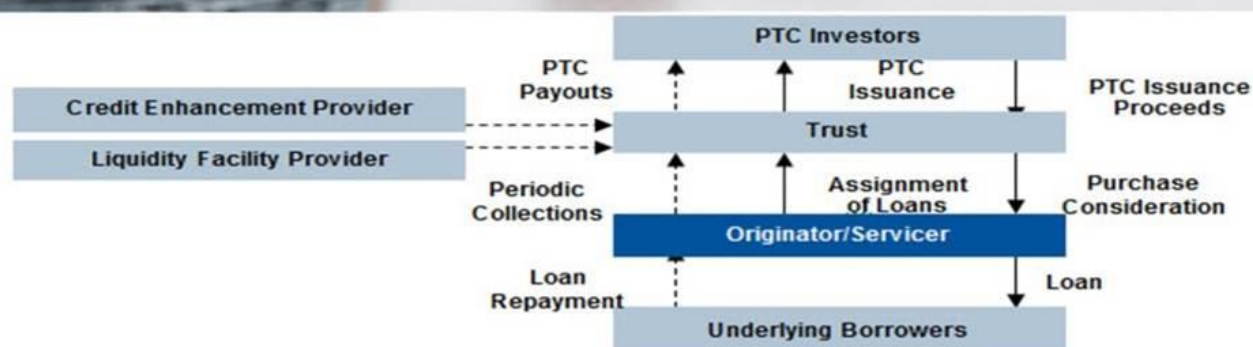


Asset-Backed Securities Handbook

September 2017



Asset Backed Securities (ABS) FAQs

A One-Stop Compendium for ABS Rating Methodology

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Evolution of Indian Securitisation Market: The Indian securitisation market evolved in the 1990s with the main objective of meeting the priority sector shortfall in the Indian banking system, both for scheduled commercial banks and foreign banks. For many non-banking finance companies (NBFCs) which act as an issuer in these transactions, securitisation has provided an alternative source of capital at a cheaper rate and played a crucial role in their growth. With the clarity on taxation of pass-through certificates (PTCs) and interest shown by mutual funds, the securitisation market holds the promise to go beyond meeting the priority sector lending requirement of banks. The total securitisation volume reached INR900 billion in FY17 (FY07: INR250 billion), thereby registering a CAGR of 14%.

Historical Performance of ABS Transactions Superior to Corporate Bonds: India Ratings and Research (Ind-Ra) has analysed the average three-year cumulative transition rates of corporate ratings versus structured finance ratings (majorly dominated by ABS ratings) during FY07-FY17, and there were no downgrades noted for Ind-Ra rated ABS in any rating category. The AAA and AA rating categories are largely backed by commercial vehicle loans, construction equipment, tractor loans, car loans, mortgages and business loans while those in A rating category are backed by microfinance loans.

Regulations Pertaining Indian Securitisation Transactions: The securitisation market has witnessed a positive shift in the credit quality of underlying pools, subsequent to the regulatory requirement of Minimum Holding Period (MHP) in all securitised pools as per the Reserve Bank of India's (RBI) revised securitised guidelines for banks and NBFCs published in 2012. The RBI also introduced a minimum retention requirement (MRR) of 5%-10% through direct investment of originators in the credit enhancement (CE) and other tranches issued to ensure alignment of interest in these transactions. Also, the guidelines require originators not to provide CE in Direct Assignment (DA) transactions leading to increased growth in DA volumes over the recent years. Additionally, the RBI allowed release of external CE in the guidelines released in July 2013, thus allowing the originator to unblock capital subject to the demonstration of high credit quality in the underlying assets.

Rating Methodology of ABS Transactions: Ind-Ra relies on its '[Rating Criteria for Indian Asset-Backed Securitisations](#)' while rating ABS transactions. The criteria primarily highlights the agency's approach in deriving portfolio-specific default, recovery, prepayment and collection efficiency base-case expectations from originator-specific data and then applies rating level stresses to the base case assumptions to estimate the CE. The rating approach is typically revised based on the credit view of the underlying asset classes regularly monitored by the agency. Ind-Ra has assigned ratings to around 400 ABS and RMBS transactions over the last 10 years, and has ratings outstanding for more than 100 transactions.

Types of Securitisation Structure: Typically securitisation transactions have a par structure in which the pool backed by underlying loans is assigned for a purchase consideration equal to the pool's principal balance. The underlying loan receivables, including security interest in any underlying assets, are assigned to a trust for the benefit of the PTC investors who are the absolute legal and beneficial owners of these loan receivables. Such PTC investors are paid scheduled interest and principal on the PTC issuance, subsequent to which the residual cashflow is paid to the Originator in the form of excess interest spread (EIS).

Counterparty Risks & Mitigants in ABS transactions: Key risks of counterparties in securitised transactions include risk of default on CE provided by the originator/guarantee provider; risk of loss of CE due to account bank's insolvency; operational risk, commingling risk and set-off risk of originator/servicer. These risks are mitigated by inclusion of minimum rating trigger for all counterparties in ABS transactions namely account bank, servicer, guarantee provider, etc. Additionally, set-off risk is mitigated by representations and warranties typically provided by Indian originators which state that the borrowers do not have any right to set-off their liabilities with any dues from investors or other transaction counterparties.

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Market Structure

What are the key drivers for ABS/RMBS Transactions in India?

The Indian securitisation market which has been present since the 1990s has the following economic incentives for Issuers (banks/ NBFCs):-

1. Reduction in cost of capital
2. An alternative source of funding
3. Capital relief to the Issuer

Key drivers of securitisation for Investors include:-

4. Meeting priority sector targets (for Banks).
5. Opportunity for asset class specific exposure
6. Flexibility to choose bespoke pool of loans

Historically, RMBS transaction volumes have been relatively lower than ABS volumes, primarily due to bottlenecks in the Indian legal system such as high variance in inter-state stamp duty and registration costs to be incurred during mortgage asset enforcement. Despite having significantly low historical default rates in mortgage loans, MRR of 10% is still not lower for RMBS Issuers.

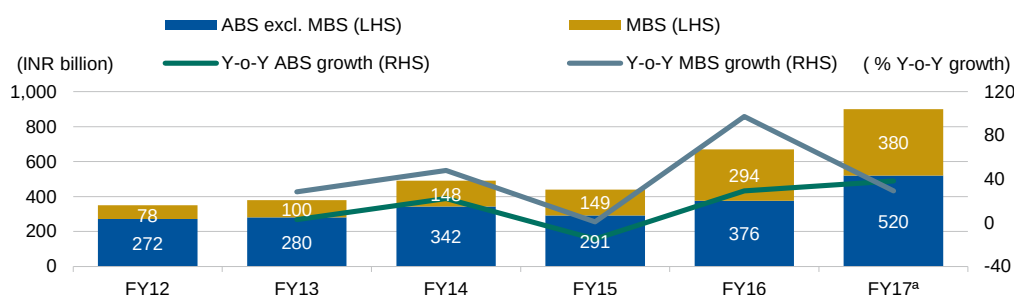
What is the Historical Trend of Issuance Volume of ABS/MBS Transactions in India?

The securitisation market in India in the last five years indicates a significant dominance of ABS transactions and a volatile growth trend in MBS volumes. The reason for the high volatility in MBS volumes could be multifold, the primary being easy access to liquidity alternatives by banks and housing finance companies which dominate the MBS market. The secondary reason is the product's limited interest among a niche class of investors.

While 22.3% of the overall securitisation volume (INR350 billion) was contributed by MBS in FY12, it increased to only 42.2% of the overall securitisation volume (INR900 billion) in FY17.

Figure 1

Historical ABS and MBS Issuance Volume in India



^a MBS issuance volume of INR 190 billion till H1FY17. Annualised MBS volume and Y-o-Y MBS growth assumes annualised returns

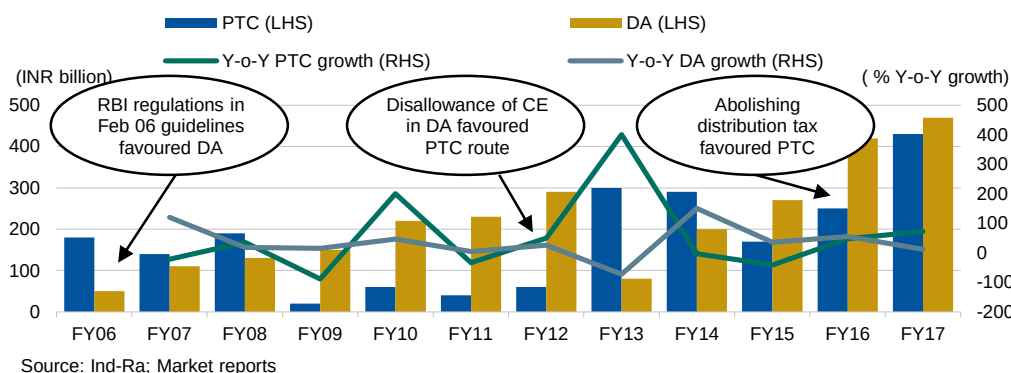
Source: Ind-Ra; Market reports

How is the issuance trend of DA transactions when compared with securitisation transactions?

The Indian ABS securitisation market (including PTC and DA transactions) has seen separate peak periods of PTC and DA volume growth over the last decade, primarily due to a shift in regulations at various point in time. The historical trend of issuance volume is shown below:

Figure 2

Historical PTC and DA Issuance Volume in India



What are the alternatives available to meet PSL requirements?

Following are the key alternatives available to meet priority sector lending (PSL) requirements other than the most conventional route of securitisation via PTCs or DAs:

- Interbank participatory certificates, an instrument with a tenor of 90-180 days typically bought by sponsor banks from their regional rural banks
- Rural Infrastructure Development Fund/National Housing Bank/Small Enterprise Development Fund/Mudra Bank
- Priority Sector Lending Certificates (PSLCs), a mode of PSL investment whereby a PSLC seller sells PSL obligation to a PSLC buyer in a particular financial year, without transfer of credit risk for a fixed pricing on the PSL obligation

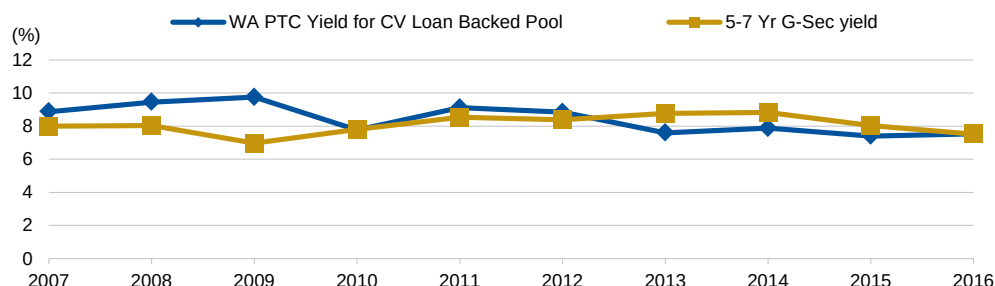
For details on priority sector targets refer report on [Priority Sector Lending Certificates - SFBs and UCBs to Benefit](#)

How is the pricing of ABS/RMBS transactions comparable with other similar rated debt instruments?

The rates offered to 'AAA' rated PTCs backed by CV loan pools have largely been lower than government bond yield with similar maturity since 2012. The paucity of eligible assets complying with the PSL guideline post the RBI's guidelines of 2012 could be the reason for this trend. However, in case of excess PSL asset, the yield offered to the PTC investors could increase primarily because of lower liquidity and relatively higher complexity of PTCs compared with similar rated corporate bonds.

Figure 3

PTC Yield vs. Govt. Bond Yield



How is historical performance of ABS/RMBS transactions comparable with other instruments?

As shown in the table below, there is no downward rating over a three-year period for structured finance instruments rated by Ind-Ra.

Figure 4

Ind-Ra's Corporate Ratings' Average Three-Year Cumulative Transition Rates: FY07-FY17

(%)	AAA	AA	A	BBB	BB	B	C	D	Total
AAA	99.87	-	0.13	-	-	-	-	-	100
AA	5.13	94.87	-	-	-	-	-	-	100
A	3.39	13.56	66.10	0.85	1.69	14.41	-	-	100
BBB	2.40	8.00	29.60	60.00	-	-	-	-	100
BB	-	-	-	-	100.00	-	-	-	100
B	-	-	-	-	-	100.00	-	-	100
C	-	-	-	-	-	-	-	-	-

Source: Ind-Ra

Figure 5

Ind-Ra's Structured Finance Ratings' Average Three-Year Cumulative Transition Rates: FY07-FY17

(%)	AAA	AA	A	BBB	BB	B	C	D	Total
AAA	100.00	-	-	-	-	-	-	-	100
AA	-	100.00	-	-	-	-	-	-	100
A	-	38.46	61.54	-	-	-	-	-	100
BBB	14.89	10.64	53.19	21.28	-	-	-	-	100
BB	-	-	-	-	-	-	-	-	-
B	-	-	-	-	-	-	-	-	-
C	-	-	-	-	-	-	-	-	-

Source: Ind-Ra

Why is there lack of secondary market for PTCs?

PTCs are largely limited to PSL investors who treat them as held till maturity instrument. Initial traction from mutual funds will pave the way for a more diverse investor base leading to an active secondary market. However, lack of listing in exchanges, varying standard of information disclosure by many originators, and relative complexity of the securitised instrument may pose a challenge in the evolution of a strong secondary market for these instruments.

Who are the permitted investors of securitised instruments?

Mutual funds, banks, NBFCs, insurance funds, pension funds, foreign portfolio investors are eligible as investors for securitised instruments namely ABS in the Indian market.

Modelling and Transaction Structure

What are the key modelling inputs used by Ind-Ra to calculate CE of an ABS/RMBS transaction?

Figure 6

Key Modelling Inputs

Inputs for Modelling Asset Cash Flow

- Monthly pool cashflows
- Base case default rate
- Speed of default (SoD; front-ended/ middle-ended/back-ended)
- Recovery rate and time to recovery
- Current collection efficiency and overdue collection efficiency
- Prepayment rate and speed of prepayment
- Yield compression
- Opening overdues
- Rating level stresses as per ABS criteria

Inputs for Modelling Liability Cash Flow

- Notional of each class of PTCs
- Coupon rates for each class of PTCs (par transactions)
- Discount yield (premium transactions)
- Payment waterfall
- Servicer fee
- Payout dates and transaction closing date
- Interest charged on drawn/undrawn portion of LF

Source: Ind-Ra

How is default rate calculated?

The proxy used for default rate of various loans securitised in ABS transactions is given below:

Figure 7

Default Proxy For Various Asset Classes

Type of loan	Default proxy
CV, CE, car, tractor, medium, small and micro enterprise (MSME), home loans and loan against property (LAP)	90+ days past due (dpd)
Microfinance loans	0+dpd

Source: Ind-Ra

Ind-Ra assumes 90+ dpd as default proxy because chances of a borrower, who have missed more than three month's payments, becoming current, are significantly low. The agency assumes a default proxy of 0+ dpd for microfinance loans because of the unsecured nature of these loans where recovery prospects are less likely.

Following steps are used to calculate the default rate of a loan pool:

1. Calculate net default rate from the static pool of the issuer
2. Adjust for the difference in the pool and issuer's loan book
3. Adjust for the seasoning of the pool
4. Adjust for the overdue loans in the pool

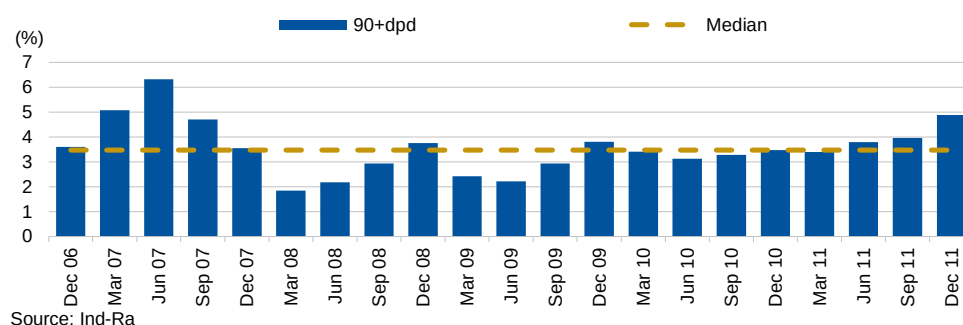
How are net default rate and SoD calculated and used in the cash flow model?

