S&P Global
Ratings

Research

Presale:

Lion Series 2023-1 Trust

May 28, 2023

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Preliminary Ratings

Class	Preliminary rating	Preliminary amount (mil. A$)	Credit support before credit is given to mortgage insurance (%)	Credit support after credit is given to mortgage insurance (%)	Credit support provided (%)
A1	AAA (sf)	460.00	4.00	3.69	8.00
A2	AAA (sf)	20.00	4.00	3.69	4.00
B	AA (sf)	8.50	2.50	2.18	2.30
C	A (sf)	5.00	1.50	1.21	1.30
D	BBB (sf)	2.25	1.00	0.79	0.85
E	BB (sf)	2.00	0.50	0.39	0.45
F	NR	2.25	0.00	0.00	0.00

Note: This presale report is based on information as of May 29, 2023. The ratings shown are preliminary. Subsequent information may result in the assignment of final ratings that differ from the preliminary ratings. Accordingly, the preliminary ratings should not be construed as evidence of final ratings. This report does not constitute a recommendation to buy, hold, or sell securities. NR--Not rated. N/A--Not applicable.

Profile

Expected closing date	June 2023
Expected final maturity date	May 2054
Collateral	Fully amortizing and interest-only converting to amortizing Australian-dollar loans to prime-quality borrowers, secured by first registered mortgages over Australian residential properties
Structure type	Prime residential mortgage-backed pass-through securities
Issuer	Perpetual Corporate Trust Ltd. as trustee for Lion Series 2023-1 Trust
Manager, seller, and servicer	HSBC Bank Australia Ltd.
Primary credit enhancement	Note subordination, lenders' mortgage insurance on 9.2% of the loan portfolio and excess spread, if any. Lenders' mortgage insurance covers 100% of the principal balance on the insured loans, plus accrued interest and reasonable costs of enforcement (see "Reliance On Lenders' Mortgage Insurance").

Supporting Ratings

Lenders' mortgage insurer	QBE Lenders' Mortgage Insurance Ltd.
Bank account provider	HSBC Bank Australia Ltd.
Interest-rate swap provider	HSBC Bank Australia Ltd.
Liquidity facility provider	HSBC Bank Australia Ltd.

Loan Pool Statistics As Of Feb. 28, 2023

Total number of loans	1,073
Total value of loans (A$)	493,364,473
Current maximum loan size (A$)	1,442,028
Average loan size (A$)	459,799
Maximum current loan-to-value (LTV) ratio (%)	90.0
Weighted-average current LTV ratio (%)	56.1
Weighted-average loan seasoning (months)	44.2

Note: All portfolio statistics are calculated on a consolidated and current balance loan basis.

Rationale

The preliminary ratings assigned to the prime floating-rate residential mortgage-backed securities (RMBS) to be issued by Perpetual Corporate Trust Ltd. as trustee of Lion Series 2023-1 Trust reflect the following factors.

The credit risk of the underlying collateral portfolio (discussed in more detail under "Credit Assessment") and the credit support provided to each class of rated notes are commensurate with the ratings assigned. Credit support is provided by subordination and lenders' mortgage insurance (LMI). The credit support provided to the rated notes is sufficient to cover the assumed losses at the applicable rating stress. Our assessment of credit risk takes into account HSBC Bank Australia Ltd. (HSBC AU)'s underwriting standards and approval process, which are consistent with industry-wide practices, and servicing quality (discussed in more detail under "Origination And Servicing"), and the support the LMI policies provide to 9.2% of the portfolio (see "Reliance On Lenders' Mortgage Insurance").

The rated notes can meet timely payment of interest and ultimate payment of principal under the rating stresses. Key rating factors are the level of subordination provided, the LMI cover, the principal draw function, the provision of a liquidity facility, the provision of a loss reserve, and the provision of an extraordinary expense reserve--funded by HSBC AU at closing to cover extraordinary expenses--sized at a level consistent with the ratings. Our analysis is on the basis that the notes are fully redeemed by their legal final maturity date and we do not assume the notes are called at or beyond the call date.

Our ratings also take into account the counterparty exposure to HSBC AU as liquidity facility provider, bank account provider, and interest-rate swap provider. Some 12.9% of the portfolio comprises loans for which the interest rate is fixed for up to five years. An interest-rate swap is provided to hedge the mismatch between the fixed-rate receipts on the fixed-rate loans and the floating-rate interest payable on the notes (discussed in more details under "Interest-Rate Risk").

The transaction documents for these counterparty exposures include downgrade language consistent with S&P Global Ratings' counterparty criteria.

We also have factored into our ratings the legal structure of the trust, which has been established as a special-purpose entity and meets our criteria for insolvency remoteness.

Environmental, Social, And Governance (ESG)

Our rating analysis considers a transaction's potential exposure to ESG credit factors (see "ESG Industry Report Card: Residential Mortgage-Backed Securities," March 31, 2021).

