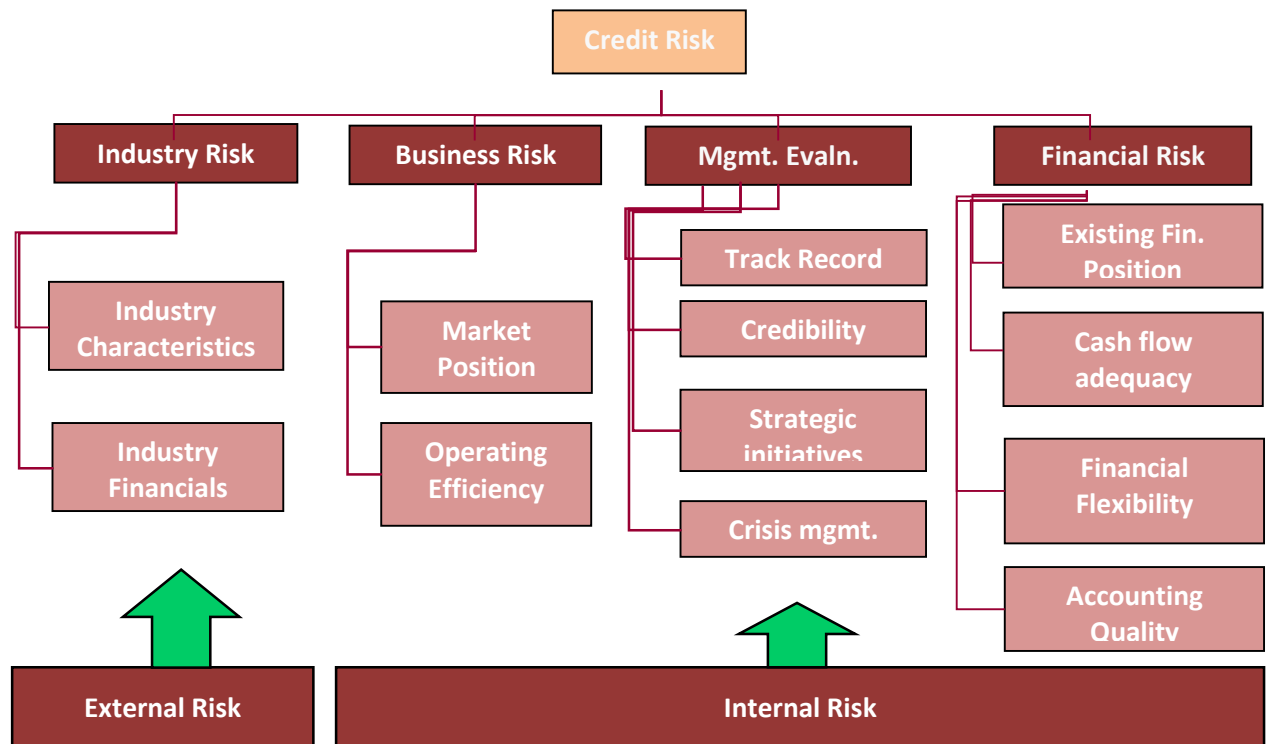


Rating Methodology - Manufacturing Companies

[In supersession of “Rating Methodology – Manufacturing Companies” issued in [Sept 2018](#)]

Credit analysis of an entity begins with a review of the Economy/Industry in which the entity 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 Capex, 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.careratings.com).

A. Economy and Industry risk analysis

CARE's 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 which 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., is also analysed. Industry risk is external to an entity and while the other risks are viewed in the backdrop of the industry risk, an entity consistently demonstrating its ability to tide through the industry downturns and post better operational and financial performance compared to the other players in an industry, 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 landed cost of imports, etc. wherein even a large player may not be in a position to pass on increase in input costs. CARE Ratings also takes into account the gross margins enjoyed by the industry on an average to factor the industry's tolerance to absorb any increase in 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 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 is analysed. In addition to **segmental diversification**, **geographical diversification** is also considered and an entity having 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

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diversified counterparties mitigates the risk of the business getting affected in case of liquidity issues with any of the counter parties.

