Rating Methodology for Securitisation Transactions

June 2023

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This rating methodology updates and supersedes ICRA's earlier methodology document on this subject, published in June 2021. While this revised version incorporates a few modifications, ICRA's overall approach to rating securitisation transactions remains materially similar.

Overview

This document describes ICRA's methodology for rating securitisation transactions such as Asset-Backed Securitisation (ABS) and Mortgage-Backed Securitisation (MBS)[1]. Such transactions typically involve sale of a pool of loan receivables by a financial institution (termed as Originator) to a Special Purpose Entity (SPE, typically a trust) and issue of Pass-Through Certificates (PTCs)[2] which bestow a beneficial right on the receivables by the SPE to the PTC investors. The principles covered in this methodology note are applied by ICRA even in case of rating any other pool of receivables, such as lease rentals, invoice discounting etc. ICRA follows a similar approach for evaluating the estimated losses in a pool of loan receivables in case of a Direct Assignment (DA) transaction where the pool is directly assigned by the Originator to an investor[3].

Securitisation is an important tool for fund raising for the originators. It provides an additional source of funding for the originators over the conventional routes. As the rating of the securitized pool is typically higher than that of the originator, the lower cost of funding associated with securitisation compared to on-balance sheet funding also makes it an attractive offering for the originators.

Typically, the underlying asset classes in Indian ABS transactions are loans for financing vehicles - private vehicles like cars and Two Wheelers (TWL) or Commercial Vehicles (CV) (like trucks and buses), construction and farm equipment (CE); loans against Gold, and unsecured Personal Loans (PL)/ micro loans or small business loans. MBS transactions typically comprise loans given for acquisition of residential property (Home loans, HL) or loans against existing residential or commercial property (Loan Against Property, LAP).

ICRA's credit ratings for securitisation transactions reflect—on a relative scale—the likelihood of the investor payouts being met as per the terms of the respective transactions / estimate of the relative potential loss to the investor (taking into account credit enhancements, if any) over the tenure of the rated instrument.

ICRA's rating methodology for securitisation transactions involves analysis of the following key risks:

1. Legal Risk Analysis

a. ICRA reviews the legal opinion given by the transaction legal counsel, which forms the base of the legal risk analysis.

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[1] *Ratings assigned to Assignee Payouts under Partial Credit Guarantee (PCG) Scheme offered by the Government of India are also covered under this methodology.*
[2] *The PTCs are also referred as Securitisation Notes (SNs) in some transactions.*
[3] *Loss estimation for DA is a one-time exercise and ICRA does not monitor the performance of the pool.*

b. ICRA's focus on legal risk analysis involves ascertaining whether the assets are eligible for assignment Legal risk analysis also involves determining whether the criteria for 'sale' of assets to the SPE and the bankruptcy remoteness of the SPE are met as per the RBI guidelines published in September 2021 and amended in December 2022.

2. Collateral Risk Analysis

a. Outlook on the operating environment for the relevant asset class

b. Qualitative and quantitative analysis of the Originator's portfolio and comparison with peers in the industry

c. Analysis of composition of the selected pool

3. Structure Risk Analysis

a. Modelling the projected pool cashflows and investor payouts under various scenarios, given the specific transaction structure

4. Counterparty Risk Analysis

Securitisation transactions involve several counterparties such as servicer, trustee[4], account bank (collections and payout account bank) and provider of cash or credit collateral and liquidity facility. ICRA analyses the risk posed by each of these counterparties in a transaction and factors-in the risk into the final ratings assigned.

Each of the above-mentioned risks is discussed in detail in the following sections.

Legal Risk Analysis

The legitimacy of the sale of loans to the SPE from a legal standpoint is an important risk to be considered. ICRA relies on the legal opinion provided by the transaction counsel. Among other things, the legal opinion should opine on whether the assignment of receivables constitutes a sale of receivables from the Originator to the SPE such that in the event of bankruptcy proceedings against the Originator, the other creditors would not have a claim on the receivables from the assets transferred to the SPE.

If the originator is a financial institution, the securitisation transaction would need to abide by the securitisation guidelines set by the Reserve Bank of India (RBI). The RBI guidelines published in September 2021 and amended in December 2022 specify certain criteria for the 'sale' of assets to an SPE, as highlighted below:

- The originator does not maintain direct or indirect control over the transferred exposures.
- The originator should not be able to repurchase the transferred exposures unless it is done through invocation of a clean-up call option which must be at the discretion of the originator.
- The transferred exposures are legally isolated from the originator in such a way that the exposures are put beyond the reach of the originator or its creditors, even in the event of bankruptcy of the originator.
- The instruments issued by the SPE are not the obligations of the originator. Thus, the investors who invest in the instruments have a claim only to the underlying exposures.
- The securitisation does not contain clauses that require the originator to replace or replenish the underlying exposures to improve the credit quality of the pool in the event of deterioration in the underlying credit quality, except under conditions specifically permitted in the RBI guidelines.
- If the originator provides credit enhancement or first loss facility, the securitisation structure shall not allow for an increase in the above positions after inception.
- The transaction documents do not contain clauses that increase the yield payable to, investors and third-party providers of credit enhancements, in case of a deterioration in the credit quality of the underlying pool.

[4] *In case of direct assignment transactions under GOI's PCG scheme, Assignee is represented by Assignee Representative (AR) instead of Trustee. In this note, 'Trustee' has been used to represent both Trustee and AR*

The other typical issues that ICRA focuses on are –

- Whether the Assignment Documents have been executed in accordance with the prevailing stamp duty and registration laws
- Whether the assignment of receivables is valid as per the terms of the underlying loan agreements between the originator and the borrowers i.e. the loan agreement should not have imposed any restrictions on the assignment of receivables
- All the documents of the transaction constitute legal, binding and enforceable obligations of all the counterparties concerned.
- The transaction is not in contravention of any prevailing Indian law.

ICRA may assign a 'provisional' rating to securitisation transactions to denote that the rating is contingent upon the completion of certain actions or the execution of certain documentation. The rating is converted from 'provisional' to 'final' after a review of the legal opinion and the executed transaction documents to determine whether the key structural features of the transaction, as envisaged in the draft documents, are getting accurately incorporated in the final documents. For more details, please refer to ICRA's Policy on assigning provisional ratings available on ICRA's website.

Collateral Risk Analysis

The collections from the underlying pool are the primary source of investor payouts. However, there may be some instances of delays or defaults in the pool or there may be prepayments leading to advance collections, all of which hinders the scheduled payout to the investor. ICRA's objective is to estimate the extent of delays/ losses and prepayments possible in the pool and evaluate whether the available credit enhancements are adequate to ensure timely payout to the investors, for a specified rating level. It is pertinent to note that the selected ***pool*** of loan receivables is extracted from the larger ***portfolio*** of assets of the Originator. Thus, the first step is to estimate the likely performance of the portfolio of loans/ receivables. For this, ICRA analyses the Originator's sourcing and underwriting policy, collection practices, systems and processes, the past performance of the Originator's overall portfolio and performance of the past pools securitised by the Originator. Superimposed on the above is the impact of the features of the selected pool to arrive at the estimated performance of the pool being securitised.

It is important to explain how ICRA views delinquency movements in the context of retail loans. Many of the borrowers may miss the payment due date. However, some of the delays get corrected soon, some get corrected with a lag and some do not get corrected at all, thus leading to a default on the underlying loan. ICRA categorizes borrowers who have missed their payments into 'soft' and 'hard' delinquency buckets. Soft delinquency bucket is defined as that from which recovery is more likely to happen, while a hard delinquency is defined as that from which recovery is difficult. This classification of delinquencies depends on ICRA's past observation for the asset class. For example, a hard bucket delinquency for an unsecured personal loan or micro loan is observed to be shorter (around 30-60 days) while that for a Commercial Vehicle or retail mortgage loan is observed to be longer (around 90 days). ICRA's assumption of losses from contracts in the soft delinquency bucket is lower vis-à-vis the harder delinquency bucket. Cases where the loan has been written off or if the underlying asset has been repossessed and sold at a loss constitute instances of 'crystallised loss'.