We consider the transaction's exposure to environmental credit factors to be average. Physical climate risks such as floods, storms, or bushfires could severely damage properties and reduce their value. In our view, well-diversified portfolios reduce exposure to extreme weather events. We have factored the geographic diversity of the underlying portfolio into our credit analysis (see below).

For RMBS, social credit factors are generally considered above average because housing is viewed as one of the most basic human needs and conduct risk presents a direct social exposure for lenders and servicers. We review lenders' underwriting practices as part of our operational risk assessment and factor them into our credit analysis (see "Origination And Servicing" section below).

The transaction's exposure to governance credit factors is below average, in line with the sector benchmark. Given the nature of structured finance transactions, most have relatively strong governance frameworks that typically restrict what activities the special-purpose entity can undertake. We consider the risk-management and governance practices in place to be consistent with industry standards and our benchmark expectations.

Strengths And Weaknesses

Strengths

We have observed the following strengths in the transaction:

- For the class A1 and class A2 notes, the credit support provided by note subordination exceeds the level of credit support commensurate with a 'AAA (sf)' rating and is more than sufficient to maintain the ratings on the notes--assuming no deterioration in the underlying pool--if we were to lower or remove our rating on the LMI provider.
- The composition of the underlying collateral portfolio, which consists entirely of full-documentation loans.
- Some 88.4% of the portfolio is loans with a current loan-to-value (LTV) ratio of less than 75%, which has contributed to the relatively low weighted-average current LTV ratio of 56.1%. S&P Global Ratings believes that a loan is less likely to default when the LTV ratio is less than 75% because such borrowers have more equity in the mortgaged property.
- The collateral pool is reasonably seasoned, with a weighted-average contract seasoning as of the cut-off date of 44.2 months.

Weaknesses

The weaknesses we have identified in the transaction are:

- Some 25.7% of the pool comprises loans for which the loan purpose was refinance with equity takeout. S&P Global Ratings views products in which a borrowing is against the build-up of equity in a property as being riskier and adjusts the default frequency of these loans accordingly. When HSBC AU has been unable to provide additional information, S&P Global Ratings has assumed the loans to be refinance equity takeout and has increased the default frequency for those loans.
- Loans to investors make up 23.2% of the portfolio. S&P Global Ratings assumes the default frequency on these loans is higher to reflect the potential greater risk of default compared with loans for home purchase.
- In cases in which full valuation is not obtained, HSBC AU may base the valuation of individual properties on a desktop valuation or automated valuation model. Other than a full valuation, alternative valuation methods could introduce less certainty about the realizable value of the security property, which may increase the loss if a property were to be sold. S&P Global Ratings has increased the loss severity of the portfolio to address this concern.

Comparative Transactions

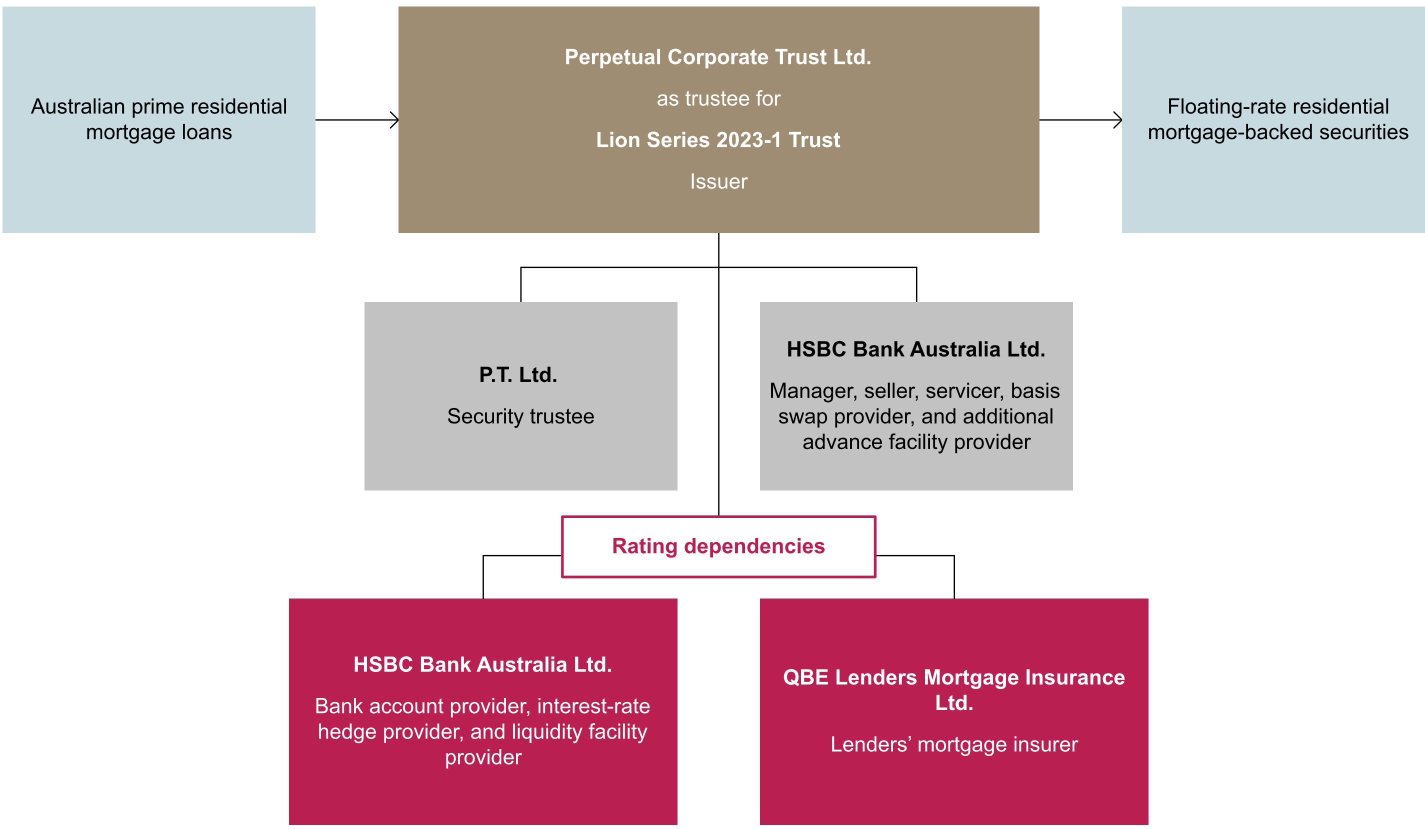
The most recent prior Lion transaction is Lion Series 2022-1 Trust. The key differences are that for the Lion Series 2023-1 Trust:

