ICRA

RATING METHODOLOGY - COLLATERALISED DEBT OBLIGATIONS

December 2022

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This rating methodology updates and supersedes ICRA's earlier methodology document on this subject, published in December 2020. While this revised version incorporates a few modifications intended to provide additional clarity on certain points, ICRA's overall approach to rating collateralised debt obligations (CDO) remains materially similar.

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What is a Collateralised Debt Obligation?

A collateralised debt obligation (CDO) is a securitisation transaction that involves the sale of single or multiple corporate debt exposures, usually by a bank or a non-banking financial institution (termed as originator) to a special purpose entity (SPE; usually a trust). The SPE, in turn, issues pass-through certificates or securitisation notes (PTCs/ SNs, which denote a beneficial right on the receivables) to the investors. Thus, CDO transactions are similar to asset-backed securitisation (ABS)/ mortgage-backed securitisation (MBS) transactions, especially in legal terms. The key difference, is that ABS/ MBS transactions involve the securitisation of a large number of retail loans while a CDO involves the securitisation of receivables from corporate debt exposures – far lesser in number relative to an ABS/ MBS, given the much larger ticket size of corporate debt relative to retail debt. This results in a much lower granularity of the CDO pool (conversely, a much higher obligor concentration) relative to a typical ABS/ MBS pool. Therefore, a somewhat different approach or methodology applies for rating a CDO transaction vis-à-vis an ABS/ MBS transaction. Depending on the type of debt exposure, a CDO can also be referred to as a collateralised loan obligation (CLO; backed by a pool of corporate loans) or a collateralised bond obligation (CBO; backed by a pool of corporate bonds). For the sake of convenience, we would be referring to the CDO/ CLO/ CBO structure as the CDO structure for the rest of this note unless explicitly mentioned otherwise.

Analytical Framework

ICRA's framework for rating instruments issued under a CDO transaction involves the steps mentioned below:

1. **Legal Risk Analysis**
2. **Assessing the Credit Quality of the Underlying Corporate Debt Borrowers**
3. **Structure Risk Analysis – Modelling the Cashflows**
    a) Composition of CDO structure
    b) Scheduled repayment to investors/lenders
    c) Correlation between entities
    d) Probability of default (PD) of each borrower
    e) Build-up of PD
    f) Loss given default (LGD)
    g) Recovery probability
4. **Counterparty Risk Analysis**
    a) Servicer
    b) Trustee
    c) Cash/credit collateral (CC) provider
    d) Account Bank
5. **Forms of Credit Enhancement**
    a) Excess Interest Spread
    b) Over-collateralisation or Subordination
    c) Cash/credit collateral

ICRA's Approach for Rating CDO Transactions

ICRA's approach for rating CDO transactions is described below:

1. Legal Risk Analysis

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

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

- The originator does not maintain direct or indirect control over the transferred exposures.
- The originator should not be able to repurchase the transferred exposures unless it is done through the invocation of a clean-up call option which must be at the discretion of the originator.
- The transferred exposures are legally isolated from the originator in such a way that the exposures are put beyond the reach of the originator or its creditors, even in bankruptcy {specially Insolvency and Bankruptcy Code (IBC)} or administration.
- The SNs issued by the SPE are not the obligations of the originator. Thus, the investors who purchase the SNs have a claim only to the underlying exposures.

- The securitisation does not contain clauses that require the originator to replace or replenish the underlying exposures to improve the credit quality of the pool in the event of deterioration in the underlying credit quality, except under conditions specifically permitted in these Directions.
- If the originator provides credit enhancement or a first loss facility (FLF), the securitisation structure shall not allow for increase in the above positions after inception.
- The securitisation does not contain clauses that increase the yield payable to parties other than the originator such as investors and third-party providers of credit enhancements, in response to a deterioration in the credit quality of the underlying pool.

