

JHF No.202 Monthly MBS Issue

FICC Research Dept

RMBS issuance just under Y30bn on sluggish Flat 35 utilization

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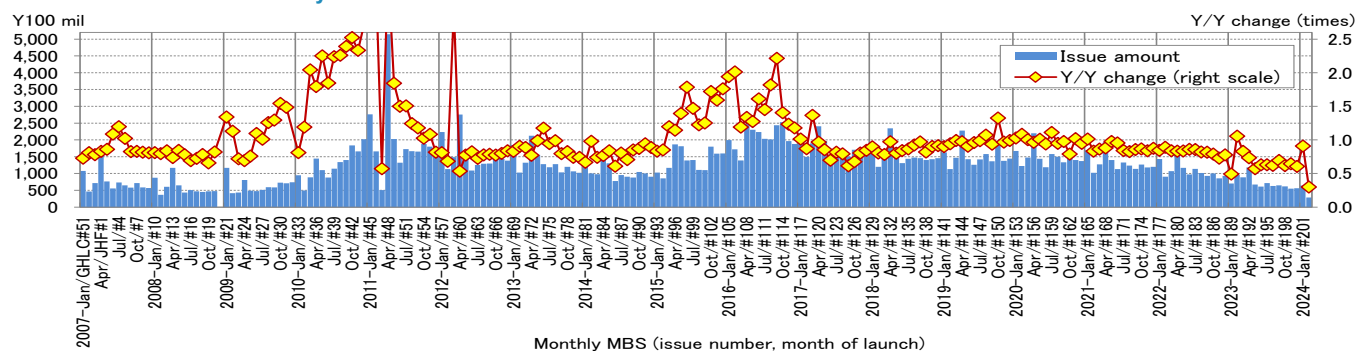
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Daiwa Securities Co. Ltd



- The Japan Housing Finance Agency (JHF) plans to issue its No. 202 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. Collateral assets for the No. 202 MBS, all of which were Flat 35 mortgages originated in January, came to Y36.0bn. The planned issuance amount is Y30.0bn, with a credit enhancement ratio on par with that for the previous issue through overcollateralization.
- The latest RMBS issuance amount is only 30% of that for the February 2023 issuance. The main reason was the sluggish growth for Flat 35 utilization in January. The y/y decline was partly due to the fact that the issuance amount for the January 2023 No. 189 issue was reduced in light of declining demand, while the issuance amount for the February 2023 No. 190 bond was increased by the same amount as the decrease for the previous month.
- Based on our prepayment model, we estimate a WAL of 10.64 years (based on 9 Feb closing prices; same hereinafter). The average of the PSJ Forecast Statistical Data is 7.53%, and the expected WAL of principal repayment cash flow (CF) based on a PSJ model is 9.51 years.
- At a launch spread of 35bp, same as the previous issue, the coupon for the upcoming issue will be 1.07%. The PSJ model YCS (based on estimated cash flows using the PSJ Forecast Statistical Data) is 9.8bp, 0.1bp smaller than at the time of the previous issue's launch. Based on the JSDA's Trading Reference Statistical Data and the PSJ model-based cash flows, the BEY of the previous issue in the secondary market is 1.071% and the YCS is 8.5bp. The launch spread for the current issue with a PSJ model-based YCS close to this would be 34bp.
- We think it appropriate that supply and demand will meet at the launch spread of about 34-35bp. If so, the coupon would be about 1.06-1.07%.

Chart: Issue Amount of Monthly MBS



Source: JHF; compiled by Daiwa. Note: Estimate for No. 202 issue

Issuance of JHF MBS and Situations of Flat 35

No. 202 to be launched in February

The JHF plans to price (launch) the No. 202 MBS this month. The issuance terms are to be determined in late-February by the spread-pricing method based on the compound yield of the on-the-run 10-year JGB, the 373G. The scheduled payment date is 29 February.

