Rating Criteria for Security Receipts Backed by Non-Performing Assets

Sector-Specific Rating Criteria

Scope

Rating of Security Receipts: This criteria report describes India Ratings and Research's (Ind-Ra) methodology for rating security receipts (SRs) backed by recoveries from different types of non-performing assets (NPAs), e.g. retail loans, small business loans and large corporate loans. These ratings assess the recovery prospects for the SR investors and are assigned pursuant to the Reserve Bank of India's (RBI) guidelines (see *Appendix 1*).

Five-year Instruments: The SRs are five-year instruments issued by Asset Reconstruction Companies (ARC) to fund the acquisition of non-performing loans (see *Appendix 2* for details). The tenure of the SRs is allowed to be extended up to eight years with the approval of the Board of the Asset Reconstruction Companies (ARCs). These criteria set out Ind-Ra's approach for rating SRs, which includes among other things an assessment of the amount and timing of potential cash flows from the underlying financial assets based on the asset resolution strategy provided by the ARC.

Application Limited to SRs: The rating assigned to the SR is on a separate scale (the NR scale) and addresses the present value of expected recoveries, as a percentage of the outstanding face value of the SRs. These criteria have the following two salient features.

1. The NR ratings are assigned to SRs which have the non-performing loan (NPL) as the underlying asset; there is no credit rating on the security receipt.
2. The NR scale provides for recoveries on the face value of SRs which may also be more than 100%, since SRs may be issued at a discount to the underlying NPL.

Ind-Ra's Rating Scale: Ind-Ra issues NPA security receipt ratings (NR) on a scale of 'IND NR1' (highest) to 'IND NR6' (lowest) to denote the present value of expected collections from the NPA collateral underlying the SR, as a percentage of the SR face value.

Non-Performing Asset Security Receipt Rating Scale

IND NR1: Very High — present value of the expected collections from the underlying collateral estimated at greater than 150% of the SR face value.

IND NR2: High — present value of the expected collections from the underlying collateral estimated at 100%-150% of the SR face value.

IND NR3: Good — present value of the expected collections from the underlying collateral estimated at 75%-100% of the SR face value.

IND NR4: Medium — present value of the expected collections from the underlying collateral estimated at 50%-75% of the SR face value.

IND NR5: Poor — present value of the expected collections from the underlying collateral estimated at 25%-50% of the SR face value.

IND NR6: Lowest — present value of the expected collections from the underlying collateral estimated at less than 25% of the SR face value.

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Key Highlights

The key risks which affect the ratings of the SRs are listed below.

Recovery Amount: The recovery amount is dependent on the specific resolution strategy put in place by the ARC. ARCs follow different resolution strategies for recovery of dues, eg sale of security collateral for the loans, improved servicing efforts to return the obligor back to performing status (to enhance recoveries in case of retail loans) and payment from the operating cash flows of the company. The differences between resolution strategies require a bespoke analysis based on the specific case; the table below maps the resolution strategy typically adopted for different loans.

Figure 1

Resolution Strategy for NPL Assets

	Loan-level servicing	Sale of security collateral	Payment from operating cash flows
Retail loans	√	√	
Small and medium enterprise loans		√	√
Large corporate loans		√	√

Source: Ind-Ra

Recovery Timing: The timing of recoveries is impacted by generic and specific factors. The most important generic factor that impacts the timing of recoveries is India's insolvency regime. The timing of recoveries is also dependent on specific factors such as the borrower's debt profile, the seniority of the debt underlying the SRs, the resolution strategy and the specific legal recourse chosen, e.g. application before the debt recovery tribunal, enforcement of security interest by the use of the SARFAESI Act and other provisions of law. (Please refer to the special report 'India's Insolvency Regime – Recovery Times Fall but Room for Improvement'.)

Structural Analysis and Cash Flow Modelling: While the two aspects above — The Recovery Amount and the Recovery timing — relate to the asset side, the rating of the SR is also dependent on the structure of the liabilities, which includes the transaction waterfall (including senior costs, e.g. trustee fee, the portfolio management fee and resolution cost) the different classes of SR issued and their respective indicative yields.

Most investors in SRs are promised an indicative yield which signifies the fact that redemptions to investors are subject to recoveries, unlike other debt instruments where yield is fixed at transaction closing. The cash flow modelling takes into account the asset side analysis to assess the present value of the potential recoveries accruing to the SRs to determine the rating on the NR scale.

Servicing Ability and Incentives: Ind-Ra considers the ability of the Asset Reconstruction Company as the servicers in terms of the business plan for recovery of bad debt. Given the nascent stage of the industry, in case of ARCs with recent operations and little track record, Ind-Ra uses its past knowledge of historical experience of similar recovery plans to assess the effectiveness of such servicers. The alignment of servicer incentives to that of investors is also an important consideration given the central role of the servicer in ensuring the success of the recovery plan. The Indian regulatory regime does address this issue by requiring the ARCs to invest at least in 5% of each issued class of SRs to align incentives.

Data Adequacy

Ind-Ra relies on the ARC to provide accurate information on the progress made in respect of the resolution strategy. Ind-Ra expects to receive from the ARCs the key transaction documents, e.g. the executed Deed of Assignment, Trust Deed and the Offer Document, in order to understand the details of the collateral security, the net and gross book value of the NPLs being acquired and the transaction waterfall. In case of retail loans, Ind-Ra expects to receive the static pool recovery experience of the Servicer.

Ind-Ra also expects to receive from the ARCs information on the amount of SRs outstanding, the total monies recovered and the allocation of such recoveries to the senior costs and toward redemption of the SRs. Ind-Ra expects the resolution strategy of the ARC to clearly identify the key sources of recoveries, be it from sale of collateral security, cash flows from the company's operations or recoveries from servicing efforts (in case of retail loans).

