DaiwaSecurities

Daiwa's View

JGB yield outlook for 2022 (Part 1)

➤ I. Our end-2022 forecast for the 10yr JGB yield is 0.20%, with a core range of 0.11-0.25%

II. If risk-off sentiment deepens, market will be aware of downside scenario

Fixed Income Research Section FICC Research Dept.

Chief Strategist Eiichiro Tani, CFA (81) 3 5555-8780 eiichiro.tani@daiwa.co.jp



Daiwa Securities Co. Ltd.

- I. Our end-2022 forecast for the 10yr JGB yield is 0.20%, with a core range of 0.11-0.25%
- II. If risk-off sentiment deepens, market will be aware of downside scenario

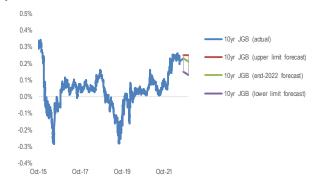
JGB yield outlook for 2022 (Part 1)

JGB yield outlook for 2022

During the JGB yield uptrend since the beginning of the year, the rise in the US long-term yield and policy revisions by the BOJ have played a dominant role. In this respect, the market is aware of the possibility that the US long-term yield is peaking, and we think that the possibility of policy revisions by the BOJ within FY22 (roughly equivalent to the remainder of Governor Kuroda's term in office) has virtually disappeared after the July Monetary Policy Meeting (MPM). Therefore, upward pressure by both factors on JGB yields appears to have largely peaked out. The pronounced net selling by overseas investors indicated in the June trading volume of OTC bonds data and the subsequent large net buying for four consecutive weeks (portfolio investment assets / liabilities data) show that overseas speculators' attack on the BOJ are about to end.

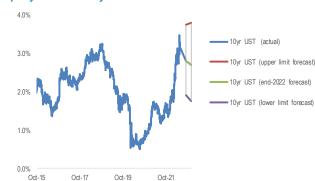
Of course, there are other Japan-specific factors that affect yield levels, such as the selection process of Governor Kuroda's successor, economic support brought about by an accommodative financial environment, and large-scale supplementary budgets by the Kishida administration, which are a political resource that has been gained that has not typically been seen among developed nations. Nevertheless, the scenario in which the JGB yield uptrend continues after the peaking of US yields comes into question when we consider overseas recession concerns and the peaking of US yields, the decline in yields of hedged foreign bonds, and increasing stock effects (the total amount of bonds taken away from the private sectors) via the BOJ's operations thus far. We have focused on these elements when making our new forecasts. Our end-2022 forecast for the 10yr JGB yield is 0.20%, with a core range of 0.11-0.25% (superlong JGB yield forecasts will be shown in a separate report). In addition, as mentioned in our US yield outlook, we think that the market may be aware of US/European economic recessions between September and end-December. In the case that risk-off sentiment deepens, the market is expected to post developments under the downside scenario.

10yr JGB Yield Forecast



Source: Bloomberg; compiled by Daiwa Securities.

(Ref) 10yr US Treasury Yield Forecast



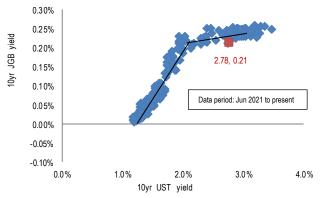
Source: Bloomberg; compiled by Daiwa Securities.



◆ US yields as a global factor

It is widely understood that US yields affect yields worldwide. Japan is of course no exception to this, and the trend in US yields cannot be ignored when forming an outlook for JGBs. A scatter diagram plotting JGB yields against US long-term yields since June 2021 shows a correlation between the two at a beta of around 0.2. Because of the BOJ's fixed-rate purchase operations capping the 10yr yield at 0.25%, that beta declines to around 0.05 when the 10yr JGB yield rises above 0.2%. The chart below confirms that two factors, (1) US long-term yields and (2) BOJ policy adjustments, are critical to forecasting the 10yr JGB yield and that without the fixed-rate purchase operations (and their consequent distortion of beta), the 10yr JGB yield would currently be trading in the low 0.3% range.

10yr Yields in Japan and US (scatter diagram)



Source: Bloomberg; compiled by Daiwa Securities.

Possibility of policy revisions (rate hikes) by the BOJ within FY22 has virtually disappeared We judge that the possibility of policy revisions (rate hikes) by the BOJ within FY22 has virtually disappeared. One decisive factor is that the word "clearly" was deleted from the output gap explanation in the July Outlook for Economic Activity and Prices report (Outlook Report). Regarding the output gap, the BOJ wrote in the April Outlook Report that "it is projected to turn clearly positive around the second half of fiscal 2022 and then continue to expand moderately." However, the wording was revised in the July Outlook Report to "it is projected to turn positive around the second half of fiscal 2022."

