

## Rating Methodology for Manufacturing Companies

CRISIL's framework for assessing credit quality covers the four broad areas of business risk, financial risk, management risk and project risk.

- Business risk analysis covers the business fundamentals of the rated company, the characteristics of the industry in which it operates, its competitive market position in the industry and operational efficiencies.
- Financial risk analysis includes an assessment of the company's past financial performance, its future performance and its financial flexibility with particular emphasis on its cash flows.
- An evaluation of the company's management, its philosophies, strategies / policies and risk appetite is undertaken in assessing management risk.
- If the company is implementing any large project, the risks associated with the project's implementation, its funding and marketing risks are also evaluated.

### ■ Business risk analysis

The analysis begins with a fundamental assessment of the company's environment in terms of the industry in which it operates, the risks attached to that industry and the government policies affecting the industry. The evaluation extends to an assessment of the company's market position and its operational efficiencies.

#### **Industry risk**

Assessing the industry risk is fundamental to evaluating a company's business risk. Some key factors pertinent across industries are its size, growth prospects, the competitive scenario and demand-supply dynamics in the industry, its importance to the economy, government policies, entry barriers, profitability and cyclicity.

Industries that have steady demand growth, the ability to maintain margins without impairing future prospects, the flexibility to time capital expenditure and moderate capital intensity are regarded favourably. Favourable industry risk factors may not, however, directly translate into higher ratings for all companies within that industry but such factors do support the credit quality of companies in that industry.

The rating also considers other critical industry factors such as its vulnerability to technological change and to regulatory / political interference. The industry risk rating broadly determines the median rating for corporates in that industry. But the presence or otherwise of strong credit quality factors in terms of market position, operating efficiency and financial risk would eventually determine the final rating assigned to the debt programmes of individual companies.

The detailed criteria for assessing the risks associated with individual industries are discussed in subsequent chapters. Interested readers can contact CRISIL for other industry-specific criteria.

### **Government policies**

The impact of government policies on various industries is an important parameter in analysing the business risk. In evaluating this, the following factors are considered:

- The importance of the industry to the Indian economy
- Tariff barriers, both quantitative (import duties) and qualitative (quotas, other restrictions)
- Excise duties and taxes
- Domestic price controls
- Incentives for new investments and incentives for exports
- Legislation regarding pollution control measures
- Laws with respect to foreign exchange and the like

### **Market position**

An analysis of the rated company's market position provides insights into its current strengths in the market place and its ability to sustain its competitive advantage. A large market share is not always synonymous with competitive advantages or industry dominance, however. For instance, in an industry that has a number of large but comparable size participants, none may have any particular advantage or disadvantage. On the other hand, if an industry is highly fragmented, even large firms may lack pricing leadership potential.

A company's ability to pass on input cost increases to its clients remains crucial for stable profitability. A diversified presence, both geographically and through a wide product mix, offers a stable market position compared to a presence that is restricted by a region-specific distribution network and a limited product portfolio. Similarly, large exposure to a single client (or a few clients) would increase the concentration risk and curtail a company's pricing flexibility.

CRISIL undertakes a detailed analysis of both the degree

of competition in each market segment and the competitive dynamics amongst different players to evaluate the rated entity's market position. Entry barriers to the industry and capacity expansions of existing players are analysed to understand the dynamics of demand and supply. CRISIL also analyses regional demand-supply balances as some products exhibit diverse characteristics in different markets.

For industries such as cement, branded consumer goods and fast-moving consumer goods, the key factors for assessing market position are distribution network and brand equity. An analysis of product categories on the basis of their size, features, price range and consumer segments gives CRISIL an insight into the company's positioning strategy. The market position of companies in dynamic industries such as software, drugs and pharmaceuticals and consumer durables is analysed in terms of their track record and their ability to innovate and launch products and achieve commercial success.

### **Operating efficiency**

Operating efficiency is a critical parameter in evaluating a company's business risk. The factors considered while evaluating operational efficiency vary from industry to industry. Some of the key factors common across industries are technology, access to resources, human resources, capacity utilisation, flexibility in the manufacturing process, level of integration and research and development.

### **Technology**

Technology remains a significant factor in maintaining a competitive position in the business. Companies with strong technology-oriented businesses have fewer competitors and technology provides a significant entry barrier to the unorganised sector.

### **Access to resources**

Companies with easy access to raw materials and a bargaining power with suppliers maintain healthy operating margins in the long term. Domestic availability of raw materials and captive sources impart flexibility in protecting margins. For power-intensive industries such as aluminum, steel and cement, access to captive power generation facilities provides operational comfort.

### **Human resources**

CRISIL analyses the ability to attract and retain qualified and experienced manpower while evaluating knowledge-based industries. CRISIL also evaluates the depth and diversity of skill sets available in the company and policies

regarding training and skill upgradation of employees. The company's attrition levels are compared with the industry's levels and CRISIL analyses the impact of attrition on the company.