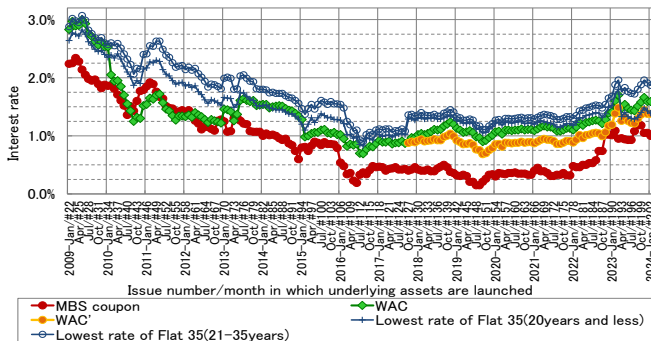
Almost all of the Y36.0bn in Flat 35 mortgages eligible for use as collateral for the No. 202 Monthly MBS originated in January. The issue is likely to have the highest ratings from S&P and R&I. The issuance amount, to be disclosed on 15 February, is likely to be just under Y30.0bn.

Flat 35 rates and usage trends in January

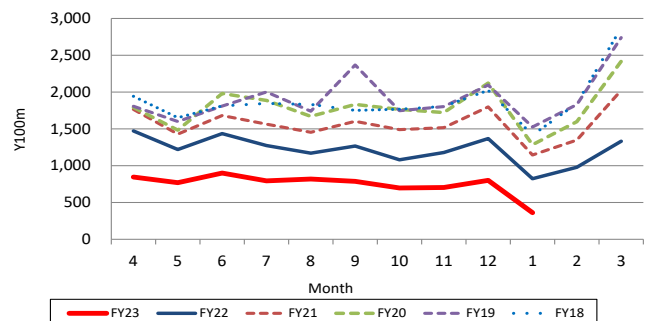
The lowest retail rate on the mortgages was 1.87% (including group credit life insurance premiums), down 0.04ppt m/m. The lowest rate on Flat 20 mortgages (with terms of 20 years or less) was 1.39%, down 0.04ppt m/m. This reflects the fact that the rate on the RMBS (No. 200 issue) launched in December declined by 0.06ppt vs. the previous issuance (from 1.11% to 1.05%).

If the amount of Flat 35 issuance in January was Y36.0bn (assuming collateral assets were all Flat 35 mortgages), the y/y decline would be 56%. The latest RMBS to fund that issuance will come to just under Y30.0bn, a 70% decrease from the previous year (No. 190 issue). Sluggish Flat 35 utilization is having an impact. Also, RMBS issuance was leveled out last year to account for possible market unrest after the BOJ adjusted its yield curve control (YCC) band. Specifically, RMBS issuance in February (No. 190) was increased while that in January (No. 189) was reduced. As a result, the y/y decline was bigger in February 2024.

Chart: Interest Rate of Flat 35 Loans and JHF MBS (monthly trend) **Chart: Seasonality of Amount of Flat 35 Usage**

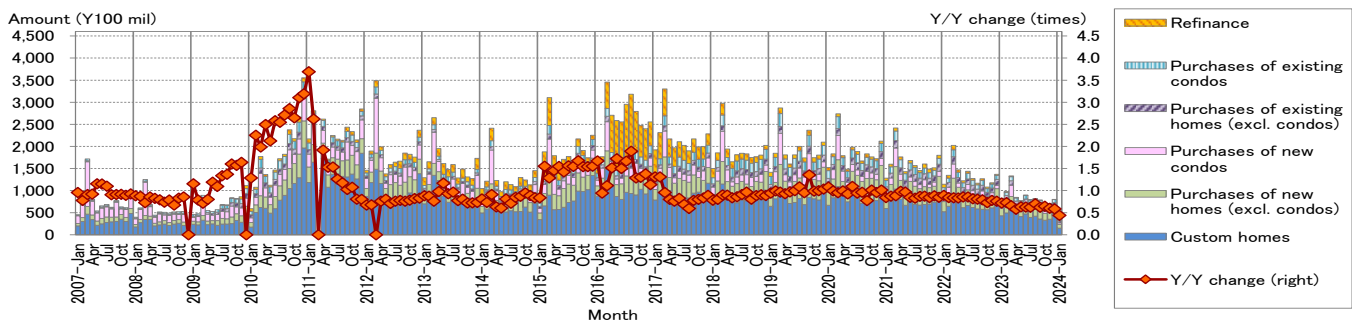


Source: JHF; compiled by Daiwa.



Source: Daiwa, based on JHF data; January 2024 data for candidate mortgages for the latest No. MBS

Chart: Flat 35 Loans by Type of Loans



Source: JHF; compiled by Daiwa.