A. Portfolio Analysis

Portfolio analysis reveals the performance of the loans based on certain metrics such as collection efficiency, delinquency build up, prepayment rates, write-offs, loss on account of repossessed contracts and so on. The fundamental objective is to assess the overall credit quality of the portfolio and drivers of credit quality. In the portfolio of different originators and also across different asset classes, the key drivers of credit quality are different. In ICRA's opinion the drivers of credit quality could be related to asset and sub asset classes (if any), collateral type, various borrower categories, geography, and other factors such as loan-to-value (LTV), loan tenure and amount, interest rate and business sourcing channel etc.

i. Qualitative Review

A qualitative review entails a detailed review of the Originator's business. Such a review becomes even more important when the asset class or the Originator has a limited track record. ICRA evaluates the Originator's business philosophy, credit policy, origination process, credit appraisal process, collection and recovery mechanism, IT systems, risk control and audit procedures. These factors are explained below.

Corporate Overview and Business Philosophy

The Originator review involves the analysis of the company's background and its organisation structure. For Originators not rated by ICRA, the analysis covers financial and operational parameters to arrive at a shadow credit rating on the entity. This is relevant given that in India, the Originators also typically function as the Servicer in the transaction. The Originator's track record, experience of top management, target customer profile, desired business volumes and risk appetite are some other important variables considered in the assessment. Broadly originators follow an in-house model of sourcing, underwriting and collections or a model where one or more of these activities are outsourced to a third party. In both cases however the checks and balances put in place by the originator are important and are assessed.

Credit Policy

A well-documented credit policy conveys the risk appetite of the company and provides details of the various loan products offered to the borrowers. It lays down the loan eligibility criteria for any borrower and the credit norms being followed by the company for sanctioning the loans. The policy also lists down any deviations from these norms that might be permitted under certain situations and the corresponding approval process.

Origination Process

Discussions with senior executives from Business, Credit and Risk divisions of the Originator are held to understand the sourcing and underwriting process. The originator's appraisal mechanisms including documentation checks, internal and external de dupes, bureau checks, field verifications, personal discussions, legal and technical checks (for all secured loans) along with the strength and experience of the underwriting team influence the overall asset quality of the loan portfolio.

Role of Credit Bureaus in India

There are four credit bureaus in India, namely Credit Information Bureau (India) Limited (CIBIL), Equifax, Highmark and Experian.

Various banks and FIs in India are its members and share the details of their borrowers with these credit bureaus and in return get access to the credit history of borrowers. Many borrowers are aware that their repayment track record is maintained at the credit bureaus and default in any earlier loan would reduce their chances of getting a new loan from any other lending institution. Fear of being rejected for future loans is one motivation for customers to pay on a timely basis. Originators that are active in the Indian structured finance market obtain a track record of borrowers from these credit bureaus prior to lending.

Operations, Collections and Recovery

Once a loan is disbursed, it needs to be adequately serviced by the borrower. There are varied modes of collection prevalent in the industry such as ECS (Electronic Clearance Service)/ NACH (National Automated Clearing House), Post Dated Cheques (PDCs) or cash collections. The collection team must be geared to control delinquencies at an early stage and should become operational as soon as a cheque/ECS/other digital modes is dishonoured or cash is not collected . Recovery process for loans under different delinquency buckets is assessed. The company's track record to repossess and sell assets, and recover dues from the highly delinquent loans is also analysed.

IT Systems

The originator should have strong systems in place to identify, measure and control credit risk efficiently. IT systems should facilitate smooth storage, retrieval and flow of data within the organisation. All the data pertaining to disbursements and collections should be adequately captured. In addition to this, the ability to report data separately for securitised contracts on

an ongoing basis is critical. The adequacy and timeliness of performance reports of past ICRA rated pools shared by originator, if any is also taken into account while assigning the rating for the new transaction.

Risk Control and Audit

ICRA tries to understand the strength and scope of various internal and external audits and its frequency that the originator is subject to carry out. Many originators have a separate Risk Control Unit (RCU) or internal audit team which samples and screens the various files before disbursal and is responsible for minimizing cases of fraud. In some cases, this function is outsourced to external agencies.

ii. Quantitative Review – Measuring Asset Quality

There are several parameters – often used in conjunction with one another – for measuring past pools and portfolio performance. The more common among these being –

Collection Efficiency

Collection Efficiency may be measured as -

- Current Collection Efficiency = Ratio of collections in a particular month to billings in that month.
- Monthly Collection Efficiency = Ratio of collections in a particular month (collections against current billing plus overdues collected) to billings in that month
- Cumulative Collection Efficiency = Ratio of cumulative collections to cumulative billings including opening overdues

A company that adopts a more stringent write-off policy generally shows a better collection efficiency ratio as compared to other companies that may be writing off less frequently. This is because a delinquent contract once written-off is not included in the billing amount going forward. ICRA adequately factors this in while analysing the collection efficiency.

Dynamic portfolio delinquency analysis

Ageing analysis involves 'bucketing' or splitting a portfolio of loans according to their overdue status. To illustrate, let us assume that the value of a portfolio is Rs. 2,000 crore as on March 31, 2023. Now, assume that of the Rs. 2,000 crore, Rs. 1,800 crore worth of loans are current (i.e. there are no overdues) and the rest of the loans are distributed in various delinquency buckets as shown in the table below:

Exhibit 1: Ageing analysis of portfolio of Rs. 2,000 crore as on March 31, 2023

Days Past due	Current	1-30	31-60	61-90	91-180	180+	Total
Principal Value of loans (Rs. crore[5])	1,800	100	20	20	30	30	2000
Percentage of loans	90%	5%	1%	1%	1.5%	1.5%	100%

Such delinquency analysis can be carried out across portfolios of various originators and is a good benchmark for comparative portfolio performance.

- Coincidental Delinquency Analysis

  The analysis in the table above is referred to as coincidental delinquency analysis. A common issue with coincidental delinquency is that it is affected by changes in the portfolio size. The loans in the various delinquency buckets might have been originated at various points in time. However, these expressed as a percentage of current portfolio size gives a lower delinquency ratio if the portfolio may have grown quickly in recent times and delinquencies typically manifest with a lag.

[5] *100 Lakh = 1 crore = 10 million*

Similarly, if the portfolio is declining, the delinquency ratio would display a rise. Nevertheless, coincidental delinquency analysis gives a quick perspective of the delinquency trend.

- Lagged Delinquency Analysis

A loan that is delinquent, say for 90 days, would have been originated at least 90 days in the past. 'Lagged delinquency analysis' involves calculating the delinquency ratio on the lagged portfolio book (say by 90 days or even a year). Lagged delinquency analysis is carried out when the portfolio size has changed in a meaningful manner over the period.

Exhibit 2: Dynamic Ageing Analysis

Month	Portfolio (Rs. crore)	Coincidental Delinquency				Lagged Delinquency		
		Current	30+ dpd	90+ dpd	180+ dpd	30+ dpd (1 month lag)	90+ dpd (3 month lag)	180+ dpd (6 month lag)
Aug-22	1,200	94.0%	3.3%	2.1%	1.0%			
Sep-22	1,320	93.8%	3.6%	2.3%	1.1%	4.0%		
Oct-22	1,500	93.5%	3.9%	2.4%	1.2%	4.4%		
Nov-22	1,680	93.2%	4.0%	2.5%	1.3%	4.5%	3.5%	
Dec-22	1,850	92.5%	4.4%	2.6%	1.3%	4.8%	3.6%	
Jan-23	1,930	92.0%	4.7%	2.8%	1.4%	4.9%	3.6%	
Feb-23	2,000	90.0%	5.0%	3.0%	1.5%	5.2%	3.6%	2.5%
Mar-23	2,300	88.0%	5.2%	3.3%	1.9%	6.0%	4.1%	3.3%

This analysis provides an overview of the portfolio quality. However, in case the Originator writes off the delinquent contracts the delinquency ratio will be lower as discussed earlier and thus high write-offs are also factored in the analysis.