[Click here for details on static pool.](#)

Peak 90+dpd of loans originated in each quarter are estimated and the median of peaks of the historical period is arrived at to estimate the net base case default rate. A diagrammatic representation of a sample set is shown below:

Figure 8

Loan Asset – Peak 90+dpd of Quarterly Loan Origination

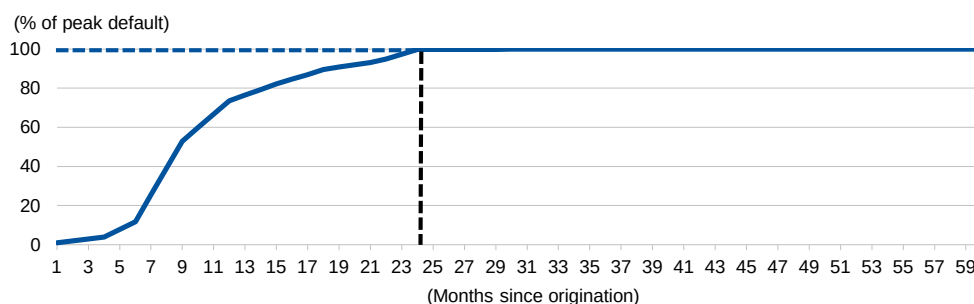


Source: Ind-Ra

Ind-Ra also analyses the SoD of these loans for each quarter of loan origination and estimates the average SoD of the loan asset. The average SoD trend of the static pool suggests peak default is reached at 24 months from seasoning.

Figure 9

Speed of Default



Source: Ind-Ra

Considering Ind-Ra has a static pool data provided for quarterly loans originated in the last 10 years namely December 2006 to December 2016, it will consider the period for net default rate calculation as December 2006 to December 2014, assuming loans are at least 24 months seasoned.

How is net default rate adjusted if the pool is riskier than the overall loan book of the originator for which static pool was provided?

[Click here for details on portfolio cuts.](#)

An illustration for calculating 90+dpd multiplier of each distribution of the interest rate prevailing in the loan asset portfolio for a particular quarter is given below:

Figure 10

Asset Characteristic Adjustment Multiplier For A Quarter

Interest rate (IRR) (%)	Percentage of portfolio (%)	90+dpd (%)	90+dpd multiplier
<= 10	1	0.3	0.06
> 10 and <= 14	38	1.8	0.35
> 14 and <= 17	29	4.2	0.81
> 17 and <= 20	11	8.0	1.54
> 20 and <= 25	8	9.7	1.87
> 25	13	9.1	1.75
Total	100	5.2	

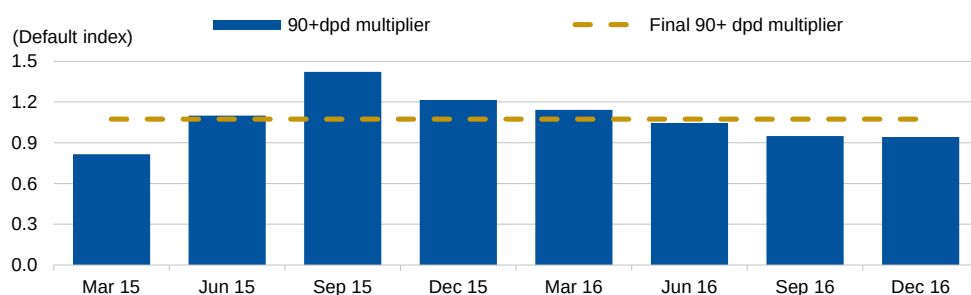
Source: Ind-Ra

90+dpd multiplier for the distribution of loans with IRR below or equal to 10% (as highlighted above) is calculated as 0.3%/5.2% which is equal to 0.06.

Similarly, 90+dpd multiplier is calculated for all the quarters of available data and final 90+dpd multiplier of each distribution is estimated as the median of all the quarterly observations subject to a floor of 0.5. Ind-Ra assumes a floor to factor in a conservative measure for delinquencies which are very low for certain distributions of an asset characteristic. Let us assume that the median of 90+dpd multiplier of all quarterly observations for loans with IRR <= 10% is 0.06. The final 90+dpd multiplier for these loans will therefore be assumed as 0.50.

Figure 11

Final 90+ dpd Multiplier of Asset Characteristic of Overall Loan Portfolio



Source: Ind-Ra

The asset characteristic level adjustment factor for the pool is calculated by weighting the final 90+dpd multiplier of each distribution with the pool principal outstanding (POS) for that distribution and is given below:

Figure 12

Default Rate Adjustment for IRR- Illustration

Interest rate (%)	Final 90+ dpd multiplier	% of pool outstanding (%)
<= 10	0.50	4.0
> 10 and <= 14	0.65	10.0
> 14 and <= 17	1.05	26.0
> 17 and <= 20	1.54	35.0
> 20 and <= 25	1.64	15.0
> 25	1.76	10.0
Total		1.32

Source: Ind-Ra

Therefore, the interest rate based adjustment factor for the pool is 1.32. Ind-Ra applies the same methodology to estimate the pool level adjustment factor for other asset characteristics such as loan-to-value (LTV), loan ticket size, and geographical presence, among others. The final pool adjustment factor is computed as the average of the adjustment factor of each asset characteristics of the pool.

Figure 13

Final Default Rate Adjustment - Illustration

Asset characteristic	Pool adjustment factor
Interest rate	1.32
LTV	1.50
Loan ticket size	0.91
Geographical presence	1.45
Final adjustment factor	1.30

Source: Ind-Ra

Let us assume the final pool adjustment factor is 1.30. Assuming an estimated net default rate of 3.5% from the static pool, the net default rate after adjusting for pool level asset characteristics is 4.6% ($3.5\% \times 1.30$).

Similarly, if the pool level adjustment factor is 0.85, indicating pool performance to be better than overall portfolio, the net default rate after adjusting for pool level asset characteristics is 3.0% ($3.5\% \times 0.85$).

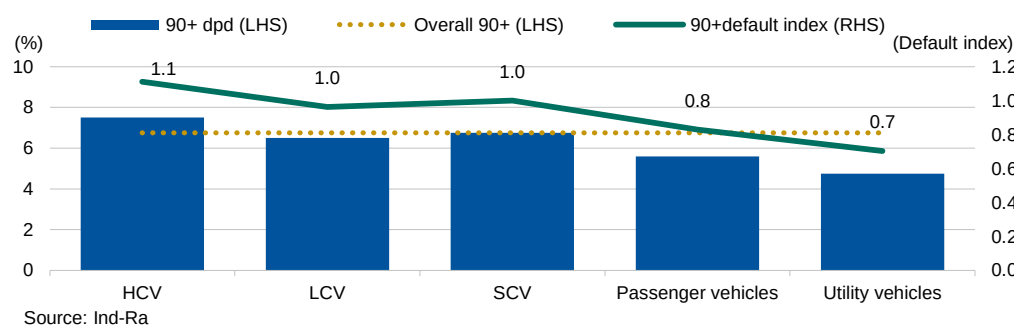
How is net default rate estimated for a pool of mixed asset loans?

Ind-Ra calculates the net-default rate of the pool after adjusting for the net default rate of each asset class separately derived from the asset class-wise static pool data provided to Ind-Ra.

In case Ind-Ra is not provided with a separate static pool for each asset class, the agency shall make asset class level adjustment on the combined static pool based net default rate from the portfolio cuts data. Typically, Ind-Ra will estimate the median of all quarterly observations of asset class-wise distribution of portfolio outstanding for the last four to five years as discussed above.

Figure 14

Asset Class-wise Distribution at the End of a Quarter



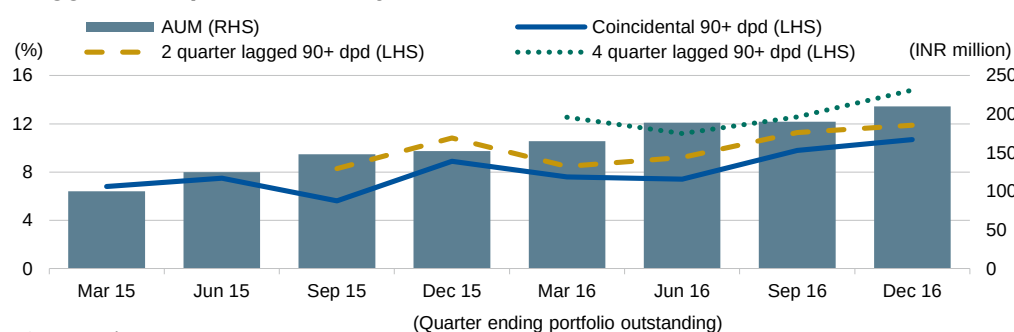
Considering the net default rate of the combined static pool is 3.5% and median 90+ dpd default multiplier for heavy commercial vehicles (HCV) loans is 1.1, net default rate for HCV loans is 3.85% ($3.5\% \times 1.1$).

How are defaults estimated from dynamic delinquency cuts?

In the absence of static pool data, Ind-Ra analyses the dynamic portfolio data and estimates the monthly/quarterly lagged delinquency and estimates the median of a series of lagged delinquencies. As an illustration, a four-quarter lagged 90+dpd delinquency as on December 2016 indicates the 90+dpd amount as on December 2016 on the portfolio outstanding as on December 2015.

Figure 15

Lagged 90+ dpd Based on Dynamic Portfolio

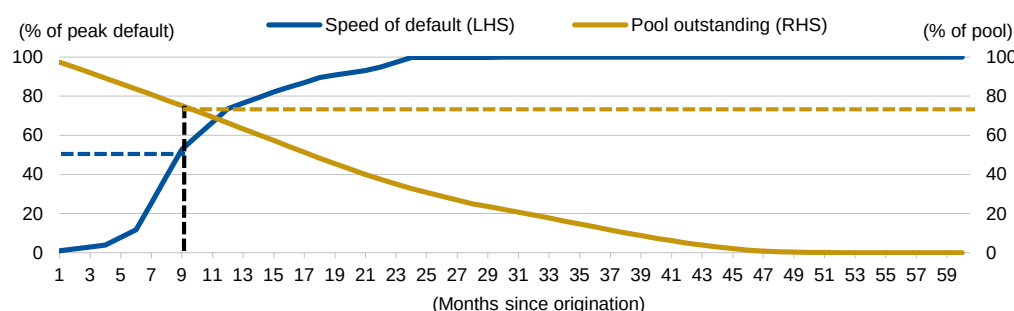


How is seasoning adjustment factored in the pool for loans highly seasoned or highly amortised or both?

Ind-Ra will provide seasoning adjustment to only those loans which are not overdue (current loans) and at least 20% amortised.

Figure 16

Seasoning Adjustment



Let us assume the estimated net default rate from static pool to be 3.5%. The securitised pool has a seasoning of nine months where the pool has amortised by 25% (pool outstanding of 75%). Assuming the peak default of 3.5% is reached at 25 months of loan seasoning, 50% of peak default i.e. 1.75% has been reached at nine months of seasoning, as per SoD curve. So effectively, as per past default speed history, remaining 50% of the default is expected on the pool outstanding of 75% for the remaining loan tenor. The seasoning adjustment factor is calculated as:

Remaining percentage of peak default/pool outstanding = $50\%/75\% = 0.67$

Ind-Ra also assumes a floor of 0.50 to seasoning adjustment factor, as a safeguard for not providing significant benefit on net default rate of a pool highly seasoned and amortised.

Therefore, net default rate for the pool at nine months of loan seasoning, after accounting for seasoning adjustment is 2.3% ($3.5\% \times 0.67$).

How is default rate adjusted for overdue loans in the pool as on the pool cut-off date?

Default rate is adjusted for overdue loans depending on whether such loans are in one-month bucket, two-month bucket or deeper buckets. Ind-Ra assumes 100% of the pool which is in more than three months bucket to be included in the final default rate.

Assuming default rate of 3.5% after all adjustments (pool characteristics, seasoning, gross up factor) for the current loans, overdue loans are penalised with a higher default rate (30% to 50% higher). Thereafter, the default rate of the pool is estimated by weighing the overdue adjusted default rate with the proportionate contribution of such loans in the pool.

Figure 17

Default Rate Adjustment For Overdue Loans - Illustration

Particulars	% of pool principal	Default rate (%)
Current loans	90.0	3.50
One-month overdue loans	10.0	5.25 ($3.50\% \times 1.50$)
Total		3.68

Source: Ind-Ra

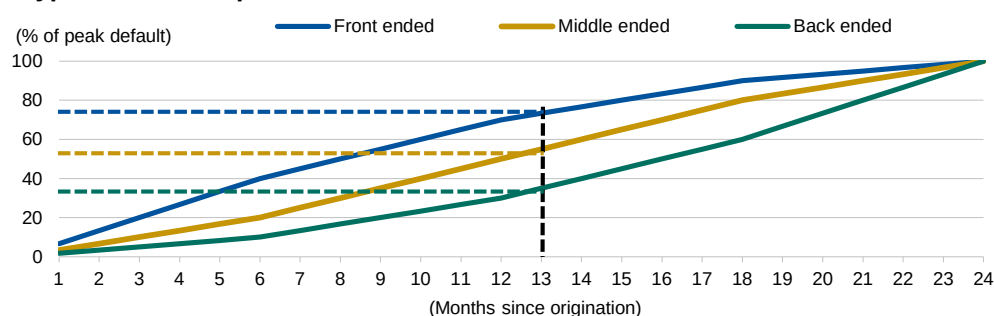
What are the different kinds of SoD used by Ind-Ra?

Ind-Ra typically accounts three types of default speed – front ended, middle ended and back ended. Assuming the peak default to reach at 24 months of loan seasoning, Ind-Ra assumes a significant portion of peak default i.e. approximately 70% to be built in first 12 months since loan origination in the front ended default scenario. For middle ended default speed, more than 60% of default is expected between the sixth and 18th month, while for back ended default speed, approximately 70% of default is expected in the last 12 months.

A pool with shorter weighted average life (WAL) is expected to experience higher shortfall in cashflow collections in a front ended default scenario compared with a pool with longer WAL.

Figure 18

Type of Default Speed



Source: Ind-Ra

How is recovery rate calculated and used in the cash flow model? Does Ind-Ra assume any recovery rate for unsecured loans namely microfinance loan backed ABS?

[Click here for details on recovery data.](#)

Ind-Ra estimates the base case recovery rate as the median of the monthly/quarterly historical recovery rate of the loans originated in the past and repossessed subsequently after 9-15 months on account of default.

Ind-Ra applies recovery stress on the base case recovery rate for a particular rating level (Refer [rating level stresses as per ABS criteria](#)).

Figure 19

Recovery Rate Scaling Factors for Secured Loans

Rating category	Stress case (%)
IND AAA(SO)	60
IND AA(SO)	70
IND A(SO)	80
IND BBB(SO)	90

Source: Ind-Ra

Let us assume the base case recovery rate of a pool is 70%. The stressed recovery for an 'IND AAA' rated PTC issuance backed by this pool is 42% ($60\% \times 70\%$).

Assuming the base case default of a loan pool in month 'T' is INR10 million and the time required for recovery is 15 months, the recovery in month 'T+15' is INR4.2 million ($42\% \times 10.0$) ([Click here for detailed calculation](#))

Ind-Ra typically does not assume any recovery rate for unsecured lending or microfinance loans unless there is a substantial data to support any recovery assumed.

How are collection efficiencies calculated and used in the cash flow model?