Terms for the previous issue

Launch spread of 35bp and coupon of 1.00%

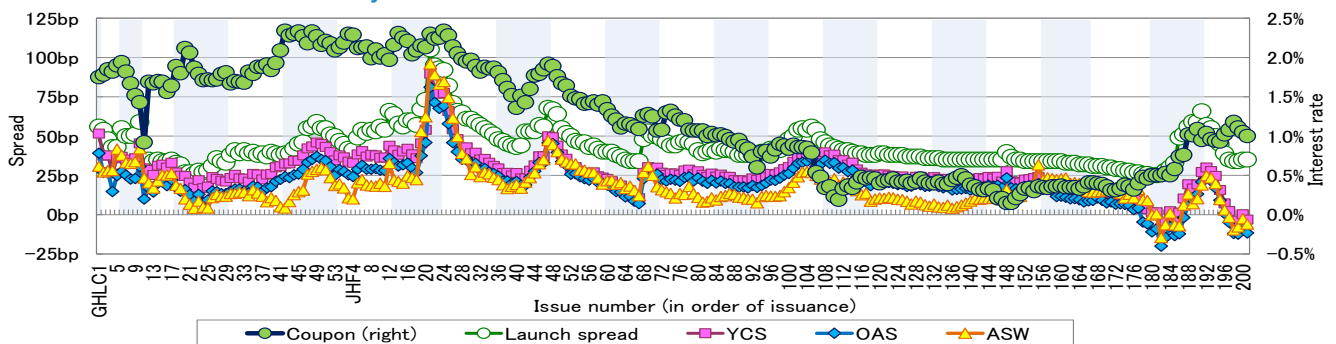
The No. 201 (Y63.8bn) was launched on 19 January. The coupon was set at 1.00%, with a launch spread (nominal) of 35bp over the yield of the reference JGB, the 373G. The launch

OAS was -11.6bp (based on our model; same hereinafter), down 2.8bp from the previous month. The YCS based on our model was -3.1bp, down 3.4bp, while the YCS based on the PSJ Forecast Statistical Data was 9.9bp, down 2.3bp.

The nominal spread was on par with that for the issue before the previous issue. However, there was a downward trend for the base rate as of the demand forecasting stage. When forecasting both the launch spread and demand, a “minimum coupon of 0.95%” was set from the start, taking into account the declining demand. As a result of the increase in the base rate, the nominal spread was used to set the coupon. That said, we are seeing a stronger tendency, in which demand is strongly influenced by the minimum level of the coupon's absolute value.

The YCS and OAS are lower than last time because of the meaningful rise for super-long JGB yields.

Chart: Issuance Terms for JHF Monthly MBS

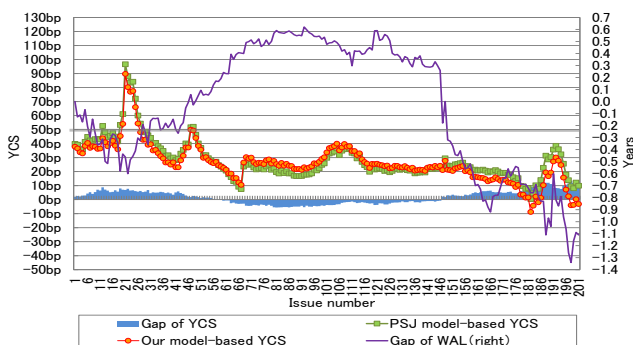


Source: JHF and our estimates. Note: The background colors indicate different fiscal years

Different risk premiums depending on expected cash flow distribution

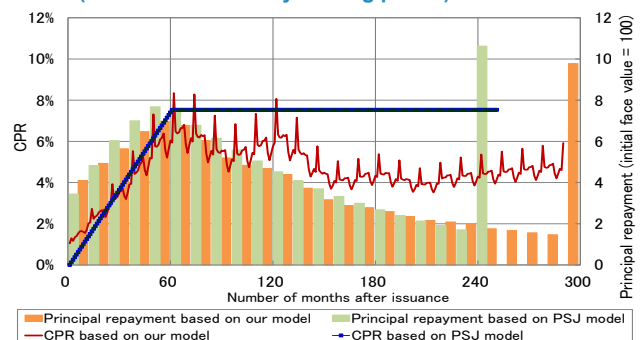
With regard to the pricing of JHF MBS, it should be noted that the risk premium varies depending on the expected cash flow distribution. A recent trend has been for monthly new bond issuance to assume a longer cash flow distribution in our prepayment forecast model than in the PSJ model's view using 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: Difference in YCS for Monthly MBS at Launch



Source: Our estimates

Chart: Expected CPR & Principal Repayment for No. 202 Issue (based on 9 February closing prices)



Source: Our estimates.