- Prepayment Rate Analysis

Some contracts in a pool may get prepaid. In a "par" transaction where the loans are assigned to the SPE at book value, prepayments result in compression of the excess interest spread (EIS) available in the structure especially if the higher yielding loans are repaid earlier than scheduled. In that case, the higher pool yield vis-à-vis the yield to investors would no longer be available as credit enhancement in respect of the foreclosed contracts. In a "premium" transaction where the loans are assigned to the SPE at a premium, upon premature termination of contracts, the discounted value of the scheduled future cash flows (discounted at the investor yield) on the foreclosed contracts is paid out to the investors and their future cash flow is revised downwards accordingly. Currently, 'par' structures are more prevalent in the Indian securitisation market.

Prepayments affect the level of credit enhancement and hence, it is important to analyse the prepayment rate for the originator's portfolio and the specific pool. The impact on EIS due to prepayment is observed to be higher in the case of pools backed by home loans or loans against property as they are longer tenure loans.

Static Pool Analysis

Static Pool Analysis (SPA) involves assessing the performance of a group of loan contracts originated during a defined period (say a month or a quarter). This group is called a static pool, and its performance is measured over its entire lifecycle i.e. from origination until the maturity of the contracts in the group (and until a specified time period for the pools that have not matured) . SPA reveals how delinquencies and losses build up over time. The analysis reveals trends in asset quality and helps estimate future credit losses on the current portfolio.

For a SPA analysis, ICRA takes the contracts disbursed during various periods and notes their performance until maturity. For instance, in the case of contracts overdue for more than 90 days (90+ dpd), ICRA measures the performance by calculating the

following ratio = [(Unbilled POS[6] + Principal arrears in respect of 90+ dpd contracts) + (Cumulative Loss Booked net of recovery)]/ [Original loan disbursal amount during the period of origination]. This is computed at every month or quarter after the contracts were originated.

The ratio discussed above incorporates losses (if data is available) along with delinquency above 90 days. This is because in some retail loans, contracts may be delinquent for a long period of time (i.e. in harder delinquency bucket with very little or no scope of recovery) but repossession or sale of repossessed underlying assets may not have happened on account of several reasons. If these contracts are excluded from the loss calculations, the overall loss would appear lower than what it should be. Hence, contracts delinquent beyond a certain period of time are also incorporated in such a static pool analysis. This helps get a more realistic picture of possible eventual loss. The definition of harder delinquency bucket varies across asset classes.

Many companies have a write-off policy i.e. they write off contracts after they have been overdue for a certain period, say 90 days, 180 days and so on. Most companies also repossess the underlying assets if the loan has not been paying for a certain period of time. The repossession policy is Originator-specific and also depends on the nature of the underlying asset and the time the legal proceedings take before an asset can be repossessed. The Originator could then either release the repossessed asset – once the overdues are cleared – or sell the repossessed asset and recover the claims outstanding. The trend in recovery post sale of repossessed assets is also factored by ICRA in its collateral analysis. The longer it takes to repossess or sell an asset such as a commercial vehicle, the greater the depreciation and hence lower the recovery. However, in MBS where the underlying assets are likely to retain their value for several years and do not depreciate, the recoveries typically remain adequate. ICRA analyses the write-off and repossession policies of all the originators and factors that into its analysis.

Using the method given above, an SPA table can be constructed as given below:

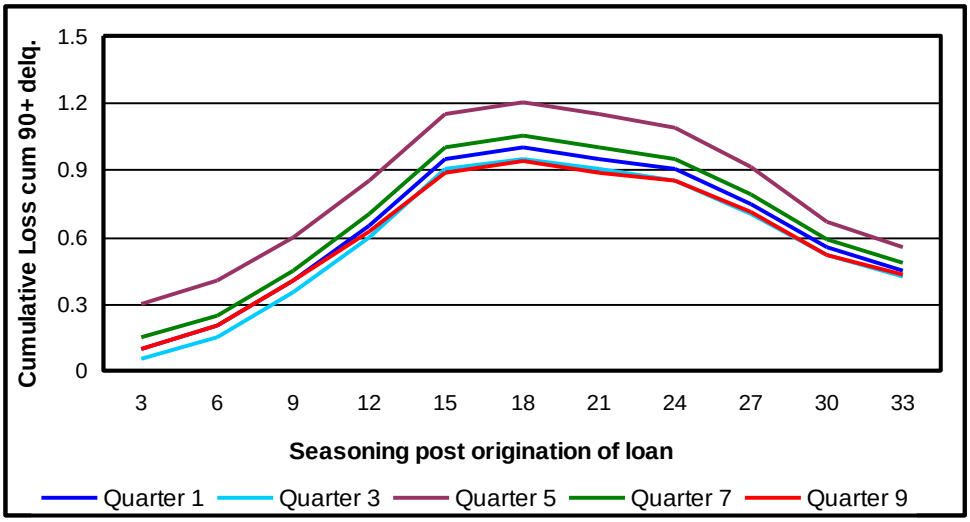
Exhibit 3: SPA analysis at Loss cum 90+ dpd level

		Months post origination (figures in %)										
Vintage	**Disbursement in Rs. crore**	**3**	**6**	**9**	**12**	**15**	**18**	**21**	**24**	**27**	**30**	**33**
Quarter 1	100	0.10	0.20	0.40	0.65	0.95	1.00	0.95	0.90	0.75	0.55	0.45
Quarter 2	150	0.15	0.25	0.45	0.75	1.00	1.05	1.00	0.95	0.80	0.60	
Quarter 3	200	0.05	0.15	0.35	0.60	0.90	0.95	0.90	0.85	0.70		
Quarter 4	225	0.25	0.35	0.55	0.80	1.10	1.15	1.10	1.05			
Quarter 5	250	0.30	0.40	0.60	0.85	1.15	1.20	1.15				
Quarter 6	300	0.05	0.15	0.35	0.60	0.90	0.95					
Quarter 7	350	0.15	0.25	0.45	0.70	1.00						
Quarter 8	375	0.30	0.40	0.60	0.85							
Quarter 9	425	0.10	0.20	0.40								

We can see that the pool of contracts originated in Quarter 1 has completed its full tenure and the eventual loss for this pool of contracts is 0.45%. On the other hand, the contracts originated in Quarter 9 have completed only 9 months of seasoning and the loss cum 90+ dpd is 0.40% (nine months after origination). By calculating the average increase in loss cum delinquency rates, these numbers can also be extrapolated for the incomplete vintages to get an estimate of the expected loss cum delinquency rates. Thus, SPA helps assess the quality of unseasoned pools by evaluating the overdue percentage of the older pools at the same or comparable seasoning points. The extrapolated loss curves across different quarters of loan origination would appear as illustrated below.

[6] *POS: Principal Outstanding*

Exhibit 4:Extrapolated Static loss cum 90+ delinquency curve



The adequacy of the credit enhancement level for a structured finance rating is assessed based on the delinquencies and credit losses expected from the pool being securitised. The analysis of the static pool data provides the mean static losses and peak losses on past pools as well as variations in past static pool losses over time. This information is useful in forecasting eventual losses for the partly seasoned pools.

