

Daiwa's View

How far is the BOJ behind the curve?

- Estimates based on the Taylor Rule suggest an appropriate policy interest rate range of 0.87% to 1.35%, indicating that the current 0.5% is far too low
- If interest rate hikes are delayed further, the ultimate terminal rate is highly likely to exceed 1%, minimum level assumed by BOJ
- If policy rate rises to 1.25%, the long-term yield is projected to reach the 2.1% range, implying that the current 1.6% is merely an interim level

FICC Research Dept.

Ryoma Kawahara

81-3-5555-8777

ryoma.kawahara@daiwa.co.jp

Daiwa Securities Co. Ltd.



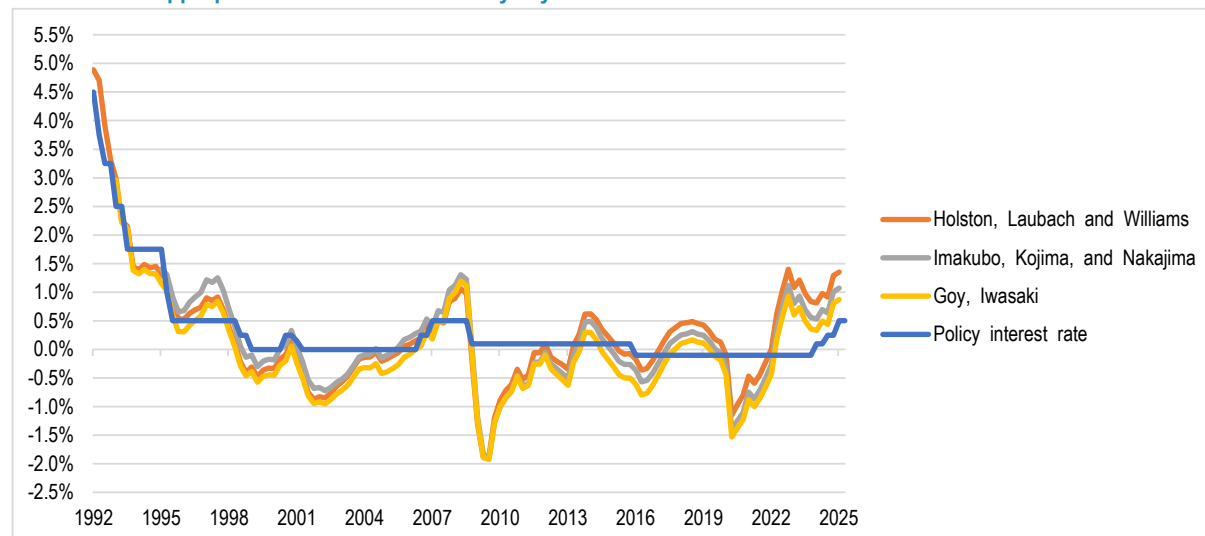
Assessment of current situation and problem statement

Amid the continuation of larger-than-expected rise in prices, especially food prices, many commentators have said that the BOJ's monetary policy is falling "behind the curve." The BOJ made upward revisions to its price projections at the July Monetary Policy Meeting (MPM). However, Governor Kazuo Ueda maintained a cautious stance, saying that "the upward revisions to the inflation rate alone are not something that should determine monetary policy." That said, the necessity of an interest rate hike was pointed out shortly before the meeting by Takeshi Niinami, Chairperson of the Japan Association of Corporate Executives, as well as by US Treasury Secretary Scott Bessent after the meeting. Under the circumstances, it is important to examine whether the BOJ is indeed behind the curve.

The BOJ's policy framework and positioning of food prices

The BOJ prioritizes underlying price trends when deciding on interest rate hikes. In the current situation, the key question is whether the rise in food prices will affect underlying inflation. While there are various definitions of "underlying prices," it is widely known that the BOJ places the highest emphasis on wages. Therefore, the impact of food prices on wages becomes an important point to consider.

Estimation of Appropriate Interest Rate Levels by Taylor Rule



Source: BOJ, Ministry of Internal Affairs and Communications (MIC); compiled by Daiwa.

Note: Calculations since 2Q 2023 onwards assume that the natural rate of interest remains constant at the 1Q 2023 level.

