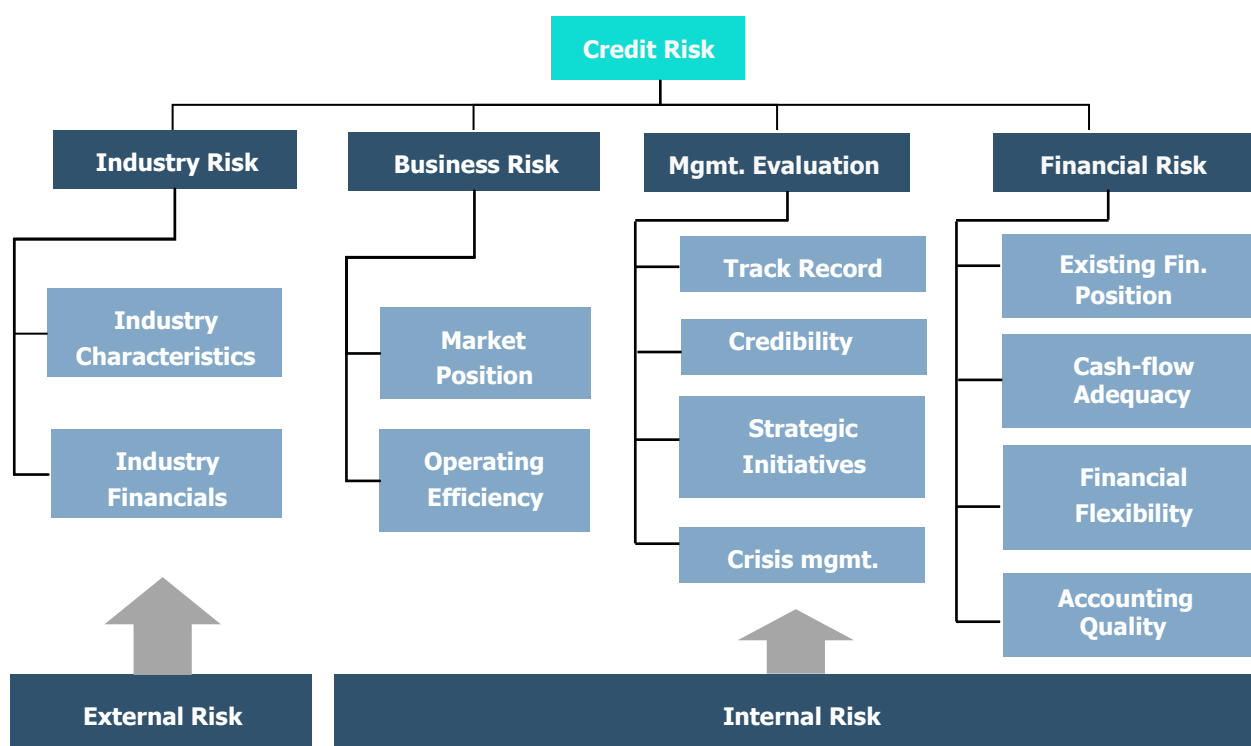


Rating Methodology - Manufacturing Companies

[Issued in August 2022]

Credit analysis of an entity begins with the review of the economy/industry in which it operates, along with an assessment of the business risk factors specific to the entity.

This is followed by an assessment of the financial risk factors and quality of management of the entity. For project stage entities/entities undertaking large projects, CARE Ratings also analyses project risk for arriving at the entity's rating. A graphical representation of the risk assessment framework is placed below:



For companies with planned capital expenditure, project risk is also considered

This methodology covers various factors considered while assessing the credit risk of a general manufacturing entity. For sector-specific methodologies, please refer to the website of CARE Ratings (www.careedge.in).