BOJ Outlook for Economic Activity and Prices Report (28 Apr 2022)

• The main factors that determine inflation rates are assessed as follows. The output gap, which captures the utilization of labor and capital, has been negative recently. However, with Japan's economy following a growth path that outpaces its potential growth rate, it is projected to turn clearly positive around the second half of fiscal 2022 and then continue to expand moderately.



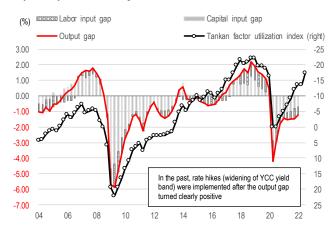
BOJ Outlook for Economic Activity and Prices Report (21 Jul 2022)

• The main factors that determine inflation rates are assessed as follows. The output gap, which captures the utilization of labor and capital, has been slightly negative. With Japan's economy following a growth path that outpaces its potential growth rate, the gap is projected to turn positive around the second half of fiscal 2022 and then continue to expand moderately.

The Summary of Opinions at the June MPM, when the BOJ's yield curve control policy (YCC) was attacked by overseas speculators, extraordinarily included as many as four opinions on the output gap. Therefore, the output gap garnered more attention as a factor for policy decisions. In the July *Outlook Report*, the BOJ expressed a new awareness that the possibility of the output gap turning "clearly" positive within FY22 has disappeared. In our view, this essentially suggests that the possibility of rate hikes within FY22 has disappeared.



Output Gap Estimated by BOJ



Source: BOJ, Bloomberg; compiled by Daiwa Securities.

Summary of Opinions (Jun BOJ MPM)

- With the output gap remaining negative for more than two years, in order to achieve a sustained rise in wages, which pushes up demand, it is appropriate for the Bank to continue with the current monetary easing and thereby firmly support the economy
- Achieving the price stability target of 2 percent requires wage increases that exceed 2 percent inflation. However, with the output gap being negative, Japan's economy has not reached a situation where labor market conditions are likely to accelerate a rise in wages. On this point, the economic environment in Japan has been different from that in the United States and Europe, where monetary accommodation has been reduced.
- In order to close Japan's negative output gap and increase income and employment, it is necessary for the Bank to aim at achieving a high-pressure economy by stimulating the economy, in coordination with the government's fiscal and other policies.
- In the conduct of monetary policy, the Bank should strengthen its monetary easing stance with a view to improving the output gap and inflation expectations, and thereby achieve an economic recovery and the price stability target early.

Of course, this messaging does not necessarily signal that the BOJ will stick to easing. These opinions also suggest that policy revisions (adjustments to YCC parameters) will be conducted once the macro output gap turns clearly positive and sustainable wage hikes are realized. In either case, the BOJ sent the strong message that (1) policy revisions should be triggered by homemade inflation backed by sustainable wage hikes, and that (2) they should not be triggered by the trends of other central banks or a rise in overseas yields.

◆ The 10yr JGB yield outlook and increasing stock effects

As noted in our previous report, I expects US long-term rates to peak (at around 2.7% at end-2022, with a low-end scenario of 1.75% and high-end scenario of 3.8%). An analysis using the previously mentioned assumptions and beta relative to US long-term yields points to an end-2022 outlook for the 10yr JGB yield of about 0.23%, within a core range of 0.15-0.25%.

There are some caveats, however, one example being stock effects. A closely watched factor affecting the 10yr JGB yield is the share of JGBs held by the BOJ, a proxy for stock effects, and starting this year the BOJ responded to the rise in overseas interest rates and the attack on the BOJ from speculators (explained below) with an unexpected Y14tn of purchases, primarily in the 7-10yr zone, under its fixed-rate purchase operations. Regarding the share of outstanding JGBs held by the BOJ, the Bank used coefficients of -0.022 for the September 2016 comprehensive review and -0.02 for the March 2021 review. The volume of JGBs unexpectedly purchased under the BOJ's fixed-rate and temporary purchase operations in 2022 has been 1-2% of issuance, which suggests the possibility that those operations caused a 1-4bp downward shift in the level of the 10yr JGB yield compared with those operations not having been conducted.

