Daiwa Securities

Daiwa's View

Two macro-factors that define Japan's neutral interest rate

➢ Potential growth rate is almost 0% and inflation expectations are at the lowest level since 2013?

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Potential growth rate is almost 0% and inflation expectations are at the lowest level since 2013?

In this week's reports, we pointed out that a change in the BOJ stance on operations is what is behind recent steepening of the JGB yield curve. However, we also stated that we should recognize long-term flattening pressure as this steepening pressure is unlikely to persist.

As can be seen from the fact that macro-stabilization policies, such as monetary and fiscal policies, are aimed at stabilizing economic fluctuations (cycles), they serve simply as fine-tuning in order to even out trends defined by long-term macro fundamentals. Large-scale fiscal spending (increased JGB issuance) to cope with the COVID-19 pandemic and the BOJ's YCC policy, which controls long-term interest rates, are extraordinary (in terms of scale) compared to conventional policies, but their fundamental essence is unchanged.

Unless the unconventional monetary and fiscal policies change macroeconomic trends, market price formation will exert converging pressure towards the equilibrium (neutral) level in the long run. In short, "longer-term yields are importantly influenced by factors such as longer-run inflation expectations and the longer-run neutral real interest rate" (minutes of Jun FOMC meeting).

Therefore, in forecasting yields (the yield curve) over a long-term span, it is essential to project the levels of factors defining the current neutral rate in Japan and post-pandemic trends. Here, I would like to confirm the potential growth rate as an approximate value of the long-term real equilibrium interest rate and trends in medium/long-term inflation expectations at companies and households.

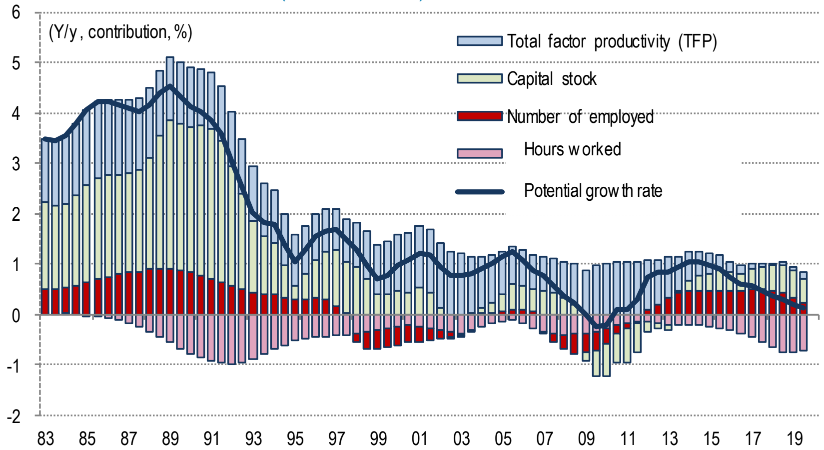
◆ **Potential growth rate: Almost 0%?**

On 3 July, the BOJ announced that the potential growth rate for the Jan-Mar 2020 period was 0.13%, almost zero percent. Based on its release of the potential growth rate on a semi-annual basis, the rate was substantially revised downward from the 0.57% for the Jul-Sep 2019 period (released in Jan 2020).

As was the case with the global financial crisis, the potential growth rate was expected to decline to some extent in line with the rapid deterioration of the real economy (partly due to factors related to the estimation method). However, the fact that the rate had already fallen to nearly zero growth in the Jan-Mar 2020 period is a somewhat surprising result.

In addition to the downward revision of the latest figures, it is also confirmed that the downtrend steepened after the peak in 2014 (immediately after the consumption tax hike). These figures are very suggestive when considering the fundamentals (theoretical value) of longer-term yields.

Chart: Potential Growth Rate (as of Jul 2020)



Source: BOJ; compiled by Daiwa Securities.

This time, in order to find the reasons for the downward revision, we compared the difference with the estimated value of the trend growth rate six months ago. This made it clear that the latest downward revision was mainly caused by TFP (total factor productivity) and working hour factors. First, potential capital input and potential labor input are produced, then TFP is measured as a "residual" of these items. Accordingly, when actual GDP (economic conditions) declines, the TFP also tends to decline (i.e., it is economically cyclical).

This is what I meant above when I state that the potential growth rate was expected to decline to some extent. More importantly, what is key here is that the COVID-19 pandemic is not the main culprit that caused the downward shift of the potential growth rate.