A. Economy and Industry Risk Analysis

CARE Ratings' analysis of industry risk focuses on the prospects of the industry and the competitive factors affecting the industry. The economic/industry environment is assessed to determine the degree of operating risk faced by the entity in a given business. Size of the industry, investment plans of the major players in the industry, demand-supply factors, price trends, changes in technology, international/domestic competitive factors in the industry, entry barriers, availability of substitutes, capital intensity, business cycles, etc., are key ingredients of industry risk. CARE Ratings also takes into account the economy-wide factors that have a bearing on the industry under consideration. The strategic nature of the industry in the

prevailing policy environment, regulatory oversight governing industries including licensing, restricted access to raw material with protection, anti-dumping duties, etc., are also analysed. Industry risk is external to an entity and while the other risks are viewed in the backdrop of the industry risk. If an entity consistently demonstrates its ability to tide through the industry downturns and post better operational and financial performance compared with the other players, it will be viewed positively.

CARE Ratings also considers whether an industry is in a position to command pricing or the prices of products in an industry are driven by market forces like the landed cost of imports, etc., wherein even a large player may not be in a position to pass on the increase in the input costs. CARE Ratings further considers the gross margins enjoyed by the industry on an average to factor in the industry's tolerance to absorb any increase in the other operating and fixed costs.

B. Business Risk Analysis

Against the backdrop of economy and industry risk, CARE Ratings assesses the entity's position within the industry. Some of the key parameters used to assess business risk are discussed below:

- **Diversification**

Entities operating in diversified business segments generally exhibit a higher degree of sustainability in cash flows and hence are viewed more favourably. For diversified entities, each major business segment's income and profitability and its contribution to the overall business are analysed. In addition to segmental diversification, geographical diversification is also considered and an entity having a presence in diversified markets through its distribution network is viewed positively. Customer and supplier diversification is also viewed favourably by CARE Ratings as dealing with diversified counterparties mitigates the risk of the business getting affected in case of liquidity issues with any of the counterparties.

- **Seasonality and Cyclicity**

Some industries are cyclical with their performance varying through the economic cycles. However, companies in cyclical industries having a comfortable capital structure may not be considered risky. Moreover, certain industries are seen to exhibit seasonality. CARE Ratings assesses the working capital management capabilities of entities belonging to these industries concerning their peak season requirement. CARE Ratings' ratings aim to be stable across seasons and economic cycles and are arrived at after deliberating on the long-term fundamentals.

- **Size, Market Share and Competition**

Large size generally implies benefits like economies of scale, higher bargaining power and the ability to access different markets against small-size entities which are generally present in select market segments exhibiting low resilience in margin protection, especially in adverse market conditions. Ceteris paribus, the large size is considered to be a credit positive.

Size is also viewed in relation to an entity's current market share and the trends in market share in the past, which are important indicators of the competitive strengths of the entity. An entity with a small size but reasonably good market share vis-à-vis its peers may have a better bargaining power than a large-sized entity operating in an industry driven by global market dynamics. A sustained leadership position leads to better revenue visibility and cash generation capability over the long term.

The market leader generally has financial resources to meet competitive pricing challenges and generally exhibits flexibility to pass on any rise in the input prices. Against this, an entity operating in a fragmented market is a price taker and does not have control over selling prices and hence will have a lesser bargaining power, which could impact its profitability during a downturn.

- **Earnings Capacity**

The earnings capacity of a manufacturing entity is evaluated by considering its revenue visibility, the trend of sales volumes and sales realisation over a period of time. An entity demonstrating strong revenue visibility over a long-term period will be viewed positively.

- **Cost Structure and Operating Efficiency**

Operating efficiencies in a manufacturing entity can be gauged by capacity utilisation levels, input cost per unit, inventory policy, availability of resources, technology adopted and level of integration of operations. CARE Ratings evaluates gross margins of an entity, i.e., sales realisation net of raw material cost.

The trend of other operating costs of an entity like power cost, sales cost, employee cost, logistics cost, etc., is also analysed and all these costs for an entity are compared with the industry benchmarks and a judgement with respect to the company's operating efficiency is made. The sufficiency of the gross margins to absorb the other operating costs and fixed costs is also assessed.