- From the call option date onwards, the margins on the Class B, Class C, Class D, Class E and the Class F notes will step down.
- The margins receivable by the trust under the fixed-rate and basis swaps will be higher for the first payment date and then step down for the life of the transaction.
- There is a loss reserve available for losses which will build from excess spread up to a certain limit.
- The excess income reserve can start to build up prior to the call option date up to a certain limit. After the call option date, the excess income reserve can trap excess spread with no limit. For the Lion Series 2022-1 transaction, the excess income reserve would only start to build up after the call option date.

Transaction Structure

The structure of the transaction is shown in chart 1.

Lion Series 2023-1 Trust
Transaction structure



We understand that transaction counsel will lodge the relevant financing statements on the Personal Property Securities Register in connection with the security interest.

Note Terms and Conditions

Interest payments

All classes of notes are floating-rate, pass-through securities, paying a margin over the one-month bank-bill swap rate on the invested amount of the notes. The notes are rated on a "timely interest, ultimate principal" basis, with interest paid on the invested amount of the notes. Interest payments are made sequentially to each class of notes.

A step-up margin will apply to the class A1 and class A2 notes if the notes are not called on the call-option date. A step-down margin will apply to the class B, class C, class D, class E and class F notes after the call-option date. The trustee can elect to call the notes in full at their invested amounts plus accrued interest on or after the payment date on which the outstanding note balance is less than 10% of the initial note balance.

The transaction features an excess income reserve that will build up to a certain limit prior to the call option date. After the call-option date, the reserve can trap excess spread with no limit. Excess spread will be trapped and available for required payments. We have not given credit to this feature in our analysis because the trapping of excess spread is subordinated in the interest waterfall.

Principal allocation

All classes of notes have a legal final maturity on the payment date in May 2054. Principal collections--after application of principal draws, if necessary, to cover any income shortfalls or to fund redraws--will be passed through to noteholders on a sequential-payment basis.

The transaction can convert to a pro-rata payment structure, in which principal would be passed through to each class (see "Pro-rata paydown triggers") if the principal pro-rata triggers are met.

Given the pass-through nature of the notes, the actual date on which the principal amount of the notes will be fully repaid will be determined by the actual prepayment rate experience on the loan portfolio. As a result, the risk of mortgage prepayments is borne by the noteholders.

Over the past two years, the conditional prepayment rate (CPR) of the HSBC AU managed loan portfolio has averaged approximately 20%. The prepayment speeds encompass the unscheduled principal payments on the mortgage loans.

Loss allocation

Losses will be allocated to the class F notes until their outstanding balance is reduced to zero, followed by the class E, class D, class C, class B, class A2, then class A1 notes. Under the transaction structure, any charge-offs are to be reimbursed in the reverse order.

Pro-rata paydown triggers

The triggers to allow pro-rata paydown are:

- The payment date falls on or after the second anniversary of the transaction's closing date.
- The subordination percentage for the class A1 notes is equal to or greater than 16.0%.

- The three-month rolling average of arrears days greater than 90 days on the mortgage loans is less than or equal to 2%.
- The payment date falls before the first call-option date.
- There are no carryover charge-offs to any notes.

Reliance On Lenders' Mortgage Insurance

Approximately 9.2% of the mortgage loan pool is insured by primary LMI policies provided by QBE. The LMI policies cover the outstanding mortgage loan principal, accrued interest, and any reasonable enforcement expenses on the defaulted mortgage loans.