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

Cash flow characteristics and issuance terms for No. 202

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.

The expected cash flow distribution for the upcoming issue (the chart on the previous page, based on 9 February 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 10.64 years (10.65 years for the previous issue) and the expected final maturity 24.1 years (24.2 years). The PSJ forecast is 5.86% (vs. 6.00% for the previous issue).
- The PSJ Calculation Statistical Value (average) is 7.53% (vs. 7.62% for the previous issue). Accordingly, the expected WAL is 9.51 years (vs. 9.54 years for the previous issue) and the expected final maturity 20.6 years (20.7 years).

The expected maturity was slightly shorter than that for the previous issue. The WAC was 1.59% and WAC' was 1.38%, unchanged from that for the previous issue (see pages 6-7). Market forward rates increased by 5bp to 10bp, so the refinancing incentive (difference between WAC' and refinancing rate for each period) has decreased and the expected prepay is smaller. Meanwhile, as those taking out mortgage loans have been borrowing for shorter periods of time, the lengthening and shortening factors are now offsetting each other more than before.

Chart: Launch Spread Estimates for No. 202 MBS (based on 9 February closing prices)

Valuations of JHF_MBS_#202 Pricing(Simulation)									13-Feb-24 (Tokyo Close)	
Base Yield: JGB(373G) YTM 0.716 %										
Launch Spread	Coupon	Valuations of Cash Flows							Indications of Previous RMBS Issue (#201)	
		Daiwa Model				PSJ Model				
		Dynamic	Static			PSJ forecast Statistical Data(Ave)				
		OAS	YCS	ASW	ModDur	YCS	ASW	ModDur		
27 bp	0.99 %	-19.3	-11.5	-13.7	9.788	1.4	-5.7	8.849	(Issuance Terms)	
28 bp	1.00 %	-18.3	-10.4	-12.7	9.779	2.5	-4.7	8.843	Launch Spread=35bp	
29 bp	1.01 %	-17.2	-9.4	-11.8	9.771	3.5	-3.7	8.836	Coupon=1.05%	
30 bp	1.02 %	-16.2	-8.3	-10.8	9.762	4.6	-2.7	8.830	(Valuations at the time of Launch)	
31 bp	1.03 %	-15.1	-7.3	-9.8	9.754	5.6	-1.7	8.823	[CF based on Daiwa Model]:	
32 bp	1.04 %	-14.0	-6.2	-8.8	9.745	6.7	-0.7	8.816	OAS=-11.6bp、YCS=-3.1bp、ASW=-5.9bp	
33 bp	1.05 %	-13.0	-5.2	-7.8	9.737	7.7	0.3	8.810	[CF based on PSJ Model]:	
34 bp	1.06 %	-11.9	-4.1	-6.8	9.728	8.7	1.2	8.803	YCS=9.9bp、ASW=2.1bp	
35 bp	1.07 %	-10.9	-3.1	-5.8	9.720	9.8	2.2	8.797	(Valuations in the secondary market)	
36 bp	1.08 %	-9.8	-2.0	-4.9	9.711	10.8	3.2	8.790	[CF based on Daiwa Model/Daiwa Price]	
37 bp	1.09 %	-8.7	-1.0	-3.9	9.703	11.9	4.2	8.783	OAS=-12bp、YCS=-4.4bp、ASW=-6.6bp	
38 bp	1.10 %	-7.7	0.1	-2.9	9.694	12.9	5.2	8.777	[CF based on PSJ Model/JSDA price]:	
39 bp	1.11 %	-6.6	1.1	-1.9	9.685	13.9	6.2	8.770	BEY=1.071%、YCS=8.5bp、ASW=1.6bp	
40 bp	1.12 %	-5.5	2.2	-0.9	9.677	15.0	7.2	8.764		
41 bp	1.13 %	-4.5	3.2	0.1	9.668	16.0	8.1	8.757		
<div><div><Daiwa Model></div><div>PSJ 5.86 %</div><div>WAL 10.64 years</div></div> <div><div><PSJ Model/based on PSJ Forecast Statistical Data></div><div>Ave: 7.53 % (Median: 8.07) %</div><div>9.51 years (9.21) years</div></div>										

Source: Compiled by Daiwa.

