SECURITISATION RATING METHODOLOGY

CREDIT RATING AGENCY OF BANGLADESH LIMITED

CRAB’s Rating Process

CRAB’s analytical process for rating securitization transactions includes the following:

- Banks/ Financial Institutions assessment as issuer and or originator/servicer.
- Legal issues and documentation.
- Originations, underwriting criteria and portfolio servicing.
- Historical portfolio performance.
- Portfolio characteristics and concentrations.
- Obligor characteristics and concentrations.
- Loan and lease features.
- Manufacturer/vendor concentrations.
- Derivation of credit enhancement.
- Cash flow analysis

Overview of Cash Flow Analysis

□ **Cash Flow Analysis**

Cash flow modeling is a critical step in sizing credit-enhancement levels. CRAB reviews cash flow models for the following:

- Timing of Defaults—Are defaults applied at a constant rate or per a loss curve? If a loss curve approach is incorporated, does the curve mimic the servicer's historical loss experience?
- Deal Mechanics—Payment priority, application of servicing and trustee fees, trigger mechanics and pricing assumptions are important items. Of particular note, models must not incorporate unrealistic events, such as cumulative loss triggers violated on day one.
- Duration—Models should be run to the maturity date of the bonds, not to the expected call date of the bonds.
- Prepayment Speeds—Model should reflect a prepayment speed comparable with the historical rate.
- Interest—Interest on interest should be incorporated unless documents specifically call for bond write-offs.
- Residuals—Effect of realization timing lags based on expected realization methods.
- Servicing Fees—Higher fees incorporated in transactions with non investment-grade servicers. Back-up servicing fees are modeled at market replacement cost.
- Delinquency Rates—Model should reflect the reduced availability of excess spread due to delinquent accounts.

These factors, along with the adequacy of credit enhancement and the structure, are assessed over the life of the transaction under various scenarios.

Analysis Process of PORTFOLIO PERFORMANCE

Collateral Evaluation

CRAB's evaluation of pool characteristics begins with an examination of the collateral. CRAB makes distinctions among these collateral classifications, as the nature of the loan/lease will have implications on CRAB's loss proxy determination and assessment of the transaction's structure. These distinctions will have implications on the timing and incidence of default, as well as the timing and size of recoveries when cash flows are stressed.

Obligor Diversification

In our analysis of portfolio risk, CRAB examines existing obligor concentrations. Concentration issues are commonly found in pools of loan or pools with multiple loan/leases to a single obligor. Additional credit enhancement is often provided if any single nonrated or non investment-grade obligor comprises more than 1% of a portfolio. A pool consisting of significant obligor concentrations (assuming minimal net losses) often results in the application of CRAB's obligor concentration approach to derive credit enhancement.

Geographic Concentrations

Geographic diversification in securitized portfolios can mitigate the default risk associated with any regional economic downturn or natural disaster. During the rating process, CRAB analyzes the portfolio to determine if higher than normal concentrations will result in additional portfolio risk. **CRAB prefers the leases be geographically dispersed, with no more than 15% originated in any one region.** However, higher than average geographic concentrations for securitized portfolios are common in larger regions, such as Dhaka and Chittagong. In the event that certain geographic concentrations pose additional risk, the credit enhancement will be increased accordingly.

Analysis Process of PORTFOLIO PERFORMANCE

Delinquencies

- Indicator of the current and future quality of a transaction's cash flow.
- Delinquency position divided into **aging categories**. The analysis of these delinquency buckets, typically arranged into **30-60, 61-90 and 91 or more days past due**, supports the tracking of delinquency trends.
- These trends are not only useful in gauging portfolio deterioration and potential defaults but also assist in the determination of performance-related triggers commonly found in loan/lease securitizations.

Defaults

- In loan/ lease transactions, CRAB looks to historical portfolio performance on a **static basis** (cumulative gross default and net losses) as an indicator of future performance.
- For purposes of securitization, defaults are typically defined as the earliest of an **actual default and or 90 days delinquent.**
- Static loss data reference loan/leases originated during a specific period and track the performance of such loans/leases over time. **This cumulative static pool data are used to calculate CRAB's base-case proxy.**
- Alternatively, annual loss performance is a less effective predictor, as it can be skewed by portfolio growth. Additionally, some issuers recognize losses partially upon repossession of the collateral or charge off. The remaining loss will then be recognized when the contract is liquidated through sale or other disposition.

Analysis Process of PORTFOLIO PERFORMANCE

Recoveries

- Similar to our evaluation of losses, CRAB reviews **historical portfolio recovery performance on a static and annual basis.**
- However, given that timing delays between losses and recoveries could exist, CRAB strongly prefers static recovery data.
- During analysis, CRAB examines the actual level of historical recoveries, as well as the time and method by which the recoveries are realized (i.e., sale or re-leasing). Based on this analysis, CRAB may allocate recovery credit to adjust our base-case proxy.