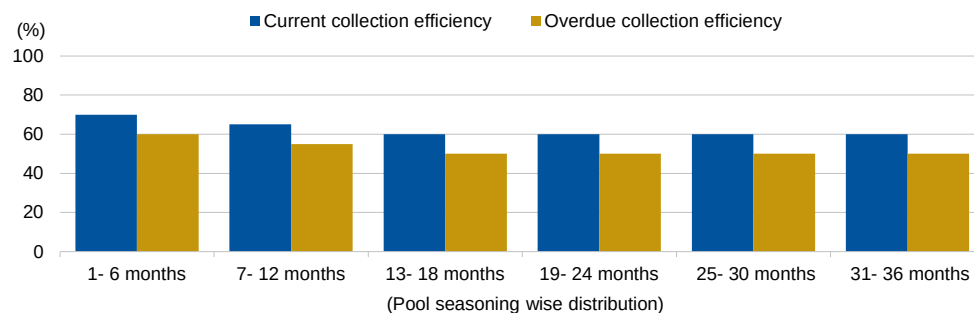
[Click here for details on collection efficiency.](#)

Ind-Ra estimates the base case current collection efficiency and overdue collection efficiency over the life of the pool based on the median value of historical observations. Ind-Ra estimates the shortfall amount at each month of seasoning, basis which it calculates the overall liquidity reserve required to cover the cumulative shortfall amount in the pool on account of lower collections ([Click here for detailed calculation](#)).

Ind-Ra treats this liquidity reserve as credit support for overdue loans in less than 90 dpd bucket, whereas the agency estimates the external CE based on stressed 90+ dpd defaults in the pool for a given rating level.

Figure 20

Collection Efficiency-based Input Data



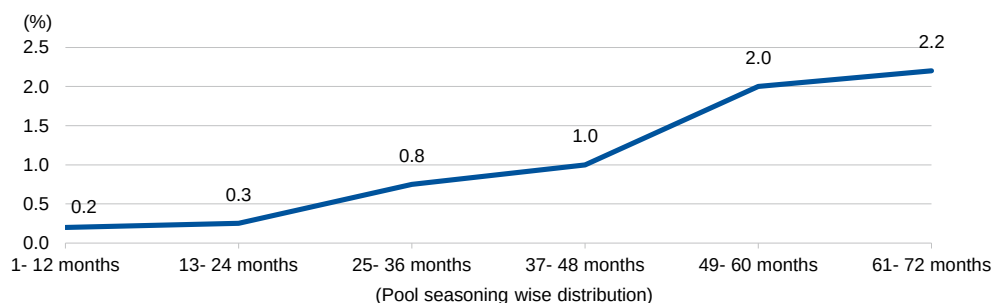
Source: Ind-Ra

How is prepayment rate calculated and used in the cash flow model? Is it calculated on initial pool principal or on outstanding balance as on a given month?

Ind-Ra estimates the average monthly prepayment rate over the life of the pool based on asset class-wise historical prepayment rates observed for monthly/quarterly loan originations.

Figure 21

Prepayment Rate



Source: Ind-Ra

Prepayment amount as on a given month of a loan pool is calculated as prepayment rate estimated for that month multiplied by the outstanding pool principal as on that month after adjusting for defaults.

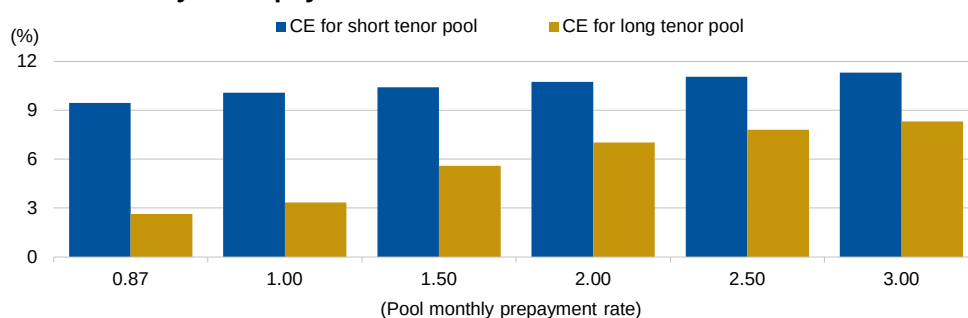
How does high prepayment rate on loan pool affect the CE of an ABS transaction?

Pool prepayments are directly passed on to PTC investors without any cash-in for the issuer. However, very high pool prepayments have the tendency to reduce scheduled pool interest, and hence, total asset side cash flows for an ABS transaction.

Prepayment rate of a loan pool is more sensitive to break even CE for long tenor pools namely LAP/mortgage loans versus short tenor pools with an average tenor of three to five years.

Figure 22

CE Sensitivity to Prepayment Rates



Source: Ind-Ra, CE - Credit Enhancement

What are the Different Rating Levels Stresses for All the Inputs?

Ind-Ra applies rating level stress on the estimated base case default, recovery rate, recovery time lag, pre-payment rate and yield compression for a particular rating level ([Rating level stresses as per ABS criteria](#)).

Figure 23
Rating Level Stresses

Rating category	Default multiplier stress ^a	Recovery rate stress ^a (%)	Recovery time lag (months)	Prepayment rate stress multiplier	Yield compression stress (%)
IND AAA(SO)	4.0-5.5	60	BCT ^b + 5-6 months	2.0-2.5	40
IND AA(SO)	3.0-4.0	70	BCT ^b + 4-5 months	1.5-2.0	30
IND A(SO)	2.0-3.0	80	BCT ^b + 2-3 months	1.2-1.5	20
IND BBB(SO)	1.5-2.0	90	BCT ^b + 1-2 months	1.1-1.2	15

^a Ind Ra applies higher default multiplier stress for pools backed by microfinance loans given the unsecured nature of loan and assumes nil recovery rate

^b Base case timeline

Source: Ind-Ra

Ind-Ra also reviews the concentration of a loan pool and typically looks at the distribution of pool principal for top 20 loans at 'IND AAA' rated stress.

How is yield compression calculated and used in the cash flow model?

To address the risk of relatively higher interest rate loans in the securitised pool either prepaying or defaulting, Ind-Ra applies a Yield Compression (YC) stress to the pool yield.

Ind-Ra analyses the yield distribution of the assets in the securitised pool and assumes a certain percentage of borrowers (depending on the rating level) with the highest interest rate loans will prepay. The percentage reduction in the pool yield is then deducted from the month-on-month weighted average pool yield and applied to the interest collections in Ind-Ra's cash flow model.

Let us assume that the actual weighted average yield (WAY) of a pool is 15% per annum. Assuming the PTCs to be rated 'IND AA(SO)', Ind-Ra computes the compressed WAY of the pool to be 14.25% assuming the top 30% of the highest interest rate loans will prepay. YC is computed as the percentage change in compressed WAY in relation to actual WAY of the pool and is equal to 5.0% [$1 - (\text{compressed WAY} / \text{actual WAY})$].

Interest rate of the pool for each payout period is adjusted against the yield compression for that period. YC for a certain payout period depends on the total cumulative prepayments of the pool till that period. For illustration purpose, calculation of YC for two consecutive periods is given below:

Figure 24
Yield Compression Calculation - Illustration

Monthly payout period	Percentage prepayment of total pool prepayment (%)	Actual interest rate for the period (A) (%)	YC for the period (B) (%)	YC adjusted interest rate [C= A*(1-B)] (%)
T	10	16	0.50	15.9
T+1	15	15	0.75	14.9

Source: Ind-Ra

The YC adjusted interest rate for each month is used to estimate the pool's stressed interest pool cash flows for that month.

How is a particular level of stress/multiplier selected in case a range is allowed as per the criteria?

Ind-Ra's choice of a default multiplier or recovery rate with stress multiples applied at the higher end of the range is based on the following qualitative factors:

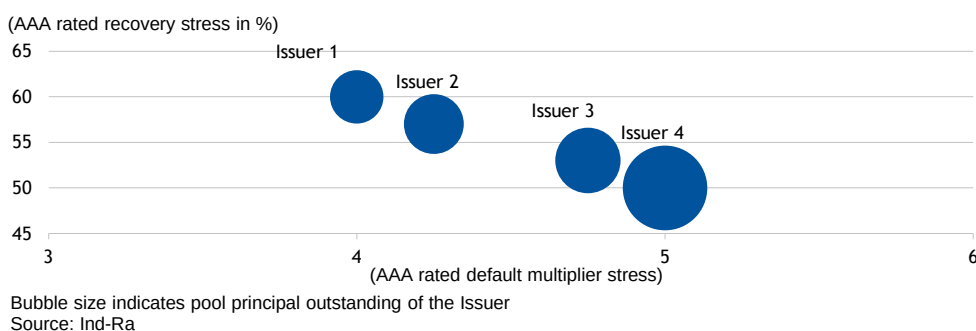
- Originator has less established underwriting and servicing capabilities or the servicer has weaker financial standing
- Originator has exhibited volatile historical loss performance
- Originator exhibits volatility in historical origination volumes
- Originator's transaction performance in the agency rated portfolio shows multiple instances of high peak delinquencies, close to the agency's base case default assumptions
- If the base case default, defined to cover the default performance expectation for the term of the transaction is lower than the long-term average default performance of the originator

Conversely, stress multiples at the lower end of the range will be used for well-established originators with substantial historical performance data exhibiting consistent and low historical loss levels.

Therefore, the agency will typically assume a higher default multiplier for a securitised pool of a new originator compared with a pool of an existing originator with sufficient pool performance data.

Figure 25

Default Multiplier and Recovery Stress for Different ABS Originators



In the above example, Issuer 3 and Issuer 4 represent a new originator or an originator with limited pool performance history, whereas Issuer 1 and Issuer 2 typically represents existing originators of Ind-Ra's rated ABS portfolio.

What is Payment Waterfall? How does it look like for a typical Single Tranche and Two Tranches Structure?

Payment waterfall is the priority of cash flow payments from the designated collection and payment account of the originator lien marked in favour of the Trustee acting on behalf of the PTC investors.

A typical payment waterfall of a single tranche-based transaction structure is as follows:

Figure 26

Summary of Payments Waterfall

Statutory or regulatory dues payable by assignee
Towards any fees and expenses
Payment of any interest/fees (if applicable) to the Liquidity Facility (LF) provider
Reinstatement of the drawn-down portion of the LF
For payment of overdue payouts, if any, to Series A PTC investor
Scheduled interest payouts to Series A PTC investor
Scheduled principal payouts and prepayments, if any, to Series A PTC investor
Replenishment of CE to the extent utilised
Residual amount, if any, would be paid back to the assignor on a monthly basis towards excess interest spread

Source: Transaction documents, Ind-Ra

A typical payment waterfall of a multiple tranche (generally two or three tranches) based transaction structure is as below:

Figure 27

Summary of Payments Waterfall

Till the time Series A1 PTCs are outstanding
For the payment of all statutory and regulatory dues
For the payment of any fees and expenses
Overdue interest pay outs and regular interest pay outs to Series A1 PTCs
Overdue expected principal payouts and expected principal payouts to Series A1 PTCs
Overdue expected interest payouts and regular expected interest payouts to Series A2 PTCs
Overdue expected interest payouts and regular expected interest payouts to Series A3 PTCs
Prepayment amount to be paid towards Series A1 redemption
Replenishment of CE to the extent utilised
Flowback to the residual beneficiary
After Series 1 PTCs have been redeemed and till the time Series A2 PTCs are outstanding
For the payment of all statutory and regulatory dues
For the payment of any fees and expenses
Overdue interest pay outs and regular interest pay outs to Series A2 PTCs
Overdue expected principal payouts and regular expected principal payouts to Series A2 PTCs
Overdue expected interest payouts and regular expected interest payouts to Series A3 PTCs
Prepayment amount to be paid towards Series A2 PTCs' redemption
Replenishment of CE to the extent utilised
Flowback to the residual beneficiary
After Series A2 PTCs have been redeemed and till the time Series A3 PTCs are outstanding
For the payment of all statutory and regulatory dues
For the payment of any fees and expenses
Overdue interest pay outs and regular interest payouts to Series A3 PTCs
Overdue expected principal payouts and regular expected principal payouts to Series A3 PTCs
Prepayment amount to be paid towards Series A3 PTCs' redemption
Replenishment of CE to the extent utilised
Flowback to the residual beneficiary
After Series A3 PTCs have been redeemed
For the payment of all statutory and regulatory dues
For the payment of any fees and expenses
Flowback to the residual beneficiary

Source: Transaction documents, Ind Ra

What is the Difference Between Par and Premium Structure?

Indian ABS transactions incorporate either par or premium structures. In a par structure, the securitised pool is assigned to the trust for a purchase consideration equal to the pool's principal balance. In contrast, in a premium structure, the securitised pool is assigned for a purchase consideration in excess of the value of the pool's principal balance. The principal on the PTC is derived by discounting the total scheduled cash flows from the pool at a fixed PTC yield, thereby allowing the originator to monetise upfront the value embedded in the future interest receivables.

Premium structures are inherently riskier than par structures given the following features:

- The PTC principal balance is greater than the pool's principal balance (under-collateralisation at the onset of the transaction)
- Each interest payment made on an underlying loan asset effectively represents a partial principal payment to PTC investors. Any significant variation in the interest payments of the underlying loan assets and the expected cash flows could therefore result in a loss of PTC principal. The variation could arise from delinquencies, defaults or prepayments
- No excess spread is available for the benefit of the transaction

Given the risks and sensitivities mentioned above, Ind-Ra's breakeven CE for a premium structure is generally higher than that for a par structure.

Premium transactions have lost their earlier popularity after the RBI's securitisation guidelines came in 2012.

What is DA? How is it Different from Securitisation?

Figure 28

DA vs Securitisation

	DA	Securitisation
Description	Assignor or the originator directly assigns the pool of loans to the investor and assignment should adhere to the true sale criteria.	Originator assigns the pool of loans to an SPV as per the true sale criteria and investor invests in the PTCs issued by the SPV.
CE	Originators are not allowed to provide CE or LF	CE and LF are allowed
Guideline related to MHP and MRR	Same as securitisation	Applies
Typical transaction structure	90% of the pool size is invested by the investor and remaining 10% is retained by the originator. Investor is generally promised 15-25bp over its one-year MCLR. In any period, any principal loss is shared in the ratio of investment in the pool and interest loss is shared in the ratio of expected interest proceeds on non-defaulted loans. While the typical transaction structure is as mentioned above, there could be few transactions which are structured differently.	Typically a single class of PTCs is issued by the SPV. The PTCs benefit from the internal CE in the form of EIS and external CE in the form of FLCF and SLCF. In MFI loans backed transactions and few other asset classes, the structure may have some variations as discussed here .
Involvement of rating agency	The rating agency often provides the loss estimate report for these transactions.	Initial rating of the PTCs and continuous surveillance.
Capital treatment by investor	The capital treatment on the acquired loan pool is similar to the treatment required as per the RBI's guidelines for loans originated by the investor. Risk weights would vary in the range of 35%-100% depending on the asset class	Considering very high rating of PTCs, the risk weight would be much lower than typical retail loan. For 'IND AAA' rated PTCs, the risk weight would be only 20%
Capital relief for the originator	No capital requirement	Capital requirement would be based on the CE, LF or MRR related investment. Capital treatment of different forms of CE and LF is provided here .

Source: Ind-Ra

What are the Different Rules for Use of CE for Timely Payment and Ultimate Payment Structures?

Ind-Ra, in its ABS rating terminology, has observed two distinct structures of CE usage.

1. ABS originators, operating in the non-microfinance institution (non-MFI) space typically have a TITP structure, which indicates external CE shall only be used if there is any shortfall in timely payment of PTC interest/ principal obligations.
2. MFI originators typically have a TIUP structure, which indicates external CE shall only be used for shortfall in timely interest payments; however, any shortfall in POS shall only be met by CE on the ultimate legal maturity date.

In TIUP-based multiple tranche structures, timely interest payment of junior class is not promised until senior class is outstanding and hence external CE for junior class interest payments shall only be used after senior class is completely paid out.