Estimation Based on Share of JGBs Held by BOJ (Comprehensive Assessment)

```
JGB yields (10-year, %)
= 0.189
(*)
+ 0.216 × U.S. Treasury bond yields (10-year, %)
(***)
+ 0.387 × expected real GDP growth rate (%)
(***)
- 0.022 × share of the Bank's JGB holdings (%)
(***)
```

The estimation period is from January 2005 to June 2016. The R-squared is 0.948. Newey-West standard errors are used. (***), (**), and (*) denote statistical significance at the 1%, 5% and 10% levels, respectively.

Source: Excerpted from Comprehensive Assessment: Developments in Economic Activity and Prices as well as Policy Effects since the Introduction of Quantitative and Qualitative Monetary Easing (The Background, 21 Sep 2016).

Estimation Based on Share of JGBs Held by BOJ (Assessment)

```
JGB yields (10-year, %)
= 0.25*
+0.16* × U.S. Treasury bond yields (10-year, %)
+0.45* × Expected real GDP growth rate (%)
-0.02** × The Bank's share of JGB holdings (%)

Estimation period: Jan. 2005 to Feb. 2021. Adjusted R-squared: 0.95.
Newey-West standard errors are used.
```

Source: Excerpted from Assessment for Further Effective and Sustainable Monetary Easing (The Background, 19 Mar 2019).



Taking account of the above, or the arguments outlined below, our end-2022 forecast for the 10yr JGB yield is 0.20%, with a core range of 0.11-0.25%. As we noted in our US yield outlook, we see the possibility of the market sensing recession in the US and European economies from September to end-December, and if risk-off moves gain momentum, we think the bottom of that range becomes more likely. Ultimately, because JGB yields are likely to start declining with a slight lag in response to declines in US long-term yields, we think the Jul-Sep or Oct-Dec quarters could bring an important JGB buying opportunity.

Persistent deposit-loan gap widens

A simpler way to describe stock effects is JGB supply-demand. A critical element of that supply-demand is the deposit-loan gap at deposit-taking institutions. Surprisingly, the rate of growth in deposits started accelerating again in January this year, and the YTD increase in deposits is over Y23tn. In contrast, loans outstanding have increased only slightly, resulting in a continued widening of the deposit-loan gap. Because most attention has been on the rise in US interest rates and policy adjustments thus far, this has been under the radar, but the combination of a persistently widening deposit-loan gap with increasing stock effects from BOJ operations could wind up putting more downward pressure on rates than expected if Japanese investors fully resume investing in JGBs¹.

Trends of Deposits and Loans (Y tn)



Source: Bloomberg; compiled by Daiwa Securities.

Yields on FX-hedged foreign bonds decline (turn negative)

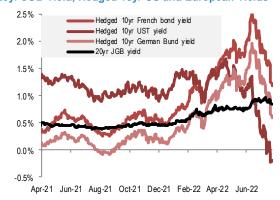
Another fact further supporting this argument is the decline in FX-hedged foreign bond yields. Two factors have pushed hedging costs up, the expectation of significant rate hikes by the Fed and ECB and a worsening of the premium for dollars in the currency basis swap market. These higher hedging costs have caused the yield on FX-hedged 10yr Treasurys to turn negative. A hedged 10yr Treasury is currently yielding -0.21% and a hedged 10yr German Bund is yielding about 0.6%, both well below the 20yr JGB yield of 0.84%.

This yield differential is certainly significant in the context of the usual balance will, but there is no doubt that JGBs are becoming relatively more attractive, although admittedly there is no urgency given the current fears of recession. This may encourage Japanese investors to return to JPY bonds after a lag.

¹

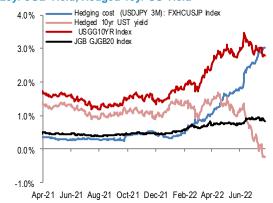
¹ Deposits have increased by about Y123tn since the pre-pandemic month of January 2020, and so far that rising trend has been nearly a consistent one (based on the aggregate total for major banks and regional banks). In contrast, loans outstanding rose sharply at the start of the pandemic but have been roughly flat since then and are only up about Y40tn from January 2020.

20yr JGB Yield, Hedged 10yr US and European Yields



Source: Bloomberg; compiled by Daiwa Securities.

20yr JGB Yield, Hedged 10yr US Yield



Source: Bloomberg; compiled by Daiwa Securities.