Regarding the impact of higher food prices, the BOJ assumes multiple paths. First, higher food prices could suppress real wages and real consumption, leading to a decline in aggregate demand due to a deterioration in economic activity, as well as downward pressure on future inflation. Second, higher prices of frequently purchased food items could raise inflation expectations, leading to upward pressure on future inflation. Considering these conflicting effects, the impact of food prices is not simple to judge, and there is some rationality in the BOJ's stance that it needs to observe developments before making a policy decision.

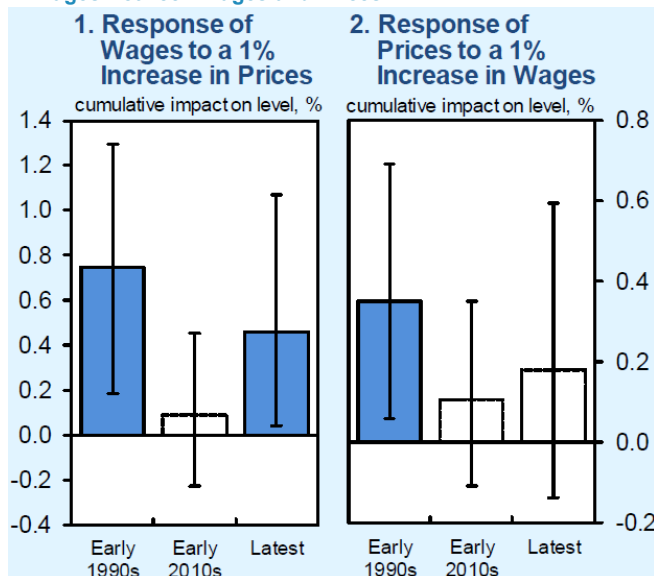
Relationship between Japan's wage determination mechanism and prices

However, a different conclusion is given by a more fundamental examination. The BOJ emphasizes the relationship between prices and wages, and has published analysis showing that prices influence wages. This relationship is a natural consequence of Japan's wage determination process.

Japanese wages have a strong aspect of “inflation allowance.” In the annual “spring” wage negotiations, which determine the majority of wage hikes, the inflation rate at the time of negotiation (around year-end) has served as a key reference indicator for setting wage hike rates. The movements of the inflation index and wage index since 2022 clearly show that wages catch up with preceding inflation in April, coinciding with hikes reflecting the annual wage negotiations.

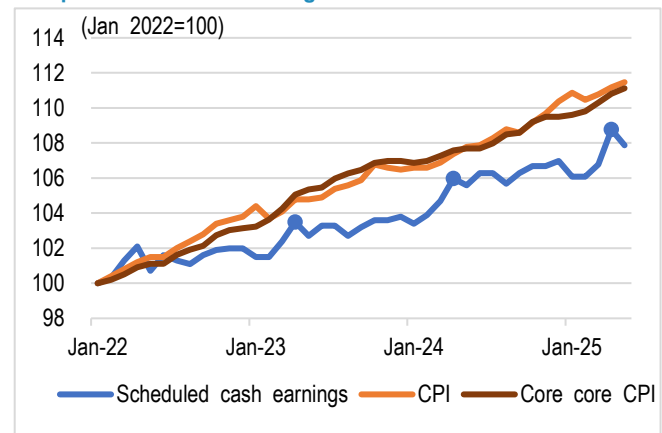
Given this relationship, we think that a rise in prices (whether food or anything else) will highly likely have an impact on wages through spring wage negotiations and other channels, ultimately spreading to underlying inflation. In such a situation, if the BOJ postpones interest rate hikes, treating price increases as a supply-side issue until their impact becomes clear, there is a risk of making the same policy judgment mistake as the US Fed in the past. From a risk management perspective, implementing gradual interest rate hikes is more efficient than being forced to implement drastic rate hikes later and facing a need to excessively cool the economy to curb inflation.

Linkages Between Wages and Prices



Source: Reprinted from BOJ materials.

Comparison of Trends of Wages and Prices



Source: Ministry of Health, Labour and Welfare, MIC; compiled by Daiwa.

Note: Scheduled cash earnings data for full-time workers (establishments with five or more employees).

Estimation of appropriate interest rate levels by Taylor Rule

When considering agile interest rate hikes from a risk management perspective, it is necessary to determine an appropriate level for interest rates. The Taylor Rule is a representative analytical framework for considering agile rate hikes in response to price levels. In its 2005 review report

"Monetary Policy Rules and Central Bank Policy Operations" (our translation), the BOJ acknowledged the usefulness of referencing the Taylor Rule.