The other transaction-specific points that ICRA gathers from the legal opinion provided by the transaction counsel are –

- Whether the assignment documents have been executed in accordance with the prevailing stamp duty and registration laws
- Whether the assignment of receivables is valid as per the terms of the underlying debt agreements i.e. the debt agreement should not have imposed any restrictions on the assignment of receivables[1]
- All the documents of the transaction constitute legal, binding and enforceable obligations of all the counterparties concerned
- The transaction is not in contravention of any prevailing Indian law

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

2. Assessing the Credit Quality of the Underlying Corporate Debt Borrowers

The performance of the CDO transaction is dependent on the credit quality, which is the repayment capacity of the underlying corporate debt borrower {as represented by its Probability of Default (PD)}. ICRA analyses the credit profile of the borrowing entities in the CDO transaction following the applicable sector methodology, to determine the individual entities' PD (as represented by the credit rating). For entities rated by ICRA, the published credit rating available on ICRA's website is used. Where a published rating from ICRA is not available, ICRA assesses the credit profile of the entity based on best available information to arrive at a shadow credit rating.

3. Structure Risk Analysis – Modelling the Cashflows

The next step in rating a CDO transaction is modelling the projected cash inflows and outflows. ICRA's approach for modelling the cash inflows is based on the following inputs:

- Composition of CDO structure: This considers the entity-wise break-up of debt in the CDO structure. A well-diversified portfolio in terms of entity concentration is usually expected to be more favourable for an CDO's rating.
- Scheduled repayments to investor/lender: The scheduled principal and interest payment to the investor/lender by each borrowing entity in the CDO structure is taken into consideration. For entities having multiple exposures in the pool, the cashflows are clubbed together entity wise. In case of embedded put options in the debt exposures, the put option date is assumed to be the maturity date for such debt in the pool.

[1] While the assignability clause is a standard feature in almost all retail exposures, this aspect needs to be looked at closely in corporate exposures; some agreements may have a restriction on assignment or envisage express consent by or intimation to the borrower for the assignment to be valid

- Correlation between entities: The correlation between the borrowing entities in the CDO structure, based on business diversification, is taken into consideration. The higher the correlation between the entities, the higher is the probability of multiple entities defaulting at the same time. Thus, a well-diversified portfolio in terms business diversification is normally expected to be more favourable for a CDO's rating.
- PD of each borrower: Each borrower in the CDO structure has a PD driven by its standalone credit rating/shadow rating and the balance tenure of the debt being rated. The longer the balance tenure of the debt and the lower the credit rating, the higher would be the PD of the borrower.
- Build-up of PD: All the underlying debt exposures are not expected to default simultaneously if the borrowers are not highly correlated. Indeed, certain debt exposures may pay for a certain period and default later. Thus, another input in the model is the timing of the default. ICRA's assumption on the PD build-up depends on historically observed trends.
- Loss-given default (LGD): It is based on the seniority of the debt and the nature of the security against the debt sanctioned. While evaluating the LGD, ICRA factors in the possibility of actual recovery through the sale of the underlying security during the balance tenure of the debt.
- Recovery probability: This factors in the probability and the time frame (within the balance tenure of the rated instrument) by which the entity in the CDO structure would be able to recover post default.

Based on the above inputs, ICRA simulates the various possible scenarios of cashflow collections. For modelling the outflows (the liability side for the SPE), the simulated collections are allocated as per the structure of the transaction and the 'cashflow waterfall' stipulated in the transaction documents. A certain credit enhancement figure (explained later) is also incorporated into the cashflow model. The quantum and timing of cash outflows are driven by the terms of the transaction, including the number, yield and inter se seniority among the various tranches, incidence of expenses, and the credit enhancement mechanism. A typical cashflow waterfall is given below:

Exhibit 1: A typical cashflow waterfall mechanism

Collections from borrowers in the pool

↓

Payment of any statutory dues as and when applicable

↓

Payment of fees to the collection and processing agent, credit enhancement provider and any other service provider

↓

Payment of overdue amounts, prepayment amounts and scheduled/expected amounts to investors depending on the structure