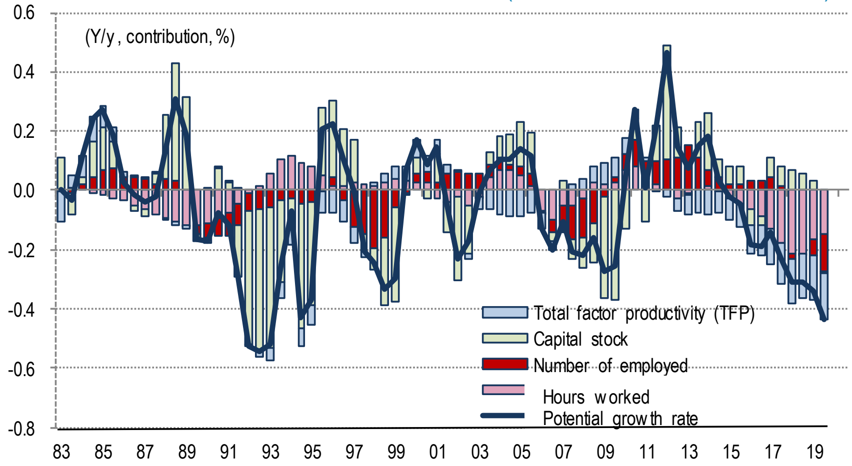
In other words, economic trends were worsening due to a slowdown in overseas economies (amongst US-China trade friction) and the consumption tax hike in October 2019 even before the pandemic, as symbolized by the zero growth in FY19. A further decline in GDP in the Jan-Mar 2020 period due to the pandemic appears to have then resulted in a major downward inflection in the TFP trend.

With regard to the other factor, working hours, since past figures in the basic statistics have not been significantly revised, we presume that the trend was inflected downward in the process of estimation[1]. As a result, the potential growth rate declined significantly. As larger negative growth is expected in the Apr-Jun 2020 period, the potential growth rate is likely to face stronger downward pressure going forward, given the above-mentioned estimation method.

In the January 2020 *Outlook for Economic Activity and Prices* report (*Outlook Report*), the BOJ stated that "under a specific methodology, Japan's potential growth rate is estimated to be in the range of 0.5-1.0 percent recently." However, a revision to "0-0.5%" will be unavoidable in the *Outlook Report* to be released at the Monetary Policy Meeting (MPM) scheduled for 14-15 July[2].

[1] In estimating trends in labor hours, we adopted piecewise linear regression, instead of the HP filter used for TFP.
[2] Since the BOJ reviewed the estimation method for the output gap and the potential growth rate in Apr 2017, it has been forecasting that the potential growth rate would be 0.5-1.0%. Although the previous *Outlook Report* (full text, issued in Apr 2020) includes the graph of the potential growth rate, there is no clear description regarding the level.

Chart: Revision Factors for Potential Growth Rate (as of Jul 2020 – as of Jan 2020)

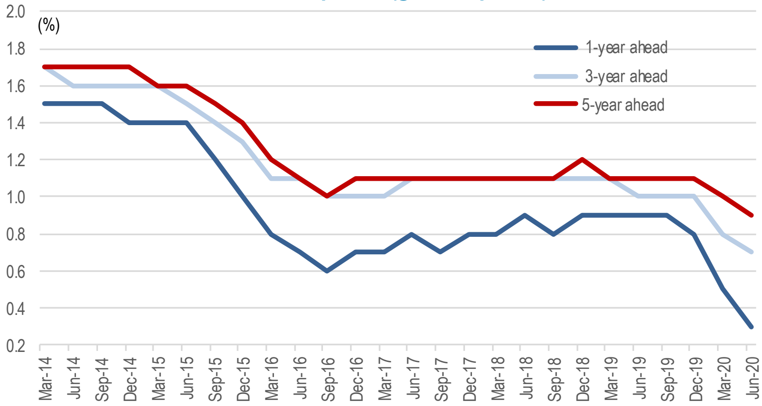


Source: BOJ; compiled by Daiwa Securities.

◆ **Inflation expectations at companies/households: Concerns over return to deflation?**

Regarding long-term inflation expectations that determine the neutral interest rate, alongside the potential growth rate, the BOJ has recently released several indicators. Looking first at the Inflation Outlook of Enterprises (general prices) in the BOJ Tankan released on 1 July, one-year ahead inflation expectations declined from +0.5% in the previous survey to +0.3%, the lowest since the start of the survey. In addition, regarding more important medium-term inflation expectations as well, three-year ahead inflation expectations and five-year ahead inflation expectations stood at +0.7% and +0.9%, respectively, showing signs of a downtrend.