The policies contain terms and conditions that allow the insurer to reduce or deny a claim in certain circumstances. If a claim is reduced and results in a loss to the trust, the issuer might be able to offset that loss by applying excess spread to cover those losses before making any distribution to beneficiaries.

Under our "Methodology For Assessing Mortgage Insurance And Similar Guarantees And Supports In Structured And Public Sector Finance And Covered Bonds" criteria, published on Dec. 7, 2014, the overall amount of credit given to LMI is the product of the stated coverage of the LMI policy, the insurer's estimated capacity to pay for a given rating scenario, and the estimated claims payout ratio for a given issuer.

To adjust for the insurer's capacity to pay, S&P Global Ratings will look to the LMI provider's issuer credit rating. When sizing the credit support for the 'AAA (sf)' rated notes, S&P Global Ratings assumes that 55% of claims to 'A' rated LMI providers will be not be paid.

In addition, the estimated claims payout ratio reflects the categorization of HSBC AU in CA1 due to a minimal level of claims adjustments, clearly documented servicing practices, and detailed procedures adhering to LMI policies and procedures. The claims adjustment rate for CA1 is 10% at a 'AAA' rating level.

Rating-Transition Analysis

Scenario analysis: Lenders' mortgage insurance

A key rating-transition risk in many Australian prime RMBS transactions is a lowering of our rating on one or more of the lenders' mortgage insurers. We consider the rating-transition risk to be remote for the 'AAA (sf)' rating on the class A1 and class A2 notes because the credit support from the subordinated notes is higher than or equal to (for the class A2 notes) the minimum credit support required before giving credit to LMI.

Assuming that there is no deterioration in the portfolio credit quality and performance, table 1 details the minimum level of credit support for credit losses commensurate with the current rating on the notes if we were to lower by one notch to 'A-' our rating on QBE Lenders' Mortgage Insurance Ltd. (QBE) at the current estimated claims payout ratio.

We consider the rating-transition risk for the class B, class C, class D, and class E notes to be low, after taking into account LMI. The ratings on these notes are unlikely to be affected by a one-category downgrade on QBE, all else remaining equal. However, these notes are likely to be affected if no credit is given to LMI.

If the pro-rata tests are not satisfied and principal repayments are made on a sequential basis, then the proportion of subordination relative to the senior notes increases, and the class B, class C, class D, and class E notes' reliance on the lenders' mortgage insurers will decrease as the collateral portfolio amortizes.

Table 1

Rating Sensitivity To Lowering Of Rating On Lenders' Mortgage Insurer

Lenders' mortgage insurers (and ratings) subject to hypothetical joint downgrades	Minimum credit support commensurate with a 'AA' rating on class B notes (%)	Likely rating transition of class B notes if no additional support were provided
QBE Lenders' Mortgage Insurance Ltd.		
'A-' category	2.23	aa
No credit to LMI	2.50	aa-
Lenders' mortgage insurer (and rating) subject to hypothetical downgrade	**Minimum credit support commensurate with an 'A' rating on class C notes (%)**	**Likely rating transition of class C notes if no additional support were provided**
QBE Lenders' Mortgage Insurance Ltd.		
'A-' category	1.24	a
No credit to LMI	1.50	bbb+
Lenders' mortgage insurer (and rating) subject to hypothetical downgrade	**Minimum credit support commensurate with a 'BBB' rating on class D notes (%)**	**Likely rating transition of class D notes if no additional support were provided**
QBE Lenders' Mortgage Insurance Ltd.		
'A-' category	0.79	bbb
No credit to LMI	1.00	bbb-
Lenders' mortgage insurer (and rating) subject to hypothetical downgrade	**Minimum credit support commensurate with a 'BB' rating on class E notes (%)**	**Likely rating transition of class E notes if no additional support were provided**
QBE Lenders' Mortgage Insurance Ltd.		
'A-' category	0.39	bb
No credit to LMI	0.50	bb-

S&P Global Ratings considers the other major factor that could drive negative rating changes in this transaction is a significant deterioration in asset portfolio performance.

Scenario analysis: Property-market value decline

S&P Global Ratings performed a scenario analysis to determine the potential impact on the ratings at transaction close if the values of every security property decreased by 10%. We applied a haircut of 10% to the original property values and increased LTV ratios for this impact. Note that this scenario does not take into account potential increases or decreases in the security property value compared to its original value, and does not consider cash-flow analysis and, therefore, the potential use of excess spread to cover losses. The implied credit assessments are set out in table 2.

Table 2

Minimum Credit Support For Credit Losses And Implied Credit Assessments Under The Scenario

Class	Minimum credit support for credit losses pre-LMI (%)	Implied credit assessment pre-LMI	Minimum credit support for credit losses post-LMI (%)	Implied credit assessment post-LMI
A1	4.00	aaa	3.65	aaa
A2	4.00	aaa	3.65	aaa
B	2.56	aa-	2.15	aa
C	1.57	bbb+	1.19	a
D	1.00	bb+	0.77	bbb
E	0.50	b+	0.37	bb

LMI--Lenders' mortgage insurance.