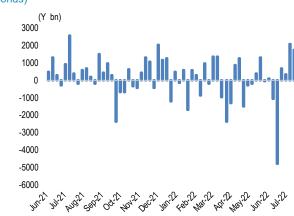
Overseas speculators' attack on BOJ in June: What was their mistake? The pronounced net selling of long-term JGBs (more than Y4tn) by overseas investors indicated in the June trading volume of OTC bonds data and the subsequent large net buying for four consecutive weeks (portfolio investment assets/liabilities) left us with the impression that overseas speculators were waging an attack on the BOJ, and have ended the attack. This trend appears to have attracted a high level of interest among Japanese bond investors, as well. Speculative investors probably thought that the BOJ would be forced to raise interest rates due to the weaker yen, the temporary attainment of core CPI of 2% led by import costs, the delay in rate hikes compared to overseas central banks, the withdrawal from the YCC policy by the Reserve Bank of Australia (RBA), pressure from the Kishida administration, and Kishida's own unique approach (anti-Shinzo Abe).

JGB Trading Volume by Foreigners



Source: Japan Securities Dealers Association; compiled by Daiwa Securities.

Portfolio Investment Liabilities (weekly, intermediate/long-term bonds)



Source: MOF; compiled by Daiwa Securities.

However, there is no chance of the BOJ losing against selling by speculators in the JGB market². The only thing that matters are the BOJ's intentions. In that sense, overseas speculators' attack on the BOJ in June and the subsequent loss were the result of misreading the BOJ's intentions—what it regards as important. In this regard, the BOJ has intentionally emphasized differences in the viewpoints of the market and the BOJ via messaging that focused on the negative output gap and wages since the June MPM, as mentioned above. In addition to the aforementioned issue, we present two points below that appear to be misunderstood by many market participants. This should help readers examine the situation the next time we see an attack on the BOJ by overseas speculators.

- 5 -

² It is clearly written that the BOJ can buy unlimited or preliminary fixed amounts at preliminary notified yields in fixed-rate purchase operations.



1. Differences in YCC at RBA and BOJ

The first point is the difference between the YCC at the RBA and the YCC at the BOJ (nature of YCC³). The YCC tends to be expressed using that single term, but the RBA's YCC is a measure for reinforcing forward guidance based on a policy signaling approach, and its policy concept is different from that of the long-term approach adopted by the BOJ's YCC. The policy signaling approach has a weak point in that problems may arise if the economy/prices improve faster than expected and the policy rate is raised earlier than anticipated, and this is widely known (refer to Daiwa's View dated 3 Aug 2020: YCC observations series (3): Three approaches to interest-rate targeting and their impact on the yield curve).

Each approach has its own advantages and disadvantages. However, if we at least understand these kinds of differences in the RBA's and BOJ's approaches towards interest-rate targeting, we can see how problems with the RBA's YCC that are based on the policy signaling approach will not directly lead to problems with the BOJ's YCC.

2. Difference between BOJ and European/US central banks regarding policy reaction functions

The second point is the difference between the BOJ and European/US central banks regarding their policy reaction functions. As is well known, inflation has remained substantially higher than the targets in the US and Europe since the outbreak of the pandemic and the crisis in Ukraine. As consumers' inflation expectations, which are characterized as adaptive, are posting upside breakout, they are facing the crisis of deanchoring. Turning to Japan, due to prolonged deflation, inflation expectations have been anchored at a low level, which has been a major headache.

Inflation in Japan is also on the rise temporarily now due to the surge in the price of imported items, such as energy, and medium/long-term inflation expectations have also started to rise, although the tempo is moderate compared to that of short-term inflation expectations. However, the formation of adaptive inflation expectations is still underway. The key is whether companies will continue to decide to raise wages by 3% or more during the annual spring wage negotiations, which is essential to secure sustainability. My honest feeling regarding the current situation is that there is a high degree of uncertainty regarding the outlook for wage negotiations.

Given these differences between Japan and overseas regarding inflation expectations, we can say that it is natural that the BOJ, which has started to move in a desirable direction, is not moving to implement large rate hikes as fast as European/US central banks, which have been implementing rapid rate hikes. The impression that the BOJ is lagging behind overseas central banks' rate hikes is based on a misreading of the respective positions regarding inflation rate levels and anchoring of inflation expectations, as well as the resultant differences in policy reaction functions.

For the nature of YCC, refer to the following four our reports.

