

# S&P Global (China) Ratings--Structured Finance Methodology

## English Summary:

### SCOPE AND OVERVIEW

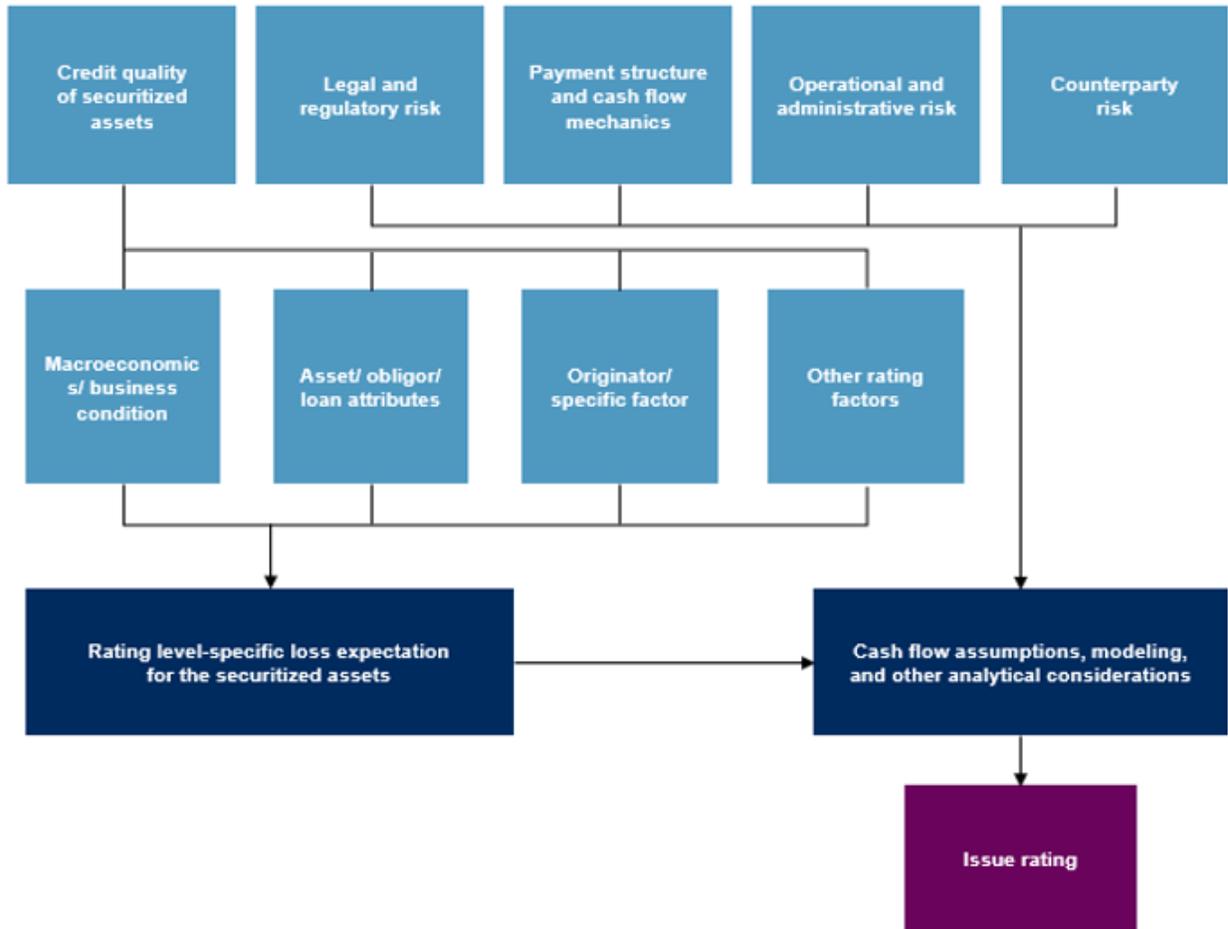
This methodology outlines S&P Global (China) Ratings' methodology for rating structured finance securities (securitizations). This methodology applies to all securitization asset classes that we deem appropriate, and the different analytical techniques outlined in this methodology may apply to one or more different asset classes as we deem appropriate. Additional analytical techniques may also be adopted as we deem necessary for specific underlying assets or a given transaction type.

This methodology describes the approaches we use to determine the issue ratings typically assigned to securitization transactions. This methodology provides our approach to the fundamental analysis of securitization credit risks and the associated structural and cash flow considerations.

