

JHF No.192 Monthly MBS Issue

Strategic Memorandum DSBE026

FICC Research Dept.

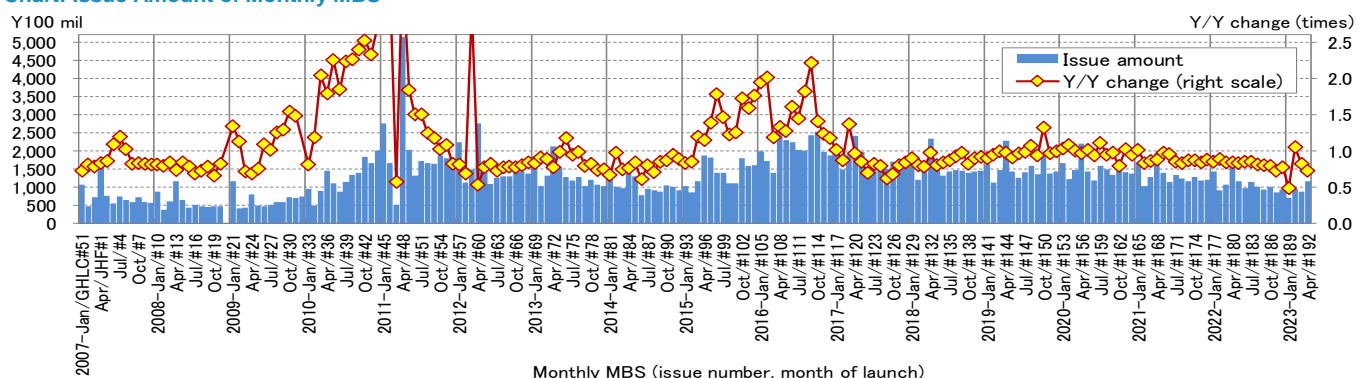
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Daiwa Securities Co. Ltd.

➤ RMBS supporting “Flat 35 outlook providing peace of mind”

- The Japan Housing Finance Agency (JHF) plans to issue its No. 192 Monthly MBS. The coupon will be set by referencing the yield of the on-the-run 10-year JGB.
- JHF RMBS are issued with home loans as the underlying asset. The total assets eligible for use as collateral for the No. 192 Monthly MBS, which consist of Flat 35 mortgages originated in March, came to Y144.9bn. If the entire amount of candidate trust assets is used as collateral at a credit enhancement ratio of 19.2%, which is what it was the previous issue, the issuance amount will be Y117.0bn.
- This RMBS issuance is likely to be nearly 30% less compared to the same period last year. This reflects the sluggish growth for the volume of Flat 35 usage. The impact of the large increase in the Flat 35 rate for new loans in February and March was probably significant. However, we expect a recovery going forward as this rate was significantly lowered in April and JHF has launched a new advertising campaign featuring popular celebrity Mai Shiraishi.
- Based on our prepayment model, we estimate a WAL of 10.20 years (based on 11 April closing prices; same hereinafter). The PSJ Calculation Statistical Value (average) is 8.14%. Accordingly, the expected WAL based on the PSJ model is 9.39 years.
- At a launch spread the same as the previous issue of 59bp, the coupon of the upcoming issue will be 1.05%. In this case, the PSJ model YCS would be 39.0bp, 3.3bp higher the previous issue. The PSJ model YCS of the previous issue in the secondary market is 28.8bp, which would mean the upcoming issue will have a coupon of 0.95% and launch spread of 48bp.
- We think it appropriate that supply and demand will meet at the launch spread of about 50-59bp. If so, the coupon would be about 0.96-1.05%.

Chart: Issue Amount of Monthly MBS



Source: JHF; compiled by Daiwa Securities.
 Note: Estimate for No. 192 issue.

Issuance of JHF MBS and Situations of Flat 35

No. 192 to be launched in April

The Japan Housing Finance Agency (JHF) plans to price (launch) its No.192 MBS this month. Issuance terms are determined by the spread-pricing method, in which a new issue's coupon is set on the launch date by adding a launch spread—which is determined based on investor demand—to the compound yield on a benchmark 10-year JGB (JB370 in this case) at the time of the launch. The launch date is scheduled in mid-April, and the payment date is scheduled on 27 April.

Possible issuance amount of around Y117.0bn

All of the Y144.9bn in Flat 35 mortgages eligible for use as collateral for the No. 192 Monthly MBS originated in March. The issue is likely to have the highest ratings from S&P and R&I. The issue amount is to be announced on 14 April. If the credit enhancement ratio is unchanged from that for the previous issue at 19.2%, the issue amount is estimated at Y117.0bn.