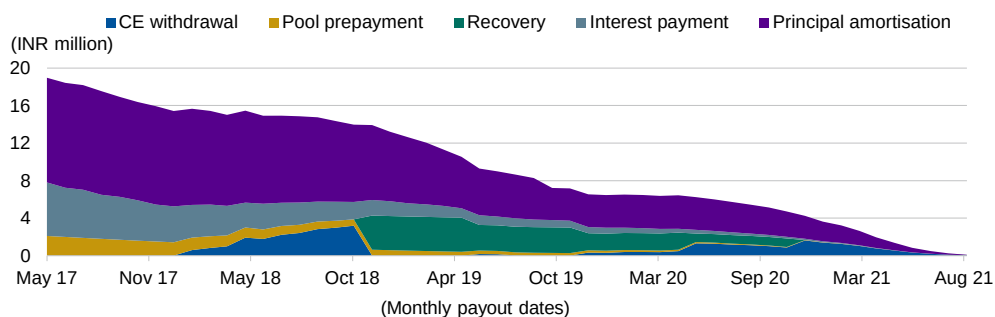
Additionally, option of quick amortisation (Turbo) can also be implemented in TIUP structures. Scheduled maturity is typically sooner than legal maturity for senior class in TIUP structures.

A schematic diagram of CE usage in a TITP structure versus TIUP structure is given below:

Input Model Assumptions: TITP structure; pool principal INR437 million; 25% default; 50% recovery, time to recovery of 18 months, 5.0% YC, 0.25% prepayment; PTC investor coupon of 7.5% per annum (XIRR basis); WAL of 20 months; CE 8.2%.

Figure 29

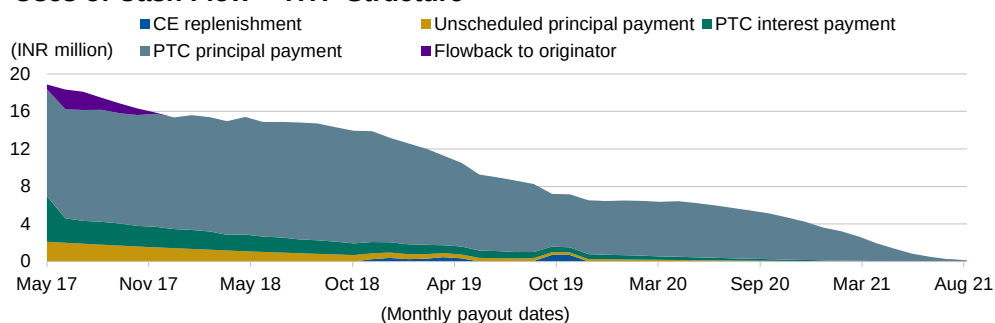
Sources of Cash Flow – TITP Structure



Source: Ind-Ra

Figure 30

Uses of Cash Flow – TITP Structure

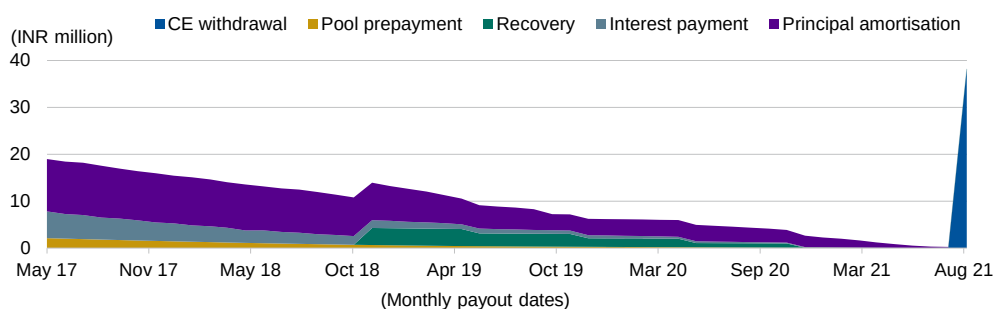


Source: Ind-Ra

Input Model Assumptions: TIUP structure; pool principal INR437 million; 25% default; 50% recovery, time to recovery of 18 months, 5.0% YC, 0.25% prepayment; PTC investor coupon of 7.5% per annum (XIRR basis); WAL of 20 months; CE 9.4%

Figure 31

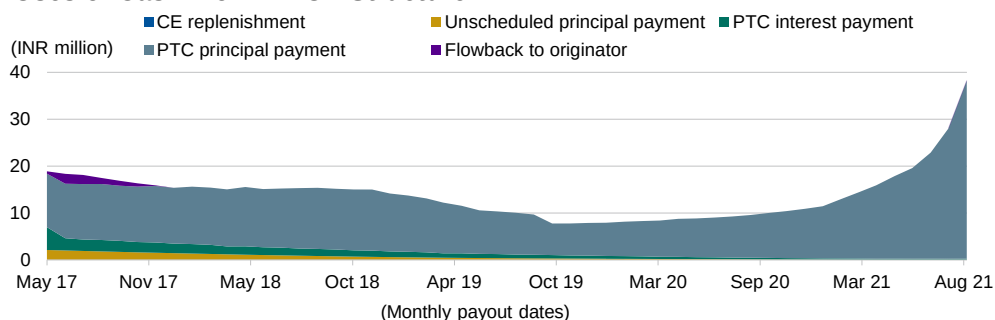
Sources of Cash Flow – TIUP Structure



Source: Ind-Ra

Figure 32

Uses of Cash Flow – TIUP Structure



Source: Ind-Ra

What are closing and payout dates?

Closing date is the transaction closing date whereas payout dates are the interest and principal payment dates to the PTC investors.

Typically, the pool cash flow collected by the servicer in a given collection month, say [M] is distributed to PTC investors in the succeeding month based payout date say [M+1].

What are model outputs?

Model output is a CE reserve required by the PTC investors for estimated default expected at a given rating level. The CE support includes two key components:

- **LF**, a reserve which caters to predicted defaults of the pool in the 1-90 delinquency bucket
- CE Reserve accounting for pool level losses due to default in the 90+dpd bucket

What are the Different Types of CE? Are These Comparable?

CE can be classified as external and internal. External CE is provided by cash collateral, LF, subordination, guarantees and corporate undertakings, while internal CE is provided by excess interest spread (EIS) and overcollateralisation.

Figure 33

Types of Credit Enhancement

External CE	
Cash collateral	• Provided by the originator or a third party, is the most common form of CE in Indian ABS transactions • Usually in the form of a fixed deposit account in the name of the originator with a lien marked to the trustee (Refer Counterparty Risks, Transaction Documents and Legal Analysis sections) • Typically split into two facilities. FLCF is used as the first level of credit protection and SLCF is used only once the FLCF has been fully exhausted
LF	• Separate reserve available to be drawn down from the account bank to protect the transaction against any shortfall on account of loans in the less than 90 days overdue bucket • Provided by originator or a third party at the onset of the transaction • Reimbursed on the subsequent payout date at the top of the transaction waterfall and is thus temporary in nature • LF agreement specifies the reasons for utilisation of LF and also clarifies where LF cannot be used
Subordination	• In the form of a junior class, usually been unrated and retained by the originator • Generally not prevalent in Indian ABS transactions as PTC investors mainly invest in rated instruments with high investment grade ratings such as 'IND AA' and above
Guarantee/Corporate undertaking	• CE in the form of a guarantee or corporate undertaking provided by the originator or a third party • Strength of guarantee to include unconditionally and irrevocability as well as coverage of the guarantee with regards to the amount payable, the time taken for payment to be made upon invocation and the availability of the guarantee for the whole tenor of the transaction • Ind-Ra assesses the credit rating of the guarantee or undertaking provider (Refer Counterparty Risks, Transaction Documents and Legal Analysis section)
Internal CE	
EIS	• In a par structure, excess spread is the difference between the yield received from the securitised pool and the yield paid to the PTC investor • Acts as a first line of protection against delinquencies and therefore used to meet temporary shortfalls in the amount due to PTC investors • Typically released to the originator on each payment date on a use it or lose it basis and therefore is not available to cover future defaults or losses • Alternatively, the entire excess spread is available in transactions where the waterfall stipulates that the excess spread will be trapped in the collection and payout account • In premium structures, there is no excess spread as the excess interest is effectively monetised at the onset of the transaction when determining the PTC principal balance
Overcollateralisation	• In par structures, overcollateralisation exists when a specified percentage of receivables in each period is allocated to be used as protection against any PTC investor shortfalls

Source: Ind-Ra

What is the difference between expected and legal maturities?

Typically, microfinance loan backed ABS transactions which have multiple tranches have different expected and scheduled maturity dates. In these transactions, tranches are expected to be fully paid out by the respective scheduled maturity dates. However, as principal is not promised to the investors on a timely basis, principal shortfall is not made good by using the CE until the legal maturity date.

Does EIS depend on tenure of the PTCs?

[Click here for details on EIS.](#)

Total EIS for an ABS transaction backed by a long tenor pool (for instance LAP/mortgage loans) will be typically higher than that for a short tenor pool, assuming the differential in pool yield and PTC yield remains the same.

Figure 34

EIS For ABS/RMBS Pools – Illustration

Particulars	ABS	RMBS/LAP
Typical transaction tenor (years)	3-5	12-20
Pool yield (%)	14-16 ^a	10-13
WA PTC yield (%)	6-8	7-8
EIS as difference in both the yields (%)	6-10	2-6
EIS as % of POS	10-15	20-40

^a Typically for priority sector loans; however, yield is higher for non-priority sector loans

Source: Ind-Ra

What is the sensitivity of different types of CEs with respect to various modelling inputs?

In a conventional [TITP structure](#) of a par transaction followed by most of the non MFI ABS originators, CE is sensitive to various modelling inputs as below:

Base Case Assumptions: Pool principal INR437 million; 25% default; 50% recovery, time to recovery of 18 months, 5.0% YC, 0.5% prepayment; PTC investor coupon of 7.5% per annum (XIRR basis); WAL of 20 months; CE 8.2%

Figure 35

Sensitivity of CE to Model Inputs

Change in model input variable ^a		Change in CE
Base case default rate (%)	↑	↑
Default multiplier	↑	↑
Recovery rate (%)	↑	↓
Time to recovery (months)	↑	↑
YC	↑	↑
Prepayment rate (%)	↑	↑
Prepayment multiplier	↑	↑
Collection efficiency (%)	↑	↓
PTC yield	↑	↑

^a All the sensitivity assumptions are based on a front ended default scenario, except time to recovery which is more sensitive to CE in a back ended default scenario

Source: Ind-Ra

Higher the percentage change in CE from base case CE for a constant increase in model input, higher is the sensitivity of the model input variable to CE.

What is sensitivity of different types of CEs with respect to structural changes?

CE can also vary based on OC provided to a senior class, type of structure for interest/principal payments of PTCs ([TIUP/ TITP](#)), total [EIS](#) in the transaction or the seasoning of a pool.

Figure 36

Sensitivity of CE to Transaction Structures

Change in transaction structure ^a	Change in CE
Increase in EIS	↓
Increase in pool seasoning	↓
OCof5%	↓
TIUP structure	↑

^a Not applicable
Source: Ind-Ra

While CE increases for a TIUP structure compared with a TITP structure for a senior class without OC, CE typically decreases for a TIUP structure versus TITP structure for pools with OC. This is because the drag of additional interest on PTCs for unamortised PTC principal due to shortfall in pool cash flows is more offset by the benefit from OC in a TIUP structure, than the benefit of OC derived in a TITP structure.

How does CE change with rating levels?

At a higher rating level, default multiplier related stress, recovery stress, prepayment stress, recovery lag stress and YC stress increases; however, PTC coupon is likely to reduce. Since, CE is more sensitive to default rate and recovery rate than PTC coupon rate, CE for a higher rating level of PTCs will be higher than that of lower rated level.

What types of changes are made in cash flow modelling at the time of review than initial rating?

The cash flow modelling approach used by the agency at the time of surveillance is exactly similar to the approach used at the time of initial rating; however, defaults are built on the remaining unamortised pool principal while actual defaults till the surveillance date are accounted for in the first payout month itself.

The actual performance of the transaction observed in the last 12 months since initial closing in terms of default, recovery, seasoning, agency's outlook on the asset class, etc. are incorporated into the modelling assumptions.

At the time of surveillance, Ind-Ra performs the following steps to analyse the current CE cover on the FPOS.

Step 1: The agency reviews the bucket-wise distribution of FPOS and assumes the FPOS above 90 days overdue to be actual defaults till date

Step 2: Ind-Ra also applies additional stress to the FPOS in the 1-90 dpd bucket compared with that provided at the time of the initial rating

Step 3: Finally, the agency compares whether the available CE (as a percentage of FPOS) is sufficient to cover the additional stress built in on FPOS at the time of surveillance

Let us assume that the base case default rate at the time of initial rating was 3.5% and default multiplier assumed was 4.0 for an 'IND AA+(SO)' rated PTC with a pool principal of INR437 million. The following table shows the mechanism for estimating CE cover:

Figure 37

Calculation of CE Cover During Rating Review

Ageing bucket	FPOS (INR million)	Percentage of FPOS (%)	'IND AA' stress	Stress default
Current	402.0	92.0	14.0% $[3.5\% \times 4.0]$	12.9% $[92\% \times 14\%]$
1-30	4.4	1.0	21.0% $[3.5\% \times 4.0 \times 1.5]$	0.2% $[1\% \times 21\%]$
31-60	6.6	1.5	28.0% $[3.5\% \times 4.0 \times 2.0]$	0.4% $[1.5\% \times 28\%]$
61-90	10.9	2.5	35.0% $[3.5\% \times 4.0 \times 2.5]$	0.9% $[2.5\% \times 35\%]$
90+	13.1	3.0	100.0%	3.0% $[3\% \times 100\%]$
Total	437.0	100.0		17.4%
Assumptions		Model result		
Stress default	17.4%	Model estimated CE		26.8
Recovery	50.0%			
Time to recovery	18			
Prepayment	0.5%			
YC	3.0%	Available CE		35.8
CE ratio				
				1.34

Source: Ind-Ra

The incremental stresses applied to the 1-90 dpd bucket depends on the historical roll rate and transition of current bucket loans to higher buckets observed for a specific originator. (Note: The above stresses applied on non-current loan pool is just an illustrative figure and not an indicator of any originator's performance)

The CE ratio is computed by estimating the ratio of available CE to model estimated CE required to cover 17.4% of stressed defaults for the pool.

In the illustration above, CE ratio is 1.34 for a default multiplier of 4.0, and hence the PTCs would typically be affirmed at the time of surveillance. However, under circumstances of extreme stress, when the breakeven default multiplier required for a CE ratio of 1.0 reduces significantly below 4 (3.5 or below), then the agency shall typically downgrade 'IND AA+(SO)' rated PTCs during surveillance.

How does the model calculate external CE?

The model calculates the external CE based on the overall shortfall observed in the pool cash flows against the PTC interest and principal obligations that need to be paid until transaction maturity, while adjusting for any replenishment to the CE utilised in the previous periods till the PTC's maturity. Following illustration shows the breakeven CE calculation for a hypothetical PTC transaction under par and premium structures:

Figure 38

Breakeven CE Calculation

Transaction features		Par	Premium
PTC yield (%)		12.0	12.0
Tenor of the pool (months)		60.0	60.0
Pool yield (%)		21.3	21.3
PTC principal/pool principal		1.0	1.1
Ind-Ra's assumptions			
Base case default rate (%)	---> (a)	5.0	5.0
'IND AAA' stressed default multiplier	---> (b)	4.5	4.5
Stressed default rate (%)	---> (c)	22.5	22.5
Recovery rate range (%)		65-85	65-85
'IND AAA' stressed recovery rate (%)	---> (d)	45	45
Stressed recovery timing (months)		18	18
Prepayment rate (monthly) (%)		1.0	1.3
YC (%)		5	5
Interest shortfall due to defaults, prepayments and YC (%) ---> (e)		6.0	6.0
Principal loss - due to prepayments (%)	---> (f)	0.0	1.1
Servicer/trustee fees in the transaction (%)	---> (g)	0.5	0.5
Total cash flow shortfall (%)	---> (h)=c+e+f+g	29.0	30.1
Less: recovery on stressed default rate	---> (i)= c*d	10.1	10.1
EIS available at closing (%)	---> (j)	11.8	0.0
Less: EIS used to meet shortfalls (%)	---> (k)	6.4	0.0
Breakeven CE as a percentage of pool principal (%)	---> (l)=h-i-k	12.5	20.0

Source: Ind-Ra

How is sizing of FLCF calculated?