The key information requirement is detailed in *Appendix 6* and is generic in nature. Given that resolution strategies can vary substantially, it is expected that Ind-Ra will receive additional information on a case-by-case basis in order to provide a rating for the instrument.

Recovery Analysis

See 'Resolution Strategy for NPL Assets table' on page 2.

Ind-Ra will undertake the asset analysis considering the key sources for recovery of dues, as per the resolution strategy put in place by the ARC. For each of the resolution strategies — asset sale, special servicing for retail loans, and corporate analysis in cases where recoveries occur from operating cash flows — the key components of the recovery analysis (i.e. recovery amount and the recovery timing) are discussed in detail below.

Small and Medium Enterprise Business Loans with Asset Sale Strategy

In case of NPAs pertaining to companies which are in a non-operating or partially operating stage, ARCs usually use the asset sale strategy, as they believe that business restructuring would be unsuccessful in such cases. Given this, Ind-Ra analyses the potential recovery amount based on the collateral information provided by the ARC. ARCs also provide information on legal status with respect to recovery process and the likely legal course to be pursued by the ARC which impacts the recovery timing.

In the event that the ARC has arrived at an out-of-court settlement with the borrower — where the borrower agrees to pay the agreed settlement amount in one or more instalments — Ind-Ra assesses the willingness of the borrower to honour the settlement (higher, if the value of the collateral is higher than the settlement amount). A worked example is provided in *Appendix 3*.

Recovery Amount

The gross recoveries are typically the minimum of the distressed collateral value and the gross book value (defined below) of the loan. The key considerations that Ind-Ra applies to arrive at the distressed collateral value are given below.

- **Gross Book Value (GBV):** The GBV of the loan is the total amount due to the lender. It includes both the principal and interest — original and penal. As the loan is assigned to the ARC, GBV represents the maximum entitlement of the ARC from the recovery proceeds. The GBV increases owing to interest accretion until recoveries occur from the sale of the collateral security.
- **Collateral Value:** Ind-Ra expects to receive from the ARC detailed information on the relevant collateral, e.g. plant and machinery, land and building. The key information is the valuation report for the collateral. The valuation report may be based on a valuation exercise performed at various points in time, such as at the time of loan disbursement, at the time of acquisition of the loan by the ARC, or the valuation conducted by the ARC to fix the reserve price for the auction sale of the assets. Ind-Ra would make adjustments to the valuation provided by the ARC to arrive at the distressed asset value. The distressed asset

value is the asset value adjusted for factors such as the nature of the collateral, its location, market value declines (MVD) and distressed sale adjustments (see below).

- **Type of Collateral:** The nature of the collateral may range from plant and machinery to land and building. The key factors considered in assessing the value of the collateral are given below.
  - **Plant and Machinery (P&M):** Depending on the industry, such collateral may be prone to obsolescence risk. Additionally, the value is further depleted if the plant is non-operational for a significant time period and could be adjusted downward by 30%-60%. In the event of inordinate delays in disposing off the P&M, the hair-cut could see gradual increase towards the higher side of the range to address increasing depreciation to the extent that minimal benefit may be given in cases, where such assets have little economic value.
  - **Land:** The key considerations are its location with respect to distance from economic hubs or residential hubs, as well as prospect of future economic growth in the region. The valuation report is expected to be current. In case of dated valuation reports, indexation would be used to incorporate any fall in property prices and to arrive at the current value. Given the distressed nature of the asset, limited benefit, if any, is given to improved market conditions.
  - **Building:** It is important to determine if a sale would allow a building to be used for its primary purpose. A sale where the primary purpose of a building does not change requires little adjustment to factor in future investments to make it usable. Such investments would be deducted by prospective buyers while bidding for the building.
- **Adjustment for Distressed Sale:** In many instances, the collateral is sold or auctioned on an ‘as-is-where-is’ basis in case of fixed assets like land and building which can see price appreciation rather than for current assets like Plant and Machinery. This means that the potential buyers would carry the risk of unstated or undiscovered liabilities as and when they arise. Such properties are valued at a substantial discount. In Ind-Ra’s analysis, a hair-cut in the range of 20%-50% of the asset value is applied to address the issue of distressed sale.
- **Amount and Seniority of Lender’s Claim:** The investors in the SRs are entitled to the same rights as the original lender of the loan. The nature of the underlying loan is an important factor in recovery analysis, as described below.
  - **Seniority of Charge on Assets:** The type of charge — exclusive charge, first equal charge or second equal charge — decides the position of the investor in the realisations from the sale of the assets. An exclusive charge allows an ARC better negotiating power with the borrower, while a multiple creditor situation requires more inter-creditor agreement to determine the recovery strategy.
  - **Percentage of Debt-to-Borrower:** SRs which are backed by a substantial portion of the entity’s debt having charge on a secured asset have a greater probability of aggregating the debt from other lenders amounting to three-quarter of the debt, as required to enforce security interest under SARFAESI Act. Under the provisions of this act, one or more secured creditors representing not less than three-quarters of the amount outstanding in respect of a secured asset can enforce their security interest by issuing a notice to the borrower to repay all their liabilities (see special report “India’s Insolvency Regime – Recovery Times Fall but Room for Improvement”).

Ind-Ra’s assessment of the potential recovery value would thus depend on seniority and extent of charge, as well as the ability to enforce security interest.

Recovery Timing

Given the nature of SRs — whereby they are not promised any cash flows on a timely basis, but have recourse to cash flows as and when they arise — the analysis of recovery timing is important to ascertain if cash flows are sufficient to redeem the principal and pay the indicative yield on the SRs.