↓

Topping up any cash/credit collateral utilised in previous periods; topping up would done first for the second loss facility, if any, and then the first loss facility

↓

Payment of any residual amounts to the subordinate investors, if any

↓

Any residual cashflows would flow back to the originator, held in trust or passed on to investors as accelerated payments

The objective of cashflow modelling is to assess the adequacy of the cash flows along with the available credit enhancement for meeting the obligations to the PTC investors under various scenarios. Thus, through a simulation exercise, which covers the various scenarios, the default probability/expected loss on the instrument being rated is determined and this is compared against the benchmarks for the various rating levels to arrive at the rating of the PTCs.

4. Counterparty Risk Analysis

There are various counterparties to a transaction – the servicer and the originator (both are being usually the same in the Indian context), trustee, Cash/credit collateral provider and account bank. ICRA analyses the risk posed by each of these counterparties in a transaction and factors the same into the final ratings assigned.

a) Servicer

In domestic securitisation transactions, the originator usually plays the role of the servicer as well. The servicer plays an important role in ABS/MBS transactions as it is responsible for the collections from a large number of retail debt borrowers in a pool. However, CDO transactions are backed by a pool of debt given to corporate entities and the number of borrowers in these transactions is far lower compared to ABS/MBS transactions. Hence, the role of the servicer as a collection agent in CDO transactions is limited in scope compared to that in ABS transactions. ICRA expects that it would be relatively less operationally cumbersome to change the servicer for a CDO transaction compared to ABS/ MBS transactions, if needed.

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

b) Trustee

A trustee or the investor's representative is a very crucial counterparty in the entire transaction. The SPE is usually a trust that purchases the pool of debt from the originator and issues securities backed by the same to the investors. On an ongoing basis, the trustee receives collections from the servicer and passes them as per the waterfall mechanism to the investor. In the event of any shortfall in collections in meeting the promised payouts (as defined in the legal documents), the trustee also utilises the credit enhancement to meet this shortfall. In the event of the trustee not being able to carry out its role properly, the transaction documents usually provide an option to replace the trustee with the approval of the investors. Since the trustee can be relatively easily replaced, the counterparty risk associated with the trustee is assumed to be low.

c) Cash/ Credit Collateral Provider

The cash/ credit collateral provider is typically the originator though it can also be provided by a third party (typically the second loss facility (SLF) in the form of a bank guarantee). The cash collateral is either lien marked to the trustee or held in the name of the trust. Certain transactions also have credit enhancement in the form of a corporate guarantee only. In such cases, the rating of the guarantor would also become relevant.

d) Account Bank

The Collection & Payout Account (CPA) is an account held with a bank (CPA Bank) wherein the collections from the borrowers are deposited by the servicer and the payment is made to the PTC investors. Also, the cash collateral for securitisation transactions is held with an account bank (FD Bank). In the event there are any regulatory restrictions placed on the withdrawal of funds from the CPA bank and/ or the FD bank, it could lead to a delay in making payouts to the investors. Therefore, the credit profiles of the CPA bank and the FD bank also remain important rating factors

(The cash collateral must be held in a bank which is rated A1+). It is seen that changing the FD bank is easier than CPA bank. At times, the transaction documents provide for the replacement of the bank if the bank's ratings are downgraded below a certain threshold.

5. Forms of Credit Enhancement

The scheduled cash inflows may be affected by prepayments or delays in repayments. The payments to the investor may vary. To protect the investors from shortfalls owing to delays or defaults in the pool, some form of credit enhancement is generally set aside in a transaction. The credit enhancement is provided only at the initiation of the CDO transaction and can be provided by the originator or a third party. The credit enhancement may be in-built in the structure or it could be provided through an external source. The following section discusses the various forms of credit enhancement.