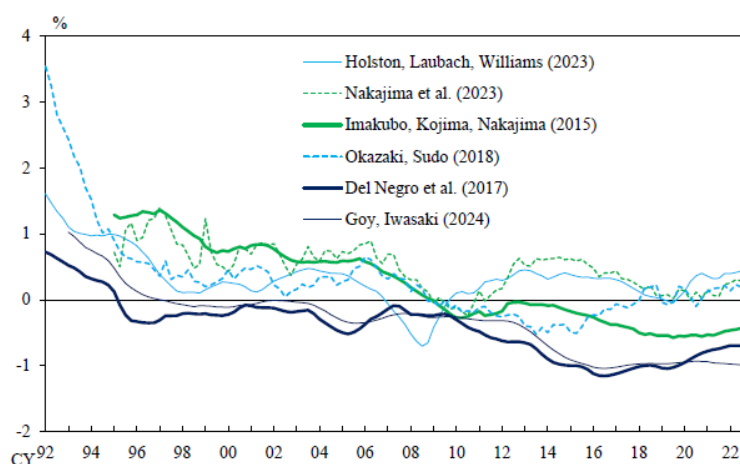
The analysis by the BOJ incorporated interest rate smoothing into the original Taylor Rule and used Japanese data. It has been confirmed that this model can track actual policy rate movements well. The basic structure of the model is as follows:

$$\begin{aligned}
 \text{Policy interest rate} = & \lambda \times \text{Policy rate in the previous term} \\
 & + (1 - \lambda) \times \{ \text{Equilibrium real interest rate} + \text{Target inflation rate} \\
 & + \alpha \times (\text{Inflation rate} - \text{Target inflation rate}) \\
 & + \beta \times \text{Output gap} \}
 \end{aligned}$$

The BOJ's model employs a variable equilibrium real interest rate, regarding the smoothed series of real GDP via HP filter as potential GDP, and the rate of its change as the equilibrium real interest rate. The inflation rate is defined as the y/y change in the Consumer Price Index (all items excluding fresh food, and consumption tax is adjusted).

In our analysis, we used the BOJ's published estimates of the natural interest rate for the equilibrium real interest rate in order to make the model more practical. Considering the range of estimation results, we examined three scenarios using the estimation results from three models representing the upper, middle, and lower bounds of the range.

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Source: Reprinted from BOJ materials.

Estimation results and policy implications

Under the current economic environment, it was calculated that a policy interest rate under the assumption of 2% inflation ranges from 0.87% to 1.35%. This estimate is based on data up to 1Q 2025, but the CPI in 2Q 2025 has already exceeded the 1Q level, and even if the output gap remains at the same level as the previous quarter, the estimation results would be higher. Furthermore, given that the GDP growth rate in 2Q 2025 surpassed that in the previous quarter, the output gap is also likely to improve, making it almost certain that the estimated appropriate interest rate level will rise further.

These estimation results suggest that the current policy interest rate of 0.5% is too low. It has been said that the BOJ is targeting a terminal rate of 1% at lowest under the current rate hike stage, which is presumed to be based on the inflation target of 2% plus a natural interest rate of -1%. This -1% natural interest rate corresponds to the Goy-Iwasaki model estimate, which is the lower bound among the various models published by the BOJ.

The 0.87% estimation result using the Goy-Iwasaki model in this analysis serves as an important indicator for what the current policy rate should be. While recognizing that the Taylor Rule estimate is not necessarily the sole correct answer, the level indicated by the model significantly

deviates from the current 0.5% and would not be reached even if a next rate hike raises it to 0.75%. Considering that 2Q will have even higher estimation results, the possibility of the BOJ being behind the curve is undeniable.

Future policy operations

Based on these estimation results, the BOJ is urged to raise interest rates promptly. The earliest possible timing for a next rate hike could be the September MPM, but there are several constraining factors. The biggest obstacle is the relationship with US monetary policy. The July US jobs report showed deterioration in the labor market, and the market is now almost certain that the Fed will resume rate cuts in September. If they move in opposite directions (rate hike by the BOJ and rate cut by the Fed), there would be a risk of creating appreciation pressure on the yen due to narrowing of policy rate differentials. Thus, it is highly likely that the BOJ will avoid policy changes at the same timing.