Origination And Servicing

We assess the quality of the origination, underwriting, and servicing of the loans as part of our credit analysis because it can affect the performance of the portfolio.

The A+/Stable/A-1 issuer credit ratings on HSBC AU reflect S&P Global Ratings' assessment that the bank will remain a highly strategic subsidiary of its immediate parent, HSBC Asia Pacific. We consider it likely that HSBC AU would receive timely support from its parent in almost all foreseeable situations. On a standalone basis, HSBC AU has strong capitalization, supported by dividend flexibility.

HSBC AU's underwriting practices and standards are in line with industry standards. HSBC AU originates residential-mortgage loans through its proprietary branch network and broker partnerships. We have factored into our analysis the fact that regardless of the originator channel, all loans go through the centralized approval processes of HSBC AU and regular hindsight reviews. HSBC AU's calculation of borrowers' repayment capacity takes into account a borrower's verifiable income sources, other commitments, and living expenses, in line with industry standards. We have taken into account the interest-rate buffers and haircuts HSBC AU applies so we can assess the consistency and quality of HSBC AU's debt-serviceability assessment in our credit analysis.

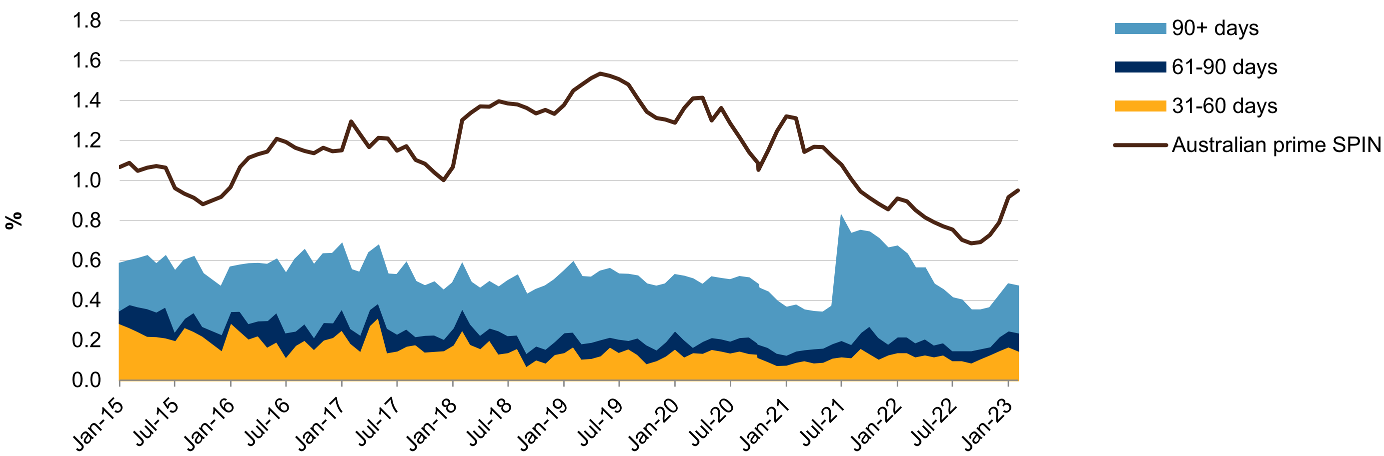
In determining the market value decline assumption, we have factored in the type of valuation obtained when the loans were originated. The type of valuation is determined by factors such as the property type and relative risk ranking. HSBC AU mainly uses three methods of property valuations: full valuation, desktop valuation, and automated valuation model.

We have taken into account HSBC AU's arrears-management processes and policies as well as its historical arrears and loss performance to assess the quality of HSBC AU's servicing. HSBC AU maintains full control over all elements of its loan servicing, arrears management, and loss-mitigation processes.

HSBC AU manages arrears on a missed-payments basis, but reports arrears with reference to the scheduled balance of the loan. Chart 2 compares the level of arrears of HSBC AU-originated loans with the aggregate level of arrears on mortgage loans collateralizing all rated RMBS transactions in Australia, as measured by the Standard & Poor's Performance Index (SPIN) for Australian prime mortgages. HSBC AU loans have performed well, and have consistently tracked well below the SPIN.