a) Excess Interest Spread

Excess interest spread (EIS) refers to the difference between the pool yield and the aggregate of the investor yield and any taxes and expenses paid in the transaction. In most cases, the originator has a subordinate claim on the EIS. The EIS functions as the first line of support for investor payments. While the EIS helps offset losses in securitised corporate debt exposures, transactions cannot rely on this form of credit enhancement alone. This is because the credit losses, repricing of debt instruments, and prepayments, which may occur throughout the life of a pool, may reduce the available EIS. The EIS, after meeting any shortfalls in the pool, flows back to the originator, usually on a monthly basis. This arrangement is the most prevalent structure. However, there are also structures where the EIS remains in the structure and provides cover over future shortfalls or is passed on to the investors for accelerated amortisation.

b) Over-collateralisation or Subordination

Over-collateralisation or subordination refers to the issuance of tranches that have a lower priority in claims from the pool's receivables. These subordinate tranches provide a cushion to the investors in the senior tranche since the investors in the subordinate tranche receive the residual payments only after all the payments to the senior tranche investors are made and all the expenses for the pool have been met. However, the cashflow related to the over-collateralisation/ subordination could also flow to the subordinate investors, basis the structure. The nature of the over-collateralisation/ subordination also impacts the availability of credit enhancement in the structure.

c) Cash/ Credit Collateral

Cash collateral is one of the most common forms of credit enhancement provided in the rated transactions. It should be deposited with an account bank that has the attributes explained in the above section. The cash collateral account is operated by the trustee. In certain transactions, the cash collateral may be split into an FLF and an SLF. In such a case, the SLF is utilised only when the FLF has been completely exhausted. The SLF is topped up (for any utilised portion) before the FLF due to its relative seniority in the structure. Notwithstanding such a split though, the entire cash collateral is available for meeting the shortfall in the investor payouts. Also, in transactions with multiple tranches, a part of the cash collateral may be tranche-specific.

A guarantee can also be provided in lieu of the cash collateral and functions similar to the cash collateral. Some of the key attributes of a typical guarantee would be that it has to act an FLF, with a T minus structure to ensure timely invocation and payment to investors in case of a shortfall, and would need to be unconditional and irrevocable.

Incorporation of Interest Rate Risk

Interest rate risk arises in a transaction on account of the instruments issued by the trust being priced differently from the underlying corporate debt exposures in the pool. For instance, the debt exposures in the pool could be at a floating rate while the securities could be at a fixed rate, or vice versa. While this is not a common occurrence, what is more likely is the presence of basis risk, i.e. the underlying corporate pool of debt and the PTCs are both variable but each is linked to a different benchmark. For instance, the debt instruments could be linked to the originator's marginal cost of fund based lending rate

(MCLR) while the yield on the PTCs could be linked to an external benchmark like the Government Securities (G-Sec) rate. In such cases, while the two could be broadly expected to move in tandem, there could be a lag. To factor in the basis and interest rate risk, ICRA usually stresses the EIS in such transactions by assuming adverse movements in the spread between these two over certain periods of time during the tenure of the rated instrument.

Environmental and Social Risks

While CDOs do not face material physical climate risks, they are exposed to environmental risks indirectly through the underlying pool of entities which are a part of the CDO transaction. If the entities which are a part of the CDO, face business disruptions because of physical climate adversities, or if they face climate transition risks because of technological, regulatory, or customer behaviour changes, it could translate into credit risks for the CDOs. However, the risk tends to be mitigated via adequate pool diversification. Likewise, the exposure of CDOs to social risks depends on the nature of the sectors and/ or entities in the CDO pool and the relative concentration of the pool.

Summary

The methodology used by ICRA to determine the credit rating of the PTCs/ instruments issued though CDO structures incorporates the assessment of the credit risk of the underlying borrower entities and the modelling of the projected cash inflows and outflows with statistical techniques to assess the adequacy of the credit enhancement under the structure for the specific rating level. The various assumptions made while modelling the default probability/expected losses to the PTCs/ instruments being rated may change on a case-to-case basis, depending on market or economic conditions, the specific structure of a transaction, the credit quality of the underlying borrowers, originator-specific characteristics or even some new factors that may be observed.

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

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