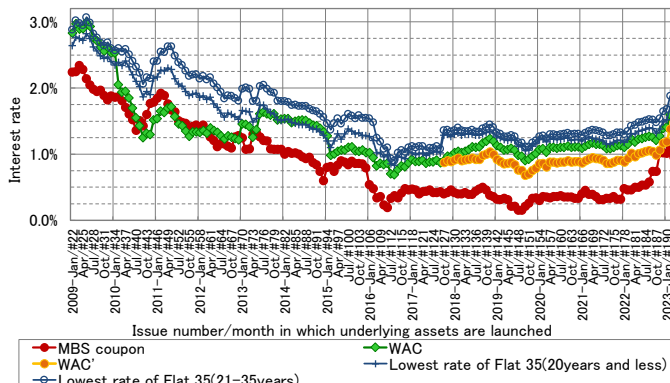
Flat 35 rates reflecting latest RMBS rates

The lowest retail rate on the mortgages was 1.96% (including group credit life insurance premiums), up 0.08ppt m/m and up 0.53ppt y/y. The lowest rate on Flat 20 mortgages (with terms of 20 years or less) was 1.80%, up 0.08ppt m/m and up 0.49ppt y/y. The Flat 35 rate targeting new users posted at financial institutions is changed each month and basically reflects the monthly bond issuance level for RMBS issued by JHF. The increase in the Flat 35 rate in March was also largely due to a jump in the rate on the RMBS (190 MBS) launched in February to 1.09%.

Flat 35 utilization down sharply on higher rates

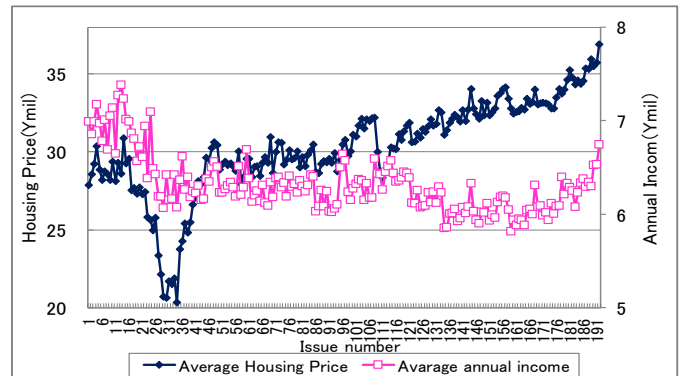
The amount of Flat 35 loans executed in March is roughly equal to the outstanding balance of mortgages eligible for use as collateral for the No. 192 MBS. Of note, the total amount of Y144.9bn used for Flat 35 mortgages was down 29% y/y. The increase in the Flat 35 rate in March, which reflects the February RMBS rate, probably had an impact. At the end of last year, the BOJ expanded its permissible 10-year JGB yield trading range under its yield curve control (YCC) policy, which triggered expectations of a higher 10-year JGB yield. The impact and aftereffect of this decision was the cooling of demand for long-term JGBs.

Chart: Interest Rate of Flat 35 Loans and JHF MBS (monthly trend)



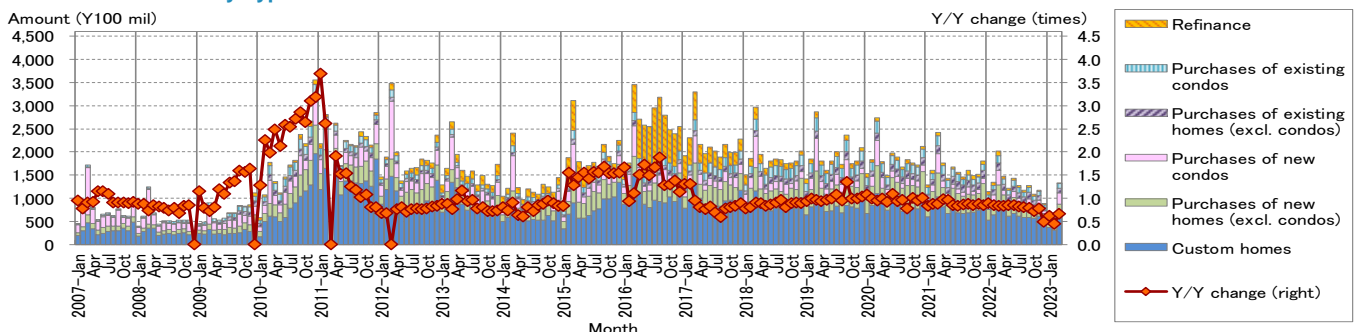
Source: JHF; compiled by Daiwa Securities.

Chart: Home Prices and Flat 35 Borrowers' Average Income



Source: JHF; compiled by Daiwa Securities.

Chart: Flat 35 Loans by Type of Loans



Source: JHF; compiled by Daiwa Securities.