This analysis can be done to measure the portfolio performance based on parameters like asset class (most frequently used) and tenure. Importantly, the measurement of performance focuses only on the collections, and the analysis is immune to variations in the accounting policy.

Comparison of Static Pool Analysis and Dynamic Portfolio Analysis

Static Pool Analysis and Dynamic Portfolio Analysis both have their merits and shortcomings - the primary differences between the two methods are brought out in the table below.

Exhibit 5: Comparison between Static Pool Analysis and Dynamic Portfolio Analysis

Parameter	Static Pool Analysis	Dynamic Portfolio Analysis
Impact of change in portfolio size	No impact (denominator is constant since number of contracts being used for analysis remains the same)	Yes (with time, more contracts keep getting included or dropped from the analysis as a result of which the ratios at various points in time are not comparable)
Impact of macroeconomic factors or events over a specified period	Due to macroeconomic factors or events certain vintages may be more impacted than others which can be identified through static pool analysis.	The extent of impact of such factors or events may be difficult to gauge due to possible write-offs as well as fresh sourcing of loans that may not have been impacted yet by macroeconomic factors/ events because of insufficient seasoning.
Impact of variation in accounting policy of originators (different write off policies being adopted by originators)	No (not affected by write off policy of the originator) – information provided should be gross of any write-offs and bad loan sell downs.	Yes (higher the amount of write offs of a particular originator, the better the portfolio performance will appear). This, however, can be adjusted for the amount of write-offs done

Parameter	Static Pool Analysis	Dynamic Portfolio Analysis
Estimation of future losses and recovery	Past trends can be extrapolated to estimate mean level and variance of potential future losses. Potential future recovery from peak delinquency levels can be estimated depending on past trends.	Indicates only the broad trend in the portfolio. The data does not give any idea on the recovery from the delinquent buckets.
Ease of use	This is a more in-depth analysis. Granular data is required for this analysis, which may not be easily available with the Originators.	This is a quick measure of portfolio quality. Data is usually easily available in the format needed for this analysis.

Overall, Static Pool Analysis is especially useful in the context of rating retail loan pools given the benefits highlighted in the table above.

Deriving the base case loss

As discussed earlier, ICRA uses Static Pool Analysis (SPA) to estimate the loss curves for a specific originator's portfolio. ICRA observes the loss rate over the life of the contracts originated in a particular vintage. This analysis is done for each asset class separately[7]. SPA can be used to extrapolate expected losses of the less seasoned pools based on the loss curves of more seasoned pools. The greater the number of years of historical data available, the more comfortable ICRA is in using such data for projecting losses. Longer time periods of historical data allow ICRA to observe trends effectively and observe the performance over economic cycles.

The base case loss is usually derived from the SPA (i.e. the average of loss seen at the end of each vintage in the SPA). However, since the base case loss is based on past vintages, some adjustments need to be made to incorporate expectations for the future. So, the base case loss is adjusted appropriately to reflect expected economic scenario and ICRA's outlook on the asset class. Adjustments are also made for some qualitative factors such as any change in the originator's business model, credit policy, management, internal processes and so on. In the absence of SPA, the base case loss is derived from the dynamic portfolio analysis and by way of comparison of the same with peers in similar asset class, besides adjusting for the outlook for the asset class. While arriving at the base case loss, appropriate adjustments are made to mitigate the impact of write offs, any sharp increase or decrease in portfolio, and vintage of the originator.

ICRA assumes the eventual losses in the pool would follow a lognormal distribution in the various simulations run in the cashflow model. This distribution has a fat tail (i.e. more incidences of high loss scenarios and therefore more conservative) compared to the normal distribution. ICRA also estimates the variability of losses, which is used in the cashflow model. The standard deviation used is derived from the standard deviation observed in the static pool analysis; this may also be adjusted for any recent portfolio developments that is likely to increase or reduce the variability in the pool - change in industry dynamics, geographical and borrower-wise diversity of the pool are key considerations for modifications in the standard deviation. Additionally, if the past data for SPA is available for a short period of time (due to short track record of the Originator for instance), the standard deviation derived from the SPA may not be fully reliable, hence the performance of industry peers is also considered to arrive at the standard deviation for such Originators.

Since the pool is a part of the overall portfolio, a comparison of the pool characteristics with the overall portfolio characteristics gives an estimate of the expected pool performance. Hence some adjustments need to be made to the base case loss to arrive at the final loss assumed for the pool. The comparison is done on all the key parameters discussed earlier such as asset

[7] *What constitutes a separate asset class is decided based on the materiality. For instance, if a particular portfolio of CV loans has a significant share of both used as well as new CVs, each of the two segments would be analysed separately. On the other hand, if the portfolio is comprised pre-dominantly of one of the two segments, a combined analysis may suffice. Availability of segregated data influences the kind of analysis done.*

category, customer category, seasoning/ pre-securitisation amortisation, overdue status as on cut-off date, peak dpd, LTV, geography, tenure, instalment to income ratio, credit bureau scores and so on. ICRA looks at the performance of a sub-category and the share of that sub-category in the pool. Appropriate adjustments are made for the share of a better performing sub-category or for the presence of a weaker performing sub-category in the pool when compared to the portfolio. The derivation of the final loss rate for the pool has been discussed subsequently in this note.

Analysis of some key parameters of the portfolio

In the previous sections, we have discussed our analysis of the broad portfolio performance. A further drill-down analysis is done to assess which factors largely influence the credit quality of a particular portfolio. The objective is to identify sub-sections of the portfolio which are prone to higher losses or delinquencies. If the pool being rated has a high share of certain loan types that have traditionally led to higher delinquencies on the originator's portfolio, then the loss estimate for the pool is appropriately increased (vis-à-vis the estimate for the overall portfolio) and vice versa. This analysis is then used in arriving at the final loss for the pool (discussed later).

Some of the important features that typically help assess portfolio performance include:

- **Asset – related**
  - Asset type: for instance, in the case of CVs - MHCVs, LCVs, Pickups
  - Use of assets - Personal use or commercial use
  - Collateral type (in mortgage loans- like land, residential house, commercial establishment and so on)

- **Borrower – related**
  - First time buyers or borrowers
  - Salaried or Self-employed
  - Large fleet operator or small road transporter (SRTO) - in the context of CVs
  - Income to Instalment Ratio
  - Credit Bureau score

- **Loan Features – related**
  - Original Tenure of contracts
  - Loan to value (LTV) ratio
  - Ticket Size
  - Interest Rate
  - Loan Cycle (used primarily for unsecured loans)

- **Other Features**
  - Geographical distribution
  - Seasoning or Amortisation profile
  - Overdue profile
  - Peak overdue profile
  - Obligor concentration

The above parameters have been discussed subsequently in this note. Other than the criteria mentioned above, ICRA also analyses additional parameters in a portfolio, which may be specific to the originator or the dominant asset category in the pool.

B. Pool Analysis

Past Pool Performance

ICRA also incorporates the performance of the originator's previously rated pools into its rating exercise. The delinquency movement, prepayment trends, collection and credit enhancement and other important parameters are studied to understand which pool characteristics are responsible for the observed pool behaviour.

Analysis of Pool Characteristics

The selected pool could deviate positively or negatively from the overall portfolio. In most cases, an individual pool of loans is better than the portfolio on some parameters and weaker on others.