The analytic framework for securitization ratings typically includes the assessment of the aspects outlined below. These factors tend to be fundamental to most securitization transactions, however certain transaction types or structures may have features or conditions present that may require additional levels of alternative analysis, or may not require a detailed consideration of all of the below areas:

- Credit quality of the securitized assets;
- Legal and regulatory risks;
- Payment structure and cash flow mechanics;
- Operational and administrative risks; and
- Counterparty risk.

## Structured Finance Methodology Framework



## TYPES of COMMON SECURITIZATIONS APPLICABLE and ITS RATING METHODOLOGY SUMMARY

Different types of securitizations are listed below, with descriptions on how they differ from each other and from non-securitized assets.

### Residential Mortgage Backed Securities (RMBS)

RMBS are bonds typically collateralized by pools of residential mortgage loans originated by banks, housing provident funds, or other lenders. Payments to the bonds are made from interest and principal payments made on the loans in the pool. The bonds issued may be tranching into multiple classes with differing payment priorities and exposures to credit losses.

RMBS analysis may use different analytical techniques such as multiples of historical experience, or comparing actual pool compositions with our view of a relevant benchmark pool.

### Asset Backed Securities (ABS)

ABS are bonds typically collateralized by pools of commercial or consumer assets for example credit card receivables, auto loans, personal loans, leasing, and trade receivables.

In situations where we are analyzing a pool of amortizing receivables, such as a pool of auto loans, we generally establish a base case default and recovery rate and then apply a rating specific stress scenario to determine the appropriate rating scenario net loss rates. We may also consider structures that include a revolving or reinvestment period and this would need to be factored into our analysis along with any associated transaction triggers.

## **Commercial Mortgage Backed Securities (CMBS)**

CMBS are bonds collateralized by commercial real estate and/or commercial real estate loans.

The CMBS analysis typically uses a recovery-based approach that assumes loan defaults, reflecting the concentrated nature of single borrower or large loan transactions. Where a portfolio of diverse commercial real estate loans is securitized, different default probability assumptions may be applicable. The analysis typically determines loan-to-value (LTV) thresholds and/or different real estate market value decline assumptions and includes an assessment of how these intersect with our view of cash flow and value of the assets supporting the CMBS.

## **Credit Dependent/Substitution Transactions**

Credit dependent/substitution transactions are bonds linked to the credit risk of another entity.

Credit dependent/substitution transactions typically involve a review of documentation related to the nature of the credit substitution being provided; the credit quality of the substitution provider; and the associated terms and conditions of the credit substitution and the related securities to be issued.

## **Collateralized Loan/Debt Obligations (CLO/CDO)**

Our credit analysis of CLO and CDO type transactions typically focusses on the credit quality of the underlying portfolio of assets supporting the securities, and considerations around asset correlation and recovery expectations.

## **Covered Bonds**

Covered bonds are issuances typically through bank programs collateralized by pools of mainly mortgage loans, but can include other asset types.

Our credit analysis of covered bonds would typically consider both the credit quality of the underlying covered pool and the availability of the covered pool to support the securities to be issued, but also focuses on the structure of the issuance and any institution that also supports the repayment of the rated securities according to the terms and conditions. Depending on the nature of the covered bond, it may be considered under S&P Global (China) Ratings Financial Institutions Methodology.

## **Non-Performing Asset Backed Securities (NPABS)**

NPABS are securities typically collateralized by pools of non-performing assets. Taking non-performing loans (NPL) as an example, they are generally categorized as “substandard”, “doubtful” or “loss” according to relevant laws and regulations and/or regulatory requirements.

Our risk analysis for NPABS typically looks at the type of asset in the pool and accordingly considers asset credit quality when it was a performing asset and asset performance after it became non-performing. Through this analysis we can gauge the expected amounts and timings of recoveries for underlying assets.

## **Other Securitization Types**

Other securitization types not explicitly reference herein can also be analyzed using this methodology where deemed appropriate and may use the analytical techniques outlined herein, or use alternative approaches where we deem it appropriate to do so.

## **ANALYTICAL APPROACH--FUNDAMENTALS**

### **Credit Quality of the Securitized Assets**

In most securitization transactions, the initial step in determining the amount of credit support necessary to achieve a given rating level is analyzing the credit quality of the assets to be securitized. The estimation can include analyzing historical performance of the asset class; benchmarking relative to asset classes that we view as comparable; or using other analytical techniques.