YCC observations series (1): What is yield curve control (Daiwa's View dated 29 Jun 2020)

YCC observations series (2): History and implications of American YCC in the 1940s (Daiwa's View dated 2 Jul 2020)

YCC observations series (3): Three approaches to interest-rate targeting and their impact on the yield curve (Daiwa's View dated 3 Aug 2020)

YCC observations series (4): Where should YCC's yield level be targeted? (Daiwa's View dated 3 Aug 2020)



IMPORTANT

This report is provided as a reference for making investment decisions and is not intended to be a solicitation for investment. Investment decisions should be made at your own discretion and risk. Content herein is based on information available at the time the report was prepared and may be amended or otherwise changed in the future without notice. We make no representations as to the accuracy or completeness. Daiwa Securities Co. Ltd. retains all rights related to the content of this report, which may not be redistributed or otherwise transmitted without prior consent.

Ratings

- Issues are rated 1, 2, 3, 4, or 5 as follows:

 1: Outperform TOPIX/benchmark index by more than 15% over the next 12 months.
- Outperform TOPIX/benchmark index by 5-15% over the next 12 months.
- Out/underperform TOPIX/benchmark index by less than 5% over the next 12 months.
- 4: Underperform TOPIX/benchmark index by 5-15% over the next 12 months.
- 5: Underperform TOPIX/benchmark index by more than 15% over the next 12 months.

Benchmark index: TOPIX for Japan, S&P 500 for US, STOXX Europe 600 for Europe, HSI for Hong Kong, STI for Singapore, KOSPI for Korea, TWII for Taiwan, and S&P/ASX 200 for Australia.

Target Prices

Daiwa Securities Co. Ltd. sets target prices based on its analysts' earnings estimates for subject companies. Risks to target prices include, but are not limited to, unexpected significant changes in subject companies' earnings trends and the macroeconomic environment.

Disclosures related to Daiwa Securities

Please refer to https://lzone.daiwa.co.jp/l-zone/disclaimer/e disclaimer.pdf for information on conflicts of interest for Daiwa Securities, securities, securities, securities, companies for which Daiwa Securities or foreign affiliates of Daiwa Securities Group have acted as a lead underwriter, and other disclosures concerning individual companies. If you need more information on this matter, please contact the Research Production Department of Daiwa Securities.

Explanatory Document of Unregistered Credit Ratings

This report may use credit ratings assigned by rating agencies that are not registered with Japan's Financial Services Agency pursuant to Article 66, Paragraph 27 of the Financial Instruments and Exchange Act. Please review the relevant disclaimer regarding credit ratings issued by such agencies at: https://lzone.daiwa.co.jp/l-zone/disclaimer/creditratings.pdf

Notification items pursuant to Article 37 of the Financial Instruments and Exchange Law

(This Notification is only applicable to where report is distributed by Daiwa Securities Co. Ltd.)

If you decide to enter into a business arrangement with our company based on the information described in this report, we ask you to pay close attention to the following items.

- In addition to the purchase price of a financial instrument, our company will collect a trading commission* for each transaction as agreed beforehand with you. Since commissions may be included in the purchase price or may not be charged for certain transactions, we recommend that you confirm the commission for each transaction. In some cases, our company also may charge a maximum of \(\frac{\pmax}{2}\) million per year as a standing proxy fee for our deposit of your securities, if you are a non-resident.
- For derivative and margin transactions etc., our company may require collateral or margin requirements in accordance with an agreement made beforehand with you. Ordinarily in such cases, the amount of the transaction will be in excess of the required collateral or margin requirements*:
- There is a risk that you will incur losses on your transactions due to changes in the market price of financial instruments based on fluctuations in interest rates, exchange rates, stock prices, real estate prices, commodity prices, and others. In addition, depending on the content of the transaction, the loss could exceed the amount of the collateral or margin requirements.
- There may be a difference between bid price etc. and ask price etc. of OTC derivatives handled by our company.
- Before engaging in any trading, please thoroughly confirm accounting and tax treatments regarding your trading in financial instruments with such experts as certified public accountants.
- * The amount of the trading commission cannot be stated here in advance because it will be determined between our company and you based on current market conditions and the content of each transaction etc.
- The ratio of margin requirements etc. to the amount of the transaction cannot be stated here in advance because it will be determined between our company and you based on current market conditions and the content of each transaction etc.

When making an actual transaction, please be sure to carefully read the materials presented to you prior to the execution of agreement, and to take responsibility for your own decisions regarding the signing of the agreement with our company.

Corporate Name: Daiwa Securities Co. Ltd.

Registered: Financial Instruments Business Operator, Chief of Kanto Local Finance Bureau (Kin-sho) No.108

Memberships: Japan Securities Dealers Association, The Financial Futures Association of Japan, Japan Investment Advisers Association, Type II Financial Instruments Firms Association, Japan Security Token Offering Association