

Canadian Fixed Income Forum RMBS Data Focus Group May 2, 2019

Introduction



- The industry recognizes that there is limited data transparency pertaining to the mortgage industry in Canada.
- Improved data transparency would aid in the development of an RMBS market among other things.
- In our view, there are three levels at which data can be produced. These are the:
 - Industry level;
 - Issuer level and;
 - Transaction level.
- During 2018, MCAP came to market with two dually rated RMBS issuances. In order to do so, MCAP provided data at both the issuer and the transaction level.



- The availability of industry data is presently limited. Below is a summary of what is currently available:
 - CBA historical performance data dating back to 1990 (rolling arrears based on units)
 - CBA includes data from BMO, CIBC, HSBC Canada, National Bank, RBC, Scotiabank, TD, CWB, Manulife Bank and Laurentien Bank
 - OSFI and the BoC require data to be provided by all deposit taking institutions under Sections 628 and 600 of the Bank Act and Section 495 of the Trust and Loan Companies Act
 - Certain information is published on a total level basis (i.e. residential mortgage loans outstanding, insured vs. uninsured etc.)
 - CMHC new mortgage portfolio data framework that requires issuers in the NHA MBS program to disclose information on pooled mortgages and uninsured mortgages commencing in July 2018
 - Loan level data on all loans pooled in NHA MBS and new uninsured loans
 - Portfolio level data on the stock of uninsured loans does not include performance data

Transaction Data: MRIC 2018



- On the MRIC 2018 transactions, MCAP made the following data available to the investors at the transaction level:
 - Data tape as of the cut-off date with several fields (see Appendix A)
 - Stratification tables to assess pool level characteristics as of the cut-off date as well as on an ongoing basis as part of the monthly reporting (See Appendix B)
 - Summary pool activity including prepayment and performance data on an ongoing monthly basis (See Appendix C)
- Our findings indicated that investors liked having access to the loan level data tape on a per transaction basis. The benefits of this include:
 - Improved transparency of underlying collateral per a given transaction
 - Ability to analyze the data for independent credit analysis and modelling
 - Ability to compare data against broader market data where available or provided (industry/issuer)
 - Better informed investment decision making as a result

Appendix A: Loan Level Data Tape



• The following loan level data was made available to investors as of the cut-off date:

 Loan Number Type (1st, 2nd, HELOC) Purpose (purchase, refinance etc.) Funded Amount Current Balance Current Rate Payment Frequency (monthly, biweekly etc.) Product Type (Fixed, ARMs etc.) Insurance Type (Insured, Uninsured) Original Term Remaining Term Original Amortization Remaining Amortization Maturity Date Original Tip (Loan Features	Borrower Characteristics	Property-Related	Loan Performance
Original LTV Current LTV	• • • • • • • • • •	Loan Number Type (1 st , 2 nd , HELOC) Purpose (purchase, refinance etc.) Funded Amount Current Balance Current Rate Payment Frequency (monthly, biweekly etc.) Product Type (Fixed, ARMs etc.) Insurance Type (Insured, Uninsured) Original Term Remaining Term Original Amortization Remaining Amortization Maturity Date Original LTV	Credit ScoreGDS	 City Province Property Type (detached, semi- detached, apartment etc.) Occupancy (owner occupied, rental, second home etc.) Original Appraised 	Number of Days



• The following summary level data was made available to investors at the transaction level as of the cut-off date as well as on an ongoing monthly basis:

ltem	Type of Stratification Table	Number of Mortgage Loans	Cut-Off Date Balance	Percentage of Cut-Off Date Pool Balance	Weighted Average Credit Score	Weighted Average LTV Ratio
1	Mortgage Loan Balance					
2	LTV Ratio					
3	Current Mortgage Rates					
4	Credit Score					
5	Province					
6	Loan Purpose					
7	Mortgage Property Type					
8	Remaining Term					
9	Remaining AM					
10	Payment Frequency					
11	GDS Ratio					
12	TDS Ratio					
	Total / Weighted Average					

Appendix C: Ongoing Monthly Reporting



- The following summary level data is made available to investors at the transaction level on an ongoing monthly basis:
 - Opening and closing certificate balances
 - Monthly distributions (P&I) to the certificate holders
 - Prepayment premiums & principal prepayment
 - Fees (i.e. servicing/administration, advances, custodial and taxes)
 - Performance (by units and dollars)
 - 30-59 days in arrears
 - 60-89 days in arrears
 - 90+ days in arrears
 - Actual realized losses (reductions)