For some asset classes we might separately estimate asset default frequencies and loss severities under stress conditions and then combine those components to form a loss estimate.

Similarly, for some asset classes, the estimation may use generalizations whereby losses under stressed conditions can be estimated as a multiple of expected losses, with the multiple potentially varying for different asset classes. Common examples of this analytical approach may be consumer receivables based transactions such as auto loan securitizations, credit card securitizations, and commercial receivables such as trade receivables securitizations, amongst others.

For some asset classes, we may define an archetypical asset pool and use this as a comparison benchmark to determine the estimated losses associated with different rating level stresses for different portfolios. An example of this analytical approach may be RMBS.

For some asset classes we may conduct a detailed asset specific analysis and make assumptions about loan/asset default probabilities and associated recovery expectations at different rating levels. An example of this analytical approach may be CMBS.

Interpolation is one of the methods we may use when we analyze the amount of credit enhancement associated with the rating levels between 'AAA' and 'B' for transactions in certain asset classes. For other asset classes, we may create specific benchmarks, such as coverage multiples or simulated default rates.

## Legal And Regulatory Risks

Our consideration of legal and regulatory risks typically focuses on the degree to which a securitization structure appropriately isolates the securitized assets from the bankruptcy or insolvency risk of entities that participate in the transaction, as well as the creation of security over the assets or the direct ownership on these assets by the investors.

Other than the general legislations, regulations, and regulators' administrative guidance, we typically review transaction legal documentation to understand the terms and conditions of the securities being issued. This review may include an analysis of the transaction cash flow allocation mechanisms, key transaction terms and features, any performance or other trigger mechanisms, and how the events of default, and/or any acceleration events, may occur, amongst other things.

## Payment Structure And Cash Flow Mechanics

The rating analysis for a securitization typically includes an analysis of payment structure and cash flow mechanics. We may perform a cash flow analysis, if required, to determine if a transaction has sufficient credit enhancement and liquidity available to pay interest and principal by legal final maturity.

This portion of the analysis may involve both assessing the documentation for a security and observing sufficiency of cash flows to make payments of interest and principal to the related securities, after taking account of available credit enhancement and allowing for transaction expenses and other outflows.

The amount and timing of losses (e.g., delinquencies, defaults, recoveries, or liquidations) and prepayments may positively or negatively affect the transaction's ability to meet its payment obligations on time. Pool characteristics (e.g., seasoning and payment status) are generally considered when determining any loss timing to be applied in any cash flow analysis for a rating scenario. Where relevant, we may apply cash flow stresses to account for other transaction-specific considerations such as certain legal, operational, and counterparty risks that are not otherwise mitigated by the transaction structure.

## Operational And Administrative Risks

The analysis of operational and administrative risks is typically another part of the securitization analysis. This part of the analysis may focus on a servicer's or manager's ability to perform its duties, such as receiving timely payments, pursuing collection efforts on delinquent assets, foreclosing on and liquidating collateral, tracking cash receipts and disbursements, and providing timely and accurate investor reports.

The analysis of the risk associated with the servicer, for example, may consider the possibility that a servicer may become unable or unwilling to perform its duties during the transaction's life. The analysis may consider both the potential for hiring a substitute or successor servicer and any arrangements that provide for a designated backup servicer. That portion of the analysis would typically consider the servicing fee's sufficiency to attract a substitute.

The nature of the asset originator operating platform is typically reviewed based on quantitative (historical asset performance) and qualitative factors.

## **Counterparty Risk**

The counterparty analysis typically focuses on third-party financial obligations that may affect or support the creditworthiness of securitization instruments being issued. This may include an analysis of documentation and credit quality of the counterparty arrangements and its implications for the issue ratings applicable.

## **SURVEILLANCE CONSIDERATIONS FOR SECURITIZATION**

Our view on the credit quality of a pool of assets may change over time and reflect performance of the assets and changing market conditions, amongst other things. Through our ongoing surveillance, we typically consider the portfolio performance on a periodic basis, based on information regarding the observed performance and other factors we deem relevant.

## **OTHER CONSIDERATIONS**

This methodology is not intended to be an exhaustive list of all factors we may consider in our analysis. Where appropriate, we may apply additional and/or different, quantitative and/or qualitative, considerations in our analysis to reflect the circumstances of the analysis for a particular issuer, issue or security type. A rating committee may adjust the application of the methodology to reflect individual circumstances in our analysis.