

# Rating criteria for the mining industry

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## Executive Summary

The Indian mining industry, which controls one of the world's largest deposits of non-precious minerals, has traditionally been dominated by large public sector undertakings (PSUs). Historically, these companies have operated in a controlled regime, with cost and prices of the products being fixed by government agencies. In the last few years, the Indian mining sector has seen significant policy changes in line with the government's objective of enhancing private sector participation. This resulted in a pricing deregulation with reduced import barriers and the PSU companies being increasingly run on commercial lines

## Scope

While CRISIL's broader rating criteria for manufacturing<sup>1</sup> and service sector companies apply to all firms in the manufacturing sector. This note<sup>2</sup> brings out the parameters considered by CRISIL in credit ratings, which are specific to mining companies.

## Business Risk

CRISIL's analysis of mining companies comprises assessments in respect of the following aspects:

### Regulatory risk

CRISIL believes that the regulatory scenario in India will continue to evolve, especially, in the area of:

- Environmental regulations
- Private sector participation
- Import barriers

For example, due to environmental concerns, iron ore has witnessed mining bans in select states which have impacted companies' production and overall domestic supply. CRISIL therefore monitors and factors in the effect of the expected changes in the fundamental functioning of the mining industry in the country.

### Pricing characteristics

Minerals are commodity items; their pricing characteristics are therefore vital. The mineral prices are affected by factors that generally are beyond a producer's control. In this regard, CRISIL analyses the competitive position of the company in its market areas, the threats of import substitution, the flexibility offered by the cost structure to absorb the price variation as well as regulation in pricing that the company may be subjected to.

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<sup>1</sup> The detailed criteria is on the CRISIL website under the 'Criteria and Methodology' section—Rating Criteria for Manufacturing and Services Sector Companies and CRISIL's Approach to Financial Ratios.

<sup>2</sup> To access the previous criteria please find the below link:

[https://www.crisil.com/content/dam/crisil/criteria\\_methodology/materials/archive/CRISIL-Ratings-criteria-mining-industry\\_2007.pdf](https://www.crisil.com/content/dam/crisil/criteria_methodology/materials/archive/CRISIL-Ratings-criteria-mining-industry_2007.pdf)

In evaluating the pricing flexibility of the company, CRISIL also looks at the supply and demand fundamentals of the mineral being mined. CRISIL's analysis of the demand for a mineral considers the historical domestic and international usage and cyclical trends.

In India, most of the mining companies are state-owned monopolies, and therefore, face limited domestic competition. In such a scenario, market characteristics such as diverse consumer base, lower threat of import substitution and ability to pass on costs to consumers are considered favourable. An excessive control on pricing by government or concentrated customer profile is considered negative.

## Operating efficiency

A low cost position is important in an industry where producers have limited pricing flexibility. CRISIL believes that a company's cost position depends on:

- its ability to access inputs at low cost
- quality of ore reserves
- ease of mining (parameters such as overburden ratio, stripping ratio)
- technology employed
- location of the mine and the associated transportation costs

CRISIL evaluates the company's labour structure in terms of factors such as manning levels, mix between permanent and contracted employees, the financial implications of any new wage contracts being negotiated, the extent of social welfare costs that mining companies have to bear and their implications on future profitability, and the productivity of the labour force.

Ore reserves are a part of mineral deposits that can be economically extracted. The quantity and quality of a company's proven and probable reserves are important success factors. In CRISIL's opinion, the quality of an ore will have a direct bearing on the mineral's pricing flexibility. That is, the intrinsic quality of ore will necessitate less beneficiation (i.e. the process of enriching the mined ore to usable condition), leading to a low cost position. Mix between open cast and underground mining is also a critical factor as open cast mines tend to have a lower cost of production.

CRISIL also looks at the ease of access to low-cost energy and reviews whether it is purchased under long-term contracts. The proximity and sourcing of raw materials are also examined. For instance, CRISIL considers where a milling operation is located in relation to its power source and whether the supply of raw materials and infrastructure required is in-house or from third parties.

CRISIL assesses the potential for creeping cost increases attributable to inflation, wage hikes, or less-than-envisaged ore grades in the mine plan, as well as supply disruptions that could arise from problems such as labour strikes or regulatory restrictions. Any one of these developments could result increase costs.