Key Parameters of the pool

The key pool features that ICRA analyses are as follows:

- **Asset- related**
  - **Asset Category**

    Each asset class has unique characteristics and performance drivers. ICRA has observed that some asset classes have an inherently weaker performance than others. The performance of different asset classes may also vary across originators. The Indian securitisation market is dominated by asset classes like mortgage loans (both housing and loan against property), vehicle loans, SME loans, gold loans , microfinance loans, two wheeler loans and personal loans.
  - **Loan Purpose or end use**

    ICRA has observed that often, the loan servicing behaviour also has a correlation with the end use that the underlying asset is put to. For instance, a house bought for occupancy by the borrower is likely to have a lower default risk than a house bought for investment purposes, since a borrower is less likely to forgo his/ her place of residence. In the case of car loans, cars purchased for personal use and those purchased for commercial use have also exhibited different performance - in the first case the debt repayment would generally be dependent on the customer profile, whereas in the latter case it may be highly dependent on the revenue stream generated by the asset (car) itself.
- **Borrower-related**
  - **Borrower Profile**

    Borrower profile is based on various parameters such as age, occupation, income level and so on. While some factors may have a significant impact in a certain portfolio, their impact may not be as significant in others. Though ICRA does not classify borrowers explicitly as prime and sub-prime, certain borrower characteristics help differentiate borrower quality. For example, ICRA has observed different delinquency patterns for the salaried and self-employed borrowers, especially in the mortgage and car loan portfolios. ICRA thus analyses the borrower profile of a pool vis-à-vis the originator's portfolio to assess the strength of the pool and the delinquencies that could potentially arise because of this parameter.
  - **Instalment to income ratio**

    An important indicator of the borrower's ability and willingness to pay is the Income to Instalment ratio. To ensure that the borrower's obligation is consistent with income, the lenders compare the annual debt repayment obligation to the annual income of the obligor. ICRA has observed that, a higher ratio indicates greater stress on the obligor and hence a greater probability of default, but this need not be true for the portfolio of every originator.
  - **Credit Bureau Score**

    A healthy bureau score would reflect a good track of payment of the borrower and hence a lower propensity to default. Some borrowers may have a track record of skipping some interim payments and hence their credit bureau score may be lower, which could mean a relatively higher propensity to default for such borrowers.

- **Loan Features - related**

- **Original Loan Tenure**

  A long tenure contract is typically likely to exhibit more volatility than a short tenure contract due to the fact that in a long-tenure contract, the build-up of owner's equity is more gradual as compared to a shorter tenure contract, all else being equal. Also, borrower income over a longer period may be more difficult to predict. This generally results in an increase in the probability of default as the loan tenure increases. Nevertheless, for a given loan amount, a longer tenure also means a lower per-month instalment burden, which may mean greater likelihood of timely servicing. Hence, the portfolio of the lender needs to be analysed to understand loans of which tenure are likely to perform better or weaker. Also for floating rate loans, the tenure of the loan may also increase (to keep the monthly repayment same for the borrower) which needs to be considered.

- **Loan-to-Value Ratio**

  The loan-to-value (LTV) ratio implies how much of the underlying asset is being financed. LTV is an indicator of the borrower's leverage when the loan application is initially filed. This is an important factor only for secured loans. Though lower LTV (lower financing and higher down payment) typically indicates lower risk, this need not always be true across originators and asset classes. In many portfolios, high LTV loans do not necessarily lead to high losses since a higher LTV loan is given selectively and to borrowers with better credit profile.

- **Ticket Size**

  ICRA analyses high and low ticket loans based on the observed past behaviour of obligors in the originator's portfolio. However, historically ticket size analysis has shown mixed results, especially in secured asset class loans.

- **Interest Rate/ Yield**

  The credit policy of originators typically defines the interest rate to be charged to different customers. Interest rate can be used as a risk differentiator since the interest rate on a particular loan often indicates the risk posed by the borrower. ICRA analyses the lending policy and norms of the originator to assess if interest rate is used as a risk differentiator by the lender. This factor needs to be judged together with the overall interest rate level in the portfolio across different vintages. This is because the credit policy may have been modified over time and loans given to customers with the same risk profile at different points in time may have different interest rates. In addition, in the case of mortgage pools, floating or fixed interest and the reset clause are also important factors to consider.

- **Loan Cycle**

  Loan Cycle or the number of times a borrower has taken a loan from the lender is also considered for analysis in the case of unsecured loans, where there is no collateral – hence collateral value or LTV criteria hold no significance here. The number of loans a borrower has successfully repaid provides some comfort about the track record of the borrower.

- **Other Features**

  - **Overdue Status/ Peak Overdue**

    ICRA has observed that eventual loss from contracts that were overdue at the time of the initial rating, are significantly higher relative to losses from contracts that are current at the time of securitisation. Similarly, eventual loss from contracts that have a history of overdues but are current at the time of securitisation are observed to be relatively higher in comparison to contracts with no overdue history. ICRA factors the overdue status-based distribution and the past payment record of the pool contracts into its loss estimation.

  - **Seasoning / Amortisation Profile**

    Seasoning represents the number of instalments that have been paid/ or become due for payments post the origination of a loan. The RBI Guidelines stipulate a Minimum Holding Period (MHP) requirement based on the tenure of the loan. The MHP indicates the minimum amount of time a loan needs to be on the books of the Originator before it is eligible for securitisation. Usually a loan that has paid regularly in the early months is less likely to default later on account of some equity build-up. Ability and willingness of the borrower also gets established. Thus, high seasoning in a pool is always a source of comfort. ICRA also considers amortisation for the pool comprising of lower tenure loans. ICRA's analysis across pools has also revealed less eventual loss from contracts that are relatively more seasoned / amortised.

- **Geographical Mix**

  The performance of various regions (states / districts / branches) in a portfolio is based on a variety of factors such as political issues, economic stability, various state specific local issues and the originator's presence in the region. Additionally, in the case of mortgage loans, different geographies may experience a different degree of volatility in the price of the underlying asset, which is also factored in the analysis. Hence, the higher presence of any specific geography in the pool, which is performing well in the portfolio may be beneficial to the pool, while the higher presence of a weak performing geography in the pool vis-à-vis the portfolio may be a disadvantage to the pool. Additionally, a geographically more diversified pool is considered to be more beneficial than a concentrated pool as the impact of any negative developments in any specific location is likely to be less if the pool is geographically well spread out.

- **Obligor Concentration**

  A more diversified pool implies lesser dependence on any particular loan for the pool performance. Hence, higher diversification (i.e. high granularity and less concentration) is favourable from a credit perspective. Typically, a pool is considered concentrated based on obligor concentration for the top five or ten contracts in the pool. ICRA models a concentrated pool differently from a regular granular pool which is discussed under the Structure Risk Analysis section.

Pool versus Portfolio

As discussed earlier, the base case loss is derived from the SPA analysis of the portfolio. Adjustments are then made to this base case loss to reflect the specific pool characteristics (in comparison to the portfolio characteristics).

This is illustrated in the table below for a sample commercial vehicle loan pool.

Exhibit 6: Deriving final adjusted pool loss estimate – an illustration

	Loss Estimate
Base case loss	**3.0%**
Seasoning Adjustment	-0.5%
Overdue Adjustment	0.1%
LTV Adjustment	-0.2%
Geographical Adjustment	0.3%
Final adjusted pool loss estimate	***2.7%***

The performance of the past rated pools of the same originator helps ICRA understand how ICRA's estimate of loss from the earlier pools has differed from their actual performance and what the key characteristics of the overdue loans were. The base case loss thus adjusted for various parameters like seasoning/amortisation, peak dpd, overdue, ticket size, LTV, credit bureau score, geography and so on, gives the final adjusted loss estimate for the pool.

The standard deviation derived from the static pool analysis and the base case loss estimate is used to calculate the co-efficient of variation, which is used in the modelling exercise (discussed later) to assess the adequacy of the credit enhancement in the pool.

