CORPORATE RATING METHODOLOGY

CREDIT RATING AGENCY OF BANGLADESH LIMITED

RATING PROCESS FLOW

Rating Frame Work

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Analysis and Evaluation

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Rating Committee Meeting

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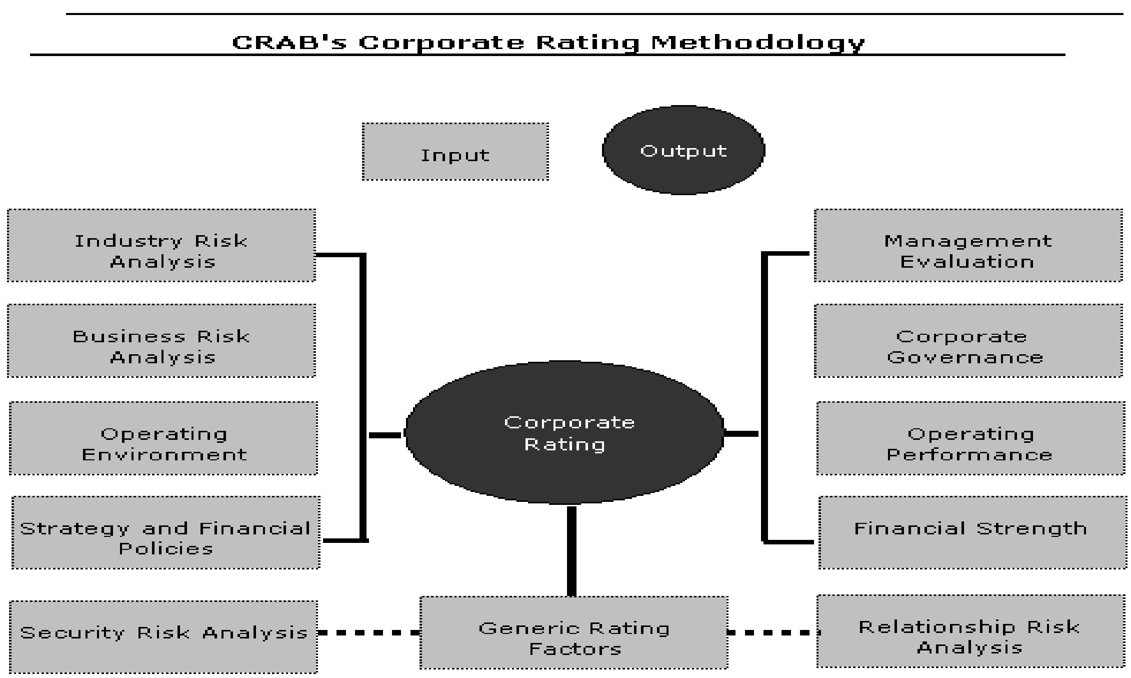
Final Rating

CRAB’s Rating Methodology



FACTOR : INDUSTRY RISK ANALYSIS

INDUSTRY RISK ANALYSIS

- Our industry analysis focuses on the strength of industry prospects, as well as the competitive factors affecting that industry.
- The many factors assessed include industry prospects for growth, stability, or decline, and the pattern of business cycles.

Industry-related risks

- Labor market constraints or incentives;
- The strength and political direction of labor unions;
- Labor cost and strike experience;
- Condition of general infrastructure in the country--with potential constraints on water supply, cost of electricity, and price and availability of oil and gas;
- Poor transportation services in roads, ports, and airports;
- Accounting and reporting transparency in the country;
- Regulatory risk for utilities, banks, and other entities under regulation;
- Existence or potential for heavy taxation; and
- Corruption-related risks affecting day-to-day operations.

