Pooled Finance and Leveraged Municipal Loan Pool Criteria

Sector-Specific Criteria

Highlights

This report presents India Ratings and Research's (Ind-Ra) sector specific criteria outlining its quantitative and qualitative approach towards rating pooled finance and leveraged municipal loan pools programme (PFLMLPP or programme). The agency has deployed a portfolio stress calculator (PSC) and internal cash flow analysis (CFA, or the analysis).

Coverage Universe Under Criteria: The criteria are intended to apply specifically to the loan pools of municipal entities with high loan recovery prospects given their ability to either set rates (as is the case with revenue-backed asset pledges) or raise taxes (as is the case with tax-backed asset pledges). However, in some cases, these criteria will be utilised in Ind-Ra's analysis of municipal loan pools consisting of borrowers with lower recovery prospects. Such instances will be handled on a case-by-case basis and may be subject to additional stresses, including the use of low recovery rates. Any deviations by way of additional stress assumptions, to these base criteria assumptions will be explained in the relevant rating action commentary.

Ind-Ra's PSC and CFA: Ind-Ra's PSC derives programme rating default stresses viz. weighted average default rate (WADR) based on the overall pool credit quality as measured by the rating of all underlying borrowers and concentration. WADR fixes the initial rating of the programme. However, a bond programme's final rating may be higher than this initial rating. A converter (as per Ind-Ra's internal past data analysis) by way of multiplier gives the default rate (default hurdle rate (DHR)) to be withstood by the programme for moving from lower initial rating to a higher programme rating. Ind-Ra's CFA is used to arrive at the default tolerance rate (DTR) for the programme, viz., the break-even amount of pro-rata loan repayment programme can withstand over a four-year period until programme resources are no longer sufficient to pay bond debt service in full. The programme rating is fixed when its DTR exceeds DHR subject to the satisfaction of other related qualitative factors.

Criteria Incorporate Two Master Criteria

This report represents a sector-specific extension of Ind-Ra's 'Revenue-Supported Rating Criteria' and 'Structured Finance Rating Criteria', dated 6 December 2018 and 10 December 2018, respectively, available at www.indiaratings.co.in.

Related Research

Revenue-Supported Rating Criteria

Structured Finance Rating Criteria

Criteria for Ratings Caps in Structured Finance Transactions

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Background

The programme enables the government entities especially a pooled finance vehicle (which is like a special purpose vehicle) at the state level to fund the long term infrastructure needs of various municipalities such as water and sanitation facilities, roads, bus stands, and other public amenities. Similar to leveraged structured finance vehicles, these programmes combine a pool of loan repayments with additional forms of credit enhancement (or programme equity), thereby reducing the risk of a single-borrower non-payment ultimately causing a bond default. The greater the size and diversification of a pool, the more the default risk is spread, resulting in improved creditworthiness of the pool. Due to these features, the programmes can often achieve higher ratings than would otherwise be possible on an individual basis, the outcome of which is lower costs of financing for individual borrowers.

Broadly, programme's entity carries out the following activities:

1. Raising the funds required for the programme by way of bonds proceeds (Programme liability creation), programme equity and reserves
2. Release of funds by way of loan disbursement to constituent entities (CEs) (Programme asset creation)
3. Collection of loan repayment proceeds from the CEs (Programme Management)
4. Bond servicing to investors (Programme Management)

Rating for the programme liability of bonds is dependent on rating level of CEs containing the programme assets and the credit enhancements available for the programme by way of programme equity and reserves.

Key Rating Drivers

The key rating drivers of the programme include both quantitative and qualitative risk factors. Quantitative aspects of Ind-Ra's review include portfolio credit risk (addressed by PSC) and the risk of financial structure (addressed in CFA). Qualitative risks in the programme are presented by the legal risks inherent in the programme documentation, risks of governance/management and any counterparty risk. Where qualitative risks prove to be greater than Ind-Ra's base assumptions at a given rating level, rating caps or additional quantitative stresses may be imposed.