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.

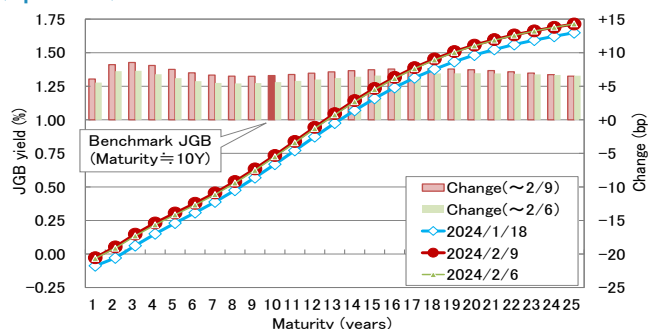
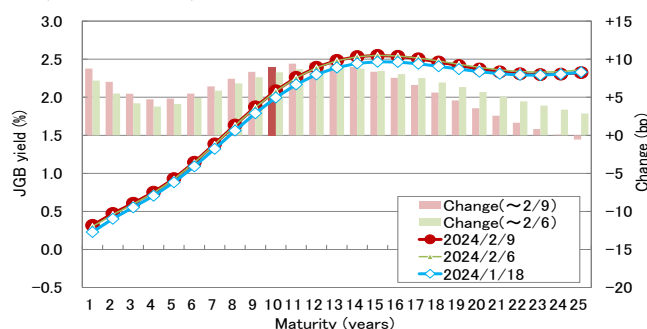
2) Figures for both Trading Reference Statistical Data and PSJ Forecast Statistical Data are average figures.

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.

Relationship between base rate and issuance terms

The previous issue (the No. 201) was launched as the yield to maturity of the on-the-run 10-year JGB started rising toward the 0.70% level after trending below 0.60% until mid-January. The yield on the on-the-run 10-year JGB has been hovering above the 0.70% level since then.

Assuming a launch spread of 35bp, the same as the previous issue's, the No. 202 coupon would be 1.07%, 0.07ppt higher than that for the previous issue. Also, based on estimated cash flows using the PSJ Forecast Statistical Data (average), the YCS would be 9.8bp, down 0.1bp from 9.9bp at the time of the previous issue's launch. The OAS based on our model is -10.9bp, up 0.7bp from -11.6bp at the time of the previous issue's launch (based on the 9 February close).

Chart: JGB Yield Curve Changes (from the day before launch day of No.201)
<Spot Rate>

<Forward Rate>


Source: Daiwa, based on Poet-SB's JGB spot rate curve; forward rate is the 3-year forward rate.

OAS and YCS change even if the launch spread does not, mainly because the JGB yield curve does not change by the same extent as the on-the-run 10-year JGB yield. There is relative expansion for YCS and OAS as yields on other maturities are lower than the on-the-run 10-year JGB yield. However, YCS and OAS become smaller as the expected cash flow distribution becomes longer.

The relationship with the 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 9 February 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. 201's launch OAS was -11.6bp and the YCS -3.1bp. Based on the similar OAS and YCS, the No. 202's launch spread would be 34-35bp and the coupon 1.06-1.07%.
- In the secondary market, the previous issue's BEY (estimated yield to maturity) is 1.066%, OAS is -12.0bp, and YCS is -4.4bp based on our mid-rate (Y99.36). Based on the similar OAS and YCS, the No. 202's launch spread would be 34bp and the coupon would be 1.06%.
- In the secondary market, the previous issue's BEY would be 1.065%, OAS would be -12.1bp, and YCS would be -4.5bp based on the reference statistical price (Y99.37). In line with this, the No. 202's launch spread would be about 34bp and the coupon would be 1.06%.

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

- The No. 201's launch YCS was 9.9bp. Based on the similar YCS, the No. 202's launch spread would be about 35bp and the coupon 1.07%.
- In the secondary market, BEY is 1.071% and YCS is 8.5bp based on the reference statistical price (Y99.37). This would mean the upcoming issue will have a coupon of 1.06% and a launch spread of 34bp.