Click here for details on [FLCF](#).

External CE is split into FLCF and SLCF. Ratings of SLCF should be at least in the investment grade category, 'IND BBB(SO)' or above, as per RBI's securitisation guidelines.

Ind-Ra estimates the breakeven CE required for the pool by applying rating level stresses commensurate with the target rating of SLCF on the pool cash flows which effectively is the FLCF. Therefore, theoretically the FLCF is a form of CE computed on the same pool cash flows by applying rating level stresses related to the SLCF rating and keeping all other model assumptions intact. The remaining portion of CE is the SLCF, after deducting the FLCF from total CE.

How is LF Calculated? What is the Impact of Rated LF on External CE?

Typically, Ind-Ra in its model, calculates LF on the basis of maximum shortfall in collection of monthly pool cashflows and overdues over the life of the transaction. However, typically originators provide the LF amount of 1%-2% of pool POS.

LF calculation for a given month's pool cash flows is given below:

Figure 39

Breakeven Liquidity Facility Calculation

Transaction features for a given month		Values
Current collection efficiency (%)	---> (a)	75
Overdue collection efficiency (%)	---> (b)	65
Ind-Ra's assumptions for a given month		
Scheduled pool cash flow for the month(principal + interest)	---> (c)	20.0
Total pool principal	---> (d)	550.0
Opening overdues	---> (e)	4.0
Current collection shortfall for the month	---> (f) = (1-a)*c	5.0
Overdue collection shortfall for the month	---> (g) = (1-b)*e	1.4
Closing overdues for next month	---> (h) = f+g	6.4
Liquidity shortfall for given month	---> (i) = c - (a*c) - (b*e)	2.4
Liquidity short fall as a % of pool principal	---> (j) = i/d	0.4%

Source: Ind-Ra

The cumulative liquidity shortfall amount estimated on the total pool cash flows is estimated to be LF amount required for the transaction.

In instances, where rated LF amount provided by the issuer charges interest on the drawn as well as undrawn portions (interest rate on drawn portion is typically higher), such expenses related to LF along with replenishment of LF on utilisation in previous period are typically recovered from pool cash flows at the top of [the waterfall](#).

This leads to a drag on the pool cash flows which effectively increases the CE of an ABS transaction by 0.5%- 1.0% with a rated LF in place.

What are the impacts of interest rate movement on the rating of ABS/RMBS transactions? How does Ind-Ra take into account the impact of interest rates on the rating or CE?

Interest rate movement is more sensitive to ABS/ RMBS transactions with a tenor of 15- 20 years compared with short tenor pools with an average tenor of three to five years.

Assuming the pool borrowers' interest rate are linked to base rate/marginal cost of lending rate (MCLR), the interest component of the pool cash flows are expected to increase in an interest rate upcycle and hence reduction in CE and vice versa, assuming the PTC yield remains the same.

Ind-Ra takes into account the impact of interest rate movement by stressing the interest cash flows of the pool's borrowers applicable for both an interest upcycle and interest down cycle. Therefore, the expected CE post factoring in for interest rate related 'IND AAA' stress shall be significantly higher (20%- 50%) than the breakeven CE estimated without applying any interest rate stress.

Information and Data

What Information is Ideally Required by Ind-Ra at the Time of Rating an ABS Transaction?

Ind-Ra looks for various forms of pre and post transaction closing data, along with additional data during the annual surveillance process of a rated ABS transaction.

Figure 40

Information Requirement at the Time of Initial Rating (Provisional/Final Rating)

Expected information	Description	Stage of data requirement
Static pool data	Aggregate issuance volume of monthly disbursement of loans of a particular asset class and their aggregate monthly performance as measured by outstanding principal of loans in 30+dpd, 60+dpd, 90+dpd and 180+dpd, or loan-wise monthly disbursement of loans of a particular asset class and their respective future receivables along with the monthly billing and collection performance for such loans	Provisional rating
Portfolio cuts	For each asset class, assets under management (AUM) distribution over different loan characteristics and their overdue buckets at quarter end.	Provisional rating
Dynamic delinquency data	For each asset class, monthly total outstanding AUM and AUM for current bucket and each overdue bucket	Provisional rating
Collection efficiency data (for (CV)/CE/ Car/Tractor/Mortgage loans)	For each asset class, monthly billing, monthly collection from overdue loans, current loan, prepayment and advances	Provisional rating
Additional collection efficiency data (for microfinance loans)	Branch-wise and district-wise monthly collection efficiency of the originator's portfolio for the last two years	Provisional rating
Recovery data	Asset class-wise monthly recovery and outstanding principal which was to be recovered	Provisional rating
Prepayment data	Asset class-wise monthly prepayment amount	Provisional rating
Collateral pool & pool/ liability cash flows	Loan level details of all the loans which are to be securitised (all the asset characteristics of a loan such as loan ID, LTV, original tenure, interest rate, loan amount, fixed obligation income ratio (FOIR), state, city, loan type, origination date, etc.) and the pool's and PTC's expected monthly future cash flow (both principal and interest)	Provisional rating
Historical overdue loans composition of collateral pool	Percentage of overdue loans composition in various overdue buckets (1-30 dpd, 31-60 dpd, 61-90 dpd, greater than 90 dpd) of collateral pool in the last 12 months	Provisional rating
Financial statements	Audited latest financial statements of the originator	Provisional rating
Term sheet	Key terms of the transaction	Provisional rating
Copy of loan documents	Sample copy of loan agreements for each asset class	Provisional rating
Transaction documents	Trust Deed, Assignment Agreement, Servicer Agreement, Collection and Processing Agent Agreement, Credit Facility Agreements (FLCF/SLCF/ Bank Guarantee/Corporate guarantee) and related Power of Attorney (PoA), General PoA, etc.	Draft documents required at the time of provisional rating; execution version of documents required at the time of final rating
Legal opinion	Legal opinion by Transaction Legal Counsel	Draft legal opinion required at the time of provisional rating; signed legal opinion required at the time of final rating
Copy of credit facility agreements	Copy of fixed deposits receipts, bank guarantee document, etc.	Final rating

Source: Ind-Ra

Information on monthly payout reports of the rated transaction for maintaining surveillance:

Figure 41

Information Requirement at the Time of Review Rating

Expected information	Description
Loan level information for the transaction	Loan level monthly billing and collection from overdue loans, current loan, prepayment and advances
Overdue amount	Overdue bucket-wise distribution of future principal outstanding (POS), overdue POS and overdue interest outstanding
Sources and uses of monthly cash	Breakup of sources (principal collection, interest collection, prepayment, recovery, advances, overdue collection, withdrawal from CEs and liquidity facilities (LFs), etc.) of cash flow and uses of cash flow (payment to PTC interest and principal, servicer fee, statutory dues, top up of CE and LFs, interest charged on LF (if any), flow back to issuer, etc.)
PTCs, CE and LF details	Outstanding notional of PTCs and the outstanding pool's month-wise future cashflows, CEs and LFs Also, CE and LF utilised for the month along with replenishment of CE/LF for previous period utilisations
Counterparty details	Name and rating of the transaction counterparties

Source: Ind-Ra

Figure 42

At the Time of Annual Surveillance of a Rated Transaction

Expected Information	Description
Loan level information for the transaction	Loan level future monthly billing and collection from overdue loans, current loan, prepayment and advances
Pool cashflows	Expected monthly future cash flow (both principal and interest)
Counterparty details	Confirmation of counterparties (servicer/ CE account bank holder/collection and processing account bank) in the transaction to check whether documented rating triggers have been adhered to
CE & LF details	Confirmation of mode of placement of CE and LF to check whether the CE/LF in the form of fixed deposits/guarantee/overdraft have been replaced by any other mode of payment

Source: Ind-Ra

How robust is the reporting standard for Indian ABS transactions?

The reporting standard for Indian ABS transactions with respect to data adequacy, third party due diligence of sample contracts of the rated pool, monitoring of the performance of rated transactions, etc. is fairly robust. However, it varies for different issuers.

The Indian ABS still has some scope for improvement in its reporting standards such as:

- Standardisation of monthly payout reports received from different trustees of rated ABS transactions
- Standardisation of static pool data sent by various originators
- Mandatory adherence to sharing key data fields such as recovery information, prepayment trends at a pre-specified frequency
- Monthly sharing of pool level cash flow receipts at loan level to ensure 'ring-fencing'
- Building a common repository platform for ABS data of publicly rated ABS transactions (available in the US)

How is data inadequacy handled by Ind-Ra?

The key data required by Ind-Ra to initiate the initial rating action is described [above](#). The primary source of data for information required at the time of initial ratings is the originator and for surveillance data, the primary source is trustee who provides information on payouts based on the application of the waterfall mechanism as per information from the originator. In few cases, the agency may not receive adequate data for a variety of reasons such as lack of data preparedness, or absence of static pool data, poor quality of originator data and limited or insufficient historical data of a new originator in Ind Ra's portfolio.

In the absence of static pool data or limited or insufficient historical data, Ind-Ra may analyse industry peer data or any other market information that can be used to derive the base case default proxy ([click here for details](#)). Additionally, if the available historical data is deemed to be insufficient, Ind-Ra may decline to rate the transaction. If the historical data does not fulfil the minimum criteria above, but sufficient relevant and comparable market information is available to derive proxy assumptions, Ind-Ra may elect to proceed with the rating, but may impose a rating cap. The historical data may be insufficient for a number of reasons including the following: limited period of available data; limited relevance of available data; or high levels of volatility in the available data.

What does the Static Pool Data Comprise and How is it Used by Ind-Ra?

Static pool data comprises monthly/quarterly delinquency performance of loans which can be measured by loan outstanding in 30+dpd, 60+dpd, 90+dpd or 180+dpd buckets of the total loan disbursement originated in a particular month or quarter. This data helps to estimate the delinquencies at various seasoning level for the loans originated in a particular month/quarter. The static pools provided by originators typically include the outstanding loan principal in either 90+dpd or 180+ dpd bucket. Static pool data for different asset classes may be available.

As an illustration, let us assume that Ind-Ra has been provided with the historical static portfolio performance i.e. 90+ dpd of the loan asset for quarterly loans originated in the last 10 years between December 2006 and December 2016. The historical quarterly performance of such loans originated in each quarter in the past period shall be calculated as shown below:

Figure 43

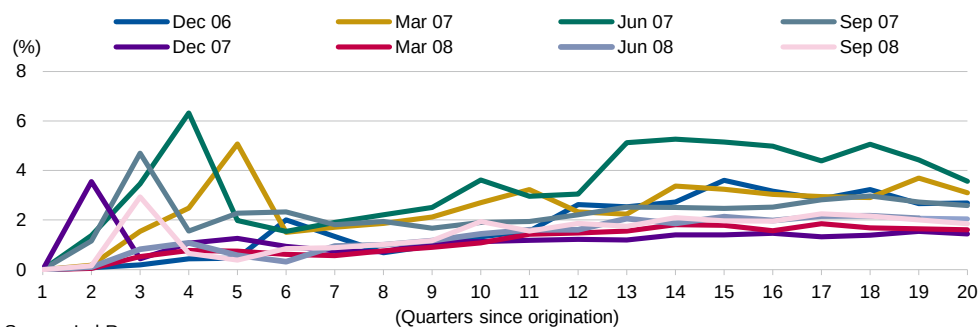
Static Pool Data - Illustration

Disbursement (INR million)	1,000	3,130	1,900	2,570	1,610	670	2,770	2,850
Quarterly disbursement	Dec 06	Mar 07	Jun 07	Sep 07	Dec 07	Mar 08	Jun 08	Sep 08
Quarters after origination								
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.07	0.17	1.37	1.16	3.55	0.04	0.09	0.15
3	0.19	1.54	3.46	4.70	0.44	0.52	0.82	2.93
4	0.44	2.48	6.32	1.55	1.07	0.76	1.07	0.65
5	0.46	5.07	1.98	2.28	1.26	0.74	0.57	0.38
6	2.00	1.50	1.54	2.33	0.94	0.62	0.32	0.85
7	1.33	1.71	1.90	1.81	0.75	0.56	0.94	0.88
8	0.67	1.86	2.20	1.95	0.72	0.75	1.00	1.02
9	0.96	2.12	2.50	1.67	1.10	0.90	1.17	1.16
10	1.32	2.70	3.62	1.90	1.12	1.07	1.44	1.95
11	1.56	3.23	2.96	1.94	1.18	1.42	1.61	1.55
12	2.63	2.33	3.05	2.22	1.21	1.48	1.61	1.87
13	2.54	2.24	5.12	2.52	1.19	1.55	2.05	1.75
14	2.73	3.37	5.27	2.51	1.40	1.81	1.87	2.09
15	3.60	3.24	5.15	2.47	1.40	1.78	2.14	1.96
16	3.16	3.03	4.98	2.51	1.46	1.56	1.98	1.96
17	2.86	2.94	4.39	2.82	1.32	1.85	2.15	2.25
18	3.22	2.91	5.06	2.97	1.39	1.68	2.18	2.16
19	2.66	3.70	4.43	2.73	1.54	1.65	2.07	2.00
20	2.68	3.10	3.56	2.58	1.44	1.60	2.04	1.85
Peak 90+dpd (default rate)	3.60	5.07	6.32	4.70	3.55	1.85	2.18	2.93

Source: Ind-Ra

Figure 44

90+dpd (%) – Historical Static Portfolio Performance of Loan Asset



Source: Ind-Ra

Ind-Ra generally requests the issuer to share the static pool data of past five to seven years to analyse the long-term default and loan origination trend. Also, separate static pool data is requested for each asset class such as CV, tractor, etc. or based on new or used asset type. For the purpose of analysis, Ind-Ra looks at the peak default rate of the loans for a particular month or quarter. Also, the agency computes the vintage-wise default trends at different seasoning levels. Based on the past trends observed, the agency estimates the base case default.

[Click here for estimation of net base case default.](#)

What is the difference between loan level static data and aggregated static pool data?

Loan Level Static Pool

The originator provides the static pool data either on a loan level basis or on an aggregated basis which comprises consolidated performance of all the loans disbursed in a particular month/quarter. As explained above, the loan-wise static pool data comprises billing and collection data of each loan along with other loan level information such as initial disbursement, future receivables, origination month, loan tenor, equated monthly installment, asset class, geography details, etc. From the billing and collection information received, the agency then calculates the dpd (90+ dpd/ 180+ dpd) of each loan for each month/quarter of its seasoning along with the loan outstanding in the respective bucket for the loan. The performance of each loan is aggregated based on its respective disbursement month/quarter.

Aggregated Static Pool

[Aggregated static pool data](#) comprises aggregated monthly/quarterly disbursement with aggregated monthly/ quarterly performance for all the loans disbursed for that period. Performance of the loans is measured by 30+dpd, 60+dpd, 90+dpd and 180+dpd delinquencies. The static pools provided by Ind-Ra rated originators typically include the outstanding loan principal in either 90+dpd or 180+dpd bucket.

Key differences between loan level static pool and aggregated static pool data:

- If loan level data of static pool is available, default trends can be analysed with respect to various parameters of the borrower and loan characteristics such as loan ticket size, LTV, asset type, geography, customer type, etc. However, in case of aggregated static pool, the analysis is restricted to vintage-wise or asset class-wise default trend analysis.
- The speed of default rate can vary for each individual loan and for the aggregated static pool data. Following is an example which depicts the difference in speed of default for individual loans and an aggregated loan level static pool.