Terms for the previous issue

Lower rate limit set by demand forecast became coupon

The No. 191 (Y88.5bn) was launched on 17 March with a coupon of 0.95%. The coupon of 0.95% was determined by the nominal launch spread (59bp) and the lower rate limit set by demand forecast. Through back calculation, the spread with benchmark JB369 came in at 65.8bp. The OAS at launch (our estimate; same hereinafter) stood at 20.9bp (7.8bp higher than previous issue) and the YCS was 27.2bp (7.9bp higher than the previous issue). Based on the PSJ Forecast Statistical Data, YCS was 35.7bp (5.3bp higher than previous issue).

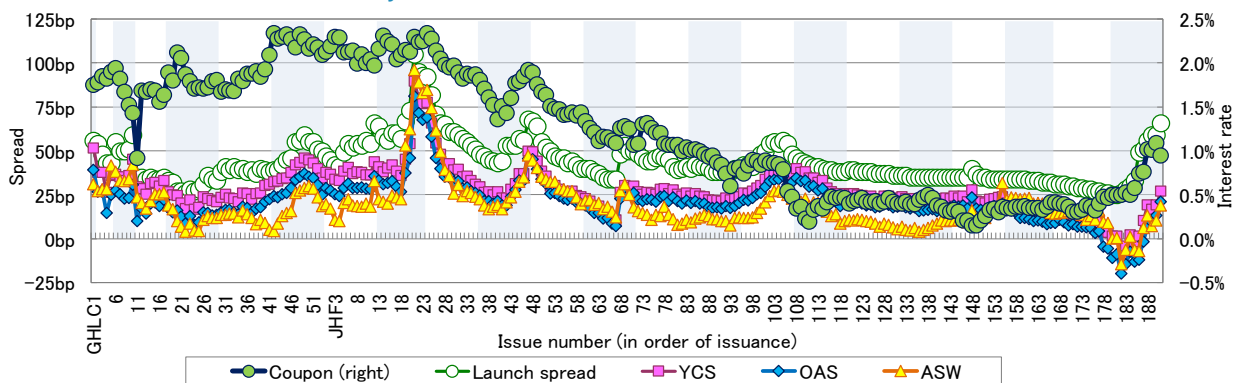
BOJ loan conditions and launch spread since February

The coupon declined 14bp m/m, reflecting the steep decline for the benchmark yield. The BOJ has been tightening its preconditions for lending long-term JGBs since February and those who shorted three on-the-run issues are starting to buy back those positions. As such, rates have tended to decline. Unlike the other two issues, stricter lending terms were applied to the JB369 starting from March 10. The lower interest rate limit, which takes precedence over the launch spread, was set in order to retain investment demand even as the risk of a significant decline in the base rate increased.

Addressing investment demand

JHF was fortunate that it could issue monthly bonds to meet investment demand despite the market turmoil. Indeed, the soundness of Flat 35, which is offered while maintaining good dialogue with market participants, is clearly apparent..

Chart: Issuance Terms for JHF Monthly MBS



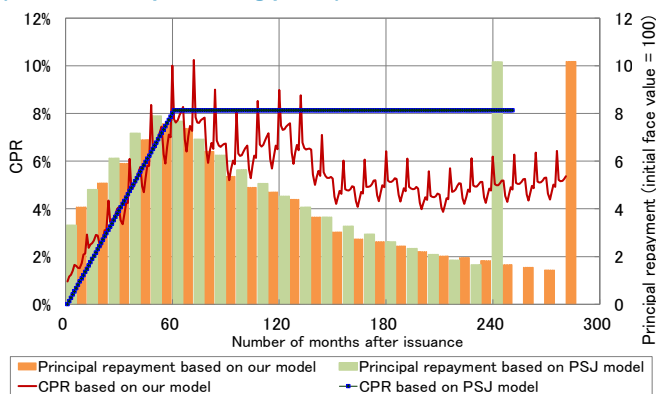
Source: JHF and our estimates.

Note: The background colors indicate different fiscal years.

Different risk premiums depending on expected cash flow distribution

With regard to the pricing of JHF MBS, it should be noted that the risk premium varies depending on the expected cash flow distribution. A recent trend has been for monthly new bond issuance to assume a longer cash flow distribution in our prepayment forecast model than in the PSJ model's view using PSJ forecast statistics. As such, recently the YCS measured at the time of new bond issuance tends to be smaller in our model due to the positive yields.

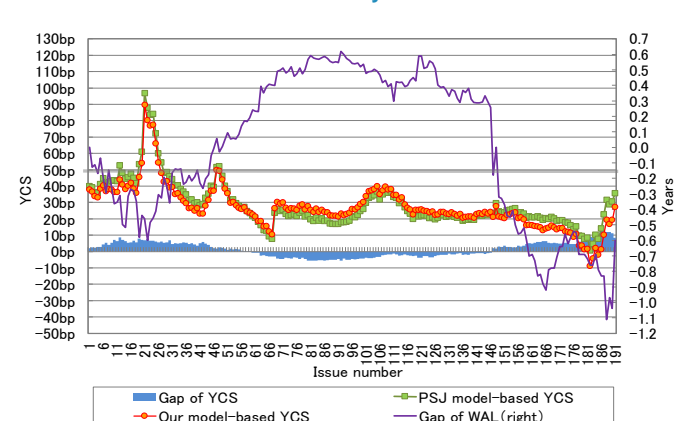
Chart: Expected CPR & Principal Repayment for No. 192 Issue (based on 11 April closing prices)



Source: Our estimates.