While diversification results in better sustainability in cash flows, CARE Ratings also analyses the suitability and adequacy of management structure in such scenarios and forward and backward linkages present.

- **Seasonality and Cyclicity**

Some industries are cyclical in nature 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 with respect to their peak season requirement. CARE's ratings aim to be stable across seasons and economic cycles and are arrived at after deliberating on the long-term fundamentals.

- **Size**

Large size generally implies benefits like economies of scale, higher bargaining power and ability to access different markets against small size entities which are generally present in select market segments resulting in lower protection of margins when faced with adverse developments in business areas. Large size is therefore considered to be a credit positive.

- **Earnings capacity**

Earnings capacity of a manufacturing entity is evaluated considering its revenue visibility, trend of sales volumes and sales realization over a period of time. An entity demonstrating a high 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, 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.

Trend of other operating costs of an entity like power cost, sales cost, employee cost, logistic 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.

- **Market share and competition**

An entity's current market share and the trends in market share in the past are important indicators of the competitive strengths of the entity. A sustained leadership position leads to better revenue visibility and cash generation capability over the long term. A market leader generally has financial resources to meet competitive pricing challenges and generally exhibits flexibility to pass on any rise in 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.

C. Financial risk analysis

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

CARE's 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 are reviewed. 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, 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 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'](#).

- **Cash Flows**

Cash flow analysis for the 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 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 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. CARE Ratings does not assume refinancing while working out the cash flows of an entity.

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, support required to be provided to any weak group entities, as well as its ability to manage capital expenditure

programmes as per envisaged plans apart from meeting debt servicing requirements. Cash flow analysis would also capture avenues available to an entity to monetise its non-core assets and arrange funds as and when required. Cash flows from short-term sources and long-term sources are also evaluated and mapped against the short-term and long-term uses to analyse the end-use of short-term funds for short-term uses only and vice versa.

- **Liquidity**

Liquidity risk assessment is an integral part of the risk analysis of any entity. Liquidity in the form of unencumbered liquid investments on a consistent basis or unutilized lines of credit from banks, any liquidity support from 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.

- **Financial flexibility**

Financial flexibility refers to 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. Ability to access capital markets and other sources of funds whenever required is reviewed. 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, deferment of capital expenditure, availability of consistently undrawn sanctioned banking lines, etc. are favourably considered.

- **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.

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- **Working capital analysis**

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 it's customers stretch their payments and the entity is not in a position to finance the funds stuck in debtors in a timely manner. Average collection period for an entity is also viewed in relation to the industry benchmarks. CARE Ratings undertakes detailed analysis of customers, especially for entities having long collection periods and considers debtor ageing, debtor concentration, reasons for delays in receipts from customers, if any, status of disputes with customers, if any, etc.

Inventory

The inventory held by an entity is further broken down into raw material inventory, work-in-progress inventory and finished goods inventory, for analysis. Inventory period for each of these inventory 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 is viewed critically as it 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 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 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 those of their industry peers can provide important insights into the entity's ability to sustain its business. 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's 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 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.

- **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 strong 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 in the rating.

- **Organisational structure**

Assessment of the organizational structure would indicate the adequacy of the same in relation to the size of the entity and also give an insight on 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 business is closely examined. Existence of proper accounting records and control systems adds credence to the accounting numbers. Management information systems commensurate with the size and nature of 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 perspective of nature of business and relative importance of human capital.

- **Corporate governance**

Extent of transparency in the entity's dealings with various stakeholders, financial prudence and compliance with extant laws and regulations is seen closely. Effort of 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, size of the project vis-à-vis the current scale of operations and networth of the company, and the funding pattern of the project. CARE Ratings also assesses the risks involved in implementation which include aspects like achievement of financial closure, 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-a-vis industry benchmarks, etc. This apart, post-implementation risks like resolution of teething issues, tie-ups with raw material

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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 liquidity of the company, and is viewed favourably by CARE Ratings.

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

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