CARE Ratings' criteria for rating of Asset/ Mortgage Backed Securitisation transactions

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Introduction

This report summarises the methodology followed by CARE Ratings to assign rating or credit opinion to the Pass Through Certificates (PTCs) or Assignee Payouts given the stipulated Credit Enhancement in asset backed securitisation (ABS) or mortgage backed securitisation (MBS) transactions.

Securitisation

Securitisation is the process in which the underlying pool of assets are structured or packaged and sold as financial instruments to investor(s) through a Special Purpose Vehicle (SPV). Typically, in India, the originators or sellers are Banks, NBFCs and HFCs. The underlying assets are mainly secured loans like housing loans, auto loans, commercial vehicle loans, construction equipment loans, two wheeler loans, tractor loans, three wheeler loans and unsecured loans like personal loans, consumer durable loans. The SPV is formed in the form of trust, settled and managed by a trustee. The trust purchases the pool for a consideration either at par or premium. The investors subscribe to the Pass Through Certificates (PTCs) issued by the trust. These PTCs are backed by the underlying loan receivables and the beneficial interest lies with investors. The Servicer (typically, Originator in India) is appointed by the trust to service the loans. Servicer passes on the periodic collections from the underlying borrowers to the trust which is further passed on to the investors. Credit Enhancement is provided to an SPV to cover the losses associated with the pool of assets. Credit Enhancement may be divided into first Loss facility and second Loss facility. First loss facility represents the first level of financial support by the originator or a third party to improve the creditworthiness of the securitisation notes issued by the SPV. The provider of the facility bears a part or all of the risks associated with the assets held by the SPV. Second loss facility represents a credit enhancement providing a second (or subsequent) tier of protection to the securitisation notes issued by an SPV against potential losses not covered by the first loss facility. The second loss facility is invoked only after the first loss facility has been drawn down fully or if the first loss facility is not available or the provider of the first loss facility is under insolvency, bankruptcy, liquidation etc. Liquidity Facility is provided to assure investors of timely payments. These include smoothening of timing differences between payment of interest and principal on pool of assets and payments due to investors. Liquidity Facility does not provide any loss protection to the investor. Securitisation transactions are generally carried out under RBI Regulation and / or SEBI Regulations.

The risk analysis of ABS / MBS transactions can be broadly summarised as follows:

1) **Analysing the underlying asset class and collateral (actual pool)**

   The Securitisation process de-links the underlying pool of assets from the risk of lender, who originated the assets. The analysis of underlying asset pool involves evaluating the originator's sourcing process, credit appraisal system / underwriting standards and collection and monitoring mechanism and studying the originator's historical performance for that asset class. Based on the historical data analysis, actual pool characteristics, prevalent and expected economic environment, the cash inflows from underlying asset pool are estimated in base case and stress case scenarios.