Figure 45

Default Rate Calculation for Aggregated Static Pool – Illustration

	Dec 14	Mar 15	Jun 15	Sep 15	Dec 15
Loan 1 - 90+dpd (FPOS+OD)	0	0	0	100	80
Loan 1 - months overdue	1	2	3	4	5
Loan 1 - 90+dpd as a % of OPOS of INR1,000	0.00	0.00	0.00	10.00	8.00
Loan 2 - 90+dpd (FPOS+OD)	120	110	105	100	0
Loan 2 - months overdue	4	4	4	4	2
Loan 2 - 90+dpd as a % of OPOS INR1,500	8.00	7.33	7.00	6.67	0.00
Aggregate net - 90+dpd	120	110	105	200	80
Aggregate net - 90+dpd as % of OPOS INR2,500	4.80	4.40	4.20	8.00	3.20

Source: Ind-Ra

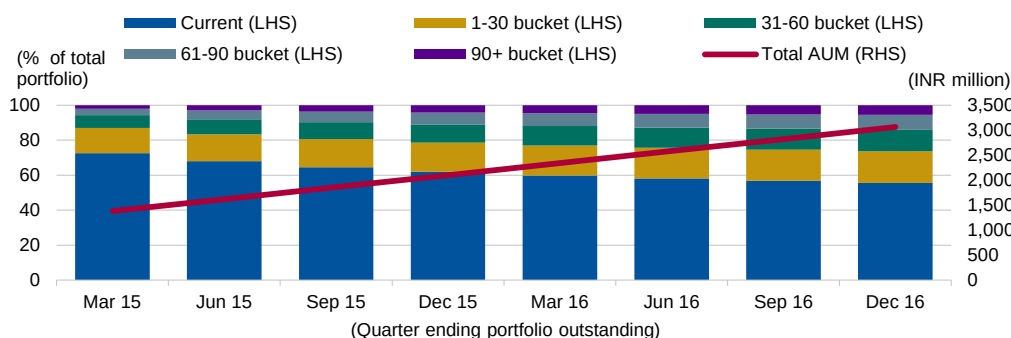
What does Dynamic Pool Data Comprise of? How is Portfolio Cuts Different from Dynamic Portfolio Outstanding?

Dynamic pool data for any asset class comprises monthly/quarterly total portfolio outstanding and POS for current bucket and each overdue bucket for a period of last five to 10 years. In other words, the POS for a particular month/quarter is classified under various buckets such as current, 1-30dpd, 61-90dpd and so on. Ind-Ra analyses the delinquency number in various buckets over a period of time. Dynamic delinquency data is reported at a point in time which is usually the last day of the month.

The chart below depicts 90+dpd on a portfolio outstanding of INR3.06 billion was 5.6% as on December 2016.

Figure 46

Dynamic Pool Trend

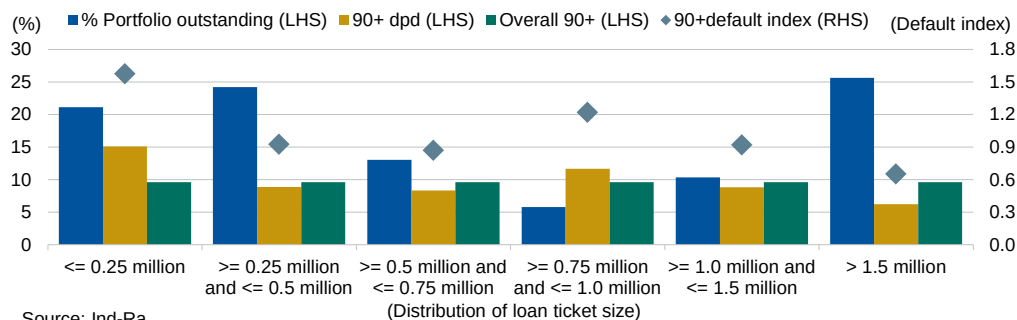


Source: Ind-Ra

Portfolio cuts based data includes the portfolio performance of each distribution of an asset characteristic namely interest rate, LTV, geographical presence, loan ticket size, etc. at the end of each quarter. Ind-Ra typically requests the originator to provide the portfolio cuts of at least four to eight quarters. A sample portfolio cut based on loan ticket size of the portfolio outstanding of an issuer is given below:

Figure 47

Portfolio Cuts at the End of a Quarter



The sample representation above depicts loans with ticket size less than equal to INR0.25 million are worst performing than the overall portfolio.

What does recovery data comprise of?

Ind-Ra is typically provided with asset-wise recovery data from issuer which includes recovery rate on repossessed loans originated in a particular quarter and the time taken (in months/quarter) for recovery of defaulted loans. A sample template of quarterly recovery data for last two years is given below:

Figure 48

Template For Recovery Data - Illustration

	Sale of assets (INR million)			Recovery rate (%) - B/A	Average time to recovery (months)
Particulars	Principal (A)	Sale price (B)	Loss on sale (C)		
FY14					
Q1	1,500	900	600	60.0	12.0
Q2	1,300	700	600	53.8	9.0
Q3	1,900	800	1,100	42.1	10.0
Q4	1,400	700	700	50.0	14.0
FY15					
Q1	1,700	900	800	52.9	18.0
Q2	2,100	1,500	600	71.4	15.0
Q3	2,500	1,750	750	70.0	16.0
Q4	2,300	1,550	750	67.4	12.0

Source: Ind-Ra

What does collection efficiency data comprise of?

The issuer provides asset-wise historical billing and collection data of current month and opening overdues separately for the last five to six years. In Ind-Ra's terminology, the current collection efficiency for a month is defined as the ratio of actual collections as a percentage of the total billed/ collectible amount for that month. Overdue collection efficiency is defined as the actual overdue collections as a percentage of opening overdues for that month.

Figure 49

Template For Collection Efficiency Data - Illustration

Quarter ending	Billed/overdue amount (INR million)	Collection amount in INR million (Within X days from due date)			Cumulative current/overdue collection efficiency (%)		
		X=0	X=90	X=180	X=0	X=90	X=180
Mar 16	1,204	839	1,149	1,185	69.7	95.4	98.4
Jun 16	1,350	900	1,260	1,320	66.7	93.3	97.8
Sep 16	1,670	1,010	1,470	1,600	60.5	88.0	95.8
Dec 16	1,590	1,100	1,430	1,480	69.2	89.9	93.1

Source: Ind-Ra

Ind-Ra is provided with separate billing and collection data for current loans and overdue loans.

What is the difference between static pool data and dynamic delinquency data?

Figure 50

Comparison Between Static Pool and Dynamic Pool

Sr. No.	Static pool	Dynamic data
1	Delinquencies for the loans are benchmarked with original disbursement amount	Delinquencies in different buckets are benchmarked with AUM in the same month
2	It is not influenced by change in the AUM	AUM is influenced by addition or removal of loans every month, and thus delinquencies will be understated or overstated.
3	The delinquency trend for a particular origination month/quarter/year at different seasoning levels can be analysed.	Performance trend at various seasoning levels cannot be determined as the performance of the loans cannot be mapped with its origination.
4	More appropriate measure for portfolio performance as compared with dynamic data	Less appropriate measure for portfolio performance as compared with static pool data due to above shortcomings

Source: Ind-Ra

Why is the default rate calculated from dynamic data different from static data?

Default rate from dynamic data is calculated as a percentage of total AUM outstanding at the end of a month, whereas default rate in static pool is calculated as a percentage of disbursement amount originated for a month. Default rate calculated from dynamic data may be understated or overstated as it gets influenced by addition or removal of new loans in the portfolio. For example, if an originator is fast growing its loan book, the defaults may be understated as the AUM increases at a higher rate than the defaults, which is yet to reach its peak. Thus, the default rate calculated from the static pool is a more appropriate measure for defaults as compared with dynamic data as the delinquency trends can be determined at various seasoning levels.

What is the difference between Ind-Ra default rate and net NPA reported by the Originator?

The key difference between Ind-Ra estimated default rate and net NPA reported by the originator in its audited financial statements is the provisioning costs and write-offs accounted for net NPA at the time of loan origination in accordance with the RBI's prudential norms on provisioning pertaining to advances.

While Ind-Ra's gross default rate includes recoveries related to a pool of loans whose performance is being assessed, net NPA shall be reported as the actual defaults on the total AUM outstanding of the originator at the end of a reporting period less the provision costs set aside on the overall book.

How is default rate estimated from the static pool and what are the different point estimates used by Ind-Ra to calculate default rate?

[Click here for estimation of net base case default.](#)

Figure 51

Ind-Ra Derives the Long-term Portfolio Base case Default Rate in the Following Manner

Particulars	Description
Default proxy to be assumed	0+dpd/90+dpd depending on the asset class
Defaulted amount to be determined	Unpaid principal (overdue and future) as a percentage of initial loan amount; in some cases unpaid receivable (overdue and future) as a percentage of initial receivable
Population (data used)	Historical series of monthly/quarterly disbursements
Default rate	Aggregate defaulted amount for a month as a percentage of disbursement for the same month
Observations	Peak 90+dpd of monthly disbursements (sufficiently seasoned) observed till the time of analysis
Base case default estimate (central tendency)	Median of the observations; or Weighted average of the observations weighted on disbursements; or Weighted average of medians of recent vintage loan period having demonstrated high peak delinquencies and old vintage loan period where performance was relatively stable; or Percentile-based approach of the observations for highly volatile asset classes such as microfinance loans;

Source: Ind-Ra

How does historical trend of default impact Ind-Ra's assumption of the base case default rate?

To calculate the base case default, Ind-Ra prefers to analyse historical data of the originator of past seven to eight years so that it can analyse the default trends in the originator's portfolio across different business cycles. In case of availability of such long-term historical data, the agency estimates the median of peaks seen in the originator's portfolio during different business cycles i.e. stressful and benign economic environment. Also, if the default trend for a particular period in relation to recent vintage loans is contrary to the economic environment, the agency inquires the originator the reason for the same and accounts for such adverse changes in the agency's base case estimate.

Time period assumed to estimate the median of peaks depends on various factors such as average seasoning level of default rate reaching its peaks, business origination date and the experience of the originator, portfolio size, historical data which covers different business cycles of an economic environment, etc. Also, various weightage can be given to different time periods to estimate the base case default in case volatility of defaults is significantly different among those periods.

What is portfolio cut? How is it used by Ind-Ra?

[Click here for details on portfolio cuts.](#)

At the time of assigning the initial rating to a pool, the characteristics of the pool to be securitised are compared for delinquencies with the overall portfolio of the originator. The proportion of each characteristics of the pool is compared with the long-term average delinquency levels and portfolio composition of the loan outstanding in the originator's portfolio. Comparison of various characteristics such as loan ticket size, LTV, interest rates, geography, tenor, etc. is done to determine the quality of the pool versus the originator's portfolio with respect to delinquencies.

What is lag analysis of dynamic delinquency data?

[Click here for details on lagged analysis of dynamic delinquency data.](#)

The delinquency can be calculated in two ways from dynamic delinquency data.

- Coincidental delinquency
- Lagged delinquency

Coincidental delinquency i.e. a 90+dpd from dynamic delinquency data at the end of a particular month/quarter is calculated as the total loan outstanding which is more than 90 days overdue divided by the total AUM outstanding at the end of that month/quarter.

Ind-Ra's estimation of lagged delinquency can be in various forms namely one, two, three or four-quarter lagged delinquency. A four-quarter lagged 90+dpd based delinquency at the end of a particular quarter, for instance December 2016, is the total loan outstanding which is more than 90 days overdue as on December 2016 divided by the total AUM outstanding at the end of the previous four quarters, i.e. December 2015.

What is roll-rate? How is it used by Ind-Ra?

Roll rate is the percentage of outstanding loan balance moving across different buckets in subsequent periods of seasoning. Forward or backward roll rate can be calculated based on the movement of loans into or back from deeper buckets.

Forward movement of loans can be illustrated by the example below:

Figure 52

Borrower A (INR million)

Month	Opening loan outstanding	Billing	Collection	Unbilled loan	1-30 dpd	31-60 dpd
1	100	10	0	90	10	-
2	100	10	6	80	10	4

Source: Ind-Ra

In the above example, 4% of the loan outstanding in 1-30dpd bucket in the first month rolled over in 31-60dpd bucket in the second month.

Roll rate analysis helps to estimate the comparative probability of defaults of the loans across various buckets in relation to a particular bucket. As an illustration, Ind-Ra may study the historical average roll rate observed for loans in the 1-30 dpd bucket moving into 90+ dpd bucket over the life of an originator's loan portfolio. Roll rate can be calculated from the loan level static pool data provided by the originator. In case loan level static pool data is not available, Ind-Ra calculates the average roll rate by combining the loan level data of Ind-Ra rated transactions for a particular asset class. Thus, originator, asset or transaction specific roll rate can be computed which can be used to determine the stressed default probability of the buckets below 90+dpd (current, 1-30, 31-60 and 61-90 bucket) moving into 90+dpd.

Ind-Ra uses the roll rate at the time of surveillance of the transactions. [Click here for details on application of roll rate.](#)

What is a payout report? What are the typical fields in the report?

Ind-Ra initiates the surveillance once the final ratings are assigned. Payout report is a monthly report shared by the trustee to the rating agency who provides the details of the payout made to the PTCs against the amount collected and any excess available or shortfall for the payout. This report for each transaction is shared by the appointed trustee after every payout, which is typically on a monthly basis and has the following key data fields as mentioned below:

Figure 53

Data Fields in Payout Report

Data fields	Summary
Billing	Current and overdue billing details
Collection	Current collections, collections against overdues, prepayment or advance collections
Investor payout	Payouts made towards principal, interest, prepayments
Delinquency ageing report	Bucket-wise distribution of unbilled principal, overdue principal and interest
Excess/shortfall	Whether there was excess or shortfall during paying the investors
CE amount	Opening balance, replenishment or utilisation during the payout month
LF amount	Opening balance, top-up and utilisation during the payout month
Future PTCs cashflow	Schedule of future cash flows to be paid to the investors adjusted for prepayments
Counterparty details	Name of the counterparties
Fee details	Details of fees paid as per the payment waterfall such as servicer fees, any statutory dues, interest on LF, etc.

Source: Ind-Ra

How does Ind-Ra use the data provided in the payout reports?

Ind-Ra uses the monthly payout reports to monitor the transaction performance on a regular basis. Each month, the agency extracts the key data from the payout report and maintains consolidated summary of the overall performance of an Ind-Ra rated ABS transaction.

Various performance trends such as collection efficiency, monthly prepayment, delinquency levels across different buckets, CE utilisation trends, etc. are reported monthly. This aids the agency to flag any material deviation observed for any asset class or originator (for instance actual default observed at the end of a particular month is higher than the base case default estimated at transaction closing) and conduct timely rating action, if necessary.

Transaction-wise data is further consolidated based on the same asset category to facilitate detailed study of delinquencies and other trends for a particular asset class.

What is the frequency of originator and servicer review conducted by Ind-Ra? What is the importance of the same in the rating process?

While assigning a new rating as well as during annual surveillance of ABS transactions, Ind-Ra considers the qualitative and quantitative factors. A review of the originator and servicer is a part of the qualitative analysis. Originator/servicer play a pivotal role as the future performance of the securitized loan pool is linked to their capabilities and competencies to perform their roles and obligations as provided in the transaction documents. Ind-Ra conducts a complete review of the originator and servicer associated with the transaction and such a review is conducted at least once annually.

A management meeting is conducted with the originator and servicer to evaluate the qualitative factors and assess the policies, procedures and overall operations in place. In Indian ABS securitisation transactions, the originator typically acts as the servicer. This is mainly due to the challenges in implementing a third party or backup servicer.

Few key areas evaluated during the discussion include:

- Origination and underwriting practices
- Collections and recovery management
- Credit appraisal and internal control practices
- Technology and risk management
- Staffing and training
- Financial and operational stability, etc.

Ind-Ra focuses primarily on management quality, portfolio size and market concentration, loan terms, target customers and goals and strategies of the management. The agency also assesses the sourcing channels, selection and monitoring of vendors, loan application and approval process, collection processes, repossession practices, etc. The agency typically expects experienced collectors/ separate collection team handling the deeper bucket loans i.e. 90+ or 180+dpd accounts.

Based on the review, Ind-Ra may make quantitative adjustments to default and recovery assumptions. Thus, the capabilities of the originator and servicer impact the performance of the securitized pool.

Does Ind-Ra validate all the loans documents of the loans included in the pool?