Portfolio Credit Risk

Portfolio credit risk, as measured by PSC, is based on the weighted average credit quality of pool participants relative to the outstanding loan amount and tenure of the underlying loans and their standalone credit rating. Ind-Ra's PSC utilises the empirical default data of corporate issuers to measure the weighted average default probability of the portfolio. This numeric value (the weighted average default rate, or WADR) is then scaled upward using multiples to create cumulative default stresses by rating category.

Financial Structure

Ind-Ra uses an internal Microsoft excel-based cash flow analysis customised to reflect the financial structure and flow of funds provided under each programme, including (but not limited to): scheduled loan repayments; subsidy amounts; reserve account balances, including interest earnings on such accounts; and payments of debt service due on each payment date. Effectively, the analysis is intended to ensure that sufficient programme resources are available to meet bond debt service payments in a timely manner while sustaining loan repayment defaults over a certain period.

Legal Risk

The programme entity, normally does not own considerable tangible / intangible assets under its name as the funds generated out of the bonds proceeds are passed on to the underlying borrowers to create assets /repay high cost loans in their books. Hence, the debt servicing comfort offered to the bond investors are of two types: Pre default and Post default. The pre default comfort consists of loan repayments by underlying borrowers and availability of reserve funds by way of programme equity, subsidy, grants, and interception of state finance commission devolution (SFCD) receipts, etc. However, this may differ state to state depending on the way these entities are structured. In some instances, state government provides post-default guarantee for debt servicing, however, this is more for investors demand due to classification of these securities being government securities. Ind-Ra does not provide any rating benefit due to post-default state guarantee.

The financing agreements are the main legal documents that cover covenants relating to pre and post default comforts Ind-Ra's analysis of the legal risk includes a review of the financing agreement, which typically governs all bonds issued under each programme, and all other programme documents. The legal review primarily focuses on security provided to the bonds based on the pledge of programme resources.

Programme Management Risk

Ind-Ra's assessment of programme management is qualitative in nature and includes an evaluation of the management's processes and procedures, such as underwriting criteria, loan monitoring procedures, technology, programme goals and requirements, historical loan delinquencies, and workout.

These factors typically support strong historical performance as measured by few obligor delinquencies and near-zero permanent defaults.

The programme entity's ownership by way of equity, past record of standalone servicing of debt programmes, composition and quality of board of directors is assessed as part of programme management risk. The measures taken by way of non-financial support to underlying borrowers in the areas of project consultancy, legal support, infrastructure support to achieve programme's completion and the subsequent effective monitoring steps for loan repayment monitoring, etc. are also assessed here.

Underwriting Policies

Ind-Ra reviews obligor underwriting criteria for consistency with its revenue and tax-backed rating guidelines, which generally consist of a review of an entity's financial, managerial and technical capabilities. Wherever possible, Ind-Ra considers management's underwriting track record and related performance history of each obligor. If delinquent obligors or obligors facing financial difficulties are added to the pool, Ind-Ra may apply additional stresses in its analysis, such as an increase to the base default rates

Counterparty Risk

Counterparty risk in the programme can take many forms as the programme by its nature has number of counter party entities with whom it has to deal with on different terms.

As a general principle, where the financial resources or cash flows of a programme are dependent on the financial performance of a third party, Ind-Ra would examine how the counterparty risk could be mitigated (such as through the use of rating triggers or financial ratio tests).

Data Adequacy Assumptions

Availability of data regarding long-term default by rating categories is a precondition for the estimation of WADR. Lack of depth in the Indian bond market for corporates in general and public finance in particular and late entry into the bond market are the major deterrents in collecting statistics relating to their defaults. Bond markets in advanced economies are well developed and have longer history of default rates and data maintenance. In the absence of sufficient data on Indian probability of defaults, Ind-Ra has used idealised data on probability of default (idealised default rates). The long-term default rates of corporate entities have been used in the estimation of WADR, derived for a long time period and across a number of industries.