C. Financial Risk Analysis

Financial risk analysis involves the evaluation of the past and expected future financial performance with emphasis on the assessment of the adequacy of cash flows towards debt servicing.

CARE Ratings' analysis is mainly based on audited accounts of the entity although unaudited accounts are also factored in the analysis.

- **Accounting Quality**

A review of accounting quality and adherence to prudential accounting norms (prescribed by local regulations) are examined for measuring the entity's performance. Accounting policies relating to depreciation, inventory valuation, income recognition, valuation of investments, provisioning/write-off, etc., are given special attention. Prudent disclosures of material events affecting the entity being reviewed. The impact of the auditors' qualifications and comments are quantified to the extent possible and analytical adjustments are made to the accounts, if material. The rating team interacts with the auditors to understand their comfort level with the accounting policies, systems and controls within the entity and his assessment of the management of the entity. Also, a change of accounting policy in a particular year which results in improved reported performance is analysed more closely. However, CARE Ratings does not conduct an audit of the financial statements of an entity and relies upon the judgement and financial prudence of the auditors.

- **Financial Ratios**

Financial ratios are used to make a holistic assessment of the financial performance of the entity, as also to see the entity's performance w.r.t. its peers within the industry. They are not an 'end' in itself but a 'means' to understanding the fundamentals of an entity. CARE Ratings follows a standard set of

ratios for evaluating manufacturing companies. These can be divided into five categories:

- Growth Ratios
- Profitability Ratios
- Leverage and Coverage Ratios
- Turnover Ratios
- Liquidity Ratios

For more details on financial ratios please refer to the methodology on 'Financial Ratios-Non Financial sector entities' on CARE Ratings' website -www.careedge.in.

- **Cash Flows**

Cash-flow analysis for past performance and future projections forms an important part of credit rating decisions. Cash flow analysis includes evaluating the operating cash flows of an entity. Working capital changes are then adjusted to arrive at the cash flow from operations. A negative cash flow from operations may imply a high amount of funds being employed in working capital requirements and exhibit the working capital intensity of operations. Cash flow from investing activities is calculated to assess the entity's investing needs in terms of investment in fixed assets (normal as well as unplanned capital expenditure like cost over-runs) and financial support to be received/provided to the group entities. Assessment of the cash flow from financing activities is undertaken to evaluate the entity's financing avenues (debt/equity), its repayment obligations, lease liabilities, etc.

Adequacy of the cash flow from operations to meet the investing and financing needs of an entity is evaluated. An entity continuously using cash flow from financing activities, especially debt funds, to meet the cash flow from operating activities will not be viewed favourably by CARE Ratings. Cash flow adequacy is viewed by the capability of an entity to finance capital expenditure and support any weak group entities, apart from meeting debt servicing requirements. Cash flows from short-term sources and long-term sources are also evaluated and mapped against their appropriate end-use.

- **Liquidity**

Liquidity risk assessment is an integral part of the risk analysis of any entity. Liquidity in the form of unencumbered liquid investments consistently or unutilized lines of credit from banks, any liquidity support from the group, etc., is viewed positively. Liquidity analysis also encompasses analysing liquidity available to meet working capital requirements. CARE Ratings also calculates the short-term debt coverage ratio where the cushion to meet the short-term repayments is assessed utilising the short-term liquid funds available. For more details on liquidity risk assessment please refer to the methodology on 'Liquidity Analysis of Non-Financial Sector Entities' on CARE Ratings' website www.careedge.in.

- **Financial Flexibility**

Financial flexibility refers to the alternative sources of liquidity available to the entity as and when required. The entity's contingency plans under various stress scenarios are considered and examined. The ability to access capital markets and other sources of funds whenever required is reviewed. As such, any steep decline in market capitalisation may impact an entity's financial flexibility and is

factored in the analysis appropriately. The existence of unencumbered liquid investments, availability of support (implied or demonstrated) from strong group concerns to tide over stress situations, timely monetisation of non-core assets, flexibility to defer capital expenditure, availability of consistently undrawn sanctioned banking lines, etc., are considered favourably. CARE Ratings does not assume refinancing while analysing the ability to repay unless the funds have already been arranged.