Note: Although principal repayments are made every month, the graph show annual repayment totals.

Chart: Difference in YCS for Monthly MBS at Launch



Source: Our estimates.

Cash flow characteristics and issuance terms for No. 192

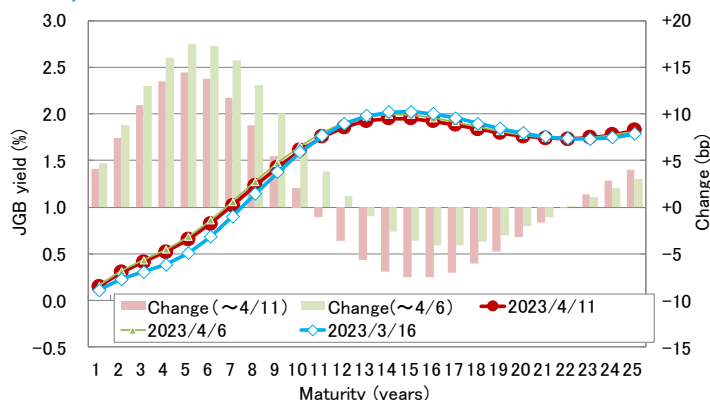
We take a look at the issuance terms for the upcoming issue. Based on expected cash flow using our prepayment model and the PSJ model, we estimate the issuance terms (the coupon and launch spread) and the risk premiums.

Expected maturity of 10 years

The expected cash flow distribution for the upcoming issue (the chart on the previous page based on 11 April closing prices; hereinafter the same unless otherwise noted) is about the same as the previous issue (at the time of its launch; same hereinafter).

- Based on our model, the expected WAL is 10.20 years (10.09 years for the previous issue) and the expected final maturity 23.5 years (23.5 years). The PSJ forecast is 6.86% (vs. 7.00% for the previous issue).
- The PSJ Calculation Statistical Value (average) is 8.14% (vs. 7.91% for the previous issue). Accordingly, the expected WAL is 9.39 years (vs. 9.49 years for the previous issue) and the expected final maturity 20.5 years (20.5 years).

Chart: Change in 3Y-Forward Rate (from the day before launch day of No.191)



Source: JHF; compiled by Daiwa Securities.

Note: WAC' means the Weight Average Coupon excl. premiums for JHF group credit life insurance

The expected maturities lengthened slightly compared to those for the previous issue, based on our model. This was because the interest rate factor on the refinancing incentive growth assumed for each future period (= WAC' – refinancing loan rate for each term) is offset on a net basis as the factor is small in the front-end of the curve and large in the longer end of the curve due to the twisting of the forward rate curve at around the 10-year forward rate. Although offsetting the overall effect, the impact of the longer-end of the curve is significant. Here, WAC was 1.70% and WAC' was 1.48%, an expansion of 0.10ppt from the previous issue, which increased incentives to refinance (see pp. 6-7).

Chart: Launch Spread Estimates for No. 192 MBS (based on 11 April closing prices)