Ind-Ra typically assesses sample loan documents of each asset class of an originator. An ABS securitisation transaction generally comprises large number of obligors, and thus it is not feasible to check all the loan documents of all the loans included in the pool. However, the originator of a securitised pool typically provides a compliance statement certifying that the pool has met the RBI stipulated securitisation guidelines pertaining to MHP and minimum retention criteria.

Ind-Ra assumes that the loans disbursed for a particular asset class typically have homogenous terms defined in the documents. Additionally, the dynamic characteristics of the loans such as LTV, interest rates, loan size, tenure, etc. are evaluated at the pool level at the time of assigning a rating.

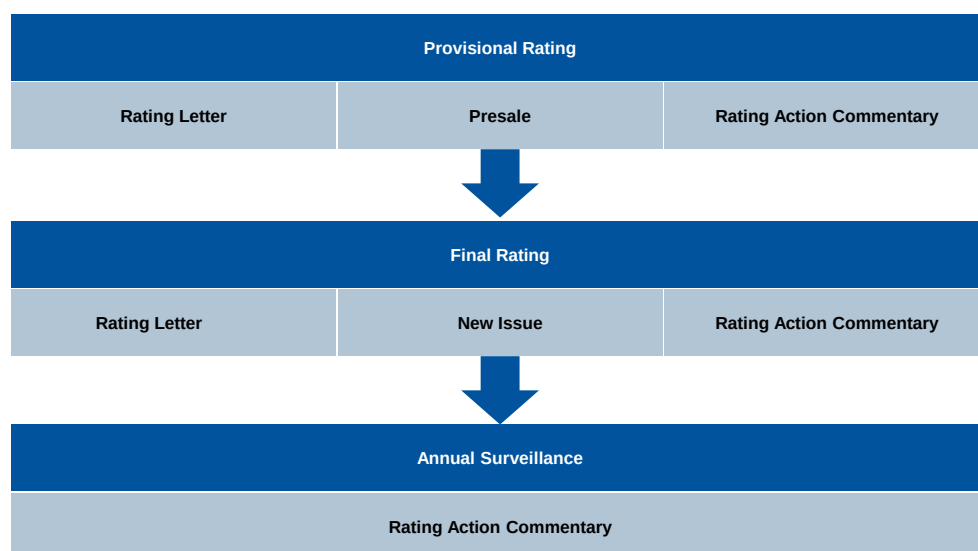
How does Ind-Ra remain updated on the counterparties of the transactions?

At the time of assigning the final ratings, the agency is provided with the details of the counterparties involved in the transactions. Ind-Ra evaluates the documents related to the respective counterparties and also checks whether the credit ratings of each counterparties are in line with the rating triggers mentioned in the executed documents. The agency also monitors any material changes in ratings of the counterparties involved.

Generally, as per the transaction documents, the trustee is required to intimate the rating agency or may require approval of the rating agency in case of any change in counterparty. Also, at the time of surveillance of a transaction, Ind-Ra verifies with the trustee whether there has been any change in the counterparties.

Which information is shared by Ind-Ra while rating an ABS transaction?

Figure 54



Source: Ind-Ra

What changes in the originators' profile are analysed at the time of review?

At the time of surveillance, the agency reviews the following key points:

- Monthly transaction performance is monitored for the period since last review and Ind-Ra analyses if the transaction performance is as per or better than the initial assumptions
- The agency checks if the transaction performance is consistent with that demonstrated by transactions considered to be its peers and against the economic environment in which it is operating
- A sense check of key performance measures is analysed including a comparison of the latest reported performance data to that from at least the last two preceding reporting periods.
- The agency checks whether the key performance assumptions (for determining default and loss expectations) are comparable with the previously issued transactions' data and that these assumptions are reasonable for the pool currently analysed.
- An assessment of the transactions' characteristics and origination practices and the consistency with and comparability to previous securitisations of the same type of asset from the same originator and also rated by Ind-Ra.
- Ind-Ra checks whether the originator and servicer review is conducted at least once within 12 months from the last review.

In addition to the above, Ind-Ra also checks whether the available CE as a percentage of future POS at the time of annual surveillance is able to sustain the current rating. [Click here for Ind-Ra's methodology for annual surveillance.](#)

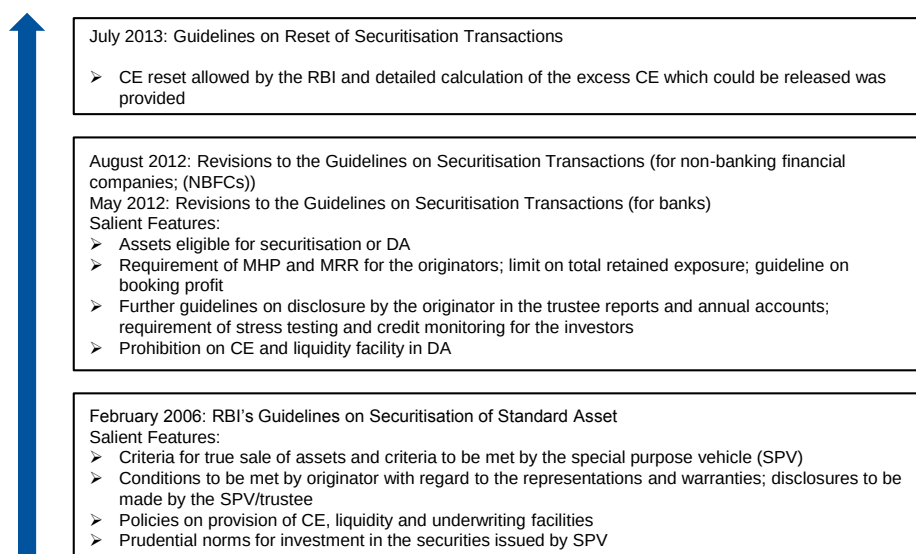
Does Ind-Ra employ legal agencies for getting legal opinion related to transactions?

No, Ind-Ra does not employ any legal agencies for legal opinion. It relies on the legal opinion provided by the legal counsel appointed by the trust or the originator.

Regulations

What are the Different Extant Regulatory Guidelines for Securitisation Transactions in India?

Figure 55



Source: Ind-Ra

What is True Sale?

In order to enable transfer of assets from the balance sheet of the seller to the SPV, true sale from seller to the SPV is an essential prerequisite. The RBI's securitisation guidelines provide a set of criteria which have to be met for a sale to be classified as True Sale. Only when these criteria are met, the seller would be exempted from keeping any capital against the sold assets. The salient features of the criteria are:

1. **Immediate Legal Separation:** The sale should result in immediate legal separation of the sold assets from the seller (including selling/assigning/transferring NBFCs/banks). The sale should put the sold assets beyond the seller's as well as its creditor's reach even in the event of bankruptcy of the seller.
2. **Effective transfer of all risks/rewards and rights/obligations** pertaining to sold asset and no beneficial interest of seller in the asset after sale. Any agreed upon entitlement of surplus income generated from securitised assets after maturity of securities issued by SPV would be in accordance with the true sale criteria.
3. **No economic interest of originator in assets after sale** and SPV to have no recourse to originator for any additional costs on securitised assets, except those permitted under the guidelines
4. **No obligation on seller to repurchase or fund the repayment of sold assets or substitute sold assets or provide additional assets to the SPV at any time** excluding any due to breach of representations and warranties made at the time of asset sale
5. **Originator to demonstrate no obligation towards any losses incurred by securities issued by SPV backing sold assets**
6. **Only cash consideration allowed on asset sale, received no later than the time of asset transfer to the SPV**
7. **Seller can continue to act as servicer**
8. **Opinion from seller's legal counsel opinion on the true sale nature of the sold assets**
9. **No obligation on the seller from any change in terms of the underlying agreement after sale**
10. **No obligation as servicer to remit funds to SPV/ investors unless received from the borrowers**
11. **Option to repurchase 10% of fully performing asset allowed**
12. **Risks/obligation from CE and LF allowed**

13. Originator not to be engaged in market making or dealing in securities issued by SPV
14. Securities issued by SPV not to have a put option. However, call option may be available to address the prepayment risk of the underlying assets.

Which assets are eligible for securitisation in India?

All standard assets representing the debt obligation of a homogeneous pool of borrowers except the following are eligible for securitisation:

1. Single asset securitisations typically are not engaged with tranching/ redistribution of credit risk and hence disallowed for securitisation in India.
2. Revolving credit facilities such as credit card receivables, cash credit
3. Assets purchased from other entities
4. Securitisation exposures such as ABS/mortgage backed securities
5. Loans with bullets repayment of both principal and interest
 - a. Trade receivables with maturity less than 12 months discounted/purchased by NBFCs from their borrowers will be eligible for securitisation. However, only those loans/receivables will be eligible for securitisation where a drawee of the bill has fully repaid the entire amount of last two loans/receivables within 180 days of the due date.

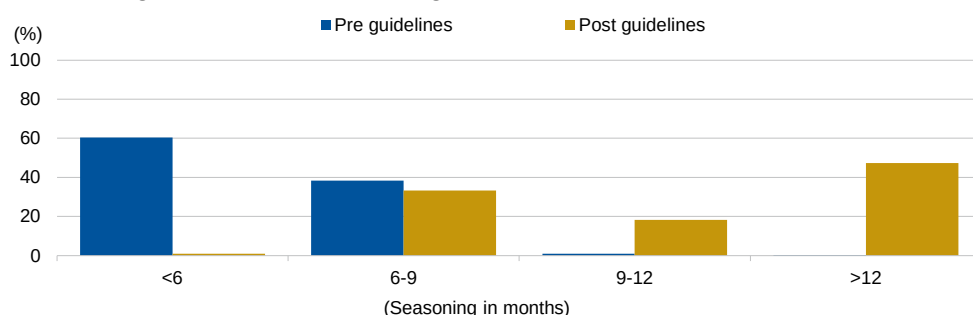
What are MHP and MRR? How do they impact performance of a securitisation transaction?

As per the revised securitisation guideline released by the RBI in May 2012 (for banks) and August 2012 (for NBFCs), NBFCs and banks can securitise loans only after they are held for a MHP in their books. MHP is the number of instalment paid after disbursement until securitisation and vary based on the tenure of the loan. The guideline was intended to ensure that project implementation risk is not passed on to the investors and a minimum repayment is demonstrated prior to securitisation to ensure better underwriting standards.

In Ind-Ra's experience, each loan that has paid a certain number of instalments has reduced the first-payment default risk, and weeded out any potential cases of fraud and also led to a much more homogeneous pool since the guidelines were implemented.

Figure 56

Seasoning Distribution at Closing



Source: Ind-Ra

The guidelines also stipulated MRR as a percentage of book value of the securitised pool that the originating NBFC or bank needs to retain to ensure that the originators have a continued alignment of interest in the performance of the securitised assets and that proper due diligence of assets to be securitised is conducted. MRR is 10% for the loans with original maturity of more than 24 months or for trade receivables with up to 12 months' tenor and 5% for the loans with less than 24 months of original maturity.

The MRR should be first fulfilled by FLCF to the extent it is available. In case, the FLCF is less than 5% then the remaining requirement can be fulfilled through the equity tranche to the extent available so that the combined contribution of FLCF and equity tranche in MRR does not exceed 5% and finally the remaining requirement, if any, by pari-passu investment in the securities issued by the SPV. The guidelines consider overcollateralisation as a form of FLCF. The Indian market had some form of risk sharing between issuers and investors prior to the

implementation of the guidelines as the market does not have any equity investors. However, the significant change introduced in the guidelines is minimum retention across the capital structure.

How is CE Reset?

The RBI allowed release of external CE in the guidelines released in July 2013. As per the guidelines, the original amount of the external CE can be reset by the external CE provider subject to the following key conditions:

- A. Any release of CE requires the tranches to get re-rated and is subject to the condition that none of the tranches are ever downgraded.
- B. The reset of external CE would be subject to the consent of the trustee.
- C. Delinquency-based triggers should not be breached.
- D. For first reset, the minimum amortisation level is 50% of the initially assigned principal and for subsequent resets the minimum amortisation levels are 60%, 70% and 80%.
- E. Sum of all overdues, outstanding principal for long overdue (365 days overdue for transaction with tenor of more than two years and 180 days overdue for transaction with tenor of less than two years) loans and any other losses should not exceed 50% of the amortisation adjusted total external CE.
- F. Only 60% of the external CE in excess of what is required to retain the highest ratings ever achieved by the rated tranches till the time of reset can be released, provided the remaining external CE left after reset should be at least equal to 30% of the initial external CE and the reset should not lead to breach of MRR level.
- G. The transactions documents should include the provision of future CE reset and the initial rating should factor the likelihood of reset.
- H. The releasable external CE should be adjusted from FLCF and SLCF in such a proportion that outstanding rating of the SLCF remains intact.

Can SLCF or investment in subordinated tranche be classified as MRR?

Figure 57

Guidelines for MRR Classification

Available mode for MRR	Guidelines
FLCF	FLCF, if available, can be fully utilised for MRR classification
Overcollateralisation	Language of the guideline appears to suggest that overcollateralisation is a form of FLCF only and hence equally eligible for MRR classification
SLCF	The guidelines do not mention SLCF. However, the reason behind the shunning of the SLCF as MRR is not clear, given that the draft guidelines released on 27 September 2011 did refer to second loss as means of retention.
Equity tranche	Investment in equity tranche is eligible for MRR but the combined contribution of FLCF, if less than 5%, and equity tranche is capped at 5%. However, typically there is no equity tranche in Indian securitisation.
Credit tranche	The balance MRR requirement after fulfilling through FLCF and equity tranche to the extent of their availability and condition prescribed for equity tranche can be fulfilled by only pari-passu investment in the credit tranches. The language of the guideline seems to suggest that selective investment in credit tranches is not permissible for MRR purpose.

Source: Ind-Ra

What is the capital treatment of CE and LF for the issuer?

Figure 58

Capital Treatment for CE & LF

	Originator provided	Third party provided
FLCF	50% of the FLCF will be deducted from each Tier 1 and Tier 2 capital, resulting in full deduction from the capital. However, the total deduction is capped at the amount of capital the originator would have been required to hold for the full value of the asset.	100% reduction from the capital
SLCF	50% of the SLCF will be deducted from each Tier 1 and Tier 2 capital resulting in full deduction from the capital.	The second loss CE shall be treated as a direct credit substitute with 100% credit conversion factor and 100% risk weight covering the amount of the facility
LF	Undrawn part would be an off-balance sheet item with 100% credit conversion factor and 100% risk weight. Drawn/funded portion would carry 100% risk weight. If the drawn portion is outstanding for more than 90 days then it would be classified as NPA and would be fully provided.	

Source: Ind-Ra

What is stress test?

As per the guidelines published in May 2012 and August 2012, NBFCs and banks with securitisation exposures are required to perform their own stress test appropriate to their securitisation positions. The guidelines highlight some of the factors which need to be considered for the stress test. These factors are as below:

- Impact of rise in default rates in the underlying portfolios in a situation of economic downturn
- Impact of rise in pre-payment rates due to fall in rate of interest or rise in income levels of the borrowers leading to early redemption of exposures
- Fall in rating of the credit enhancers resulting in fall in market value of the exposures
- Drying of liquidity of the securities resulting in higher prudent valuation adjustments

Which types of loans are classified as priority sector lending (PSL)? What is target and sub target for PSL?

Figure 59

PSL Classification Norms

	Total priority sector	Agriculture	Advances to weaker section	Micro enterprises
Domestic scheduled commercial banks(SCBs)	40% of adjusted net bank credit (ANBC) or credit equivalent amount of off-balance sheet exposure (CEAOBSE), whichever is higher.	18% of ANBC or CEAOBSE, whichever is higher. Within this 18% target, 8% of ANBC is prescribed for small and marginal farmers	10% of ANBC or CEAOBSE, whichever is higher.	7.5% of ANBC or CEAOBSE, whichever is higher
Foreign banks with 20 branches and above	Targets for both categories are same as domestic SCBs. However, they have flexibility to achieve the target within a maximum period of five years starting from 1 April 2013 and ending on 31 March 2018 as per the schedule provided in the guidelines. The sub-target for small and marginal farmers would be made applicable post 2018 after a review in 2017			The target would be made available post 2018, after a review in 2017
Foreign banks with less than 20 branches	Same as SCBs but could be achieved in a phased manner by 2020 as drawn in the guidelines	n.a.	n.a.	n.a.