However, there is a different perspective on this view. Even if a September rate cut by the Fed is a done deal, the market's pricing in of future rate cuts could recede depending on the August jobs report. The July FOMC minutes indicated concerns about inflation due to tariffs, raising questions about the feasibility of the five rate cuts priced in by the market by December 2026. If the yen depreciates after the release of the jobs data and the September FOMC results in a "hawkish rate cut," the future policy rate differential could actually widen, potentially creating room for the BOJ to raise rates.

Currently, however, the BOJ has indicated a stance of wanting to assess the impact of tariffs. If this current stance is maintained, a rate hike is likely to be postponed because it will be difficult to fully evaluate the impact of tariffs by September. As a result, we would continue to see the divergence between the appropriate interest rate shown in this analysis and the actual policy rate, raising the likelihood that the BOJ will be forced to implement a behind-the-curve rate hike in October.

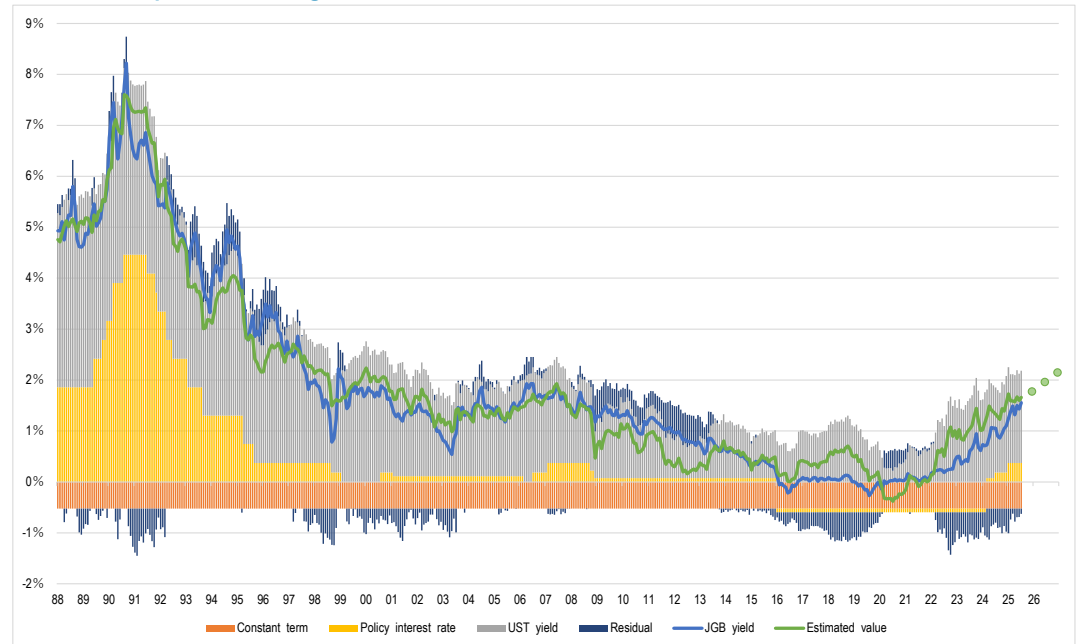
More importantly, remaining behind the curve could necessitate more large-scale rate hikes in the future. This means that the terminal rate will exceed previous assumptions, suggesting the need to hike interest rates to a level above the 1% that is seen by the BOJ as a minimum level.

Conclusion

If there is a rapid deterioration in the US economy or a larger-than-expected decline in Japanese food price inflation, the story would be different. However, the BOJ should not conduct policy based on such uncertain future outlooks. Especially, if the BOJ is confident about the outlook of wages, there would be no reason to delay a rate hike to 0.75% in the process of aiming for at least 1%. From a risk management perspective, raising rates to 0.75% and then carefully assessing the timing for further hikes towards 1% would be healthier.

Assuming that the US long-term yield remains at 4.2%, [model estimations](#) suggest that if the BOJ raises rates to 0.75%, Japan's long-term yield would be in the 1.7% range; if raised to 1%, it would be in the 1.9% range; and if raised to 1.25%, it would be in the 2.1% range.

While the long-term JGB yield has already reached its highest since 2008, the current 1.6% is merely an interim level, and a further rise is expected. The BOJ should promptly normalize its policy interest rate to avoid larger adjustments in the future.

Factor Decomposition of Long-term Yield

Source: Bloomberg; compiled by Daiwa.

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