Industry characteristics--and the mix of opportunities

- **sector's growth and profit potential,**
- **degree of cyclicality,**
- **ease of entry,**
- **nature and degree of competition,**
- **capital intensity,**
- **operational and cost structure,**
- **regulation, and**
- **technology.**

FACTOR : BUSINESS RISK ANALYSIS

SIZE AND SCALE

Size and ratings end up being highly correlated

BUSINESS MODEL

COMPETITIVE POSITION

DIVERSIFICATION

Product, Line of Business, Customer, Geographical

Business Risk Analysis

Business Model

- Business model dictates to a large degree its ability to generate and sustain operating cash flows and the stability of those flows
- Ubiquitous provider of product and services
- Strong representation in market segment
- Predictable revenue with diversified source
- Product Engineering Capability

Competitive Position

- Competitive positioning is the cornerstone of business risk analysis.
- Industry environment - whether favorable or unfavorable - will strongly influence the business risk.
- Differences in competitive positioning - A strong business profile score can only be achieved through a very competitive position.

Such status supports revenue and cash flow stability--and generally goes in tandem with superior profitability measures. A comparatively weak competitive position--even in the most favorable industry environment--is unlikely to result in a solid credit standing.

Business Risk Analysis

Competitive Environment

Relates to market share but not identical

Why Important ?

Identify markets which are highly competitive regardless of whether players with strong position are apparent

Monopoly, Duopoly, Oligopoly or fragmented structure

Competitive environment directly impacts its pricing Power, marketing expenses

CRAB considers CE by looking at its number of players

Sustainability is Key

Sustainability of competitive advantage is often determined by **cost leadership** or product differentiation. A broader evaluation would look at:

- **Product positioning (quality, pricing) and brand reputation;**
- **Market shares, the installed customer base, and geographic coverage;**
- **Distribution capabilities;**
- **Customer relationships;**
- **Technology/manufacturing capabilities; and**
- **Meaningful barriers to entry, such as transportation, capital or technology intensiveness, and regulation.**

FACTOR : OPERATING ENVIRONMENT

- Regulatory and Political Framework
- Technology Risk

  CAPEX / REVENUES
- Market Share & Growth

Operating Environment

Regulatory Environment

Helps or hinders a company to predictably grow its return on investment : Positive, Negative or Neutral ?

Factors ?

Breadth and scope of various regulations

Challenges in estimating the price/volume dynamic

Competitive responses of the companies affected

Predictions on how revenues and costs would have evolved

Technology

How exposed are the issuer's revenues, profits, cash flows and assets to technological change ?

How well positioned is it to deal with technological change ?

Operating Environment

Market growth

- Look into the growth pattern, rate and length
- Either growth rate is flat, accelerating or declining
- Growth relative to expansion of GDP and GDP/capita
- Organic expansion : What multiples of GDP growth
- Tele penetration rate: low, high or medium ?

Operating Environment

Market growth

- Type of products adopted and the degree of per capita expenditure
- ARPU usually correlates positively with per capita GDP ; indicator of future growth
- Product innovation

Operating Environment

Market share

Relative industrial market share of each player and trends

Why Important ?

- Ability to exercise control over the nature and pace of development
- How it is perceived by customers
- Ability to leverage off existing capabilities
- Flexibility to innovate without having to make large bets

Operating Environment

Market share → Revenue Position

Customer Base

Relative industrial market share of each player and trends

Why Important ?

- Degree of influence with regulators
- Entry barrier
- Either enjoying immense brand equity regarding quality of service and network coverage
- Large operator enjoys established distribution capabilities

FACTOR : STRATEGIES AND FINANCIAL POLICIES

- Strategies and Plans
- Acquisition strategies:
  - strategic "fit"
  - diversification objectives
  - market share gains
  - Availability of excess cash resources
- Financial Policies

Strategy and Execution

Growth ambitions and reinvestment requirements

- Management's ambitions for market share
- Need for capital investment to support growth
- Clarity of the strategy
- Management's ability to define the steps required to implement it
- Criteria for measuring success
- Targeted growth in revenue
- Potential for volatility of revenue
- Return on investment on EBITA basis

Strategy and Execution

Financial policies

- Management's appetite for future financial risk
- Desire for certain outcomes as to its capital structure

FACTOR: MANAGEMENT EVALUATION

Track record of management

- Quality of management's business plan
- Its record in executing previous plans
- Degree of operational and financial flexibility
- Management's performance through economical cycle, as well as technological, supply-demand and other cycles

FACTOR: CORPORATE GOVERNANCE

From creditor's perspective :
What aspect of corporate governance are relevant ?