The recovery timing under the asset sale strategy is driven by the legal status of the case with respect to recovery procedures (see “India’s Insolvency Regime – Recovery Times Fall but Room for Improvement” for details on the different stages which signify progress at each of the legal forums, e.g. Debt Recovery Tribunal and SARFAESI Act). Ind-Ra categorises the progress made with respect to the recovery procedures on a scale of ‘1-5’, where 1 denotes substantial progress and 5 denotes limited progress. If substantial progress has been made, the time to recovery ranges from one to two years, while if limited progress has been made, it could range between three and four years.

Special Servicing for Retail Assets

ARCs typically appoint a collection or servicing agent when they acquire non-performing retail assets. The retail assets could either be secured assets, like auto and commercial vehicle loans, or unsecured loans, e.g. personal loans. Ind-Ra will analyse such assets using a statistical approach based on the vintage recovery static pool and the collection experience of the servicer. A recovery static pool is expected to have the following features in order to be useful for the recovery assessment of retail loan pools.

1. The static pools should track recoveries at a regular interval based on the principal outstanding of the loans in a specific delinquency bucket, as off a certain cut-off date.
2. The static pools should be representative of the collateral pools underlying the SRs. If the static pools are not representative of the pool being analysed, adjustments would be made for differences between them in respect of the key factors that drive recoveries.
3. The static pool should be segmented by the key pool characteristics of the asset class, e.g. delinquency bucket, borrower profile, loan-to-value (LTV) ratio, instalment-to-income ratio, loan tenure and interest rate.

The basic template for the static pool can be referenced in *Appendix 4* and the basic framework for assessment of the recoveries is also provided in the form of a flow chart in Appendix 5.

Recovery Amount

The recovery amount estimates for retail loans will depend on the tenure of the loan vis-à-vis the tenure of the SRs. For auto and commercial vehicle loans — that have tenures broadly matching the five-year tenure of security receipts — recovery is estimated using the static pools for the relevant servicer/asset class.

However, for some asset classes — such as mortgage loans, where the loan tenure extends beyond the tenure of the SRs — the recovery analysis would consist of two streams of cash flows: cash flow estimates, based on repayment and repossession of assets during the first few years, estimated using the static pool; and the terminal value of the pool, which is representative of the liquidation cash flows at the maturity of the SRs. The first part of the recovery analysis, as explained in point 1 below, is common to all retail loans, while the second part (point 2) is important for long-dated assets like mortgages.

1. Base Lining of Recoveries and Pool-Level Adjustments

Ind-Ra will analyse the static pool information from the Servicer to arrive at the base case recovery amount estimates. The base case signifies the expected recoveries and does not include stresses necessary for a credit rating analysis at different rating levels. Ind-Ra will make adjustments for differences in the economic environment should the static pools belong to a particularly benign economic period (which lead to better recoveries than possible at the time of the assessment of a transaction pool).

Subsequently, Ind-Ra will make adjustments for differences in characteristics between the current pool and the static pools. These adjustments will be made for parameters such as LTV, IIR and others which in Ind-Ra’s assessment are key drivers of recovery amount. All the adjustments are done at the pool level using the static pool information based on difference in recovery experience for loans of segments of LTV, IIR and tenure.

Ind-Ra has observed that deeper delinquency buckets show lower recoveries over the same period of time when compared to less delinquent buckets. Also, the amount of the loan that remains unpaid, as a percentage of the loan amount disbursed, is an important indicator of borrower behaviour. Loans that have a smaller amount unpaid could be indicative of financial distress leading to default, while loans where large amounts remain unpaid could result from less-than-adequate credit underwriting, leading to default.

Such recoveries, as estimated from the static pool post the adjustments mentioned above, would be the base case for assets like auto and commercial vehicle loans. For mortgage loans, this would represent the first of the two recovery streams. The second source of recovery for mortgage loans is described in the following section.

2. Benefit of Security for Terminal Value Assessment

While an asset class such as unsecured loans would only benefit from special servicing to enforce borrower repayment, other asset classes, like auto and commercial vehicle loans, have the benefit of security. Ind-Ra does not include any terminal value analysis while rating SRs backed by auto and commercial vehicle loans for the following reasons:

- the historic static pool experience suggests that the time to recovery does not extend beyond the maturity of the SRs, which is five years to start with and extendable with the approval of the Board of the ARC so that the total period of realisation does not exceed eight years from the date of acquisition of the financial asset concerned;
- the static pool recoveries include recoveries on both accounts — from curing of loans to less delinquent buckets and also from repossession and sale of the underlying assets. If such a benefit is provided, it would amount to double counting the benefit given to recoveries; and
- assets such as auto and commercial vehicles are subject to depreciation, which makes an assessment of collateral value analytically less important.

However, for certain asset classes, like mortgage loans, the remaining tenure of the loans could far outstrip the tenure of the SRs. The resolution strategy of ARCs addresses this terminal value issue by proposing to assign such assets — before the end of the SR tenure — to third-party investors. This enables the redemption of the SRs within their tenure, or a liquidation sale of assets close to maturity for SRs for loans that remain delinquent. Ind-Ra analyses the terminal value of long-term assets in the following manner.

Assessment of Portfolio Nearing SR Maturity (Terminal Value Analysis)

As per the resolution strategy, and as a result of special servicing efforts, loans acquired by an ARC will be categorised as follows.