Chart 2

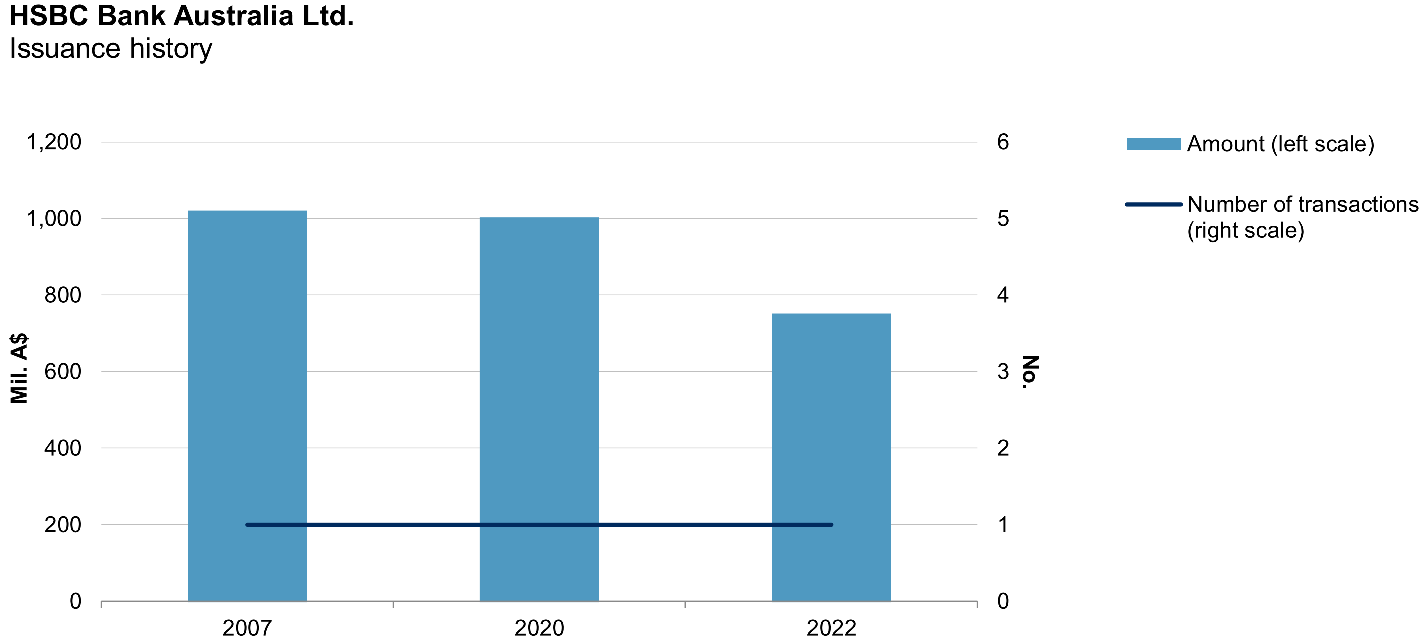
HSBC Bank Australia Ltd.
Performance of loans against the Australian prime SPIN



Source: S&P Global Ratings.

Chart 3 shows HSBC AU's RMBS issuance history.

Chart 3



Source: S&P Global Ratings.

Credit Assessment

The portfolio consists entirely of full-documentation prime residential mortgage loans originated by HSBC AU. This is a closed pool, which means no additional loans will be assigned to the trust after the closing date.

We have assessed the credit quality of the collateral to determine the minimum credit support levels for this transaction. Among the strengths we identified are that all loans are assessed on a full-documentation basis, the level of seasoning in the portfolio, the moderate LTV ratio, and the geographic diversity of the portfolio. The key weaknesses in the credit quality of the portfolio are the exposure to loans used for refinance with equity takeout and exposure to investor borrowers. Borrowers can redraw prepaid principal and request further advances under the mortgage loans. However the transaction documents do not include restrictions at either a loan level or portfolio level regarding allowable further advances. Our credit support calculation takes into account that borrowers can redraw prepaid principal, as well as the greater capacity for further advances, both of which may increase the LTV ratios of loans in the pool over time.

In calculating the minimum credit support levels, we compare the characteristics of the portfolio with an archetypical pool and apply multiples as a way to increase or decrease credit support levels to reflect higher or lower credit risk compared with the characteristics of the archetypical pool. The credit support levels comprise two components: default frequency and loss severity. (A summary of this calculation is shown in table 3.) Table 4 lists the five main default frequency characteristics that have deviated from the archetypical pool.

Table 3

Summary Credit Assessment – Total Pool

	'AAA'	'AA'	'A'	'BBB'	'BB'
(a) Default frequency (%)	6.93	5.29	3.60	2.40	1.61
(b) Loss severity (%)	26.77	23.76	20.92	17.11	12.75
(c) Credit support required before credit to lenders' mortgage insurance (LMI) (a) x (b) (%)	4.00	2.50	1.50	1.00	0.50
(d) Credit to LMI (%)	0.31	0.32	0.29	0.21	0.11
(e) Credit support required after credit to LMI (c) – (d) (%)	3.69	2.18	1.21	0.79	0.39
Assumptions					
Market value decline (%)	45.0	43.0	41.0	38.0	34.0
Weighted-average recovery period (months)	13.1	13.1	13.1	13.1	13.1
Interest rate through recovery period (%)	11.60	11.10	10.60	10.10	9.60

Table 4

Rating Multiples

Criteria	Default frequency multiple (x)
Loan purpose	1.051
Property occupancy	1.028
Seasoning	0.934
Loan-to-value ratio	0.918

Table 4

Rating Multiples (cont.)