Ind-Ra's quantitative analysis of programme structures also relies on the detailed information of the underlying loan data, payment schedules and reserve fund investment information provided by the issuers. Additionally, given its reliance on credit ratings to assess overall portfolio credit quality, Ind-Ra utilises financial information such as the recent financial reports for unrated borrowers in an attempt to gauge the credit quality of the total loan portfolio. Inadequate data, a lack of granularity within the underlying pool, or other factors may result in the implementation of a rating cap by Ind-Ra. For more information on data requirements requested by Ind-Ra as part of the rating process, see Appendix A.

Ind-Ra's criteria assumptions, analysis and rating decisions are based on relevant information available. The sources are the issuer, the arranger, financial advisory consultants, third-party engineers or consultants, and the public information. This includes publicly available information on the issuer, such as data available on the issuer's website and regulatory filings. The rating process can incorporate information provided by other third-party sources. If this information is material to the rating, the specific rating action will disclose the relevant source.

Programme's Portfolio Analysis and Stress Assumptions

Programme consists of entities with different financial strengths, risks, geographies and revenue visibilities. The programme's credit quality assessment is derived from its CE's credit quality. A programme with majority of CE's having low credit rating will impact the overall credit quality and may require higher credit enhancements as the probability of default is higher. On the other hand, a programme with majority of CE's having higher credit rating will be able to withstand default stresses for certain period of time and will not be delaying their repaying commitments.

Portfolio Stress Calculator (PSC) and Default Hurdle Rate (DHR)

Programme Rating

The programme entity is to be assigned a default rating on the basis of weightage of its CEs and their respective rating level. A default rate conversion factor (DR) becomes necessary to assign rating to the PFLMLPP (consider multiple CEs with different weightage and different rating). Then DR converts these alphabetical rating narrations into numbers. The weighted average summation of these numbers viz. WADR is again converted back into an alphabetical rating symbol which is the rating level for the programme (entity). It may be observed that lower the WADR, higher is the rating level.

Default Rate (DR)

DR plays an important role in converting alpha character to numerical and vice versa.

Ind-Ra's Portfolio Stress Calculator

The PSC uses mean historical corporate default rates by credit rating and loan term to derive the WADR of an aggregate pool.

Because of a lack of comparable (or statistically significant) default data among public sector entities, as such entities have not yet experienced the full effect of a meaningful stress period, corporate default rates were chosen to form the basis of Ind-Ra's PSC assumptions. In addition, the use of corporate default rates factors in a degree of conservatism in relation to public sector defaults, which Ind-Ra deems appropriate, given the other intrinsic risks inherent in PFs and similar pools. For example, because PFs and municipal loan pools are geographically concentrated in the states in which they benefit, borrowers in these states could be subject to a regional or state-specific economic downturn, thereby producing higher defaults than would have otherwise occurred in a regionally diverse portfolio.

Once the portfolio WADR is determined, multiples are then applied to create liability default hurdles by rating category.

Default Hurdle Rate (DHR)

DHR indicates the minimum default rate required to arrive at a desired rating level for the programme. The guiding principle is higher DHR and its subsequent tolerance by the programme will translate into higher rating level.

Portfolio Stress Assumptions

Programme's CEs have different weightages and the top risk contributor (as measured by CE's weight in the overall fund size) influences the rating level of the programme than the other CEs. Lower the number of pool participants, higher will be the volatility due to the influence of the top risk contributor. Hence, the agency applies additional 50% up lift to the default rate of the top risk contributor. In case the number of CEs is less than five, then stress for the constituent should be as follows.

- For four CES at least two CEs should be stressed at 1.5x and
- For three CEs, all three to be stressed at 1.5x.

As per the criteria set out in this report, Ind-Ra may not rate programmes with less than three borrowers, as it would not consider a programme with such few borrowers in a pool.

In addition, programmes with excessively large single-borrower concentration (i.e. concentration above 30%) may not be rated by Ind-Ra under these criteria. If the agency chooses to rate such programmes, they may be subject to additional analytical scrutiny or stresses, and the ratings assigned may be capped at a certain level. Where alternative rating approaches are deemed applicable, such approach and corresponding methodology will be highlighted in Ind-Ra's respective rating action commentary

Entities on Rating Watch Negative (RWN) are rated at one notch below the rating level with provision for making adjustment on the basis of public information.

