business fixed investment, also brought about an increase in labor demand. As I mentioned earlier, the employment rate continued to rise amid tight labor market conditions, supported by an increase in labor force participation rates, especially those for women and seniors. An improvement in the labor input gap has continued since the latter half of 2016, and labor market conditions remain tight.

The fourth and final stage is an improvement in the robustness of the economy owing to the three stages of structural changes I have mentioned. The economy increased its robustness to shocks as it continued to undergo these structural changes. Its increasing robustness to changes in the external demand is suggested by the progress in the diversification of the production sites of firms due to an expansion in outward investment and by the increased share of the nonmanufacturing sector in Japan's GDP. As a result, I would say that a virtuous cycle from income to spending is being maintained, even with the slowdown in overseas economies being observed recently.

What is unique about these structural changes is that they have occurred as a by-product of business fixed investment in the private sector being stimulated by changes in the external environment -- such as an increase in external demand and an acute labor shortage -- coupled with support from accommodative financial conditions. Initially the recipient of the action, the structural changes that followed are now considered proactive. It is my hope that the government will proceed with efforts toward structural reform and that this will produce synergy effects with the structural changes already being observed in the private sector, thereby leading to a further increase in productivity and a rise in the potential growth rate.

B. Monetary Policy Supporting Changes in Japan's Economy

Through its policy conduct, the Bank aims to achieve price stability and ensure the stability of the financial system, thereby contributing to the sound development of Japan's economy. As a result of the Bank's continued conduct of monetary easing based on this aim, the economy has achieved sustained growth. So far, policy effects seem to have in many cases emerged in the form of the "sound development of Japan's economy." With regard to prices, the inflation rate remains positive and the economy has improved to the point where it is no longer in deflation in the sense of a sustained decline in prices, although achievement of the price stability target has been delayed. This is believed to be attributable to the inflation mechanism having become complex, which in turn has been affecting the relationship between monetary policy and prices, as I have touched upon earlier.

Continuing with monetary easing for a prolonged period led to a positive change in the behavior of firms, which turned out to play a role in the delay in achieving the price stability target. This process can be considered an important structural change. The nature of the relationship between the price stability target and monetary easing is undergoing a gradual change due to the economy's structural changes over the past six years. Taking into account the newly identified supply-side factor, that is, constraints on inflation resulting from the rise in labor productivity, there is a reason to believe that it is not appropriate to be fixated on the fact that the price stability target has not been achieved nor to attempt to resolve this through additional monetary easing. In fact, such action also carries with it the risk of a build-up of financial imbalances.

The Bank's monetary policy itself does not have any direct impact in terms of altering the economic structure; however, it can support the structural changes in Japan's economy by creating accommodative financial conditions. While carefully examining developments in overseas economies and the possible side effects on the financial system, the Bank will persistently continue with monetary easing, thereby maintaining moderate economic growth and the positive output gap. By doing so, it aims to achieve the price stability target with a virtuous cycle from income to spending at work. These steps are essential for ensuring stability in Japan's financial and economic conditions.

Thank you for your attention.