| Valuations of JHF_MBS_#192 Pricing(Simulation) | | | | | | | | | 11-Apr-23 (Tokyo Close) |
|---|--------|--------------------------|--------|------|--------|------------------------------------|------|--------|---|
| Base Yield: JGB(369G) YTM 0.451 % | | | | | | | | | |
| Launch Spread | Coupon | Valuations of Cash Flows | | | | | | | Indications of Previous RMBS Issue (#191) |
| | | Daiwa Model | | | | PSJ Model | | | |
| | | Dynamic | Static | | | PSJ forecast Statistical Data(Ave) | | | |
| | | OAS | YCS | ASW | ModDur | YCS | ASW | ModDur | |
| 46 bp | 0.92 % | 9.2 | 16.6 | 14.8 | 9.467 | 25.6 | 19.8 | 8.757 | (Issuance Terms) |
| 47 bp | 0.93 % | 10.3 | 17.7 | 15.8 | 9.459 | 26.6 | 20.8 | 8.750 | Launch Spread=65.8bp(59bp) |
| 48 bp | 0.94 % | 11.3 | 18.7 | 16.8 | 9.451 | 27.6 | 21.8 | 8.743 | Coupon=0.95% |
| 49 bp | 0.95 % | 12.4 | 19.7 | 17.8 | 9.443 | 28.7 | 22.8 | 8.736 | (Valuations at the time of Launch) |
| 50 bp | 0.96 % | 13.4 | 20.8 | 18.7 | 9.435 | 29.7 | 23.8 | 8.729 | [CF based on Daiwa Model]: |
| 51 bp | 0.97 % | 14.5 | 21.8 | 19.7 | 9.427 | 30.7 | 24.8 | 8.722 | OAS=20.9bp, YCS=27.2bp, ASW=18.9bp |
| 52 bp | 0.98 % | 15.5 | 22.9 | 20.7 | 9.419 | 31.8 | 25.8 | 8.715 | [CF based on PSJ Model]: |
| ... | | | | | | | | | YCS=35.7bp, ASW=23.3bp |
| 56 bp | 1.02 % | 19.7 | 27.0 | 24.7 | 9.387 | 35.9 | 29.7 | 8.687 | (Valuations in the secondary market) |
| 57 bp | 1.03 % | 20.8 | 28.1 | 25.7 | 9.379 | 36.9 | 30.7 | 8.680 | [CF based on Daiwa Model/Daiwa Price]: |
| 58 bp | 1.04 % | 21.8 | 29.1 | 26.7 | 9.371 | 37.9 | 31.7 | 8.673 | OAS=10bp, YCS=17.2bp, ASW=14.2bp |
| 59 bp | 1.05 % | 22.9 | 30.1 | 27.7 | 9.363 | 39.0 | 32.7 | 8.666 | [CF based on PSJ Model/JSDA price]: |
| ... | | | | | | | | | BEY=0.948%, YCS=28.8bp, ASW=22.3bp |
| 66 bp | 1.12 % | 30.2 | 37.4 | 34.6 | 9.307 | 46.2 | 39.6 | 8.617 | |
| 67 bp | 1.13 % | 31.3 | 38.5 | 35.6 | 9.299 | 47.2 | 40.6 | 8.610 | |
| <div><div><Daiwa Model></div><div>PSJ 6.86 %</div><div>WAL 10.20 years</div></div> <div><div><PSJ Model/based on PSJ Forecast Statistical Data></div><div>Ave: 8.14 % (Median: 8.36) %</div><div>9.39 years (9.24) years</div></div> | | | | | | | | | |

Source: Compiled by Daiwa Securities.

Note: 1) Figures in colored cells show similar indications to those in the previous issue, as indicated in the right section (Indications of Previous MBS Issue) with the same colors. Spreads in the previous issue at launch are based on those at the time of pricing. The spreads in the previous issue in the secondary market used in the Daiwa model are based on Daiwa prices, and the spreads in the previous issue in the secondary market used in the PSJ model are based on the JSDA's Trading Reference Statistical Data.

2) Figures for both Trading Reference Statistical Data and PSJ Forecast Statistical Data are average figures.

3) Estimated cash flow is based on the assumption that clean-up call options are exercised in initial April or October after the outstanding amount becomes 10% or less of the original.

Launch spread indications

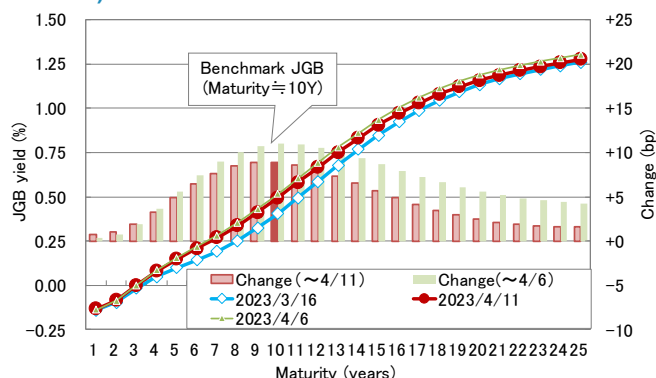
The previous issue (No. 191) was launched at a time when the yield to maturity for the on-the-run 10-year JGB declined to levels below the new 0.50% upper trading limit based on the BOJ's YCC policy. Since then, the yield on the on-the-run issue has continued to oscillate without sticking to the 0.50% upper bound of its permissible trading range.

Assuming a launch spread of 59bp, the same as the previous issue's, the No. 192's coupon would be 1.05%, 10bp higher than the previous issue. Based on estimated cash flows using the average PSJ forecast, the YCS would be 39.0bp, 3.3bp higher than the YCS of 35.7bp at the time of previous issue's launch. Also, the OAS would be 22.9bp,

somewhat higher than the OAS of 20.9bp at the time of the previous issue's launch (based on the 11 April close).

When the launch spread does not change, the OAS and YCS changes are minor in the cases of parallel shifts with the JGB yield curve and when the yield curve change is offset by the estimated cash flow and weighted average by maturity as with this case. The coupon rate clearly changes in step with changes for the on-the-run 10-year JGB yield. If, for example, the super-long zone of the yield curve steepens, the YCS would decline even if the launch spread does not change, while the OAS and the YCS would decline by similar extents at the time of the launch.

Chart: JGB Yield Curve Changes (from the day before launch day of No.191)



Source: Compiled by Daiwa Securities.