Portfolio Stress Calculations

Programme's WADR and rating level is calculated on the basis of each entity's rating level and portfolio weightage as per above assumptions.

Cash Flow and Default Tolerance Rate (DTR)

The programme entity gets cash from different sources as detailed below:

Figure 1

PF and Municipal Loan Pools – Sources of Cash

Pledged loan repayments	Pledged loan repayments from CEs represent the primary form of structural security available to bondholders.
Programme equity/credit enhancement	Programme equity or credit enhancement provides the protection through which the pool can sustain some level of loan defaults and continue to make payments to bondholders as troubled loans are worked out. Programme equity is structured in one of the three ways: pledged reserves, typically derived from a debt service reserve fund; excess cash flow generated from loans made with programme equity; or a combination of pledged reserves and excess cash flows (hybrid).
Non-pledged equity	Examples of non-pledged equity include funds de-allocated, or released, from the programme back to a general or recycling fund and, therefore, are no longer legally pledged to the programme. Credit given to the non-pledged revenues will be determined on a case-by-case basis.

Source: Ind-Ra

Programme entity's cash outflow in terms of disbursement of loan to CEs and bond servicing by way of interest and principal instalments is fixed and programme entity is solely responsible for this outflow. However, cash inflow which is also fixed in terms of programme equity, reserves, bonds proceeds and loan repayments is likely to face volatility in the area of repayment from CEs.

The bond servicing terms are structured by granting concessions to the CEs in terms of moratorium period, lower initial principal instalments, low margin interest rates, etc. The entire repayment of a CE may happen before the entire bonds are repaid or vice versa. Risks are lower if the entire CE repayment happens before the bonds redemption as cash is available upfront for bonds redemption. In case, CE repayment stretches beyond bonds repayment, risks are more as additional funds by way of programme equity, credit enhancement reserves, etc. will be required to bridge the cash mismatch.

Figure 2

Sample Cash Flow Mismatch (INR million)

Loan repayment inflow(LRI)/bond redemption outflow (BRO) scenario	Bond amount	CE's repayment[a]	Bonds repayment[a]	Cash flow mismatch
I(LRI=BRO)	15.00	Five years annual repayment of INR3 million each	Five years annual repayment of INR3 million each	Nil
II(LRI>BRO)	15.00	Three years annual repayment of INR5 million each	Five years annual repayment of INR3 million each	The programme will have cash surplus from the first year itself.
III(LRI<BRO)	15.00	Five years annual repayment of INR3 million each	Three years annual repayment of INR5 million each	The programme will have cash deficit from the first year itself and will start drawing reserves and equity.

[a] CE's repayment happens before the bond's maturity
Source: Ind Ra

Structural Analysis

For new ratings, Ind-Ra expects to receive cash flows incorporating all of its aforementioned assumptions from the issuer or the issuer's representative. Issuer cash flow results will be compared with the agency's results to ensure consistency.

Ind-Ra's structural analysis of PF and municipal loan pools includes a review of: programme assets, including pledged loan repayments; forms of credit enhancement and other available sources of cash; programme liabilities; and any structural features such as de-allocation provisions and reserve requirements, cross-collateralisation features, and additional bonds tests. Certain sources of programme resources may be given less weight based on Ind-Ra's legal review of a programme's documentation. For more information on the level of legal security provided by each asset, see the Legal Analysis section on page 8.

Ind-Ra's Cash Flow Analysis

CFA Assumptions

The PF cash flow analysis applies defined stresses to the resources mentioned above to find the four-year DTR, or the break-even amount of pro rata defaults a programme can withstand over a four-year period until these resources are no longer sufficient to pay debt service in full. Ind-Ra runs the default tolerance to the point at which all resources are depleted, resulting in a bond payment shortfall within the four-year stress period.

The four-year stress period is meant to mirror a severe, protracted recessionary economic environment during which the entire loan pool is subject to defaults. The economic downturn is tested to begin at several points. This accounts for different coverage levels over the programme's life. Generally, Ind-Ra applies the default tolerance test in the first, middle, and the last four years of a programme's life but may stress additional four-year periods if structural weaknesses such as low coverage ratios are present within the cash flows.