How should creditors assess the quality of corporate governance ?

How should that assessment factor into the credit decision?

FACTOR: OPERATING PERFORMANCE

How we Measure It

1. **EBITDA/ Revenue**
2. **EBITDA Trend over the past two years, with the trend indexed to the company's base EBITDA margin**

Example: Company X has a 50% EBITDA margin that is expected to remain stable, while Company Y has a 40% EBITDA margin that is expected to increase by 200 bps/yr. Under the methodology, Company X would receive "AA" and "AA" scores for the EBITDA margin and trends sub factor; while Company Y would receive "A" and "AA" scores, respectively on those factors.

FACTOR : FINANCIAL STRENGTH

Leverage/Cash Flow/ Debt Payback Ratios

- **Debt Ratio:** Debt to total asset indicates the leverage position of the company
- **FFO/total debt:** the most frequently used credit measure in industrial ratings;
- Operating cash flow/total debt: captures working capital requirements;
- **Debt/EBITDA:** used as a proxy of debt repayment capacity for high-yield issuers; it can overstate repayment capacity by excluding interest burden--usually high for speculative ratings;
- **Total debt/discretionary cash flow:** provides an indication of how many years would be required to repay outstanding debt using current cash flows, but is subject to changes in dividend policy; and
- **FOCF/total debt:** indicates a company's capacity to pay debt with internal operating cash flow; it is more critical when analyzing weaker companies, because speculative-grade issuers typically face near-term vulnerabilities that are better measured by free cash flow ratios.

Debt Service/Coverage Ratios

- **EBITDA/interest expenses:** useful because of its simplicity, wide usage, and industry reference (peer comparisons, financial covenants, etc.);
- **FOCF + interest expenses/interest expenses**: similar to the EBITDA/interest ratio, but more comprehensive (after taxes, working capital and capital expenditure) and with lower potential for distortions; and
- **FOCF + interest expenses/interest expenses + 12-month debt maturities:** measures the ability to pay interest and principal out of free cash flow; more appropriate for projects and entities with amortizing debts.

Financial Flexibility Ratios

- **FFO/capital expenditures:** indicates a company's internal flexibility to meet its capital budget; and
- **Capital expenditures/depreciation expense:** a low ratio (typically, less than 100%) could indicate problems in the rate of replacement of plant and equipment--a strong ratio may indicate high-growth industries, and is needed to keep up with the competition.

Working Capital Management

Liquidity Ratios

Liquidity ratios measure the ability of a business to meet short term obligations.

Current Ratio

Measures the company's ability to pay its short-term liabilities from short-term assets.
= Current Assets / Current Liabilities

Quick Ratio

Measures the company's ability to pay off its short-term obligations from current assets, excluding inventories.
= (current assets - inventory) / current liabilities
It draws a more realistic picture of a company's ability to repay current obligations than the current ratio as it excludes inventories that may hardly be liquidated at their book value.

Inventory to Net Working Capital

Provides an idea of the danger of unfavorable changes in inventory to the excess of current assets over current liabilities.
= Inventory / (current assets - current liabilities)

Cash Ratio

Measures the extent to which current obligations can be paid from cash or near cash assets.
= (Cash and cash equivalents) / current liabilities

Activity Ratios

Inventory Turnover

Number of times the inventory was turned over (i.e., sold) during the period.
= Net Sales / Inventory
A similar formula co-exists: Cost of goods sold / average inventory

Days of Inventory

Number of days's worth of inventory that a company has on hand.
= Inventory / (cost of goods sold / statement's period)

Net Working Capital Turnover

How well the net working capital (= current assets - current liabilities) is used to generate sales.
= Net sales / net working capital (= Current Assets - Current Liabilities)

Asset Utilization

Or Asset Turnover, it measures the amount of sales generated by each Taka of asset.
= Sales / total assets