Loans in Deeper Delinquency Buckets Since Acquisition

Ind-Ra analyses the mortgage loan pool to evaluate the loans that would have a greater probability of continued non-payment (and thus of reaching deeper delinquency buckets immediately after assignment). Loans which have a very low borrower equity (willingness to pay) and high instalment-to-income (ability to pay) ratios would be more prone to non-payment. Recoveries from such loans would occur in the initial years of acquisition of the pool by the ARC, via liquidation and sale of assets. Such recoveries would be reflected in the static pool recoveries, which are provided by the servicer.

Loans Current Since Acquisition

Loans that have high borrower equity and low instalment-to-income ratios would show good repayment ability relative to the other loans in the pool; as such, they would have a greater probability of curing and becoming current. Such borrowers pay according to their loan agreement until loan maturity, which would extend beyond the maturity of the SRs. Ind-Ra will assess the terminal value of such future cash flows beyond the maturity of the SRs by discounting the future cash flow of such loans at a much higher yield, reflective of the delinquent history of such loans.

Loans Non-Current Close to SR Maturity

The loans remaining in the pool (after accounting for loans in the previous two groups) would be the those paying intermittently; they would remain non-current towards the maturity of the SRs. Ind-Ra would arrive at the terminal value of such loans by applying MVDs on the property values at the time of origination (see following section).

The terminal value assessment would comprise of loans in the last two categories mentioned above.

Market Value Declines

The MVD estimation consists of two components: the decline in property prices — based on the historical volatility of property prices — and a quick sale adjustment.

Ind-Ra uses a number of public sources to estimate trends in property prices, one of which is the National Housing Bank's RESIDEX (http://www.nhb.org.in/Residex/Data&Graphs.php); this currently tracks property prices since 2007 for 15 major cities in the country. This information is supplemented by other sources for property trends pre-dating 2007.

Given the paucity of available data, the MVD analysis is done by grouping cities under four tiers: Tier 1 (comprising metros) to Tier 4 (comprising small towns). The key steps in arriving at the MVD are given below.

1. The key input is the property price at loan origination, which is supplied in the form of original LTV and loan amount.
2. The historical trends of price volatility and annual returns would be used to arrive at the property value close to maturity of the SRs.
3. A further hair-cut of 20%-30% would be applied on the prices arrived at in step 2 to incorporate factors that could reduce property prices, e.g. illiquidity of such assets and the lowering of the price to create interest amongst potential buyers (quick sale adjustment).

Partial Benefit to Terminal Value

ARCs have a resolution strategy which is based on liquidation of long-dated assets, based on their terminal value, in order to derive maximum recoveries within the five-year tenure of the SRs. However, Ind-Ra only ascribes partial benefit to the terminal value arrived at for current and non-current loans, for the following reasons.

- There have been precedents in the past where ARCs have successfully assigned the underlying loans to third-party investors; this allowed an early redemption and exit to the SR investors before the maturity of the SRs. This has been seen in a few cases involving auto and commercial vehicle loans; however, it remains to be seen if mortgage loans also have investor interest which could lead to redemption of SRs.
- ARCs are allowed to invoke the provisions of the SARFAESI act to recover dues by sale of assets after giving notice to the borrower. But such an exercise on a large scale, involving thousands of loans within the tenure of the SRs, could be a logistical challenge.

For the reasons mentioned above, Ind-Ra provides a maximum benefit of only a third of the terminal value.

Recovery Timing

For retail assets where the servicer plays a central role in the recovery process, Ind-Ra will rely on the servicer's performance in accordance with the static pool when determining the time to recovery. In the event that different static pools suggest different trajectories of cumulative recovery, Ind-Ra will assume the lower of the gradient of recoveries between two periods. A conservative time to recovery estimate leads to a scenario where costs may build up, leading to lower redemptions of the SRs.

Recovery of Dues from Operating Cash Flows (Enterprise Value Analysis)

For operating companies, the resolution strategy may not be based on the sale of assets, but rather on the company's cash flows with certain key characteristics. These characteristics generally include a turnaround strategy which has the consent of the lenders — through a corporate debt restructuring plan — and may also involve fresh equity infusion through a financial/strategic investor.

Recovery Amount

The recovery amount is based on an analysis of the net enterprise value of the company (after payment of mandatory dues and other senior claims). The enterprise value is computed by the discounted cash flow analysis across a number of scenarios. Given that these cases require corporate analysis of the company, structured finance analysts work in conjunction with Ind-Ra's corporate finance analysts to analyse all the risks pertinent to the company (which will vary depending on the company's industry and business model).

Based on the past financials and inclusion of the new strategy, a base case is computed. Explicit forecasting for each line item is conducted for the first five years of projection, while forecasting of key financial metrics — such as revenues, margins, capex and net working capital cycles— is conducted for the succeeding ten years.

Ind-Ra's analysis also includes different scenarios, such as economic shocks leading to depressed revenues and margins followed by recovery, and optimistic scenarios involving revenue growth and reduction in costs. There may be case-to-case changes in the scenarios, based on the specific industry and business model. Based on the range of scenarios analysed, Ind-Ra decides on the enterprise value of the company. Ind-Ra takes into account the priority of dues to deduct any statutory dues and workmen wages in accordance with the resolution strategy, to arrive at the net enterprise value. The agency will take into account the resolution plan of the ARC — which is based on the ARC's priorities and any charge in the assets of the company — to allocate dues to the creditors.

Recovery Timing

For resolution strategies based on driving recoveries from the cash flows of the company, most recoveries are back-ended (with a large part of the earnings expected in the later years). This is due to the fact that the company would require cash in the initial years to support the turnaround strategy.

Structural Analysis and Cash Flow Modelling

An overview of the transaction structure is given in *Appendix 2*. The recoveries estimated, depending on the asset type and the resolution strategy, are applied to Ind-Ra's Cash Flow model, which simulates the structural aspects of the transaction, e.g. the senior costs and payouts to different classes of SRs and their indicative yields.