Chart: Inflation Outlook of Enterprises (general prices) in BOJ Tankan



Source: BOJ; compiled by Daiwa Securities.

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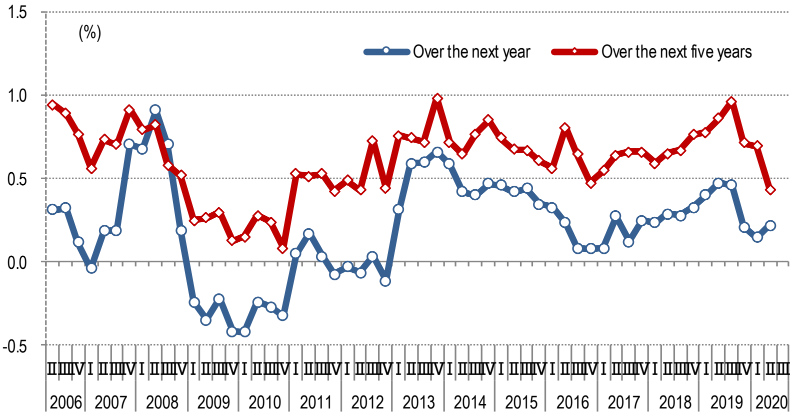
Moreover, worrisome signs have also started to appear regarding household inflation expectations. In the "Opinion Survey on the General Public's Views and Behavior" released by the BOJ on 7 July, the average for both the one-year ahead and five-year ahead price outlook has recovered from the previous survey. Although some interpreted that household inflation expectations have risen based on this result, this requires attention.

As pointed out by the BOJ itself, responses for inflation expectations in the opinion survey are characterized by (1) frequent use of integers, (2) frequent use of zero percent, (3) frequent use of multiples of 5, and (4) few negative values. Therefore, it is not correct to simply look at the average values. We thus need to look at the results after statistically adjusting for these "response habits[3]."

[3] Amid the COVID-19 pandemic, more attention is required to interpret household inflation expectations based on average values. For example, according to the New York Fed staffs' analysis using data on US household inflation expectations, respondents became more divergent in their inflation expectations and had very dispersed views—some respondents expected the pandemic to produce high inflation, while others expected it to yield low inflation.

In the *Outlook Report*, the BOJ also posts the estimated results based on the modified Carlson-Perkin method as household inflation expectations. Calculating the most recent value by using the same method, medium-term (five-year ahead) household inflation expectations fell significantly, reaching the lowest level since 2013, although one-year ahead inflation expectations rose slightly. It can be said that inflation expectations at companies and households are facing downward pressure due to the pandemic.

Chart: Household Inflation Expectations (Opinion Survey on the General Public's Views and Behavior)



Source: BOJ; compiled by Daiwa Securities.
Note: Estimation by modified Carlson-Perkin method.

Such declines in the potential growth rate and inflation expectations will likely have an impact on the yield curve in the long run. In other words, this is a macro-fundamental factor that could serve as long-term flattening pressure.

In the "Summary of Opinions" at the June BOJ MPM, one board member pointed out the possibility that both the natural rate of interest and inflation expectations will decline, saying that "the economic stimulus effects of the current monetary policy should be reexamined." One characteristic of the June MPM is that multiple members were concerned about the economy returning to deflation.

◆ Summary of Opinions at Monetary Policy Meeting on 15-16 Jun 2020

・In a situation where a gradual shift of phase from providing emergency support to promoting recovery materializes, the economic stimulus effects of the current monetary policy should be reexamined. Close attention should be paid to future price developments, taking into consideration the possibility that both the natural rate of interest and inflation expectations will decline.

In Bloomberg's BOJ survey announced on 9 July, 77% of respondents (36 people) said "yes" when asked if they thought Japan was facing the risk of falling into deflation again. When asked about the deflation risk at a post-MPM press conference in June, BOJ governor Haruhiko Kuroda denied such a possibility. However, according to the BOJ, "the year-on-year rate of change in the consumer price index (CPI, all items less fresh food) is expected to be negative for the time being, mainly affected by the spread of COVID-19 and the decline in crude oil prices." In such a situation, actual price trends will also garner attention.

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[Standard & Poor's]

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February 2020

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