Source: Ind-Ra

Other categories under priority sector are small and medium enterprises, export credit, education, housing, social infrastructure, renewable energy and others. Various limitations and definitions of these categories are provided in the guidelines.

How is PSL requirement calculated?

The computation of priority sector targets/sub-targets achievement is based on the ANBC or CEA OBSE, whichever is higher, as on the corresponding date of the preceding year. Starting FY17, the PSL achievement is to be arrived at the end of financial year based on the average of priority sector target/sub-target achievement at the end of each quarter.

SCBs having any shortfall in lending to priority sector are required to allocate shortfall amounts for contribution to the Rural Infrastructure Development Fund established with National Bank For Agriculture & Rural Development (NABARD; 'IND AAA'/ Stable) and other funds with NABARD/National Housing Bank ('IND AAA'/Stable)/Small Industries Development Bank of India, as decided by the RBI from time to time.

What are the existing guidelines on tax treatment of PTCs?

As per the 2016 finance budget, securitisation trusts have been allowed complete pass through of income tax/distribution tax; hence, PTCs are now taxable in the hand of the investors at their effective tax rate. The trust will still deduct TDS but the investor can claim tax credit against the deducted TDS.

What is the restriction on the amount of CE that can be provided by the issuer?

As per the guidelines published in May 2012 and August 2012, total exposure of NBFCs to the loans securitised in the following forms should not exceed 20% of the total securitised instruments issued.

- A. Investments in equity/subordinate/senior tranches of securities issued by the SPV
- B. CEs including cash and other forms of collaterals including overcollateralisation, but excluding the credit enhancing interest only strip
- C. Liquidity support

If an NBFC exceeds the above limit, the excess amount would be risk weighted at 667%. The 20% limit on exposures will not be deemed to have been breached if it is exceeded due to amortisation of securitisation instruments issued.

What are the restrictions on the use of LF?

As per the guidelines published in February 2006, LF should not be drawn for the following purposes:

- A. Providing CE
- B. Covering loss of the SPV
- C. Serving as a permanent revolving funding
- D. Covering any loss incurred in the underlying pool of exposures prior to draw down
- E. Meeting recurring expenses of securitisation
- F. Funding acquisition of additional assets by the SPV
- G. Funding the final scheduled repayment of investors
- H. Funding breach of warranties

Additionally, the guidelines also stipulate a set of other conditions with regards to the facility. The key conditions are as below:

- A. The facility should be drawn only where there is a sufficient level of non-defaulted assets to cover drawings, or the full amount of assets that may turn non-performing are covered by a substantial CE.
- B. When the LF has been drawn, the facility provider shall have a priority of claim over the future cash flows from the underlying assets, which will be senior to the claims of the senior most investor.

- C. When the originator is providing the LF, an independent third party, other than the originator's group entities, may co-provide at least 25% of the LF that shall be drawn and repaid on a pro-rata basis. The originator must not be liable to meet any shortfall in liquidity support provided by the independent party. During the initial phase, a bank may provide the full amount of the LF on the basis that it will find an independent party to participate in the facility as provided above. The originator will have three months to locate such independent third party.

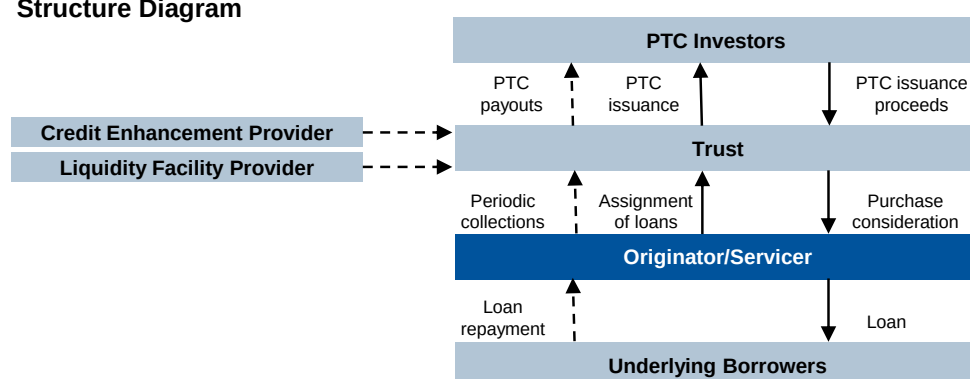
Counterparty Risks, Transaction Documents and Legal Analysis

What are the different counterparties in an ABS/RMBS transaction? What is the interlinkage between them?

The different counterparties involved in an ABS/RMBS transaction are originator, servicer, trustee, account banks holding cash collateral or acting as a collection and payout agent and guarantee provider or corporate undertaking. The functions and role of the various counterparties can be explained from the below ABS structure.

Figure 60

Structure Diagram



Source: Ind-Ra

Originator/seller transfers a pool of loans to a trust. The trust then issues PTCs to investors and transfers the proceeds to the seller/originator by way of a purchase consideration. The future cash flows from the securitised pool are used to pay expenses and the scheduled interest and principal payouts to the PTC investors.

The effective role of the originator/servicer in collecting receivables and distributing funds is reliant upon a number of counterparty relationships. Counterparty risks arise from the operational reliance and dependency on payment obligations from the counterparties involved in the ABS structure. Securitisation structures generally seek to minimise counterparty risk through diversification and replacement procedures. The transaction documentation is reviewed to determine whether the structural protections sufficiently reduce counterparty dependency.

What are Ind-Ra's requirements for different counterparties? How are these dependent on the target rating level of the PTC?

Ind-Ra typically requires the minimum rating of 'IND A/IND A1' of originator/servicer, CE/LF provider and the guarantee provider with a target PTC rating of 'IND AAA(SO)'.

Figure 61

Rating Trigger of Counterparties

Long-term rating category of PTCs	Minimum rating of the direct support counterparty
IND AAA(SO)	A and A1
IND AA(SO)	A- and A2
IND A(SO)	BBB+ and A2
IND BBB(SO)	BBB- and A3
IND BB(SO)	Instrument rating
IND B(SO)	Instrument rating

Source: Ind-Ra

Direct support counterparty includes the parties providing material direct credit or liquidity support.

In case if the CE is provided in the form of guarantee, Ind-Ra must have internal view on the guarantor's IDR or Ind-Ra's rating for the guarantee provider. Also, in the event that any of the counterparty's ratings drops below the above mentioned minimum ratings criteria, then the respective counterparty must be replaced with another alternative eligible counterparty within 30 days. Guarantees by nature are easily replaceable than fixed deposits placed with account banks in the event of a counterparty becoming ineligible. Thus, if the existing guarantor is not replaced within 14 days with an alternate guarantor, then the existing guarantor will have to place the entire available CE in a fixed deposit with an eligible counterparty within 14 days.

What is the Typical Rating Triggers Related to Different Counterparties?

Rating trigger related to originator/servicer:

Figure 62

Types of Counterparty Risks

Risk	Counterparty	Reason	Mitigating action
CE risk	Originator: When CE is provided in the form of fixed deposit by the originator	Cash collateral and LF amount are held in a bank account in the name of the originator with a lien marked to the trust. The risk of fixed deposits (FD) renewal till the tenor of transaction will effectively depend on the smooth operations of the originator.	Originator must instruct the account bank to operate the bank account solely upon the written instructions of the trustee/investor or the cash collateral can be placed in bank in the name of the trustee. Also, transaction documents include certain rating triggers.
	Guarantee provider: When CE is provided in the form of guarantee or corporate undertaking	Dependency on the CE provider increases when entire CE is provided by single guarantor	Ratings of the PTCs will be linked to the rating of the guarantee provider in the absence of any rating trigger . Also, transaction documents specify the guarantor replacement rating trigger.
Commingling risk	Originator/Servicer	Pool collections in month 'M' is utilised for PTC payments in month 'M+1'; leading to blending types of cash inflows at servicer level.	Rating trigger on minimum issuer default rating (IDR) of servicer ensures lesser chances of commingling risk.
Operational risk	Servicer risk	Inability of the servicer to perform all the obligations undertaken by the servicer under the transaction documents or bankruptcy of servicer can expose the transaction to high risk.	Ind-Ra conducts detailed originator and servicer review to understand the policies and practices in place. Also, transaction documents must capture the servicer replacement trigger if the rating of the servicer falls below certain threshold.
	CE/LF account banks, and collection and payment bank risk	Excessive exposure on the account bank holding CE/LF or the bank acting as collection and payment bank indicates high dependency	Transaction documents must include the account bank replacement trigger if the rating falls below a certain threshold
Set-off risk	Originator	If the borrower proceeds to set off the loan in the pool with any deposits maintained with the originator, the originator can repossess the underlying asset. However, if the originator were to default, the transaction is exposed to set-off risk.	Representation and warranties provided by Indian originators usually state that the borrowers do not have any right to set off their liabilities. Ind-Ra will assess the mitigating factors that have been structured into the transaction or the rating of the PTCs will be capped at the rating of the originator.

Source: Ind-Ra

Originator/Servicer exposes the transactions to CE, commingling and operational risks. Transactions typically include the following rating trigger for the originator/servicer to mitigate the above risks:

- **CE risk:** The cash collateral and LF amount are held in a bank account in the name of the originator with a lien marked to the trust. In the event the rating of the originator is downgraded below a certain threshold, then all the monies held in the bank account are usually transferred to a new bank account in the name of the trust within 30 days from such downgrade.
- **Commingling risk:** In the event if the rating of the servicer is downgraded below a certain threshold, then collections from borrowers are to be deposited in the collection and payout account by the servicer on a daily basis or the assignee shall also have the option to direct all the obligors to pay the receivables directly in the trust account.
- **Operational risk:** If the servicer's rating falls below certain threshold, then investors can decide to replace the existing servicer with a new servicer within 30 calendar days from such downgrade.

Rating triggers related to cash collateral bank/account bank or guarantee provider:

- To limit the account bank exposure holding cash collateral, transaction documentation usually specifies that the account bank will have to be replaced within 30 days if it gets downgraded below a certain rating threshold.
- Similarly, if CE is provided in the form of guarantee or corporate undertaking, then guarantor will be replaced with an alternate guarantee provider if the rating of the existing guarantee provider falls below a certain rating level. Also, if the existing guarantor is not replaced within 14 days with an alternate guarantor, then existing guarantor will have to place the entire available CE in a fixed deposit with an eligible counterparty within 14 days.

Rating triggers related to LF provider: At least 25% of the total LF amount may be replaced by the LF provider typically within three months from transaction closing with an independent third party with the minimum required long-term debt rating. LF may also be substituted in the form of bank guarantee or overdraft facility from a bank with the minimum required Issuer Default Rating (IDR).

Rating trigger related to collection and payment bank: In order to limit the approved bank's exposure who is acting as a collection and payout agent, the transaction documents specify that the approved bank will be replaced within 30 days if the rating of the approved bank falls below a certain threshold.

What is commingling risk? How does Ind-Ra account that in the rating?

Loan payments are paid by the obligors to the servicer. As per the payment structure of the transaction, servicer deposits the collections of month 'M' in the approved bank after a month i.e. in month 'M+1'. Thus, the collections remain with the Servicer till one/two business days before the payout date. So, in an insolvency or bankruptcy event of the Servicer, the collections are thus exposed to the risk of being commingled with the defaulting Servicer's estate if it is not fully isolated.

To mitigate this risk, Ind-Ra analyses the credit profile of the Servicer. The transaction documents are reviewed if they contain any rating trigger to mitigate this risk. The servicer must be rated at least 'IND A' or 'IND A1', or the collections from borrowers are to be deposited in the collection and payout account on a daily basis.

Have there been any instances of breach of these triggers in the past?

Ind-Ra has not observed any breach of rating trigger related to various counterparties of a transaction in the past. However, there have been several instances of the replacement of counterparty (namely cash collateral account bank) with another eligible counterparty or mode of cash collateral being transferred from FD to a guarantee. Similarly, there have been multiple instances of change in LF provider, which typically is the issuer at the initial closing, to an eligible third party which achieves the minimum rating threshold.

How does Ind-Ra track the triggers related to various counterparties?

- The transaction documents typically include the rating triggers related to the counterparties. Ind-Ra reviews these triggers at the time of assigning the final ratings to the securitised pool. In case of absence of any rating trigger, the agency maintains an internal trigger linking it to the rating of the PTCs.
- Ind-Ra proactively monitors the IDR of the various counterparties associated in Indian ABS transactions. Internal rating committees consider the specifics of an ABS transaction and may comment on the suitability of counterparty for a particular exposure, even if the counterparty appears to meet the criteria.

What are the different kinds of transaction documents for ABS/RMBS transactions in India?

The transaction documents for ABS/ RMBS transactions in India typically include:

- Assignment Agreement
- Trust Deed
- Servicer Agreement
- PoA issued by Seller (Issuer) in favour of the Trust (FLCF/ SLCF PoA)
- Cash collateral agreement (FLCF/ SLCF agreement)
- LF agreement
- Accounts agreement
- Information memorandum
- Legal opinion

What are the Key Points that Ind-Ra Expects to be Covered in the Legal Opinion?

Ind-Ra relies on the legal opinion provided by a reputed transaction counsel and expects the legal opinion covers the following key legal issues:

- **Enforceability of documents:** The transaction documents are duly authorised and executed and constitute legal, valid and binding obligations of the parties which are enforceable against each of them in accordance with their terms
- **Valid constitution of the trust:** The trust is validly constituted under the trust deed and will be recognised as a duly constituted trust.
- **Adherence to the governing laws and securitisation guidelines:** The transaction complies with the RBI's Guidelines on Securitisation of Standard Assets, dated 1 February 2006, 7 May 2012 and 21 August 2012. The transaction documents must be duly stamped as per the stamp laws applicable in the place of execution. Also, the transaction documents must not be in contravention to the existing laws.
- **True Sale of Assets from the Seller to the Trustee:** The legal opinion must opine that the assignment of the assets by the seller to the trustee by way of the deed of assignment satisfies the test of a true sale as set out under the securitisation guidelines i.e. all the rights, title, interest and benefits in the assets are transferred to the trustee.
- **Bankruptcy remoteness of assets:** The assets purchased by the trustee are held by it in trust for the benefit of PTC holders, and therefore would not form a part of the originator's assets in the event of bankruptcy, liquidation or winding up of the originator
- **Bankruptcy remoteness of CE and LF from the Seller:** The CE and LF are usually provided in the form of fixed deposit and both can be deposited in the name of the trust in an account owned by the trust. In most cases, the CE and LF are held as fixed deposits in the name of the originator with a lien marked in favour of the trustee.
- **Adherence to MRR:** The transaction adheres to the MRR as per the RBI's Securitisation Guidelines of 2012

What are the typical qualifications used by legal counsel in providing legal opinions for ABS/RMBS transactions?

The legal opinion provided by the legal counsel is based on certain key qualifications as follows:

- If the transaction documents are received in a state other than the state of execution, then the differential stamp duty may be payable as per stamp laws of the state where the documents have been received are applicable.
- The term 'enforceable' is defined by the legal counsel that the obligation of the parties of the transaction documents are of a type which Indian courts usually enforce. Also, it specifies that the enforceability of the documents may be subject to certain exceptions such as action may be barred under the Limitation Act, 1963 or enforcement may be limited by bankruptcy, liquidation or by the general principals of equity, etc.
- The legal counsel specifies that in the event that winding up of the seller commences within six months/one year of the transactions being entered into, then there can be a possibility of assignment of assets is assailed under the provisions of Companies Act, 2013. The legal counsel specifies that such other possibilities of assailment of assignment in the event of corporate insolvency process of the seller, etc.
- The Servicer retains the collections till one/ two business days before the payout date, and so it can be argued that servicer can be permitted to utilise this collection amount till such date. However, this can be countered by the fact the assignment agreement specify that the amount collected by the servicer are to be held by the servicer in the trust for and on behalf of the trust for the benefit of the beneficiaries/PTC holders, till it is deposited in the account bank.

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