Secondary market prices

(Connection with risk premium of previous issue)

The connections between the previous issue and the upcoming one are as follows (secondary market prices and base rates are as of the 11 April close). For the price of the on-the-run issue in the secondary market, we use the retail mid-rate as well as the risk premium in the JSDA's Reference Statistical Prices [Yields] for OTC Bond Transactions.

【Pricing using our model's cash flow estimates】

- The No. 191's launch OAS was 20.9bp and the YCS 27.2bp. Based on the similar OAS and YCS, the No. 192's launch spread would be 57bp and the coupon 1.03%.
- In the secondary market, the previous issue's OAS is 10.0bp and YCS 17.2bp based on our mid-rate (Y100.19). The upcoming issue's launch spread that would yield a similar OAS and YCS would be 47bp and the coupon 0.93%.
- In the secondary market, the previous issue's OAS would be 12.3bp and YCS 19.5bp based on the reference statistical price (Y100.03). The upcoming issue's launch spread that would yield a similar OAS and YCS would be 49bp and the coupon 0.95%.

【Pricing using average PSJ forecast-based cash flow estimates】

- The No. 191's launch YCS was 35.7bp. Based on the similar YCS, the No. 192's launch spread would be about 56bp and the coupon 1.02%.
- The upcoming issue's launch spread that would yield a similar OAS and YCS would be 49bp and the coupon 0.95%.

(Demand forecast for No. 192 issue and issuance level)

Maximum issue size Y117.0bn

The amount of this issuance is expected to remain at around Y117.0bn, a roughly 30% decrease y/y. That said, Flat 35 utilization is usually higher in March than in other months and the April monthly RMBS issuance is based on that utilization amount. In other words, RMBS investment in April can more readily secure volume compared other months, which should probably be convenient for institutional investors who want to build up their long-term bond balances from the start of the fiscal year.

“Flat 35 outlook providing peace of mind”

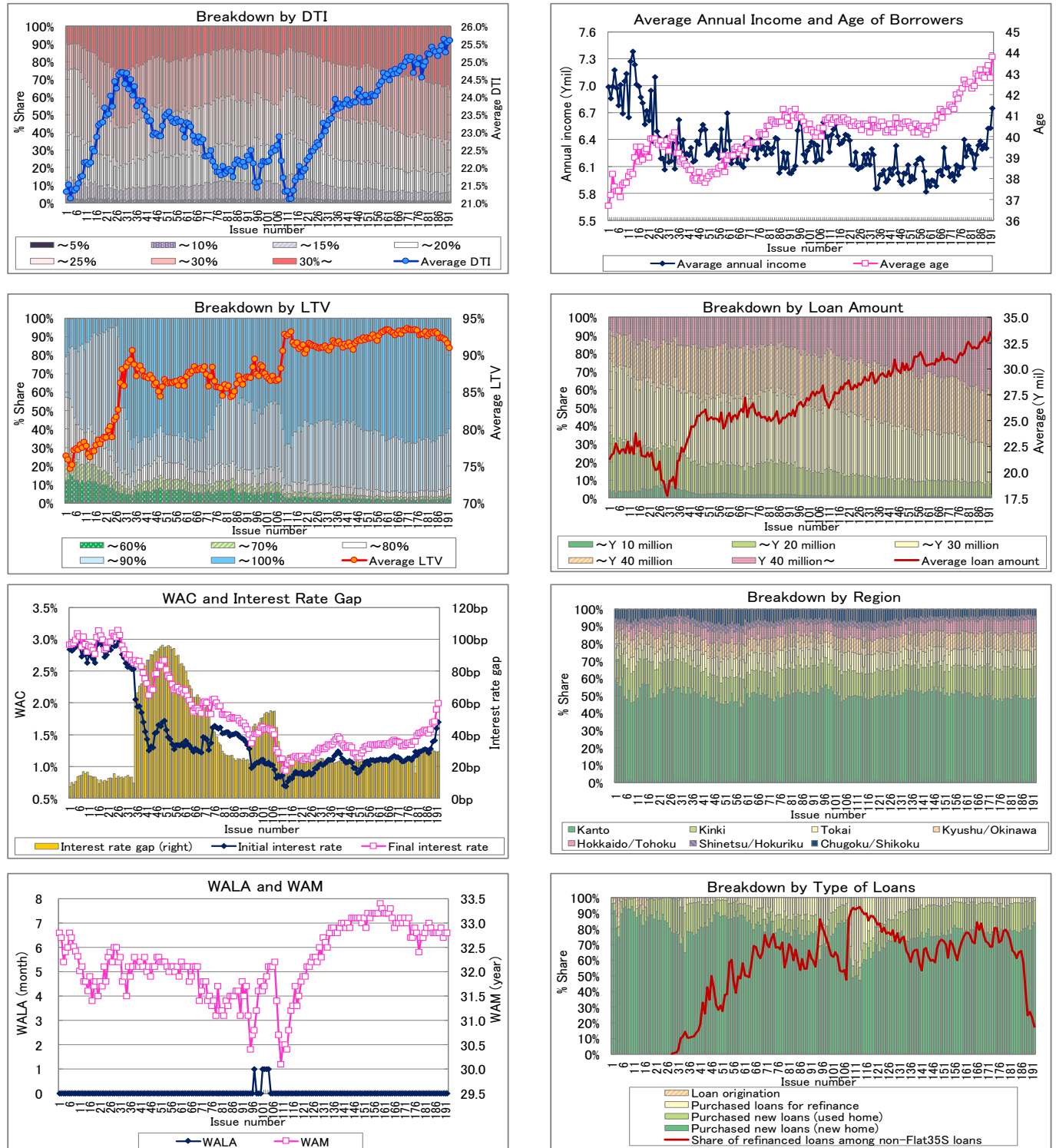
New BOJ Governor Kazuo Ueda stated that monetary easing will continue. It is unlikely that a unilateral rise for only the Flat 35 rate will accelerate the pace of decline for RMBS issuance. Furthermore, from April JHF started using popular celebrity Mai Shiraishi as the spokesperson for its “Flat 35 outlook providing peace of mind” advertising campaign