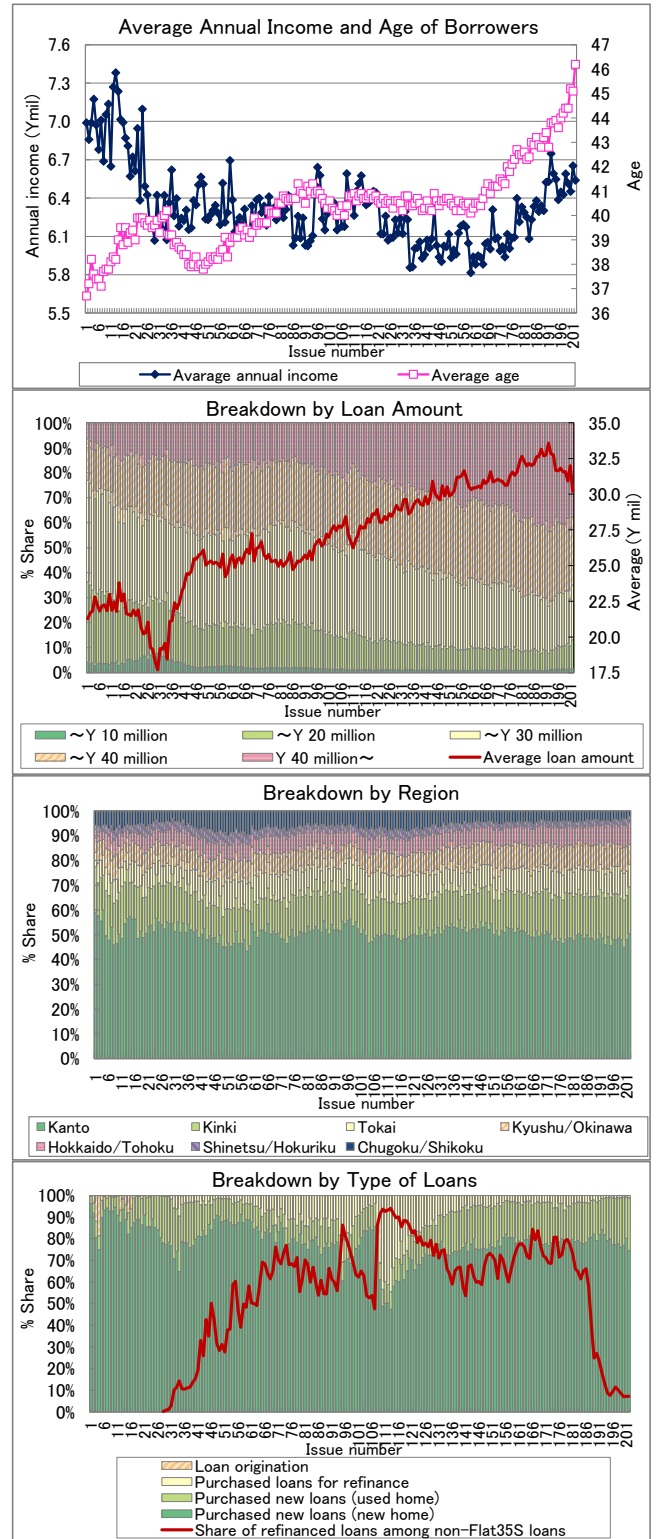
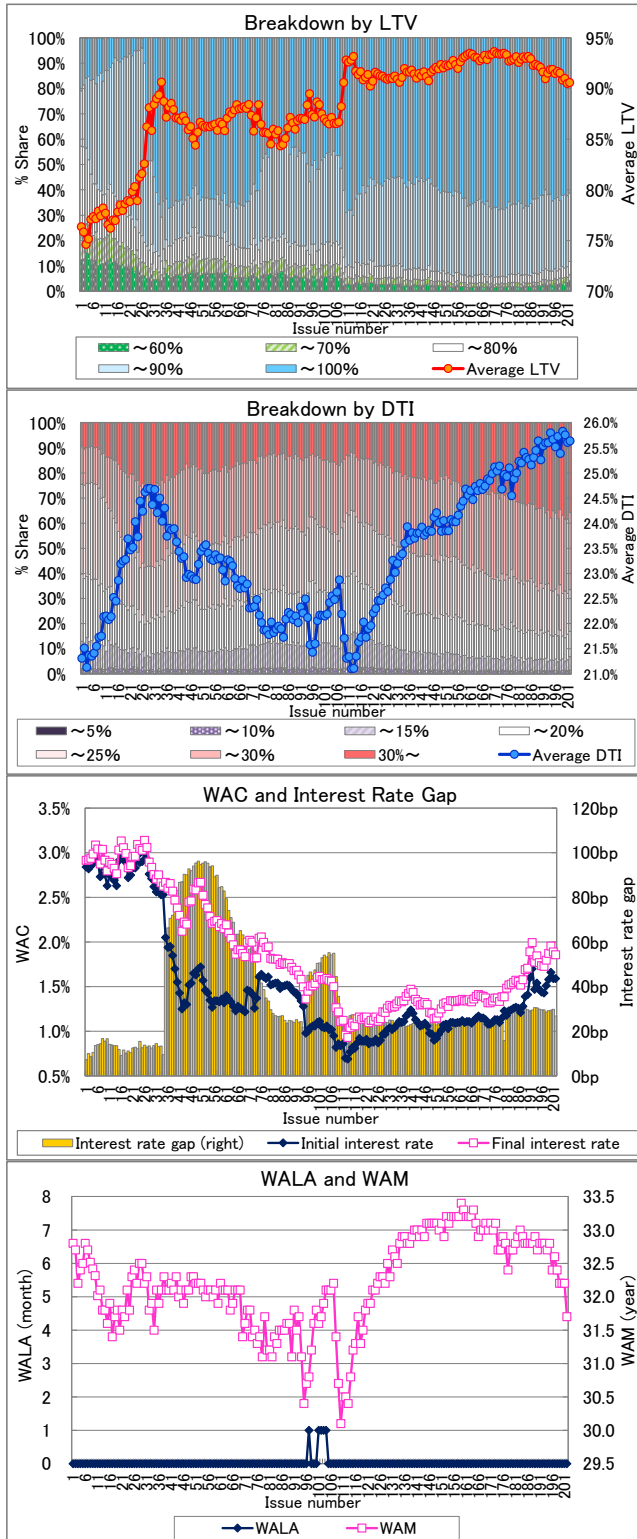
Demand forecast for No. 202 issue and issuance level