Figure 3

PF Cash Flow Analysis – Key Inputs

Cash sources	• Total pledged loans' repayment schedule (outstanding and new issuance) • Total other sources of cash, such as subsidies, etc. • Current reserve and surplus fund balances
Cash uses	• Total debt service schedule (outstanding and new)
Debt service reserve requirement(s)	• Applicable debt service coverage requirements, such as maximum annual debt service test (measures remaining equity at the beginning of each stress period following reserve de-allocation)
Surplus release parameters	• Surplus fund release or de-allocation requirements, such as release delay period and/or coverage ratio requirements
PSC results	• Rating default hurdle results produced by Ind-Ra's PSC

Source: Ind-Ra

The default tolerance rate is spread evenly in the cash flow analysis over each respective four-year stress period (i.e.; 25% per year). To account for amortisation of the underlying loans in the middle and back scenarios, the default tolerance rate is applied only to the remaining pledged loan repayments.

Along with the default tolerance stress, Ind-Ra factors in loan recovery prospects. Loan recovery prospects in municipal transactions are generally high due to their ability to either set rates (revenue-backed transactions) or raise taxes (tax-backed transactions). However, Ind-Ra takes a conservative view of recovery in its analysis. Instances of low recovery will be handled on a case-by-case basis and may be subject to additional stresses. Any deviations by way of additional stress assumptions, to these base criteria assumptions will be explained in the relevant rating action commentary. Ind-Ra believes the probability of ultimate full repayment is high because of the rate-setting power of public utilities.

The PF cash flow analysis compares the resulting default tolerance rate generated in the cash flow analysis under each scenario (first, middle, last) to the rating hurdle produced by the PSC to suggest a pass/fail result. If the PSC rating hurdle at a particular rating level is less than the pool's DTR, the cash flow analysis would indicate a pass result. Conversely, if the PSC's rating hurdle is greater than the pool's DTR, the cash flow analysis would indicate a fail result.

Relationship of Analytical Results to Final Rating

A programme must typically pass the given PSC rating default hurdle under each stress period to be eligible for assignment to that rating category. However, the programme's failure to cross a hurdle rate for a particular rating need not result in the rejection of the related rating always. If the issuer is expected to undertake steps for strengthening the programme that will result in bridging the gap, the related rating level is assigned. Similarly, passing the hurdle rate for a particular rating will not entail an automatic assignment of the related rating. Other factors like legal structures, additional bonds tests requirements, management, technology, underwriting process, borrower monitoring process and investment policies also play an important role in assigning final rating fixation.

Figure 4

Example: Cash Flow Scenario Test

Default tolerance rate – first four years (%)	62.00
Less PSC 'IND AAA' hurdle (%)	-58.40
Net cushion (%)	3.60
Scenario result	Pass

Source: Ind-Ra

For leveraged loan pool bond ratings, modifiers (+ or -) may be used to reflect the agency's qualitative assessment of the pool characteristics cited in the prior paragraph. Modifiers can also reflect the margin by which a programme passes a given category's stress test. For example, loan pool X (with adequate general credit characteristics) may barely pass the 'IND A' category rating hurdle and be assigned an 'IND A-' rating, while loan pool Y (with strong general credit characteristics) may pass the hurdle by a wide margin, earning it an 'IND A+' rating. Similarly, two loan pools passing a category rating hurdle by similar margins may earn different ratings within the rating category based on one pool's stronger management practices, investment policies, or legal protections for bondholders.

Debt Service Reserve Fund Requirements

Programmes that derive credit enhancement through excess cash flows may contain provisions that require debt service reserve funds to be maintained at certain levels. For example, some programmes require debt service reserve fund levels to be maintained at the lesser of: 1.25x average annual debt service; 1.0x maximum annual debt service; or 10% of outstanding bond amount (note that the coverage requirements may vary by programme). Any excess amounts are then released into the surplus fund (or revenue fund). Ind-Ra incorporates applicable reserve fund requirements into its cash flow analysis to account for the expected asset/liability coverage at each scheduled bond payment date.