CRISIL evaluates the company with respect to the above parameters on an absolute basis and it is benchmarked against other industry players, both domestic and international.

## Production diversification

The diversity in operating assets contributes to credit strength by reducing the company's exposure to disruptions from unforeseen operating, geological, or politically related events. CRISIL assesses the extent to which the continuation of operations is threatened by the lack of backup systems, and as part of its analysis, looks to stress the performance of the company to the possibility of adverse events. Coal India Ltd is an example of a mining

company with well-diversified operating assets. CRISIL believes that companies with a well-diversified production base can insulate themselves from considerable operating risks. However, even a single mining company can achieve diversification if it operates one mine with multiple operating faces within the same pit, or a number of separate pits within one mine.

## Reserve replacement

A company's reserve replacement strategy is a critical factor in assessing its credit quality. Ore reserves are depleting assets; besides, some of the ores could be on mining leases with defined tenure. Therefore, producers have to constantly look for additional reserves. In the case of mining companies choosing to explore and develop their own reserves, CRISIL evaluates the quality and location of the assets within their portfolio of exploration targets and financing plan for exploration and development of the new mines. CRISIL also reviews the company's track record in respect of exploration success, which includes bringing targets into the company's production in a timely and cost effective manner.

## Safety and environment issues

CRISIL reviews the safety measures of the company in terms of:

- Track record of accidents, their severity and frequency
- Safety guidelines being followed
- Potential liabilities stemming from historical mining activities or other legacy costs
- Indemnification measures against such potential liabilities

Given the toxicity of many of the products and by-products in the mining process, mining concerns face the risk of their ongoing operations possibly violating environmental regulations. CRISIL assesses the company's existing measures and the past track record in respect of compliance with environmental codes.

## Geographical concentration risk

The domestic and international consumption drives the demand for ore. A company present in the domestic market only, is exposed to domestic cycles and unexpected fluctuations in demands due to local circumstances. Presence in the global market provides a hedge against this risk.

## Financial Risk

For this analysis, CRISIL follows the standard criteria used for all manufacturing companies. This criterion is presented in detail in our publications, 'Rating Criteria for Manufacturing and Services Sector Companies', and 'CRISIL's Approach to Financial Ratios'.

## Management Risk

For the analysis of the management risk of a mining company, CRISIL follows the standard criteria used for all manufacturing companies. This criterion is presented in detail in our publication, 'Rating Criteria for Manufacturing and Services Sector Companies'.

## Conclusion

Thus, in CRISIL's opinion, following factors are the key determinants of the credit risk profile of the companies in mining sector:

- Pricing characteristics
- Operating efficiency
- Production diversification
- Reserve replacement
- Safety and environment issues

## About CRISIL Limited

CRISIL is an agile and innovative, global analytics company driven by its mission of making markets function better. We are India's foremost provider of ratings, data, research, analytics and solutions. A strong track record of growth, culture of innovation and global footprint sets us apart. We have delivered independent opinions, actionable insights, and efficient solutions to over 100,000 customers.

We are majority owned by S&P Global Inc., a leading provider of transparent and independent ratings, benchmarks, analytics and data to the capital and commodity markets worldwide.

## About CRISIL Ratings

CRISIL Ratings is part of CRISIL Limited ("CRISIL"). We pioneered the concept of credit rating in India in 1987. CRISIL is registered in India as a credit rating agency with the Securities and Exchange Board of India ("SEBI"). With a tradition of independence, analytical rigour and innovation, CRISIL sets the standards in the credit rating business. We rate the entire range of debt instruments, such as, bank loans, certificates of deposit, commercial paper, non-convertible / convertible / partially convertible bonds and debentures, perpetual bonds, bank hybrid capital instruments, asset-backed and mortgage-backed securities, partial guarantees and other structured debt instruments. We have rated over 24,500 large and mid-scale corporates and financial institutions. CRISIL has also instituted several innovations in India in the rating business, including rating municipal bonds, partially guaranteed instruments and microfinance institutions. We also pioneered a globally unique rating service for Micro, Small and Medium Enterprises (MSMEs) and significantly extended the accessibility to rating services to a wider market. Over 1,10,000 MSMEs have been rated by us.

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