It is important to mention that while Ind-Ra runs a number of scenarios in the cash flow model — e.g. different values of the recovery amount and timing of recoveries — such scenarios are not meant to simulate the rating-level stresses that Ind-Ra would employ for a credit rating. Also SRs, as an instrument, promise redemption subject to recovery of monies from the underlying distressed assets. As such, the yields on most SRs are 'indicative' in nature, i.e. if enough monies are recovered, the yield on the SRs would be paid, but not necessarily so. The steps involved in the application of the transaction waterfall are described below.

1. **Deduction of senior and mandatory claims on collections:** Senior claims on the collections are deducted from the estimated recovery amount at the estimated time of recovery. Expenses of the trust, portfolio management fees and fees to the recovery agent are then deducted to arrive at the realisable value available for the SR investors.

2. **Resolution timelines:** The main considerations for assessing time to recovery, as highlighted in the previous section, include the likely resolution strategy and the legal complexity of the case. Ind-Ra employs a series of cumulative collection vectors in its analysis, which are based on the legal process reaching different outcomes with different timelines. Another important factor when assessing a recovery timeline is the expertise of the ARC in debt resolution and its past performance for all exited cases for similar borrowers. This can be regarded as an indication of the ARC's servicing capabilities.
3. **Discounting expected future cash flows:** The estimate of the realisable value available for SR investors (shown in step 1) is then discounted at the indicative yield of the SRs for the estimated resolution timeline (shown in step 2); this results in the net present value (NPV) of the collections for the benefit of the SR investors. In the event that the offer document does not specify any yield, Ind-Ra assumes comparable yields to those in similar transactions in the market. The yield assumption is mentioned in Ind-Ra's rating letter for the benefit of investors.
4. **Collection amount:** The estimated NPV of collections that will go to the SR investors shown in step 3, divided by the outstanding face value of the SRs, will result in the collection amount. It should be noted that the rating of the SRs on the collection scale only considers the collection potential from assets available to the trust and the value of outstanding SRs at the time of the SR rating exercise.
5. **Collection matrix:** Steps 1 to 4 are repeated for different values of the recovery amount (under worst case, base case and best case collection scenarios) and for different resolution timelines (A to C, see below). The result is a matrix of collection amount percentages for each collateral value and resolution timeline (as shown in the Collection Matrix for Asset Sale Strategy table below).

   The ultimate realisation of the collateral value depends on the time to recovery which, in turn, is dependent on the estimates for the different paths of asset resolution. These different paths are captured by the resolution timelines A to C.

   Timeline A: Considers the legal status for assets from all borrowers and the probable time to resolution.

   Timeline B: Considers the possibility that all asset resolutions in timeline A are lagged by at least six to 12 months. This is performed to take into account unforeseen delays in legal proceedings which would affect the amount of, and time to, recovery.

   Timeline C: Takes into account the possibility that assets may be resolved by one-time settlement, whereby the borrower settles the due in the form of a one-time payment or a structured payment schedule, either resulting in a bullet payment or gradual payment.

The collection amounts shown in the matrix are derived by applying the resolution timelines and mandatory expenses to each collateral value, as shown in the example *Collection Matrix* below. These collection amounts are the present value of the net cash flows to SR holders, discounted at the indicative yield of the SRs and expressed as a percentage of the SR face value. The best case and worst case collections do not represent rating-level stresses, as one would encounter in a credit rating. The best case collection represents a slightly optimistic scenario, where partial benefit is given to the servicer's collection estimates, while the worst case represents a further reduction in the base case estimate due to other variables (e.g. negotiations between multiple creditors leading to lower recoveries or delay/diminution in payments by borrowers). Some instances where the optimistic and pessimistic scenario would operate could be: ARCs holding a junior charge on current assets, recovery driven by success in liquidation of large land parcel or SRs which have a single loan which does not have a diversification benefit of SRs backed by multiple loans from diverse defaulting borrowers.

Figure 2
Example: Collection Matrix for Asset Sale Strategy

	Pessimistic scenario	Base scenario	Optimistic scenario
Collateral value (%)	74	105	116
Collection amount (%) under resolution timelines (A, B, C)			
A. Cumulative collection vector – probable time to resolution	70	84	90
B. Cumulative collection vector – moved by six months to two years	65	78	85
C. Cumulative collection vector – bullet collection	60	75	78

Source: Ind-Ra

6. **Non-Performing Asset security receipt ratings (NR):** When assigning the NR, Ind-Ra will use its analytical judgement to select the collection amount percentage from the matrix above which most closely resembles the expected collections from the NPA collateral backing the SRs.

The ratings reflect assumptions about relative recovery expectations from the non-performing financial assets from the security collateral, special servicing or operating cash flows of the company, based on information made available to Ind-Ra. The scenario analysis above allows Ind-Ra to understand if any of the scenarios lie at the cusp of two rating categories. The final rating assigned is based on the majority of the values that lie within a rating category. Nonetheless, if qualitative aspects demand, the lower of the two ratings could be assigned to the SRs.

The methodology described in this criteria report forms the basis of the SR rating methodology. However, Ind-Ra recognises that certain non-performing asset structures may contain risk characteristics not contemplated in the framework. Therefore, Ind-Ra fully expects that this methodology will be supplemented by analytical judgment and deterministic overlays where unique risks are identified. Ind-Ra will review the rating methodology periodically to incorporate any material changes in the structural aspects of non-performing loan acquisition by ARCs, the issuance of SRs and the historical performance of ARCs in the resolution of small-borrower non-performing loans.