promoting Flat 35, which is expected to be used more widely as a financing option for home buyers. Steady rate formation for JHF's RMBS is the key to relatively low Flat 35 rates and the dialogue with market participants will be closely monitored

Coupon rate of around 1.0%

The personal opinion of your author is that the launch spread for this issue will confirm sufficient demand and be either 50-59bp. In this case, the coupon would be 0.96-1.05% (based on 11 April closing prices).

Characteristics of Underlying Loan Pools for All JHF Monthly MBSs



Source: JHF; compiled by Daiwa Securities.
 Note: Candidate pool used for No. 192 issue.

Characteristics of Underlying Loans: No. 192 Monthly MBS and Last Six Issues (No. 186-191)

| | | JHF #186 | JHF #187 | JHF #188 | JHF #189 | JHF #190 | JHF #191 | JHF #192 | Ave. of previous 6 issues | Change from #191 |
|---|-------------------|-------------|-------------|-----------------------|-------------|-----------------------|-----------------------|-------------|---------------------------------|---------------------|
| Loan Pool Selected in | | Sep-2022 | Oct-2022 | Nov-2022 | Dec-2022 | Jan-2023 | Feb-2023 | Mar-2023 | | |
| Loan Application Started in | | Aug-2019 | Jul-2019 | Aug-2020 | Jul-2020 | Oct-2019 | Nov-2020 | Nov-2020 | | |
| Repayment Started in | | Sep-2022 | Oct-2022 | Oct-2022, Nov-2022 | Dec-2022 | Dec-2022, Jan-2023 | Jan-2023, Feb-2023 | Mar-2023 | | |
| Initial Outstanding Entrusted Assets (Y) | | 126,645 | 107,988 | 117,759 | 88,001 | 119,198 | 109,534 | 144,975 | 111,521 | +35,441 |
| Issue Size (Y mil) | | 100,000 | 85,600 | 92,900 | 70,400 | 95,700 | 88,500 | TBD | 88,850 | - |
| Excess Collateral (Y mil) | | 26,645 | 22,388 | 24,859 | 17,601 | 23,498 | 21,034 | TBD | 22,671 | - |
| Overcollateralization | | 21.0% | 20.7% | 21.1% | 20.0% | 19.7% | 19.2% | TBD | 20.3% | - |
| Number of Loans | | 3,943 | 3,311 | 3,610 | 2,655 | 3,649 | 3,346 | 4,319 | 3,419 | +973 |
| Average Outstanding Loan (Y mil) | | 32.119 | 32.615 | 32.620 | 33.145 | 32.666 | 32.736 | 33.567 | 32.650 | +0.831 |
| Average LTV | | 92.94% | 92.27% | 92.38% | 92.25% | 92.09% | 91.63% | 90.95% | 92.26% | -0.68% |
| Average DTI | | 25.16% | 25.31% | 25.45% | 25.64% | 25.26% | 25.54% | 25.60% | 25.39% | +0.06% |
| Average LTV for Refinance | | 75.83% | 71.50% | 73.58% | 66.04% | 65.49% | 70.49% | 65.74% | 70.49% | -4.75% |
| Average DTI for Refinance | | 18.47% | 17.91% | 19.44% | 20.26% | 18.08% | 19.90% | 19.31% | 19.01% | -0.59% |
| Average Annual Income of Obligor (Y) | | 6.380 | 6.294 | 6.340 | 6.302 | 6.524 | 6.530 | 6.748 | 6.395 | +0.218 |
| Average Age of Obligor | | 43.2 | 42.9 | 42.8 | 43.2 | 43.4 | 42.9 | 43.8 | 43.1 | +0.9 |
| WAC (Initial Rate) | | 1.26% | 1.21% | 1.28% | 1.39% | 1.41% | 1.60% | 1.70% | 1.36% | +0.10% |
| WAC (Final Rate) | | 1.56% | 1.52% | 1.58% | 1.69% | 1.71% | 1.89% | 1.99% | 1.66% | +0.10% |