Structure Risk Analysis – Modelling the cash flows

The final step in rating a securitisation transaction is modelling the projected cash inflows and cash outflows. The uncertainty in the quantum and timing of the actual cash inflows arises out of the possibility of delinquencies, losses as well as prepayments in the pool. On the other hand, the quantum and timing of cash outflows is driven by the terms of the transaction, including the number, yield and inter-se seniority among the various tranches, waterfall mechanism, incidence of expenses, and the credit enhancement mechanism.

For modelling the inflows ('the asset side'), ICRA factors the various different possible scenarios of pool collections through a simulation exercise. For modelling the outflows ('the liability side'), the simulated collections are allocated as per the 'cashflow waterfall' stipulated in the transaction structure shared at the time of the initial rating. The objective of the cash flow analysis

is to assess the adequacy of the credit/ liquidity support that would be required for a given level of rating. The higher the rating for the instrument, the lower is the associated default probability and the expected loss, and thus, through an iterative process, varying levels of credit enhancement are tried out to assess the adequate level of credit enhancement, with which the estimated defaults and losses to the instrument being rated are commensurate with the benchmark level for the rating.

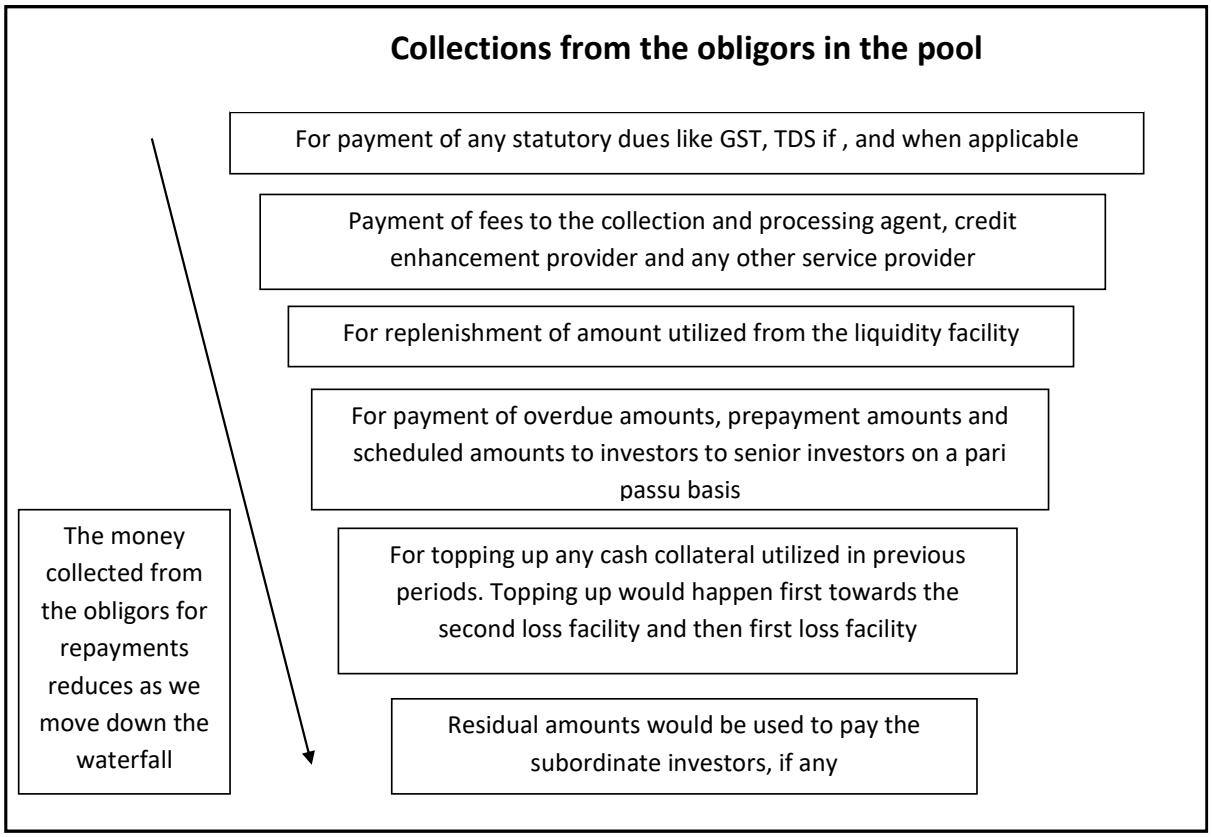
The key variables for the simulation are losses and prepayments. The key inputs, viz., mean and standard deviation are calibrated based on the collateral analysis as described earlier in this report. In a diversified retail loan pool, all the underlying loans are not expected to default simultaneously. Indeed, certain loans may pay for a certain period and default later. Thus, another input into the model is the timing of the losses, i.e., the period over which the losses happen or the loss build-up and recovery thereafter. ICRA's assumption on the loss build-up typically depends on the nature of the asset class and historically observed trends.

The cash flows are further modified for the expected prepayment rate and also the pace of prepayment at different points. Prepayments can also have an impact on credit enhancement availability.

Modelling approach

The scheduled investor payouts are calculated by ICRA based on the pool cashflows, the structure of the transaction and the payment priority (i.e. waterfall mechanism, given below).

Exhibit 7: A typical waterfall mechanism



ICRA's cash flow modelling for rating securitisation transactions involves simulation of potential losses, delinquencies and prepayments in the pool. In each scenario, the pool collections so simulated are allocated as per the 'cashflow waterfall' stipulated in the transaction documents. A certain credit enhancement figure is also factored in the simulation. The losses and prepayments are assumed to follow a log-normal distribution. The mean and the Co-efficient of Variation (CoV) are calibrated on the basis of observation from the performance of the Originator's portfolio, past rated ICRA pools and the assessment of the current pool. ICRA's estimate of the variability of losses also takes into account the track record of the Originator and the obligor concentration in the pool.

In all simulated scenarios, the incidences of default to the investor as well as the extent of loss to the investor in the event of default are measured. These are then compared with ICRA's internal benchmarks for a given level of rating.

Modelling performance of highly concentrated loan pools

In a concentrated pool, the performance of the pool is influenced by the performance of a few large obligors. The variability of loss in case of a concentrated pool would be much higher than that of a regular granular pool and the assumption of lognormal distribution of loss would not hold. ICRA factors in the share of the top obligor (or entity in case the borrower is a corporate) as well as the share of top 5 and top 10 borrowers in the pool to determine whether it as a granular or a concentrated/ non-granular pool.

In the case of such concentrated pools, ICRA models the inflows on the concentrated portion and the granular portion separately. In respect of the concentrated sub-pool, ICRA models the default and recovery (considering the current LTV and balance tenure) on each exposure individually, wherein each borrower's probability of default depends on its rating/ shadow rating. The defaults follow a binomial distribution with certain correlation between the defaults of multiple borrowers. The level of correlation depends on various factors such as geography, industry, borrower etc. The granular sub-portion of the pool is modelled using the lognormal distribution approach. The cashflows from both the sub-pools are merged and run through the cashflow waterfall. Thereafter the adequacy of credit enhancement and the rating of the instrument is assessed in the same way as modelled for granular transactions, as explained earlier in this note.

Incorporation of risk due to interest rate changes

'Interest rate risk' arises in a transaction on account of the instruments being priced differently from the underlying loans in the pool; for instance, the loans in the pool could be on floating-rate while the securities might be fixed-rate, or vice versa. While such transactions are not commonplace, what is more likely is the presence of 'basis risk', i.e., the underlying loan pool and the PTCs being both variable rate, but each linked to a different benchmark. For instance, the loans could be linked to the Originator's Marginal Cost of Fund-based Lending Rate (MCLR) while the yield on the securities in question could be linked with an external benchmark like the G-Sec rate. In such cases, while the two could be broadly expected to move in tandem, there could be lag effects. To factor-in the interest rate risk and the basis risk, ICRA typically stresses the EIS in such transactions by assuming adverse interest rate movement over certain periods of time during the pool's tenure.