Earnest investment demand for long-term bonds and JHF RMBS may struggle to develop at a time when the 10-year JGB yield is starting to test upside. At the same time, while the sluggish Flat 35 utilization is unfortunate, it has helped to keep the amount of RMBS issuance under control. As such, we can assume that investment demand from the coupon absolute value perspective can easily be met in time. We also expect adequate dialogue with market participants.

Coupon around 1.06~1.07%

We think there will be decent demand at a launch spread of 34-35bp. In this case, the coupon would be around 1.06-1.07% (based on the 9 February close).

Characteristics of Underlying Loan Pools for All JHF Monthly MBSs



Source: JHF; compiled by Daiwa.

Note: Candidate pool used for No. 202 issue

Characteristics of Underlying Loans: No. 202 Monthly MBS and Last Six Issues (No. 196-201)

	JHF #196	JHF #197	JHF #198	JHF #199	JHF #200	JHF #201	JHF #202	Ave. of previous 6 issues	Change from #201
Loan Pool Selected in	Jul-2023	Aug-2023	Sep-2023	Oct-2023	Nov-2023	Dec-2023	Jan-2024		
Loan Application Started in	Mar-2021	Mar-2021	May-2021	Nov-2020	Mar-2021	May-2021	Aug-2021		
Repayment Started in	Jul-2023	Aug-2023	Sep-2023	Oct-2023	Nov-2023	Oct-2023, Dec-2023	Jan-2024		
Initial Outstanding Entrusted Assets (Y mil)	79,410	81,718	78,608	69,635	70,260	80,085	36,008	76,619	-44,077
Issue Size (Y mil)	62,800	64,500	61,900	55,100	56,200	56,200	TBD	59,450	-
Excess Collateral (Y mil)	16,610	17,218	16,708	14,535	14,060	23,885	TBD	17,169	-
Overcollateralization	20.9%	21.0%	21.2%	20.8%	20.0%	29.8%	TBD	22.3%	-
Number of Loans	2,510	2,568	2,490	2,206	2,272	2,503	1,192	2,425	-1,311
Average Outstanding Loan (Y mil)	31.638	31.822	31.570	31.566	30.924	31.995	30.208	31.586	-1.787
Average LTV	91.48%	91.68%	91.54%	90.83%	91.00%	90.49%	90.58%	91.17%	+0.09%
Average DTI	25.52%	25.73%	25.39%	25.83%	25.76%	25.61%	25.64%	25.64%	+0.03%
Average LTV for Refinance	68.06%	66.40%	57.49%	65.63%	64.13%	68.80%	57.39%	65.09%	-11.41%
Average DTI for Refinance	19.46%	17.97%	18.72%	19.62%	19.72%	20.66%	19.23%	19.36%	-1.43%