Performance Analysis

Ind-Ra will assign ratings to the SRs within one year of the acquisition of the assets by the ARC or the finalisation of the resolution strategy, whichever is earlier. Thereafter, the rating will be reviewed at half-yearly intervals as per RBI guidelines, based on the information provided by the issuer.

Ind-Ra expects to receive the following information on a quarterly basis as part of its performance analysis of the security receipts:

- update on the current legal status of all the assets in the trust to assess the time to recovery;
- details of any additional debt acquired by the ARC relating to the borrowers in the trust;
- collateral valuation reports;
- information on any SR amounts that have been redeemed and any assets that have been liquidated since the last rating review;
- loan-by-loan actual monthly recoveries and monthly delinquency bucket status for each account;
- updated financials of operating companies, including any modifications to the resolution plan; and
- cash held with the trust, to be applied to the transaction waterfall.

Appendix 1: RBI's Guidelines on the Declaration of Net Asset Value of Security Receipts Issued by Securitisation Company/Reconstruction Company

Sections 7 (1) & (2) of the SARFAESI Act provides for issue of security receipts (SRs) after acquisition of any financial asset under sub-section (1) of section 5 to qualified institutional buyers (QIBs) and raising of funds from the QIBs by formulating schemes for acquiring financial assets. The scheme, for the purpose of offering SRs under sub-section (1) or raising funds under sub-section (2) of section 7 of the SARFAESI Act, may be in the nature of a trust to be managed by the securitisation company or reconstruction company (SC/RC).

- The trusts shall issue SRs only to QIBs and hold and administer the financial assets for the benefit of the QIBs.
- The trusteeship of such trusts shall vest with the SC/RC.
- A SC or RC proposing to issue SRs, shall, prior to such an issue, formulate a policy, duly approved by the board of directors, providing for issue of SRs under each scheme formulated by the trust. This policy will provide that the SRs issued can be transferred or assigned only in favour of other QIBs.

(QIBs is defined under Section 2(1)(u) of the SARFAESI Act.)

Special Features of SRs

The SRs issued by SCs/RCs are predominantly backed by impaired assets. These SRs have the following unique features as compared to other types of securities issued on securitisation of normal assets.

- SRs cannot be strictly characterised as debt instruments since they combine the features of both equity and debt. However, SRs are recognised as securities under Securities Contracts (Regulation) Act, 1956.
- The cash flows from the underlying assets cannot be predicted in terms of value and intervals.
- The investment in SRs is restricted to QIBs only.
- These instruments, when rated, will generally be below investment grade[1]. These instruments are generally privately placed and presently not listed.
- In the event of non-realisation of the financial assets, the SR holders, representing 75% of the total value of SRs issued by the SC/RC, can call for a meeting of all the SR holders in a particular scheme and every resolution passed in such meeting shall be binding on the SC/RC.

Objective of the Guidelines

The objective of these guidelines is to enable the SC/RC registered with the Reserve Bank of India under the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 (SARFAESI Act) to declare the NAV (Net Asset Value) of the SRs so that the QIBs can value their investment in SRs issued by the SC/RC in accordance with applicable guidelines. For the purpose of arriving at the NAV, the SRs should be rated as a rating is an important objective tool.

Rating by Credit Rating Agencies

Ratings should be obtained from rating agencies registered with the Securities and Exchange Board of India to begin with. The SC/RC should supply the necessary information to rating agencies. Commonality and conflict of interest, if any, between the SC/RC and rating agency should be disclosed.

[1] India Ratings while assigning ratings on the 'recovery scale' for this asset class does not comment on 'investment grade' assessment

Rating/Grading

- The rating/grading should be based on “recovery risk” as against “default”, which is the basis for rating assignments in normal assets, i.e. how much more can be recovered instead of timely payment. Ratings should reflect the present value of the anticipated recoverability of future cash flows.
- The ratings will be assigned on a new, specifically developed, rating scale called the Recovery Rating scale. Each rating category in the recovery scale will have an associate range of recovery, expressed in percentage terms, which can be used for arriving at the NAV of SRs. Symbols should be assigned by rating agencies to the associated range of recovery, which should not deviate from each other by specified percentage points, e.g. (+/-) 10%. The rating will be indicative.
- The Recovery Rating should be assessed after factoring in any other relevant obligation and not on the original debt obligation.
- The other key factors that should be factored in while assigning the Recovery Rating include the extent of debt acquired, composition of lenders, collaterals available, security and seniority of debt, whether it is an individual lender or an institutional lender, estimated cash flows, uncertainty in realising expected cash flows in the initial period, management, business risk, and financial risk.
- The Recovery Rating should reflect such changes as a change in the resolution strategy of the SC/RC that takes place from time to time.
- The Recovery Rating will factor in likely cash flows from the underlying impaired assets till the maturity of the SRs.
- The Recovery Rating should comprise of ratings of not only the SRs of the scheme as a whole but, wherever feasible, a desegregation of each component in the scheme, which means the underlying assets of each entity in the scheme forming the basket should also be rated.
- The rating agency should disclose the rationale for a rating on request.

Methodology for Valuation of SRs for Declaration of NAV

Each rating category in the recovery scale will have an associate range of recovery, expressed in percentage terms, which can be used for computing the NAV of SRs. The NAV should be restricted within the recovery range associated with the rating assigned to the SRs. The SC/RC, based on its recovery experience, should choose a particular percentage within the recovery range indicated by the rating agency. The Recovery Rating percentage so picked by the SC/RC multiplied by the face value of the SR will give the NAV. The SC/RC should provide the rationale for the selection of the particular percentage of Recovery Ratings. For example, if the range is between 81% and 90%, the SC/RC may pick up 87% based on its judgement. The face value of, e.g. INR10 multiplied by the recovery percentage, i.e. 87%, would give the NAV as INR8.70.