Forms of credit and liquidity support

The scheduled pool cash flows may be affected due to delays in repayments or prepayments, and payments to the investor may potentially vary. In order to protect the investors from shortfalls owing to delay or defaults in the pool, credit enhancement is generally set aside in a transaction. The credit enhancement is provided only at the initiation of the securitisation transaction and can be provided by the originator or a third party. The credit enhancement may be in-built in the structure or may be provided through an external source. The following section discusses the forms of credit enhancement that ICRA has seen across rated transactions.

- **Excess Interest Spread (EIS)**

  EIS refers to the difference between the pool yield and the aggregate of the investor yield and any taxes and expenses paid in the transaction. In most cases, the originator has a subordinate claim on the EIS. Thus the EIS functions as the first line of support for investor payments.

  While the EIS helps offset losses in a securitised pool, transactions cannot rely on this form of credit enhancement in isolation. This is because the credit losses, re-pricing of loans (both increases and reductions in interest rate; mostly in the case of mortgage loans in India) and prepayments that occur throughout the life of a pool may reduce the future EIS available. However, in mortgage loans, if the interest rate on loans increases, then the EIS available may also increase. The EIS, after meeting any shortfalls in the pool, flows back to the originator on a monthly basis. This arrangement is the most prevalent structure. However, there are also structures where the EIS remains in the structure and provides cover over

future shortfalls as well or is passed on to the investors. The benefit derived from EIS depends on the treatment of the EIS as per the transaction structure.

- **Over-Collateralisation or Principal Subordination**

  Over-collateralisation or subordination refers to securities that have a lower priority in claims from the pool receivables. These provide a cushion to the senior investors since the subordinate investors receive any residual payments only after all the payments to the senior tranche and all the expenses for the pool have been met. In the Indian market, the originator usually retains the subordinated piece which is also referred to as the equity tranche. However, the securities can also be tranched on the basis of seniority such that junior investors get their share after the senior investors have been paid off and the Originator gets the residual cashflows after both the senior and the junior tranches have been completely paid off.

- **Cash/Credit Collateral**

  Cash/ credit collateral is one of the most common forms of credit enhancement provided in rated transactions. The cash collateral is to be deposited with a bank/institution acceptable to ICRA. The cash collateral account is operated by the Trustee.

  In certain transactions, the cash/ credit collateral may be split into a First Loss Facility (FLF) and a Second Loss Facility (SLF). In such a case, the SLF is utilised only when the FLF has been completely exhausted. The SLF is topped up (for any utilised portion) before the FLF due to its relative seniority in the structure. The SLF may also be in the form of a bank guarantee. Notwithstanding such a split, the entire cash/ credit collateral is available for meeting the shortfall in investor payouts. Also, in transactions with multiple PTC series, a part of the cash/ credit collateral may be tranche-specific.

  In ICRA's view, a certain minimum cash/ credit collateral level is required in a structure that has any promised payouts before the final maturity date so as to protect against any contingency (for example delay in remitting collections for the month or any temporary MIS related issue at the Originator's end) that may lead to temporary shortfall in the pool on the due date.

  A corporate guarantee can also be provided in lieu of cash collateral and functions similar to cash collateral. Typically, the corporate guarantee is provided by the originator. Some of the key attributes of a typical guarantee would be that it has to act a first loss facility, with a T minus structure to ensure timely invocation and payment to investors in case of shortfall if any and would need to be unconditional and irrevocable.

- **Liquidity Facility**

  A liquidity facility is one which is designed to meet shortfalls in scheduled payouts only to the extent of the shortfalls arising out of contracts in shorter overdue buckets, typically up to 90 days past due. The liquidity facility also helps tide over temporary cashflow mismatches, which may arise due to timing differences between the receipt of cash flows from the underlying assets and payments to the investors. All other shortfalls would be met from other forms of credit enhancement (such as cash/ credit collateral). The liquidity facility is inherently senior to the senior investor i.e. the pool receivables are first used to top up the utilised liquidity facility and then pay the senior investors. Generally, a certain fee is charged by the liquidity facility provider for any utilisation of this facility (generally paid at the top of the waterfall). Since such arrangement entails higher cost for two forms of credit enhancement, liquidity facility is not a regular form of credit enhancement used by issuers and investors.

- **Reserve Account**

  A reserve account lien marked in favour of the Trustee is provided for in some transactions, to trap any residual cashflows, after meeting the payouts and topping up of cash/credit collateral. In the absence of the reserve account, such excess cash flows would have typically been paid out to the originator. A reserve account is often used in conjunction with a performance-linked trigger, wherein upon the trigger getting breached—for instance, collection efficiency falling below a stipulated %--the reserve account may be activated.

Counterparty Risk Analysis

There are various counterparties to a transaction – the servicer and originator (both typically being the same in the Indian context) being the primary ones. Other counterparties typically include trustee, cash/credit collateral providers, guarantee providers, Interest Rate Swap provider, liquidity facility providers and account banks. ICRA analyses the risk posed by each of these counterparties in a transaction and factors the risk into the final ratings assigned.

Servicer

The servicer plays an important role in a transaction as it is responsible for the collections from accounts/borrowers in a pool. Typically, in domestic securitisations, the originator plays the role of servicer as well. A servicer with efficient collection processes can positively impact a pool's performance. ICRA performs due diligence on the servicer by analyzing its collection processes (what action the collection team takes for correcting delinquency in different buckets, which collection process is outsourced versus retained in-house), strength of the collection team, expertise of the servicer in the asset class being securitized, sophistication and quality of the monitoring systems and reports.

The servicer also poses a commingling risk since there could be a lag between receiving the collections from the pool of borrowers and transfer of the funds to the SPE for paying to the PTC investors. In a given month, as funds are collected from the borrowers, they may mingle with the servicer's cashflows. In the following month, the collections are transferred into a SPE account/collection and payout account from which payments are made to the investors. The risk principally arises before the funds are transferred to the aforesaid account and the pool cashflows merge with the cashflows of the servicer. If the servicer were to go bankrupt during this time and any subsequent legal proceedings were to be initiated against the servicer, it could result in a delay in the investor payouts corresponding to the collections which are yet to be transferred to the collection and payout account. The future collections from securitised assets which if kept separate from the servicer's cash flows, however, would continue to be available to the PTC investors for servicing as per the Insolvency and Bankruptcy Code (IBC). Upon a deterioration in the credit profile of the servicer, the transaction documents could provide for a backup servicer or more frequent transfers of the pool cashflows from the servicer's account to the SPE account.

Since the role of the servicer is crucial to the pool's performance, the servicer's credit rating is an important quantitative input for ICRA's rating on the ABS and MBS issuances. ICRA will typically rate an ABS or MBS instrument up to five notches above the servicer's base rating (or shadow rating) at the transaction initiation stage If a transaction provides for a back-up servicer upon a rating downgrade of the original servicer, ICRA would perform a similar due diligence on the back-up servicer's operations.

Trustee

A trustee or the investor's representative is a very crucial counterparty to the entire transaction. The SPE purchases the pool of loans from the Originator and issues securities backed by the same to the investors. On an ongoing basis, the trustee receives collection from the servicer and passes them as per the waterfall mechanism to the investor. In the event of any shortfall in collections in meeting the payout, the trustee also utilises the credit enhancement to mitigate default risk. In the event of the trustee not being able to carry out its roles properly, then the transaction documents typically provide an option to replace the trustee with the investors' approval. Since a new Trustee can be appointed in a short span, the counterparty risk associated with the Trustee is generally low.