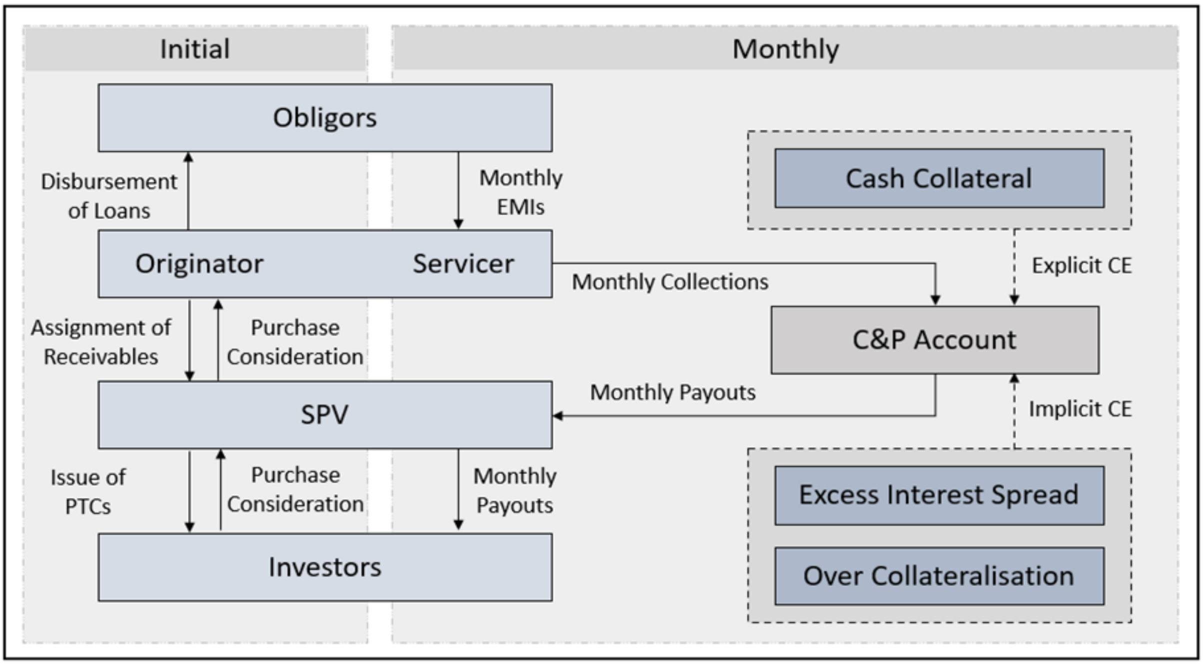
2) The transaction structure

The transaction structure is analysed to assess its impact on the cash flows. CARE Ratings also takes into account the effect of market variables, the counterparty's experience and credit worthiness and legal soundness of the transaction.

3) Assigning the rating / credit opinion

The cash inflows from underlying asset pool are compared with cash outflows to investor(s) in both base case and stress case scenarios to assess the sufficiency of given credit enhancement.

Figure 1: Typical securitisation structure



Key features of Securitisation:

1) All the risks and rewards associated with the underlying pool are transferred to the buyer;
2) The transaction structure should be such that the bankruptcy of seller does not affect the underlying pool;
3) There is no recourse to the seller once the underlying pool is sold.

Key Risks in Securitisation

1. **Credit Risk**
2. **Market Risk**
3. **Counterparty Risk**
4. **Legal Risk**

The Key risks in a securitisation transaction can be summarised as follows:

1) Credit Risk

It refers to the risk of non-payment by the underlying obligors, which is dependent on underlying obligors' ability and willingness to pay. The underlying obligors' ability to pay is primarily driven by adequacy and stability of income. Loan to value (LTV) ratio and income generating capability of the underlying asset will indicate the obligors' willingness to pay. CARE Ratings analyses the originator's sourcing and credit appraisal system, historical portfolio performance (both static and dynamic performance data) and actual pool to assess the credit and liquidity risk.

2) Market Risk

a. **Macro-economic Risk** - The macro-economic scenario affects underlying asset valuation, income generating capacity of the asset (in case of certain asset classes), borrower's income, market interest rates, etc. The expected economic scenario has an impact on future behavior of the pool. The regulatory scenario is also a critical aspect to consider for different asset classes, for e.g. change in regulations for repossession process.

b. **Asset Risk** - The general risk perception of the asset, introduction of new models/substitutes or new technology will directly impact the performance of the pool. CARE Ratings considers the historical performance of asset-class and the factors expected to impact the future performance of asset-class to assess this risk.

c. **Prepayment Risk** – The prevailing and expected market interest rates and expected income levels will influence the prepayment rates. CARE Ratings assesses the historical prepayment rates observed for that asset-class for the originator as well as similar issuances. Based on the historical data and expected interest rates and income levels, CARE Ratings makes appropriate assumptions.

d. **Interest rate Risk** – The interest rate type mismatch may arise in case where the collections from underlying borrowers are based on fixed interest rate and the payouts to investors are based on floating rate and vice versa. The interest rate benchmark mismatch may arise when both the collections and payouts are based on floating interest rates, but reference benchmarks are different. CARE Ratings assesses the interest rate risk assuming different interest rate scenarios and its consequent impact on collections from underlying borrowers. This risk is more prominent in MBS transactions.

3) Counterparty Risk

a. Servicer Risk – The ability of the Servicer to service the pool over the tenure of the transaction is an important risk factor. Typically, the originator acts as a Servicer for securitisation transactions in India. CARE Ratings takes into account the Servicer's experience, length of the transaction and Servicer's credit quality to assess the Servicer risk. The documents typically provide for an alternate third-party Servicer to be appointed in case the original Servicer is unable to carry out its duties. However, changing the Servicer has practical challenges and is likely to lead to disruption in the collection performance, till the alternate Servicer is able to streamline the process to stabilise the collections from the underlying loans. The provision to appoint an alternate Servicer is viewed favourably.

b. Commingling Risk – The time lag between the collections from the underlying obligors and deposit into collection account give rise to commingling risk. To address the commingling risk, CARE Ratings considers the short term credit quality of the Servicer. Commingling risk accentuates as the credit profile of the Servicer (typically the Originator) deteriorates and starts facing liquidity constraints.

c. Other Counterparty Risk – The presence of other counterparties like collection account bank, credit collateral provider etc. give rise to performance risk. CARE Ratings assesses the credit quality of such counterparties to address this risk.