Frequency of Rating

The initial rating or grading will be assigned within one year from the acquisition of assets by SC/RC or the finalisation of the resolution strategy, whichever is earlier. Thereafter, the rating/grading shall be reviewed at half-yearly intervals, i.e. as on June 30 and December 31 every year. However, the review will be on a continuous basis so that any further deterioration in the value of SRs is declared immediately to the investors, allowing them to make necessary adjustments in their valuation of the SRs. The SC/RC should declare NAV within two months from the date of the half-yearly review, i.e. by August 31 and February 28 respectively.

Disclosure to Investors

Disclosure to investors of the quality of assets underlying the SRs is required, as per disclosure norms prescribed by the RBI under “*The Securitisation Companies and Reconstruction Companies (Reserve Bank) Guidelines and Directions, 2003*”. Further, investors can request and must receive information at any point from the SC/RC.

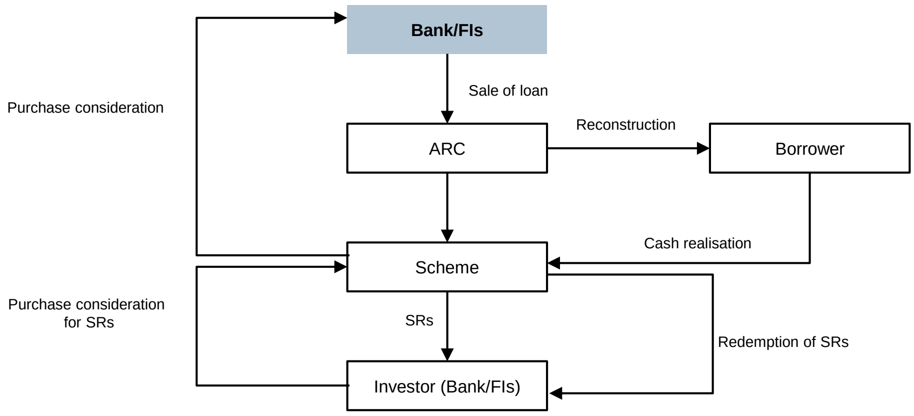
Source: RBI Guidelines, SARFAESI Act

Appendix 2: Overview of Security Receipt Structure

The ARC acquires the NPA from the selling bank by funding the purchase through the issuance of the SRs. In the first year since acquisition, the ARC must finalise a resolution strategy which would be used to recover the dues from the borrowers.

Figure 3

Structure Diagram



Source: Transaction diagram

The ARCs usually consider a number of different routes to maximise the realisation from the assets — liquidation of collateral, the appointing of a Special Servicer or a settlement with the company to restructure the debt and ensure payment from the operating cash flows of the company.

The guidelines issued by the RBI (see *Appendix 1*) make reference to Recovery Ratings where the recoveries are expressed in percentage terms, which can then be used to compute the NAV of the SRs. When rating SRs backed by NPAs, Ind-Ra's NR Ratings are consistent with the RBI guidelines, in that the recovery assessment is expressed as a percentage of the SR's face value.

Figure 4

Key Definitions

Small borrowers	Borrowers, typically small companies with loan sizes of up to INR500m. Many of these borrowers do not have the audited financial statements (profit and loss accounts and balance sheets) required for an enterprise value analysis. In most cases the ARCs looks to recover its dues by liquidation of collateral security of the underlying assets.
Retail borrowers	Delinquent loans to borrowers for financing auto, commercial vehicles, mortgages and also unsecured consumer and credit card loans. In these cases, the resolution strategy centres around improving the collection strategy; asset sales play a marginal role, except in case of mortgage loans.
Large corporate borrowers	Borrowers — typically large companies which have defaulted on their loans — which are operating and looking to repay the ARC using operating cash flows.
NR scale	Present value of the expected collections to SR holders from the underlying NPA collateral, expressed as a percentage of the SR face value.
Non-performing assets	An asset in respect of which interest and/or principal has remained overdue for three months or more.

Source: Ind-Ra

Since the purchase consideration paid to the selling bank for the NPA is, in most cases, much less than the face value of the NPA acquired, it is possible for the estimated present value of the expected collections from the underlying NPA collateral to be greater than 100% of the SR face value.

Appendix 3: Worked Example (Small and Medium Enterprise Loans – Having Asset Sale Resolution Strategy)

Figure 5

Worked Example

1	Company	XYZ Ltd.
2	Loan gross book value at time of acquisition	80
3	Loan interest rate (%)	10
4	Charge on collateral (%)	50
5	Collateral	Land
6	Market value of collateral	170
7	Location of property	Rural/interior
8	MVD (%)	10
9	Property value$_{\text{MVD Adjusted}}$ = [5] * [1-MVD]	153
10	Distress sale adjustment (%)	20
11	Property value$_{\text{Distress Sale}}$ = [8] * {1-[10]}	122.4
12	Legal status	Initial stages of DRT
13	Time to recovery in years	4
14	Loan gross book value at time of asset sale = [2] * (1+[3])^[13]	117.13
15	Senior claims	20
16	Amount left after meeting senior claims = [11] - [15]	102.4
17	Amount realisable by ARC = [16] * [4]	51.2
18	Amount actually recoverable by ARC of the GBV due = Min([14], [17])	51.20

Source: Ind-Ra

Appendix 4: Static Pool Recovery Template for Retail Loans

(For Representation Purpose Only)

Figure 6

Cumulative Recovery by Delinquency Bucket (Days Past Due)