Cash/ Credit Collateral Provider

The cash collateral provider is typically the Originator; however, the cash collateral can also be provided by a third party (typically the SLF in the form of a bank guarantee). The cash/ credit collateral should ideally be in the name of the trustee. However, in most transactions, the cash collateral is typically held with an account bank in the form of fixed deposit in the name of the originator with a lien marked to the trustee. Certain transactions also have credit enhancement in the form of a corporate guarantee only. In such cases, the rating of the guarantor would also become relevant.

Account Bank

The Collection & Payout Account (CPA) is an account wherein the collections from the borrowers are deposited by the servicer and the payment is made to the PTC investors. The cash collateral for securitisation transactions is also typically held with a bank (FD Bank). CPA Bank and FD Bank (collectively Account Bank) can either be the same or a different institution. CPA Bank can be changed with relative ease. On the other hand, in the event there are any regulatory restrictions placed on withdrawal of funds from the FD bank, it could lead to a delay in making payouts to the investors if there is any shortfall from the pool collections. Therefore, the credit profile of the FD Bank remains an important rating factor. At times, the transaction documents provide for the replacement of the Account Bank if the bank's rating is downgraded below a designated threshold.

Interest Rate Swap Provider

An interest rate swap may be incorporated into a transaction (though rarely seen in Indian securitisation transactions) to mitigate the potential interest rate mismatch when the PTCs are priced differently from the underlying pool. The rating of the swap provider would then be an important input with regard to providing timely support when called upon.

Liquidity Facility Provider

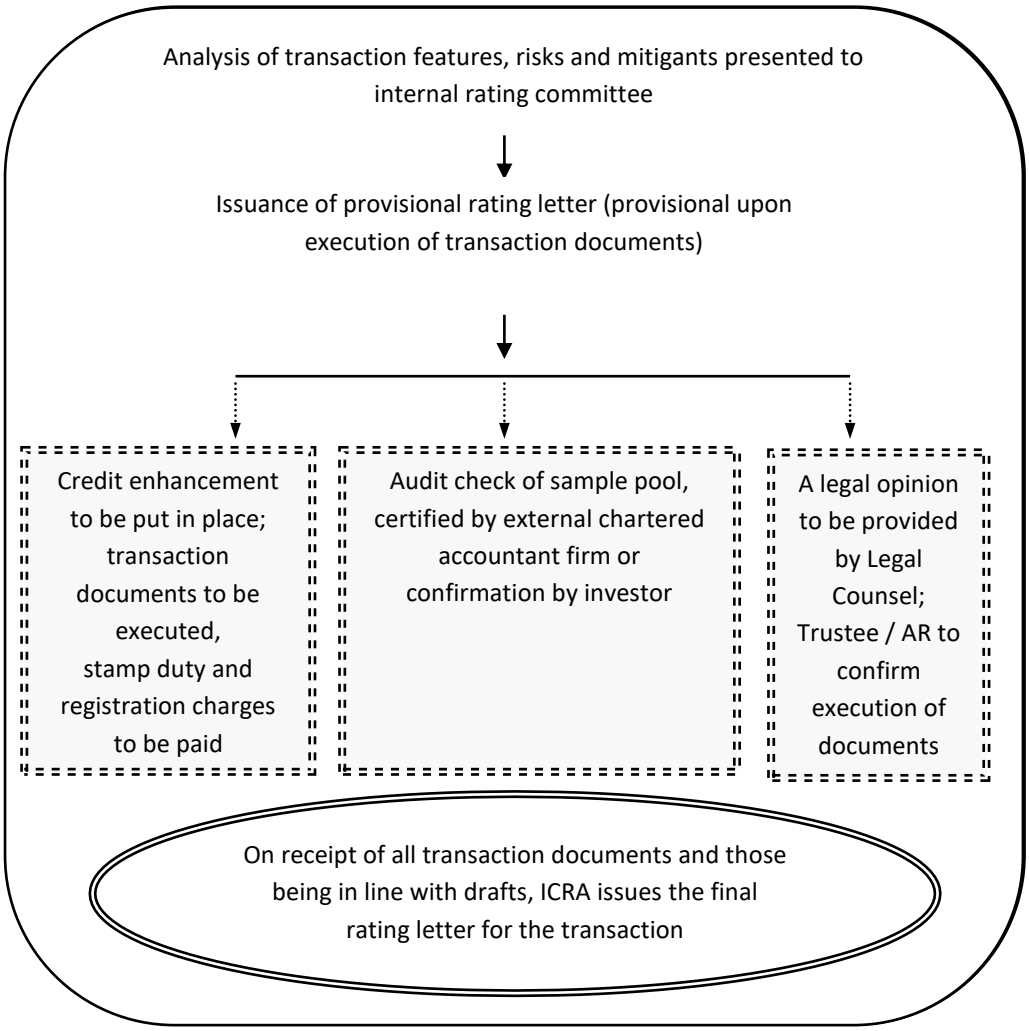
A liquidity facility smoothens the cash flows in a transaction. If there are shortfalls on account of delinquent loans in a pool, the liquidity provider would provide funds on a temporary basis to meet investor payouts. Any amount extended under a liquidity facility is generally repaid at the top of the waterfall in the next month. Rating criteria for the liquidity facility provider would be the same as Account Bank (mentioned earlier).

Post execution checks

Issuance of the Final Rating Letter

After the transaction features have been analysed, a presentation is made to the internal credit rating committee of ICRA. The entire process post execution of the transaction to the issuance of final rating letter (which needs to be completed within a stipulated time frame as specified in the ICRA policy on assigning provisional ratings) has been illustrated in the chart below.

Exhibit 8: Post Analysis- rating committee process to issuance of final rating letter



Surveillance of rated transactions

ICRA periodically (usually monthly) receives an update on the performance of the rated pool i.e. the collections, payouts, delinquency profile, utilisation of credit enhancement (if any) and so on from the trustee. Using this data, ICRA monitors the performance of the rated pool throughout the transaction's life to ensure that the rating outstanding adequately reflects the current credit risk on the instruments. If the actual asset performance at any time deviates from the performance expected at the time of the initial rating, ICRA would reassess the rated tranches as required.

Environmental and Social Risks

While securitised instruments do not face material physical climate risks, they are exposed to environmental risks indirectly through the underlying pool of loans/receivables which are part of such transactions. If the borrowers which are a part of securitisation transactions face business disruption because of physical climate adversities, or if such businesses face climate transition risks because of technological, regulatory, or customer behaviour changes, it could translate into credit risks for these transactions. However, the risk tends to be mitigated via adequate pool diversification. Likewise, the exposure of

securitisation transactions to social risks depends on the nature of the sectors and/ or borrowers in the pool and the relative concentration of the pool.

Summary

The current methodology being used by ICRA has been effective in rating various asset classes and different securitisation structures prevalent in the Indian market. This methodology document explains the general considerations which are applicable in most securitisation transactions; however, depending upon the nuances for each transaction, other principles may be incorporated to effectively evaluate the risk associated with the transaction. The approach being used by ICRA to evaluate risk and the protection required for a pool under stressed conditions incorporates ICRA's experience in analysing credit risk of the underlying asset class coupled with statistical techniques to assess the adequacy of the credit enhancement for the specific rating level. The assumptions for a particular rating may change from time-to-time based on market or economic conditions, the specific structure of a transaction, issuer specific characteristics or even based on some new factors that may have been observed.

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About ICRA Limited:

ICRA Limited was set up in 1991 by leading financial/investment institutions, commercial banks and financial services companies as an independent and professional investment Information and Credit Rating Agency.

Today, ICRA and its subsidiaries together form the ICRA Group of Companies (Group ICRA). ICRA is a Public Limited Company, with its shares listed on the Bombay Stock Exchange and the National Stock Exchange. The international Credit Rating Agency Moody's Investors Service is ICRA's largest shareholder.

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