4) Legal Risk

The securitisation transaction involves transfer of receivables which must be a 'true sale' as per law. This effectively means that the originator does not retain any control over the receivables. It should not contradict any of the terms of the underlying loan agreements. The trust / assignee should have unrestricted access to the receivables as well as credit enhancement, subject to terms of its utilisation. CARE Ratings relies on an independent legal opinion confirming the above to address this risk.

In addition to the above, CARE Ratings places utmost importance on the accuracy and integrity of the data provided by the Originator. CARE Ratings requires an audit report certifying the accuracy of the pool information from an external auditor.

Risk Analysis in an ABS/MBS transaction

A. Analysing the underlying asset pool

1) Originator / Servicer Analysis

Originator analysis is a key input to assess the quality of the pool as the quality of the pool is a direct reflection of the sourcing, underwriting norms and credit appraisal system of the Originator. As typically the Originator also acts as Servicer in India, the collection and monitoring methods used by Originator becomes equally important. The Originator analysis involves evaluating the management quality and experience, changes in the management in recent years, business growth, strategies and policies, major policy changes, financial strength, etc. CARE Ratings studies Originator's sourcing channel, underwriting norms, credit appraisal system, monitoring methods, collection mechanism and changes in the any of them over a period of time.

2) Portfolio Analysis (Dynamic)

CARE Ratings analyses the performance of the Originator in terms of collection efficiency, portfolio ageing (bucket movement), prepayments, etc. This quantitative analysis supplements the qualitative analysis of the Originator, as mentioned above.

a) Collection Efficiency

The collection efficiencies are calculated to analyse the effectiveness of collection mechanism employed by the Originator. The collection efficiency can be further divided into two components – collection efficiency from current billings and collection efficiency from overdues.

b) Portfolio Ageing (bucket movement)

The asset class-wise portfolio Days Past Due (DPD) – is an important performance indicator. The principal outstanding as on a particular date is classified into various buckets based on payment status of loans in the portfolio. Buckets formed are Current, 1 to 30 DPD, 31 to 60 DPD, 61 to 90 DPD and so on. CARE Ratings studies the bucket movement as on different dates over a period of time. For e.g. - as on quarter ends for last two years. CARE Ratings analyses the delinquency numbers, such as 90 DPD & above, 180 DPD & above, over a period of time. The lagged delinquency levels may be also calculated to account for possible understatement of delinquency levels in a growing portfolio scenario. The lagged delinquency refers to outstanding amount on the delinquent contracts expressed as a percentage of total portfolio outstanding at an earlier point of time. For e.g. lagged 180+ DPD as on March '09 may be calculated as total principal outstanding for 180+ DPD contracts as of March '09 as a percentage of total portfolio outstanding as of September '08.

c) Prepayments

The monthly prepayments observed over a period of time for the originator are taken into consideration while assuming the prepayment rates for the pool.

The portfolio analysis indicates the trend in delinquency levels over the period. It also helps to understand the effect of any change in underwriting norms and / or collection mechanism by the Originator. The peer comparison of delinquency levels indicates the relative performance of the Originator for that asset class. It should be noted that Portfolio analysis is dynamic in nature in the sense that newly disbursed loans get added to the portfolio whereas the pool to be securitised is static in nature as no new loans can be added in the pool. Therefore, the delinquency levels as observed in the Portfolio analysis are not the best estimate of the expected delinquency levels for pool to be securitised. The Static pool analysis overcomes this limitation of Portfolio analysis.

3) Static Pool Analysis

A static pool refers to fixed set of loans in which no new loans are added. Typically, the static pools are formed based on period of origination and their performance is measured periodically, preferably month on month, over the tenure. The performance measures are overdue curves (less than 90 days overdue curve - for liquidity shortfalls and greater than 90 days overdue curve - for credit shortfalls), DPD curves, prepayment curve, recovery rate, etc. As past securitised pools are akin to static pools, they are also analysed in terms of collection efficiency, overdue curves, DPD curves, prepayment curve, recovery, etc.

Based on above analysis, CARE Ratings observes the average values, volatility and trend in the overdue curves, DPD curves, recovery rates and prepayments. CARE Ratings also analyses the static pool performance based on various parameters like borrower profile, asset type, loan to value ratio (LTV), geography, etc. Such analysis helps in identifying key risk parameters for that asset class.