January 02		Year from start of servicing (cumulative recovery as % of principal) (%)				
Delinquency bucket (days)	Principal	1	2	3	4	5
90-120	146	35.0	45.0	55.0	65.0	76.0
120-150	80	30.0	40.0	50.0	60.0	68.0
150-180	65	25.0	30.0	40.0	55.0	65.0
180-210	44	20.0	25.0	35.0	45.0	61.0
210-240	35	15.0	20.0	30.0	40.0	55.0
240-270	23	10.0	25.0	35.0	40.0	48.0
270-300	38	8.0	15.0	25.0	35.0	45.0
300-330	56	5.0	10.0	15.0	25.0	35.0
330-360	41	5.0	7.0	12.0	18.0	25.0
360+	150	3.0	6.0	9.0	13.0	15.0

Source: Ind-Ra

Figure 7

Cumulative Recovery by Loan to Value

Recovery by LTV (%)	90-120	120-150	150-180	270-300	300-330	330-360	360+
<=50	75.0	65.0	55.0	25.0	23.0	20.0	15.0
51-65	70.0	80.0	50.0	24.0	21.0	17.0	14.0
66-75	65.0	78.0	45.0	23.0	20.0	15.0	13.0
76-85	60.0	75.0	40.0	22.0	19.0	13.0	12.0
86-95	55.0	65.0	35.0	20.0	18.0	12.0	11.0
>95	50.0	70.0	30.0	18.0	17.0	11.0	10.0

Source: Ind-Ra

Figure 8

Cumulative Recovery by Tenor

Recovery by tenor (%)	90-120	120-150	150-180	270-300	300-330	330-360	360+
<=24	87	96	74	79	32	31	40
25-36	76	78	57	46	53	45	31
37-48	76	64	90	48	55	69	28
>48	76	74	74	39	50	37	37

Source: Ind-Ra

Figure 9

Cumulative Recovery by Principal Unpaid at Time of Default

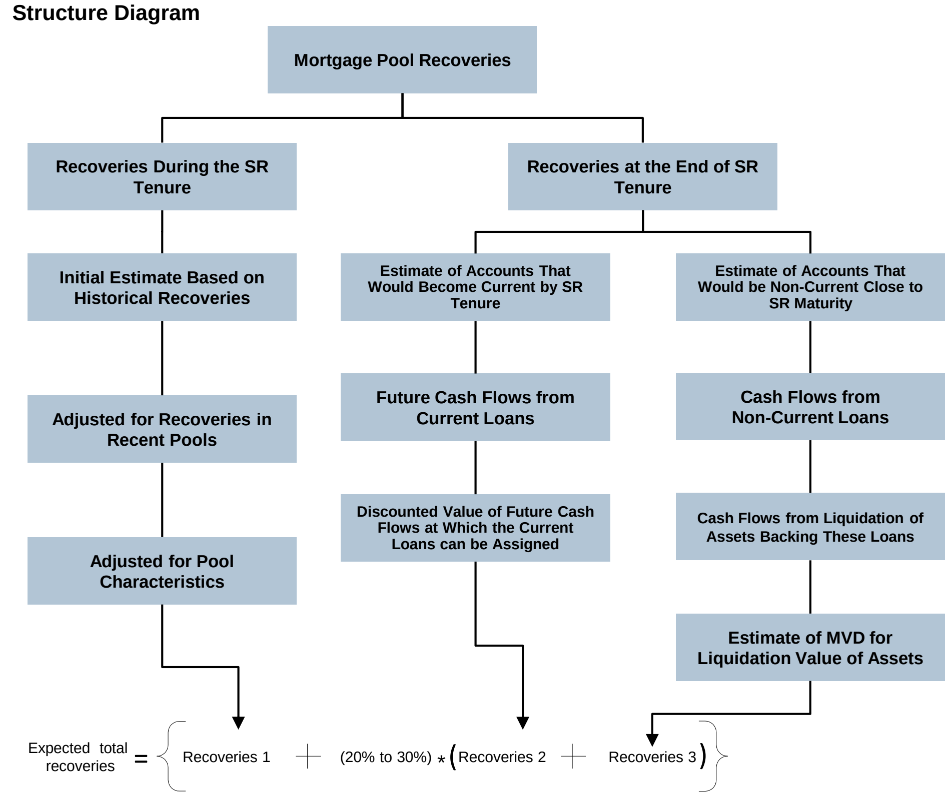
Recovery by % principal unpaid (%)	90-120	120-150	150-180	270-300	300-330	330-360	360+
0-20	86	88	83	64	61	76	45
20-40	90	85	82	63	58	74	42
40-60	86	84	83	50	54	42	44
60-80	85	77	76	43	55	47	42
80-100	65	70	57	31	44	40	30

Source: Ind-Ra

Appendix 5: Algorithm for Retail Loan Recoveries

Figure 10

Structure Diagram



Source: Ind-Ra

Appendix 6: Generic Data Requirements

Figure 11

Expected Data Fields

Asset sale	Retail loans	Operating cash flows
Originator/seller	Originator/seller	Originator/seller
Servicer	Servicer	Servicer
Issuer	Issuer	Issuer
GBV of loan acquired	GBV of loan acquired	GBV of loan acquired
NBV of loan acquired	NBV of loan acquired	NBV of loan acquired
Trust creation date	Trust creation date	Trust creation date
Security receipts issued	Security receipts issued	Security receipts issued
Security receipts outstanding	Security receipts outstanding	Security receipts outstanding
Legal status update	Transaction documents	Legal status update
Senior claims to issuer	Static pool recovery information	Senior claims to issuer
Transaction documents	Loan-by-loan information on retail pool	Transaction documents
Particulars of collateral	Resolution strategy	Financial statements till last quarter
Collateral valuation report		Resolution strategy

Source: Ind-Ra