- **Validation of Projections and Sensitivity Analysis**

The projected performance of the entity over the life of the instrument is critically examined and assumptions underlying the projections are validated. The critical parameters affecting the industry and the anticipated performance of the industry are identified. Each critical parameter is then stress-tested to arrive at the performance of the entity in a stress situation. Debt service coverage and interest coverage for each of the scenarios would indicate the capability of the entity to service its debt, under each scenario.

- **Working Capital Analysis**

- The working capital analysis encompasses analysing the working capital requirements of an entity and the strategies adopted to meet these requirements. Components of the working capital analysis conducted are:

- **Debtors**

Analysis of debtors forms an important part of the credit risk analysis as an entity may face liquidity issues if its customers stretch their payments. The entity won't be in a position to finance the funds stuck with debtors in a timely manner. The average collection period for an entity is also viewed in relation to the industry benchmarks. CARE Ratings undertakes a detailed analysis of the customers, especially for entities having long collection periods and considers debtor ageing, debtor concentration, reasons for delays in receipts from the customers, if any, the status of disputes with customers, if any, etc.

- **Inventory**

The inventory held by an entity is further broken down for analysis into raw material inventory, work-in-progress inventory and finished goods inventory. The inventory period for each of these components and the trend over the years is looked at vis-à-vis the industry benchmarks. Continuously increasing inventory levels, especially finished goods inventory, may hint at slow-moving sales and higher requirement of working capital funds, and thus will be viewed critically.

- **Creditors**

CARE Ratings assesses the credit period availed by an entity from its suppliers, raw material sourcing arrangements, supplier concentration, bargaining power with suppliers and pricing flexibility. Creditor days are viewed with respect to the industry benchmarks. High creditor days vis-à-vis industry standards are viewed critically as they may hint at liquidity pressure and resultant stretching of payments to suppliers.

- **Contingent Liabilities**

CARE Ratings takes note of contingent liabilities reported by an entity and carries out an impact analysis of the possible liabilities devolving upon the entity.

- **Foreign Exchange Risk Analysis**

If an entity has dealings in a foreign currency by way of exports, imports, investments, loans, advances or otherwise, an impact analysis of change in foreign exchange rates is conducted to check the impact of adverse fluctuations in foreign exchange rates on profitability and debt servicing capability of an entity. CARE Ratings takes into account the foreign exchange risk policy and hedging policy adopted by the entity to mitigate the foreign exchange risk.

D. Management Evaluation

Management evaluation is one of the most important factors supporting an entity's credit standing. An assessment of the management's plan in comparison to that of its industry peers can provide important insights into the entity's ability to sustain its business. The capability of the management to perform under stress provides an added level of comfort. Meetings/discussions with the top management of the entity are an essential part of CARE Ratings' rating process. Some key dimensions of management evaluation are:

- **Track Record**

The track record of the promoters/management team and their market reputation is analysed. Management's response to key issues/events in the past like liquidity issues, competitive pressures, new project implementation, expansions and diversifications, etc., are assessed.

- **Corporate Strategy**

The entity's business plans, mission, policies with respect to expansion, risk management, leverage profile and future strategies in relation to the general industry scenario are considered. An important factor in management evaluation is an assessment of the management's ability to look into the future and its strategies and policies to tackle emerging challenges, in addition to succession planning.

- **Legal Constitution and Ownership Pattern**

The legal constitution of an entity indicates the level of oversight and hence has a bearing on the governance and transparency requirements to which an entity is subjected to. Partnerships/proprietorships are subject to comparatively milder disclosures and regulatory requirements than private/public limited companies. Such entities also carry an inherent risk of withdrawal of capital which is factored appropriately in the ratings of partnerships/proprietorship concerns.