4) Collateral Analysis (Actual Pool)

The collateral analysis or the actual pool analysis involves the following factors:

a. Pool selection criteria

The pool selection criteria play an important role in estimating the expected future performance of the pool. The pool selection criteria typically involve conditions on certain characteristics like minimum seasoning, upper limit on LTV, tenor, months overdue, geographical concentration and obligor concentration, etc.

b. Pool characteristics

Pool characteristics are key input to determine the pool quality and future performance. Key pool characteristics are as follows:

Key pool Characteristics	Remarks
Asset type	Proportion of used / refinanced assets. Generally, used / refinanced assets show comparatively higher delinquency levels.
Asset Classification	Based on Asset manufacturer or model or class. Some manufacturer or models may have high resale value compared to others. Some class like Light Commercial Vehicles (LCV) in Commercial Vehicle (CV) asset class have shown comparatively higher delinquency levels than Medium or Heavy CV (MCV / HCV).

Borrower Profile	Certain borrower profiles like First Time Buyers (FTB) or First Time Users (FTU) in CV / Construction Equipment (CE) loan segment and Self-employed category in Auto loan segment have historically shown comparatively higher delinquency levels.
Geographical Distribution	Concentration in geography poses an additional risk.
Obligor Distribution	If few borrowers account for large proportion of the pool, it is an additional risk.
Seasoning	Typically, high seasoning leads to higher build-up of equity, thereby lowering the credit risk.
Loan To Value Ratio (LTV)	Measures the initial equity participation of the borrower; Higher the LTV, higher the credit risk.
Installment to Income ratio (IIR)	Indicates the obligor's ability to pay. Higher the IIR higher the credit risk.
Original Tenure	Typically, higher the tenor higher the credit risk.
Payment Status (Overdue composition)	Higher the composition of loans in overdue category higher the credit risk.

5) Portfolio Vs Actual pool comparison

CARE Ratings analyses the characteristics of actual pool in comparison to originator's portfolio wide characteristics for that asset class. The comparison typically is with respect to various characteristics like asset type, asset classification, borrower profile, geographical distribution, obligor distribution, LTV, IIR, original tenure, etc. The proportion of the pool in each characteristic type is benchmarked against the delinquency levels observed for that characteristic in the originator's portfolio. An example for one such characteristic (Geography) is shown below:

Geography	Proportion of Portfolio as on 31st March, 20XX	Portfolio 90+ DPD as on 31st March, 20XX	Proportion of actual Pool
State 1	20.0%	1.8%	20.0%
State 2	15.0%	2.5%	25.0%
State 3	15.0%	1.5%	20.0%
State 4	20.0%	1.3%	10.0%
State 5	25.0%	1.3%	10.0%
Others	5.0%	3.0%	15.0%
Total	**100.0%**	**1.7%**	**100.0%**
Weighted Average 90+ DPD in Actual pool (assuming the Actual pool behave in the same way as Portfolio of the Originator)			2.0%
Extent of Negative Deviation			2.00% / 1.70% = 1.18

B. The transaction structure

CARE Ratings reviews the Term Sheet and other documents to understand the transaction structure. More specifically, the following are analysed.

1. Legal soundness of the transaction

The legal soundness of a securitisation transaction structure is an important pre-requisite. The transaction should be in compliance the prevailing laws, guidelines and / or regulations. The transfer of pool assets (pool of loan receivables) to SPV / Assignee should satisfy the true sale criterion. The transaction structure should be such that it creates bankruptcy remoteness of pool assets from originator / seller. Also, the credit enhancement / liquidity enhancement provided in the form of cash collateral should be bankruptcy remote of the provider. For the legal risk analysis of the transaction, CARE Ratings relies on a legal opinion from an independent legal counsel certifying the above.

2. **Par or Premium**

The structure of the transaction - whether par or premium, will impact the requirement of credit enhancement. In case of premium structure, the default or prepayment of higher interest rate loans in the pool will lead to premium loss. This may require utilisation of credit enhancement. On the other hand, in case of par structure the default or prepayment of higher interest rate loans in the pool will reduce the excess interest spread (EIS) if available in the form of credit enhancement. CARE Ratings applies stressed prepayment rates and EIS compression to account for this risk.

3. **Waterfall Mechanism**

The waterfall mechanism refers to the hierarchy of payments out of the receivables from underlying pool assets. The waterfall should be well defined and cashflows should be leakage proof. CARE Ratings incorporates the waterfall mechanism in its cash flow analysis.