Surplus Reserve Fund Release Requirements

Pooled programmes often contain time and/or threshold requirements that, if met, allow surplus funds to be released or de-allocated from the programme to be used for general purposes (at which time they may no longer be pledged as security to bondholders). Ind-Ra incorporates these tests into its cash flow analysis to measure the expected amount of enhancement available to the programme at the beginning of each stress period after taking into account de-allocation of surplus amounts.

Legal Analysis

Ind-Ra's analysis includes a qualitative review of the programme's legal documentation. The agency's goal is to assess the level of pre default and post default security provided by each resource based on the legal protections available to bondholders.

Pledged Cash Flows

Loan repayments on PFs and other municipal loan pools provide the primary pre default security for bondholders. A tripartite agreement is executed among PFLMLPP entity, each CE and bank escrowing project (for which the loans have been extended) revenues of the respective CE. A parity pledge on the bonds is usually provided through the issuance of an individual series of bonds pursuant to a master trust indenture. In addition, many programme documents require that reserve funds and any excess revenue (including loan repayments, interest earnings on reserves, and de-allocated debt service reserve funds available after bond debt service is paid), be used to make up shortfalls in any other series of master trust bonds before being released from the master indenture.

Programme Enhancement Provisions

Pledged programme enhancement in the form of excess loan repayments or a common reserve fund provides additional resources through which the pool can sustain some level of loan defaults and continue to make timely payments to bondholders. For cash flow enhanced structures, Ind-Ra reviews the required ratio by which annual pledged resources cover bond debt service. The agency views cash flow coverage requirements, as established under the master indenture, of at least 1.25x to be strong for pooled programmes. Coverage requirements of 1.1x or less are viewed as weak. Nevertheless, the agency acknowledges that most highly rated pooled programmes using the cash flow structure have maintained coverage levels well in excess of legal requirements.

For reserve fund-enhanced structures, Ind-Ra's legal analysis considers the presence of programme reserve requirements expressed as either a percentage of the outstanding bonds or loan debt service. As programme bonds amortise, a proportionate amount of the common reserves typically is released or de-allocated and used to support programme subordinate lien debt or deposited into the issuer's non-pledged equity fund. The agency also analyses reserve fund release provisions, which often require that a cash flow coverage test be met before funds are released.

For programmes with hybrid enhancement, Ind-Ra analyses the sufficiency of cash flow coverage requirements in light of the required reserve levels. The overall adequacy of reserve and cash flow coverage requirements for each pooled programme will vary due to different portfolio profiles, loan default tolerance levels, programme enhancement needs, and programme rating targets.

Many sanitation and drinking water programmes derive significant enhancement from the central government capitalisation grants and required state matching grants. Some leveraged programme entities obtain the required match through state appropriations.

Loan Documents Covenants

Another key credit characteristic of the programme is the security backing borrower loan repayments. This can be in the form of a general obligation pledge, water and sewer enterprise fund revenues, other enterprise fund revenues, or some other form of tax levy.

In addition to the primary security pledge, programmes may have other protections to provide recourse should a borrower default on a loan. Some pooled loans may be backed by a state aid intercept that allows the programme manager, upon a missed loan payment, to garner state aid payments that would otherwise be paid to the borrower. Loan agreements can also require the borrower, in certain instances, to establish an additional local reserve fund, remit payments incrementally in advance of the bond payment date or pay a higher interest rate on a delinquent payment. These legal protections serve to preserve the credit strength of the bonds, even if there are individual defaults within the loan pool.

Programme Management

Ind-Ra's assessment of programme management is qualitative in nature and includes an evaluation of the management's processes and procedures, such as underwriting criteria, loan monitoring procedures, technology, programme goals and requirements, historical loan delinquencies, and workout.