Criteria	Default frequency multiple (x)
Loan term	0.781

Loan Pool Profile

The pool as of Feb. 28, 2023, is summarized in table 5. The details of the pool contained in the tables were calculated after consolidating split/linked loans.

Table 5

Loan Pool Characteristics

	Value of loans (%)
Current loan size distribution (A$)	
Less than or equal to 100,000	1.1
Greater than 100,000 and less than or equal to 200,000	4.0
Greater than 200,000 and less than or equal to 300,000	7.9
Greater than 300,000 and less than or equal to 400,000	11.8
Greater than 400,000 and less than or equal to 600,000	24.4
Greater than 600,000 and less than or equal to 800,000	17.0
Greater than 800,000 and less than or equal to 1,000,000	14.7
Greater than 1,000,000 and less than or equal to 1,500,000	19.1
Greater than 1,500,000	0.0
Current loan-to-value ratio distribution (%)	
Less than or equal to 50	33.7
Greater than 50 and less than or equal to 60	17.1
Greater than 60 and less than or equal to 70	23.8
Greater than 70 and less than or equal to 80	22.5
Greater than 80 and less than or equal to 90	2.9
Greater than 90 and less than or equal to 95	0.0
Geographic distribution (by state)	
New South Wales	44.5
Victoria	27.6
Western Australia	13.4
Queensland	8.1
South Australia	3.0
Australian Capital Territory	2.8
Tasmania and Northern Territory	0.6
Geographic distribution (metro/nonmetro)	
Inner city	1.2

Table 5

Loan Pool Characteristics (cont.)

	Value of loans (%)
Metropolitan	92.6
Nonmetropolitan	6.2
Seasoning	
Less than or equal to six months	0.0
Six months – one year	1.3
1-2 years	16.8
2-3 years	41.8
3-4 years	14.7
4-5 years	6.3
Greater than five years	19.1
Principal amortization	
Fully amortizing	96.0
Interest only for up to five years, reverting to fully amortizing	4.0
Loan documentation	
Full documentation	100.0
Residency	
Australian resident	100.0
Nonresident	0.0
Ownership type	
Owner occupier	76.8
Investor	23.2
Employment status	
PAYE – full time	89.6
Self-employed	10.4
Loan purpose	
Purchase existing	66.4
Purchase new	6.8
Refinance equity takeout	25.7
Home improvement	1.2
Valuation	
Full	65.2
Other	34.8
Mortgage insurers	
QBE Lenders' Mortgage Insurance Ltd.	9.2
Uninsured	90.8

Cash-Flow Analysis

Our cash-flow analysis shows that the transaction has sufficient income to support timely payment of interest and ultimate repayment of principal to the rated notes under various stress scenarios commensurate with the ratings assigned.

Yield sufficiency

In our cash flow analysis, we have assumed that the weighted-average margin received by the trust on the closing pool is 4.3% over the one-month bank bill swap rate for the first payment date and 1.95% thereafter. We have applied this assumption because after the interest rate and basis swaps, the trust receives the weighted-average coupon on the notes plus an additional margin, which steps down after the first payment date. The fixed-rate loans yield the same as the variable-rate loans, after considering the interest-rate swap and basis swap. With variable-rate loans, we modeled the lower of the variable-rate loans, after giving 25 basis point credit to the documented threshold rate mechanism at year three and again at year five for the variable-rate portion, and the basis swap. See "Interest-rate risk" for more details.

Liquidity assessment

If there are insufficient interest collections, then the primary liquidity support to meet senior expenses and interest on all notes is provided through the ability to draw on principal. An amortizing liquidity facility will be available if interest collections plus principal draw is insufficient. However, if the stated amount of any class of notes, other than the class A1 and class A2 notes, is less than the invested amount, then that class of notes cannot utilize principal draw or the liquidity facility. Additionally, after the call-option date, liquidity support will cease for the class F note. In all cases, the class A1 and class A2 notes are at no time restricted from the use of liquidity support.

The liquidity facility will represent 1.0% of the outstanding performing balance of the receivables. This will amortize with the performing receivable balance, subject to a floor of A$500,000.

Interest-rate risk

Fixed-rate loans make up 12.9% of the loan portfolio. HSBC AU will provide an interest-rate swap to hedge the mismatch between the fixed rate received on the fixed-rate loans and the variable rate payable on the notes. In addition, HSBC AU will provide a basis swap to hedge the basis risk associated with the variable-rate loans.

S&P Global Ratings is satisfied that the margin received under the interest-rate swap and the use of the threshold mechanism will ensure that there is sufficient yield for the trust to meet its obligations should the basis swap fall away.

Excess income reserve

The transaction features an excess income reserve that will build up to a certain limit prior to the call option date. After the call-option date, the reserve can trap excess spread with no limit. To the extent there is excess spread available, an amount will be deposited into the excess income reserve that can be used for required payments to the rated notes (before a draw on principal). We have not factored this feature into the cash-flow modeling because the application of excess spread is subordinated in the interest waterfall.