Prepayments

- Prepayment is seen as a **distinct risk** in securitisation.
- Prepayments refer to option of the debtor to prepay the loan/lease/mortgage and thereby foreclose the transaction. Prepayment may either be an option under the contract or even if not an express option, it may be embedded or implicit option.
- In the event of prepayments, **the prepaid principal has either to be reinvested by the originator/SPV, or passed through to the investors**.
- In the former case, the prepayment risks refer to the **inability** of the SPV to reinvest the prepaid principal either immediately, or at the same rate of return as the prepaid transaction. Both will have an impact on the rights of the investors.
- CRAB measures the prepayment risk on the basis of historical data about prepayments and projection of factors that might cause prepayments. CRAB incorporates prepayment risk into its Cash Flow Model.

Analysis Process of Transaction

Solvency of the Issuer

- The solvency of the issuer, at the time of the transfer of receivables, as also within a certain time after the transfer of receivables is a critical legal issue.
- Even, in case of **non-recourse assignments**, CRAB would like to be ensured that there are no chances of impending bankruptcy of the issuer.
- In case of securitisation **with recourse**, of course, the rating of the issuer is equally as important, if not more, as the rating of the portfolio.

Legal Structure

- There are a number of legal issues involved, sometimes quite contentious, in a securitisation process.
- These may include:
  - a) whether there is a clear legal transfer of the receivables **[bankruptcy remoteness]**
  - b) whether the underlying contracts contain clear incontestable rights to receivables as well as inherent securities
  - c) whether the securities are enforceable
  - d) whether the structure of the SPV is free from risks and legal liabilities etc.

CRAB would normally insist that the securitisation exercise to be vetted by some legal expert who is well versed with securitisation structure. A detailed opinion relating to different aspects of the securitisation deal is sought from legal experts.

Analysis Process of Transaction

Clean and Prior title to the securitised portfolio

- Associated with the legal risks, CRAB sees whether the investors, acting through the SPV, would be able to enforce the claims and securities against the debtors when required.
- Another significant issue is the existence of prior charges or rights in the assigned debts. There might be claims of the liquidator of the assignor, statutory dues, employees of the originator or employee benefit funds etc. CRAB would like to look at all possibilities where there could be prior claims, which may rank superior to the rights of the SPV.

Risk of Set Off

- Set off refers to the right of the debtor to set off the obligation to pay, against any right of the debtor to receive any payment or service from the assignor.
- It is quite common for loan, lease and mortgage documents to provide that the installment there under are payable without any right of set off. The investors' right to the securitised portfolio would be jeopardized if the debtor could avail of the benefit of any set off against the installments payable by the debtor.

Servicer or Administrator Rating

- Servicing playa a very important role in ensuring that the underlying collateral continues to perform: so CRAB place stress on the strength of the servicer.
- If the originator is the servicer, the rating of back up servicer is also significant.

Analysis Process of Transaction

Rating Approach

SCREENING PROCESS

Potential securitizations typically undergo a screening process to determine if a transaction is ratable. To complete this preliminary assessment, CRAB typically requests, at a minimum, the following:

- A detailed term sheet outlining the transaction structure.
- Stratifications of pool characteristics.
- Ideally five years of historical portfolio performance on a gross default and net loss static basis.
- Personal and professional background information on the servicer's principals and executive management.
- Five years of audited financial statements.

After this review, CRAB's ABS group may, among other things, take any of the following actions:

- Continue with the transaction.
- Elect to not rate the transaction.
- Adjust enhancement levels.
- Implement tighter back-up servicer arrangements.

Analysis Process of Transaction

RATING METHODOLOGIES—LOSS APPROACH AND OBLIGOR CONCENTRATION APPROACH

- CRAB incorporates a twofold analysis when sizing credit enhancement: a **loss approach** and **an obligor concentration approach**.
- Most frequently, CRAB analyzes proposed credit-enhancement levels using a loss approach in which an expected base case net loss rate (expected gross defaults less expected recoveries) is stressed by a factor reflective of the assigned rating.
- When encountering an originator with minimal historical default and loss rates and/or an underlying pool securitized with large obligor concentrations, CRAB exercises an obligor concentration approach. Subsequently, CRAB analyzes break-even cash flow runs to determine the level of credit enhancement sufficient to sustain the expected cumulative losses or to cover certain top obligors over the life of the transaction.

The level of enhancement will not necessarily correlate with the stressed cumulative net losses or top obligors as of the deal closing date. Several factors influence the amount of credit enhancement available to support the stressed net losses or obligor coverages over the life of the transaction. These factors include the following:

- **A transaction's payment priority (pro rata versus sequential)**
- **Cash reserve mechanics (e.g., level of initial funding, timing to reach required reserve amount and reserve floors). The loss timing, prepayment and delinquency assumptions incorporated into the cash flow model.**
- **Changes in obligor concentrations over time.**

In addition, qualitative factors, such as **originations, underwriting, servicing, collateral and pool concentrations,** are incorporated in CRAB's analysis of the proposed credit-enhancement levels.