4. **Counterparty Risks**

The counterparties involved in the securitisation transaction are Servicer, Trustee / Assignee Representative, Collection Account Bank and Credit Enhancement provider. Risks posed by each party is analysed separately:

a. **Servicer –** Typically, in Indian securitisation market, Originator acts as a Servicer. The Originator Analysis also incorporates the Servicer analysis whereby CARE Ratings assesses the servicing experience and performance of the Servicer. CARE Ratings also takes into account the credit quality of the Servicer vis-à-vis the tenure of the transaction.

b. **Trustee / Assignee Representative –** CARE Ratings takes into account the trustee / assignee representative's experience and capability to perform its duties and responsibilities.

c. **Collection Account Bank –** The collection account bank should have the short term credit quality rating commensurate with the rating of PTC or Assignee Payouts. For e.g. If the rating or credit opinion of the PTCs or Assignee Payouts is CARE AAA (SO) or equivalent, the collection account bank should have highest short term credit quality rating.

C. Assigning the rating(s) / credit opinion(s)

1. **Base Case and Stress Case scenarios**

The actual pool to be securitised is static in nature. The base case assumptions for estimating the expected cash inflows from the actual pool should therefore be based primarily on the static pool analysis. However, it should be noted that the static pool analysis provides the historical performance of the originator for that asset-class. To some extent this limitation is mitigated by incorporating the recent trend observed in Portfolio analysis in the assumptions. Further these assumptions are adjusted to account for deviation of actual pool from static pool features and expected economic environment.

For stress case scenario, the assumptions in base case scenario are stressed according to the rating level and thereupon cash inflows from underlying asset pool are estimated. As the credit losses tend to follow log normal distribution, the stress factors are determined based on log normal distribution applied on historical data of the Originator.

2. Cash Inflow Vs Cash Outflow – Sufficiency of Credit Enhancement

The Cash inflows from underlying asset pool in the base case scenario and stress case scenario are compared with Cash outflows (as per payment waterfall mechanism) to assess the sufficiency of given credit enhancement.

Similar approach is followed to assess the adequacy of First loss facility, if Second loss facility is to be rated.

3. Assigning the Final Rating

Once the transaction has been placed, the originators are required to submit all the relevant documents towards the execution of the transaction to CARE Ratings along with a due diligence audit report certified by an external chartered accountant and a legal opinion from a legal counsel on said documents regarding their validity, while also verifying the 'true sale' criteria' and bankruptcy remoteness of the transaction from the seller.

The documents are to be provided within the SEBI mandated timeframe of 90 days. In case the documents are not provided within 90 days, CARE Ratings may extend the timeline by an additional 90 days on a case-to-case basis. If the submitted documents are to the satisfaction of CARE Ratings, a final rating is assigned. If the documents are not submitted within the initial or extended timeframe, appropriate rating action may be taken as per our 'Policy on Assignment of Provisional Ratings' available on CARE Ratings' website www.careedge.in.

4. Direct Assignment of Loan Exposures

There is another type of transaction prevalent in the Indian markets – direct assignment of loan exposures – for which CARE Ratings provides an estimate of the ultimate credit loss that may be expected for such pools. The sections pertaining to the key risks of securitisation, analysing the underlying asset pool and derivation of base case loss assumption are relevant for the exercise of arriving at the estimate of the ultimate credit loss.

Summary

Risks	Analysis	Support / Mitigants
CREDIT RISK	Originator Analysis, Portfolio Analysis, Static Pool Analysis, Collateral Analysis, Portfolio Vs. Actual Pool comparison.	Credit Enhancement
LIQUIDITY RISK	Originator Analysis, Portfolio Analysis, Static Pool Analysis, Collateral Analysis, Portfolio Vs. Actual Pool comparison.	Liquidity Enhancement
MARKET RISK		
Macro-economic Risk	Economic Outlook, Market Variables.	Credit Enhancement
Asset Risk	Available asset class delinquency levels, Originator specific asset class delinquency levels, Economic Outlook, Industry Outlook, Market variables.	Credit Enhancement
Prepayment Risk	Portfolio Analysis, Static Pool Analysis, Available asset class prepayment rates, Market variables.	Credit Enhancement

Risks	Analysis	Support / Mitigants
Interest Rate Risk	Stressed Interest Rate scenario.	Credit Enhancement
COUNTERPARTY RISK		
Servicer Risk	Servicer Analysis, Credit Quality of Servicer, Transaction structure & tenure.	Credit Enhancement, Credit quality of the Servicer, Provision for Alternate Servicer.
Commingling Risk	Servicer Analysis, Credit Quality of Servicer, Transaction structure, Periodicity of deposit of collections from underlying borrowers.	Credit Enhancement, Credit quality of the Servicer.
Other Counterparty Risk	Credit Quality of Counterparties.	Credit quality of the counterparties, Provision for replacement of counterparties.
LEGAL RISK	Transaction Structure, Transaction Documents.	Legal Opinion

[For previous version please refer '"CARE's Rating Methodology - Asset / Mortgage Backed Securitisations"' issued in March 2021]

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