Loss reserve

The transaction features a loss reserve which will build from excess spread up to a limit that is the higher of A$750,000 or 0.10% of the aggregate invested amount of all notes on the closing date. The loss reserve will be used to reimburse losses in the transaction.

Extraordinary expense reserve

HSBC AU will deposit on the closing date of the transaction an amount of A$150,000, which is to be held to cover any extraordinary expenses that may arise. This reserve will be maintained and topped up to A$150,000, where possible, during the life of the transaction from excess spread.

Cash-flow modeling assumptions

The key rating stresses and assumptions modeled at each rating level are:

- Analyzing and modeling the structure of the transaction to include all note balances and margins, trust expenses, liquidity support facilities, waterfall priority for income and principal payments, and the loss mechanism, as described in the transaction documents.
- Default frequency and loss severity assumed at different rating levels.
- Timing of defaults (table 7).
- Foreclosure period and time to recover sale proceeds from defaulted loans, assuming a recovery period of 15 months.
- Prepayment rates, assuming low prepayment rates to test potential yield shortfalls, as well as running high prepayment-rate scenarios to stress the excess spread available (table 6).
- Modeling the cash flows of the assets based on the characteristics of the underlying collateral pool, and the margin set on all loans.
- Interest rates, by varying the bank bill swap rate (BBSW) curves at each rating level.
- Arrears levels and cure periods.
- A stressed servicer fee of 0.35% should it be necessary for HSBC AU to be replaced as servicer.
- Sequential and pro-rata principal payment structures of the notes.

Table 6

Assumed Constant Prepayment Rates (CPR)

Transaction seasoning	Low CPR scenario (% per year)	Constant CPR scenario (% per year)	High CPR (% per year)
Up to month 12	5	20	20
Month 13 to month 18	5	20	25
Month 19 to month 36	5	20	35
After month 36	5	20	40

Note: Total CPR shown is inclusive of voluntary and involuntary (defaults) prepayments.

Table 7

Assumed Default Curves

Month	Front-end default curve (%)	Back-end default curve (%)	Base-case default curve (%)
7	10	-	10
12	25	5	15
18	-	15	-
24	30	25	25
36	20	25	25
48	10	15	15
60	5	10	10
72	-	5	-

Legal And Counterparty Risks

In our view, the issuer has features consistent with our criteria on special-purpose entities, including the restriction on objects and powers, debt limitations, independence, and separateness.

The transaction will have counterparty exposure to HSBC Bank Australia Ltd. as interest-rate swap provider, liquidity facility provider, and bank account provider. The documentation of these roles requires replacement and/or posting of collateral if the rating of these entities falls below certain levels. These mechanisms are consistent with our counterparty rating criteria.

Related Criteria

- General Criteria: Environmental, Social, And Governance Principles In Credit Ratings , Oct. 10, 2021
- Criteria | Structured Finance | General: Global Framework For Payment Structure And Cash Flow Analysis Of Structured Finance Securities , Dec. 22, 2020
- Criteria | Structured Finance | General: Methodology To Derive Stressed Interest Rates In Structured Finance , Oct. 18, 2019
- Criteria | Structured Finance | General: Counterparty Risk Framework: Methodology And Assumptions , March 8, 2019
- Legal Criteria: Structured Finance: Asset Isolation And Special-Purpose Entity Methodology , March 29, 2017
- Criteria | Structured Finance | RMBS: Methodology For Assessing Mortgage Insurance And Similar Guarantees And Supports In Structured And Public Sector Finance And Covered Bonds , Dec. 7, 2014
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- Criteria | Structured Finance | General: Global Derivative Agreement Criteria , June 24, 2013
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- Criteria | Structured Finance | RMBS: Australian RMBS Rating Methodology And Assumptions , Sept. 1, 2011
- General Criteria: Principles Of Credit Ratings , Feb. 16, 2011
- Criteria | Structured Finance | RMBS: Methodology And Assumptions For Analyzing The Cash Flow And Payment Structures Of Australian And New Zealand RMBS , June 2, 2010
- Criteria | Structured Finance | General: Methodology For Servicer Risk Assessment , May 28, 2009

Related Research

- 2023 Outlook Assumptions For The Australian RMBS Market, Jan. 6, 2023
- An Overview Of Australia's Housing Market And Residential Mortgage-Backed Securities, Nov. 28, 2022
- ESG Industry Report Card: Residential Mortgage-Backed Securities, March 31, 2021
- Australian Prime And Nonconforming RMBS: What's The Difference? Nov. 17, 2019
- Australia And New Zealand Structured Finance Scenario And Sensitivity Analysis: Understanding The Effects Of Macroeconomic Factors On Credit Quality, April 17, 2017
- Global Structured Finance Scenario And Sensitivity Analysis 2016: The Effects Of The Top Five Macroeconomic Factors, Dec. 16, 2016
- RMBS Performance Watch: Australia, published quarterly
- RMBS Arrears Statistics: Australia, published monthly

These articles are available on RatingsDirect, S&P Global Ratings' Web-based credit analysis system, at https://www.capitaliq.com.

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