Loss Approach

- Under the loss approach, the amount of available credit enhancement must sustain a portfolio's expected level of stressed net losses. The first step in reviewing the adequate level of credit enhancement is to determine a base-case net loss proxy based on a review of the servicer's historical gross default and recovery performance.
- In deriving a base-case net loss proxy, CRAB first determines an expected gross default rate. This gross default rate may then be adjusted to reflect expected recoveries and seasoning. The nature of the collateral drives whether CRABS gives credit for recoveries.
- CRAB's base-case net loss proxy may also be adjusted for seasoning credit. CRAB considers the timing and consistency of static net losses when reviewing a pool's seasoning. This analysis focuses on the nature and shape of a servicer's net loss curve.
- After incorporating recoveries and seasoning, the adjusted base-case net loss proxy is stressed by a multiple corresponding to the rating. For example, for an 'A' rating, a base case net loss proxy of 5% would suggest the securitized portfolio must withstand 15% of cumulative net losses. The table above shows CRAB's standard stress multiples.

Obligor Concentration Approach

- When an underlying loan/lease pool exhibits large obligor concentrations or when the servicer's historical default and loss rates are minimal, CRAB reviews proposed credit-enhancement levels based on certain top obligor concentrations.
- Obligor coverage is based on a number of qualitative and quantitative factors, including the pool's characteristics (e.g., collateral types, obligor industries, geographic concentrations, etc.), the amount and consistency of performance data and changes in origination focus. A first-time securitizer often warrants higher obligor coverage.
- CRAB begins review with the credit summaries of the top obligors included in a securitized pool at closing. CRAB examines these summaries for the depth and history of the relationship with the servicer, the obligor's financial strength and length of time in business, the nature of the collateral, residual exposures and the obligor's overall exposure to the servicer.
- Furthermore, CRAB examines the top obligors as a percentage of the aggregate pool balance at quarterly intervals over the life of the leases. The composition of the original top obligors may change over time. For this reason, CRAB requests credit summaries on additional obligors if significant new concentrations arise at any of these intervals.
- CRAB reviews cash flow model runs to determine a level of credit enhancement that can sustain the default of certain top obligors as of the closing date, as well as at quarterly intervals throughout a transaction. Mechanisms that adjust cash reserve floors and switch bond payment priorities are crucial implements to ensure the level of credit enhancement available at any point in time is sufficient to cover the top obligors. This is especially critical near the tail end of the transaction, as individual obligor concentrations as a percentage of the aggregate pool balance may increase dramatically.

Project Model Builder

DATES & TIMING	
Closing Date	2/1/2007
First Payment Date	3/1/2007
Day-Count System	30 / 360
Pmt Frequency	Monthly

Optimize Advance Rate	Print Output Sheet
Calculate Analytics	Generate Scenarios

TESTS	
Cash In = Cash Out	OK
Asset Balance @ Maturity	OK
Senior Debt @ Maturity	OK
Asset Principal Check	OK

ASSET INPUTS

Description	Original Principal Balance	Current Principal Balance	Asset Amort Type	WA Fixed Rate	Original Term	Remaining Term	Seasoning	Floating Rate Curve	Margin	Periodic Cap/Floor	Lifetime Cap	Lifetime Floor	Rate Reset Freq
Asset Pool 1	100,000,000	100,000,000	Fixed	9.00%	360	360	0	1-Month LIBOR		100.00%	100.00%	0.00%	1

PREPAYMENT/DEFAULT/RECOVERY INPUTS

Description	Prepay Curve	Prepay Stress	Gross Cumulative Loss	Loss Stress	Loss Timing Curve	SDA Curves		Recovery Rate	Recovery Lag
Asset Pool 1	SMM 2	1	1.00%	1	Timing Curve 1			50.00%	5

LIABILITY INPUTS

Debt Description	Advance Rate	Liability Interest Type	Floating Rate Curve	Fixed Rate	Loan Margin	Fees	Reserve Active	Prin Allocation Type
Senior Debt 1	100.00%	Floating	1-Month LIBOR		1.00%	0.50%	Yes	Pro Rata
Sub Loan	0.00%	Floating	Custom 1		0.00%	0.00%	No	Pro Rata

STRUCTURAL INPUTS

Asset-Based Fees	2.00%	Swap Active	Yes
Reserve Account %	1.00%	Swap Rate In	1-Month LIBOR
Capture All XS Spd	No	Swap Rate Out	Custom 1
Post-Default Trigger Mo	3		
Default Trigger %	5.00%		

REPORTING PARAMETERS

Scenario Name	Base Case
Beginning Snapshot Start	0
Ending Snapshot Start	350

NOTES

SCENARIO GENERATOR

Scenario	Gross Loss	Loss Timing	Recovery
1	1.00%	Timing Curve 1	50.00%
2	3.00%	Timing Curve 1	50.00%
3	5.00%	Timing Curve 1	50.00%
4	7.00%	Timing Curve 1	30.00%
5	10.00%	Timing Curve 3	30.00%

Cash Flow Model

Expected Loss Model