#### *Capacity utilisation and flexibility*

Economies of scale achieved through optimum capacity utilisation are very important to attain lower per unit cost in production. CRISIL looks at the flexibility in manufacturing facilities to shift between products. Plant operating parameters are developed for each industry and individual industry rating criteria highlight these parameters, which are critical for the relative profitability levels of manufacturers in that sector.

#### *Level of integration*

A high level of vertical integration usually results in a better cost structure. CRISIL analyses the flexibility available to a manufacturer to start from various stages in its production process in case of adverse price movements in upstream products. It also examines the manufacturer's ability to market intermediate products in the event of adverse movements in downstream products.

#### *Research and development*

CRISIL examines the rated company's ability to develop new products to serve changing needs or to acquire new domain knowledge. CRISIL also studies the quality of the research and development (R&D) activities, annual R&D spend and the adequacy of the company's R&D facilities.

Operational efficiency parameters specific to individual industries are discussed in greater detail in the industry-specific rating criteria.

## ■ Financial risk analysis

### *Accounting quality*

The financial ratios and statements used by CRISIL to analyse a company's financial performance are derived from the audited financial statements. Consequently, CRISIL commences its financial risk analysis by assessing the company's accounting quality. Some of the key areas analysed include:

- Overstatement/understatement of profits
- Qualifications made by auditors

- Method of income recognition and depreciation
- Inventory valuation policies
- Off-balance sheet items/contingent liabilities and the like.

Wherever required, analytical adjustments are made and the company's financial statements are recast in order to reflect an accurate picture of its true financial position. This is essential for an accurate assessment of the company's financial performance vis-à-vis other players in the industry.

### *Earnings protection*

An evaluation of the company's past and future profit potential is performed to analyse the level of credit protection available and the sustainability of the same. This encompasses an analysis of absolute levels of various ratios, trends across years and comparison across industry peers. CRISIL evaluates the profitability of the company's operations and its sensitivity to price fluctuations and downturns in the industry. The operational cost structure is also analysed and a comparison is made with other players in the industry.

After analysing the company's past performance, CRISIL evaluates its projected profitability. Since a credit rating is an assessment of the company's ability to meet its debt obligations in future, CRISIL places greater emphasis on the company's future earning capacity.

Other key considerations include capitalisation ratios, coverage ratios, an estimate of the earnings on capital or assets employed and working capital management.

### *Adequacy of cash flows*

An analysis of Cash flows is undertaken to evaluate the company's debt servicing capability. This evaluation is important as "earnings" is an accounting concept and only cash flows reveal a company's actual financial position and its ability to service interest and principal payments. Cash flows are analysed with respect to their stability and adequacy in relation to debt and working capital needs, capital spending requirements and the like.

### *Financial flexibility*

CRISIL evaluates a company's ability to generate funds through alternative sources in case of any financial distress. The company's contingency plans and its ability

to deal with various adverse scenarios are analysed. The company's ability to raise funds through internal sources (internal accruals, saleable assets) and external sources (relationship with bankers, liquidity back-ups and the like) to cover temporary shortfalls is evaluated. The company's record in raising funds especially from the capital markets, its relationship with lending institutions, its marketable securities and the like are some of the indicators of its financial flexibility. An analysis of capitalisation ratios is undertaken to evaluate if the company is overly reliant on debt funding as this would limit its ability to raise resources from the debt market.

Additionally, a company's flexibility to defer its capital expenditure plans in case of a weakening financial position is also analysed. The external support that the rated entity can receive from the parent company or group companies is analysed at great length and factored in the overall rating.

### ■ Management evaluation

CRISIL's evaluation of a company's management entails understanding the goals, philosophies and strategies that drive the company's business and financial performance. Further, if the company is part of a larger business group or multinational, the parent company's management philosophies or those of the business group are used as pointers to assess managerial responses in the enterprise being evaluated.

An evaluation of the management involves several aspects such as understanding the organisational and reporting structure, the management's experience and track record, the level of commitment and integrity of its personnel and the adequacy of its planning and control systems.

The management's past success in introducing new products and its ability to manage change in the external environment such as regulatory or technological changes is also analysed. In addition, its overall risk appetite is assessed. A high-risk appetite manifested in high leveraging or a propensity to take up projects that are larger than existing operations is viewed negatively by CRISIL.

Succession is another key area of concern in case the company's operations are dependent on a single promoter or manager. Corporate governance principles followed by the management in its daily operations and transparency in management actions are also evaluated.

### ■ Project risk evaluation

In the case of companies implementing a project, CRISIL evaluates the risks associated with that project and factors in these risks while assigning the overall rating. The relative size of the new project compared to the existing operations indicates the significance of the project risk in the overall rating.

Implementation risks such as time and cost over-runs and technology risk and the impact of these on the project's viability, and funding risks in terms of the project's capital structure and funding arrangements are also evaluated.

The project's market risks in relation to the company's existing product line and the company's track record in implementing such projects are given adequate importance in assigning the rating.