Loan Repayments

Ind-Ra's analysis considers management's processes and staffing levels for monitoring existing obligors. Ind-Ra's also notes the timing of obligor payment schedules, as obligor payment schedules that precede bond payment dates can provide an early warning of an obligor's financial weakness. Ind-Ra's also considers management's response plans and legal controls to avoid unplanned draws on reserves or excess cash flows. Courses of action may include enforcing covenants to cure deficiencies, triggering state aid intercept mechanisms, replacing troubled loans with performing loans or their present value cash equivalent. Ind-Ra will evaluate the management's response to any delinquent borrower payments as a possible indication of future performance. A solid history of avoiding delinquent repayments and unplanned reserve draws is viewed as a credit strength. Counterparty Exposure

As a general principle, where the financial resources or cash flows of a programme are dependent on the financial performance of a third party, Ind-Ra's would examine how this counterparty risk is mitigated (such as through the use of rating triggers or financial ratio tests).

To reflect the influence of a programme's counterparties on a bond's credit risk, Ind-Ra considers the ratings of guaranteed investment contract (GICs), repurchase agreement (repos), forward purchase agreement (FPAs), and liquidity providers. Counterparty exposure to a programme can affect cash flow, liquidity, and the performance of the programme. The agency reviews all programme counterparties to ensure they meet its criteria.

Investment Agreements and Qualified Investments

Programmes often enter into GICs and other investment agreements with eligible counterparties to hold collateral at a guaranteed interest rate for a specific period. The invested funds and interest earnings, which are typically pledged to bondholders, may constitute a significant portion of bondholder collateral, making preservation of invested funds an important rating consideration. To mitigate the risk of a counterparty default, Ind-Ra applies its counterparty criteria to determine the eligibility of investments to be included as a revenue source in its cash flow analysis. Investments that do not fall within the scope of this criteria may not be given credit in Ind-Ra's analysis.

Should the issuer (via the trustee) choose not to invest funds with an eligible counterparty, Ind-Ra expects investments to be in line with the investment guidelines of the government. Where parties to PF or municipal loan pool programmes choose not to follow the agency's counterparty criteria, the materiality of the counterparty exposure and other structural mitigants applied will be considered to determine the appropriate programme rating.

Further, certain funds may be subject to lock-up periods, effectively limiting the ability to tap the underlying investments in a timely manner, should they be required. Such funds may be discounted up to their full value, depending on the nature or length of the lock-up period.

Variations from Criteria

Ind-Ra uses experienced analytical judgement through committee process. A robust rating process and full disclosure via rating commentary assist the participants in understanding the analysis behind Ind-Ra's ratings. A rating committee may adjust the application of criteria to reflect the risk of a specific transaction, called variation. Ind-Ra will disclose the variations, in rating action commentaries, where ever possible including the impact on the rating wherever appropriate. Analysis described in the criteria can be modified, provided, the criteria and methodology is applied within the scope

Limitations

The ratings, including Rating Watches and Outlooks, assigned by Ind-Ra are subject to the limitations specified in Ind-Ra's definitions, available at https://www.indiaratings.co.in/rating-definitions

Ratings are sensitives to the following:

Changes in pool credit quality, resulting in change in Default hurdle rate. Portfolio credit risk, as measured by Portfolio credit calculator, is based on the weighted average credit quality of pool participants relative to the outstanding loan amount and tenure of the underlying loans and their standalone credit rating, payment schedules and reserve fund investment,

Changes in the programme's financial structure including increases or decreases in programme leverage (i.e. assets to liability ratios), changes in reserve investments affecting credit quality and/or liquidity, and other related changes in programme credit enhancement.

Summary of Eligible Counterparty Criteria, Collateralisation and Replacement Criteria (Applicable for GIC)