| WALA (Weighted Average Loan Age) | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | +0 |
| WALA for Refinance | | 132 | 135 | 137 | 133 | 136 | 136 | 144 | 135 | +8 |
| WAM | | 394 | 394 | 394 | 395 | 392 | 394 | 394 | 394 | +0 |
| Maturity Structure of Loans at Origination (% share) | Up to 10Y | 0.1% | 0.1% | 0.0% | 0.1% | 0.1% | 0.1% | 0.2% | 0.1% | +0.0% |
| | 10-20Y | 5.1% | 5.3% | 6.3% | 5.8% | 6.2% | 5.7% | 6.1% | 5.7% | +0.5% |
| | 20-25Y | 4.4% | 4.5% | 3.5% | 3.7% | 3.6% | 3.7% | 3.5% | 3.9% | -0.2% |
| | 25-30Y | 7.4% | 7.6% | 7.3% | 6.5% | 8.3% | 7.7% | 7.1% | 7.5% | -0.6% |
| | Over 30Y | 83.0% | 82.5% | 83.0% | 83.9% | 81.8% | 82.8% | 83.1% | 82.8% | +0.2% |
| % share of loans with bonus payments | (in number) | 7.1% | 7.5% | 6.9% | 7.1% | 6.7% | 7.4% | 8.0% | 7.1% | +0.7% |
| | (in value) | 8.0% | 8.5% | 7.8% | 7.3% | 7.2% | 8.2% | 8.7% | 7.8% | +0.6% |
| Type of Loan | new | 96.7% | 96.5% | 97.6% | 97.9% | 97.0% | 97.7% | 98.6% | 97.2% | +0.8% |
| | refinanced | 3.3% | 3.5% | 2.4% | 2.1% | 3.0% | 2.3% | 1.4% | 2.8% | -0.8% |
| Loan Amount at Origination (% share) | Up to ¥10 mil | 1.0% | 0.7% | 0.8% | 0.8% | 0.8% | 0.8% | 0.9% | 0.8% | +0.1% |
| | ¥10-20 mil | 8.6% | 8.3% | 7.7% | 7.0% | 8.6% | 8.1% | 6.9% | 8.1% | -1.2% |
| | ¥20-30 mil | 21.3% | 21.9% | 22.2% | 21.4% | 20.7% | 20.9% | 18.8% | 21.4% | -2.1% |
| | ¥30-40 mil | 28.5% | 27.7% | 29.0% | 30.0% | 29.2% | 31.1% | 30.0% | 29.2% | -1.1% |
| | ¥40-50 mil | 20.8% | 20.9% | 19.4% | 20.7% | 19.0% | 19.6% | 21.9% | 20.1% | +2.3% |
| | Over ¥50 mil | 19.7% | 20.6% | 20.9% | 20.1% | 21.8% | 19.5% | 21.5% | 20.4% | +1.9% |
| Loan Amount by Region (% share) | Hokkaido/Tohoku | 7.2% | 7.7% | 7.7% | 7.9% | 7.8% | 6.8% | 8.1% | 7.5% | +1.3% |
| | Kanto | 49.9% | 48.5% | 48.5% | 47.6% | 48.2% | 50.3% | 48.6% | 48.8% | -1.7% |
| | Shinetsu/Hokuriku | 2.5% | 2.5% | 2.5% | 2.3% | 2.2% | 1.8% | 1.7% | 2.3% | -0.1% |
| | Tokai | 10.9% | 10.8% | 10.8% | 10.7% | 9.9% | 10.1% | 9.6% | 10.5% | -0.5% |
| | Kinki | 16.8% | 16.8% | 16.8% | 17.9% | 17.4% | 18.0% | 18.4% | 17.3% | +0.4% |
| | Chugoku | 2.5% | 2.4% | 2.4% | 2.5% | 2.4% | 2.6% | 2.7% | 2.5% | +0.1% |
| | Shikoku | 1.0% | 1.4% | 1.4% | 0.9% | 1.2% | 1.6% | 1.3% | 1.2% | -0.2% |
| | Kyushu/Okinawa | 9.3% | 9.8% | 9.8% | 10.3% | 10.8% | 8.8% | 9.5% | 9.8% | +0.7% |

Source: JHF; compiled by Daiwa Securities.

Note: Candidate pool used for No. 192 issue.

IMPORTANT

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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.
- 2: Outperform TOPIX/benchmark index by 5-15% over the next 12 months.
- 3: 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.

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(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 ¥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

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