Average Annual Income of Obligor (Y mil)	6.447	6.426	6.589	6.515	6.451	6.653	6.540	6.514	-0.113
Average Age of Obligor	44.1	44.2	44.4	44.4	45.2	45.1	46.2	44.6	+1.1
WAC (Initial Rate)	1.44%	1.43%	1.51%	1.58%	1.66%	1.59%	1.59%	1.54%	+0.00%
WAC (Final Rate)	1.74%	1.73%	1.80%	1.87%	1.95%	1.89%	1.86%	1.83%	-0.03%
WALA (Weighted Average Loan Age)	0	0	0	0	0	0	0	0	+0
WALA for Refinance	170	148	152	155	171	142	145	156	+3
WAM	389	391	389	386	386	386	380	388	-6
Maturity Structure of Loans at Origination (% share)	Up to 10Y	0.1%	0.1%	0.2%	0.1%	0.4%	0.4%	0.2%	+0.4%
	10-20Y	8.1%	7.9%	8.5%	9.5%	9.2%	10.5%	9.0%	+0.3%
	20-25Y	3.3%	3.1%	2.9%	3.2%	2.9%	3.0%	3.0%	+0.5%
	25-30Y	7.8%	7.2%	7.6%	7.8%	8.3%	10.4%	7.6%	+3.4%
	Over 30Y	80.7%	81.7%	80.8%	79.4%	79.2%	75.4%	80.3%	-4.5%
% share of loans with bonus payments	(in number)	5.9%	5.6%	6.3%	5.4%	5.2%	6.1%	5.7%	+0.6%
	(in value)	6.6%	6.2%	7.0%	6.0%	6.0%	7.0%	6.4%	+0.7%
Type of Loan	new	98.9%	98.7%	98.9%	99.0%	99.2%	99.3%	99.0%	-0.4%
	refinanced	1.1%	1.3%	1.1%	1.0%	0.8%	1.1%	1.0%	+0.4%
Loan Amount at Origination (% share)	Up to Y10 mil	1.4%	1.1%	1.5%	1.3%	1.4%	1.7%	1.3%	+0.3%
	Y10-20 mil	9.4%	9.3%	9.1%	9.6%	10.3%	11.4%	9.5%	+2.1%
	Y20-30 mil	20.9%	21.6%	21.2%	21.8%	21.1%	21.9%	20.9%	+3.1%
	Y30-40 mil	28.6%	27.6%	27.8%	26.8%	28.9%	27.3%	28.0%	-1.1%
	Y40-50 mil	19.0%	19.0%	21.2%	20.2%	19.7%	15.7%	20.0%	-5.0%
	Over Y50 mil	20.7%	21.3%	19.3%	20.3%	18.6%	22.0%	20.3%	+0.6%
Loan Amount by Region (% share)	Hokkaido/Tohoku	6.7%	7.9%	7.3%	9.8%	9.1%	8.8%	8.2%	+0.4%
	Kanto	48.1%	48.0%	48.7%	48.1%	45.0%	50.4%	47.6%	+2.4%
	Shinetsu/Hokuriku	2.8%	2.0%	2.3%	2.0%	2.5%	2.5%	2.4%	-0.2%
	Tokai	11.1%	11.0%	11.4%	11.1%	10.8%	9.2%	10.9%	-0.7%
	Kinki	18.4%	18.6%	17.5%	16.6%	19.0%	19.0%	18.0%	+1.0%
	Chugoku	2.3%	1.8%	2.7%	1.9%	2.1%	1.4%	2.1%	-0.6%
	Shikoku	1.1%	1.6%	1.2%	1.4%	1.2%	0.8%	1.3%	-0.5%
	Kyushu/Okinawa	9.4%	9.0%	8.9%	9.1%	10.4%	8.0%	9.5%	-1.9%

Source: JHF; compiled by Daiwa.

Note: Candidate pool used for No. 202 issue

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- 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

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