The extent of ownership of the promoters in a company signifies the promoters' commitment and hence resourceful promoters holding controlling interests are credit positive. Accordingly, if the shareholding of the company is fragmented without a clear majority, it would entail further analysis of the commitment of the individual shareholder promoters to support the company in times of stress. Also, if a significant portion of the promoters' shareholding in the company being rated is pledged, it is viewed negatively as it has a direct bearing on the resource-raising ability of the promoters.

- **Performance of Group Concerns**

Interests and capabilities of the group concerns belonging to the same management give important insights into the management's capabilities and performance in general. If an entity belongs to a resourceful group and other promoter group entities have exhibited a robust performance, the financial

flexibility of the entity will be strong. Against this, if other group entities are facing stress and require support, it will be viewed negatively and be accordingly factored into the rating.

- **Organisational Structure**

Assessment of the organisational structure would indicate the adequacy of the same about the size of the entity and also give an insight into the levels of authority and extent of its delegation to lower levels in the organization. The extent to which the current organisational structure is attuned to management strategy is assessed carefully.

- **Control Systems**

Adequacy of the internal control systems to the size of the business is closely examined. The existence of proper accounting records and control systems adds credence to the accounting numbers. Management information systems commensurate with the size and nature of the business enable the management to stay tuned to the current business environment and take timely, judicious decisions.

- **Personnel Policies**

Personnel policies laid down by the entity would critically determine its ability to attract and retain human resources. Incidence of labour strikes/unrest, attrition rates, etc., are seen in the perspective of the nature of business and the relative importance of human capital.

- **Corporate Governance**

The extent of transparency in the entity's dealings with various stakeholders, financial prudence and compliance with extant laws and regulations is seen closely. The effort of the company to go beyond the regulations is also viewed positively.

E. Project Risk Analysis

Implementing large projects usually involves periods of strain on a company's liquidity position. CARE Ratings analyses factors like the rationale for implementing the project, the size of the project vis-à-vis the current scale of operations and net worth of the company, and the funding pattern of the project. CARE Ratings also assesses the risks involved in implementation which include aspects like the achievement of financial closure, the status of regulatory approvals, agreements entered with equipment suppliers, track record of company/contractors in executing similar projects, project progress vis-à-vis scheduled implementation, cost or time over-runs, project cost vis-à-vis industry benchmarks, etc. This apart, post implementation risks like the resolution of teething issues, tie-ups with raw material suppliers, arrangements for fuel, tie-ups for sales, marketing arrangements, etc., are also examined by CARE Ratings.

In this context, it may be noted that flexibility to defer capital expenditure or implement the project in phases eases the strain on the liquidity of the company and is viewed favourably by CARE Ratings.

Analysis of Environmental, Social and Governance Risk Factors:

“Over the last few years, Environmental, Social and Governance (ESG) risks have started gaining importance across the globe and are increasingly influencing investment decisions. Companies may have to incur operational or capital costs towards mitigating these risks. CARE Ratings analyses the impact of ESG risks on the credit profile of an entity by assessing the expected impact of these costs on the future earnings/revenue/cash flows of entities.

The considerations with respect to ESG aspects are an integral part of assessing credit risk and get addressed under various parameters wherever relevant. For example, environmental risk is factored in the credit risk assessment of polluting sectors wherein the expected cost to be incurred towards mitigants in the form of pollution control certifications, effluent treatment measures, etc. and the impact of those on future cash flows is evaluated. The social risk would play out prominently in a labour/manpower intensive service industry like banks and financial services or hospitality where social issues like employee policies or customer relationships are important factors. Similarly, governance parameters like transparency, adherence to applicable regulations, public disclosures and costs towards these objectives form part of the credit risk analysis. The importance of each risk may vary from sector to sector.

The rating process is ultimately an assessment of the fundamentals and the probabilities of change in the fundamentals. The rating, however, does not factor in any force majeure events that may lead to cash flow mismatches. The rating determination is a matter of experience and holistic judgement of the Rating Committee, based on the relevant quantitative and qualitative factors affecting the credit quality of the issuer.

[For the previous version, please refer to 'Rating Methodology – Manufacturing Companies' issued in [December 2020](#)]

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