Fixed Asset Turnover

Measures the utilization of the company's fixed assets.
= Sales / fixed assets
Conclusions should not be drawn solely on the numerical results of this ratio. Indeed for instance, consider the following cases where the sales volume is identical:
-- Fixed assets may have been depreciated by a great extent, giving an impression of high return on assets.
-- Assets are leased, hence the level of fixed assets is deflated, and an impression of high return on asset is provided. Look closely at the Coverage of Fixed Charges ratio in such cases.
-- Recent investments were made that inflate the dollar volume of fixed assets, and give an impression of incumbent management.

Activity Ratios

Accounts Receivable Turnover

Number of times that accounts are cycled during the period.
= Sales / Accounts Receivable
The average Accounts Receivable should be taken into account preferably.

Average Collection Period

Average length of time that a company must wait to collect a sale after making it. Does it fit the credit terms it offers?
= Accounts receivable / (sales / period of accounting statements)

Accounts Payable Period

Average length of time that it takes the company to pay its suppliers.
= Accounts payable / (purchases on credit/ period of accounting statements)
I am using here the Cost of goods sold as an approximation for credit purchases.

Dividend Payout Ratio

Percentage of profit that is paid out as dividend.
= dividends per share / earnings per share

Strategic Cash Flow

It is the cash left once internal growth has been financed. In other words, it is the cash left either to invest in strategic developments, or to distribute dividends, or to lower the debt load.
= Cash flow + cash need variation + Capital expenditure, with
Cash flow = Net income + depreciation, depletion and amortization,
Cash need = Inventory + Receivables - Payables, the variation of which from one period to the other is computed,
Capital expenditure = Tangible and intangible investments, the variation of fixed assets from one year to the other being an acceptable approximation.

FACTOR : SECURITY ANALYSIS

SECURITY RISK ANALYSIS

CRAB puts **more emphasis** on security (collateral) analysis in case of **rating of instrument**. Quality of the collateral plays major role in determination of rating of bond, debentures, and structured transactions. In case of rating loan obligation our focus is more on cash flow compared to collateral.

The main risk encountered is lack of historical data with regards to collateral performance. This issue relates to virtually all types of performance data, such as delinquency and default rates, recovery rates, and the amount of prepayments. Another issue relates to the collateral is lack of data with regards to the foreclosure process, such as foreclosure costs and timing.

However, CRAB in its model incorporates security risk factors through analyzing the available security and collateral, quality of collateral, adequacy of collateral, additional credit enhancement i.e. in the form of guarantee, insurance etc. and legal risk of the collateral.

FACTOR : RELATIONSHIP RISK

Relationship Risk Analysis

In order to assess the creditworthiness of a company, **it is inevitable to assess the banking relationship of the rated entities**. Rating reflects the **willingness** as well as **ability of the corporate** to service its obligations on time. Fundamental analysis laid down in the previous sections captures the ability but willingness could be judged from its past track record.

A comprehensive analysis of **Account Conduct**, **Utilization of Limit**, **Compliance of Covenants/ Conditions**, **Deposit status** etc. is carried out.

CRAB prefers to collect **"Banker's Confidential Report"** from all the bankers of the corporate. In order for that CRAB developed a standard format of the report, which contains the following information among others:

- How long has the subject been your customer? Are the dealings with the subject and its sister companies satisfactory?
- Has the interest and principal payment from the subject been timely? Have their been any defaults by the subject or its sister companies? If yes, please give the details during last one year.
- A brief profile of the subject's financial relationships with its suppliers and customers (any dishonouring of cheques due to insufficient fund) during last one year.
- Loan particulars funded, non-funded and others, amount sanctioned/limit, amount disbursed and Overdrawn (if any) as of current date.

GENERIC RATING FACTORS

Liquidity Management

- ***Internal sources of liquidity***
- ***External sources of liquidity***
- ***Bond***
- ***Bank Credit Facilities***
- ***Equity Issuance***

Financial Covenants and Triggers

Financial Reporting System and Disclosures