- For most exposures, Ind-Ra expects counterparties to satisfy certain eligibility criteria viz. counterparties to have a minimum Ind-Ra's national long-term rating of 'IND A' and, for GIC, a minimum short-term rating of 'IND A1' to support the programme ratings of the 'IND AA-' category or higher. For transactions where the programme rating does not exceed 'IND A+', counterparties with a minimum rating of 'IND BBB+' and 'IND A2' will be considered eligible
- If the collateral is posted equal to the maximum exposure, Ind Ra's criteria extends to counterparties rated 'IND BBB+'/'IND A2' (or 'IND BBB-' and 'IND A3' if the highest programme rating does not exceed 'IND A+')
- For this eligibility assessment only, an entity on RWN is considered to be rated one notch below its long-term rating
- Remedies are likely to be pursued by the counterparties upon losing eligibility. These remedies include obtaining a guarantee from an eligible counterparty, securing replacement by an eligible counterparty, or where possible, collateralisation of the counterparty exposure. Where collateralisation is one of the feasible structural mechanisms, Ind-Ra expects remedial action to be effected within 14 calendar days of losing eligibility. For exposures that cannot be addressed by collateralisation, remedial action is expected within 30 calendar days

Figure 5
Summary of Ind-Ra's Eligible Counterparty Definition

Programme's highest rating	Minimum counterparty rating	Minimum counterparty rating with collateral posted at transaction closing
'IND AA-' or higher	'IND A' and 'IND A1' (not RWN)	'IND BBB+' and 'IND A2' (not RWN)
'IND A+' or Lower	'IND BBB+' and 'IND A2' (not RWN)	'IND BBB' and 'IND A3' (not RWN)
'IND BBB+' or lower	Counterparty's long-term rating to be equivalent to highest rated programme bonds	Counterparty's long-term rating to be equivalent to highest rated programme bonds

RWN – Rating Watch Negative
Source: Ind- Ra

Collateralisation

Ind-Ra expects collateral posting, if permitted by the programme's structure, to adhere to the following principles:

- The collateral should be posted for the benefit of the programme or series and deposited with an eligible bank account /custodian legally isolated from the posting counterparty
- If possible, at transaction closing and in any case upon the actual collateral posting, a legal opinion is provided that addresses the enforceability of the collateral arrangements
- Any costs associated with the collateral posting and with the apportionment of a replacement counterparty or guarantor should be borne by the counterparty that becomes ineligible

Performance Analytics

The on-going surveillance of ratings is an essential part of the agency's rating process. A distinctly managed function is employed to monitor performance and facilitate reviews of PF programmes and similar municipal loan pools in a timely manner. To facilitate a review, Ind-Ra may request certain information from issuers. A complete list is provided in Appendix A.

A surveillance or subsequent rating committee follows the same rating methodology as followed during the initial rating process. Before conducting the analysis, Ind-Ra will contact the issuer if any additional programme detail is needed. During a subsequent review, an analyst compares programme performance to date versus expectations described in previous rating reviews. Additionally, other performance-related measures will also be examined. These include portfolio repayments/prepayments, delinquencies, defaults and subsequent workouts, the amount of equity available, and the evaluation of microeconomic and macroeconomic issues affecting the programme. During the review process, credit risk of the then-current pool will again be measured by Ind-Ra's PSC, the results of which will be analysed in the agency's CFA.

Appendix A: Checklist of Basic Document and Data Requirements

New Ratings

- Preliminary official statement
- Relevant legal documents, including a trust agreement or indenture, sample loan agreements, an authorising resolution, supplementary indentures, and legal enforceability opinions
- Annual projected revenue from each source of cash as well as annual debt service requirements

Rating Review Process (Surveillance)

- Current loan portfolio composition, including any public rating and watch status, loan security pledge type, seniority or tax lien, amount(s) outstanding, and term
- Current and historical (five-year) reserve account balances and details on lower than expected investment earnings. Information related to defaulted or distressed loans and lower than expected reserve fund investment earnings
- Borrower information, as needed, including three years of audited issuer financial statements and loan application
- Details of significant changes to the programme, such as changes in the executive management and/or programme directives
- Loan portfolio composition, including any public rating and watch status, loan security pledge type, seniority or tax lien, amount(s) outstanding, and term
    - Multiple loans to single obligor should be consolidated and maximum or weighted average loan term cited
- Underlying obligor information for certain unrated entities, as requested by Ind-Ra, including audited issuer financial statements and loan application, and historical (five-year) obligor delinquencies, and defaults.

The ratings above were solicited by, or on behalf of, the issuer, and therefore, India Ratings and Research has been compensated for the provision of the ratings.