Rating Indian Steel Producers

Sector Credit Factors for National Ratings

Special Report

This report is an addendum to the master report, "Corporate Rating Methodology", dated September 2012. The report describes the criteria applied by India Ratings in assigning corporate ratings. This addendum provides a high-level overview of how those criteria are most frequently observed in application to companies in this sector. Users are referred to the "Limitations" section of this report.

Related Criteria

Corporate Rating Methodology (September 2012)

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Specific Credit Factors: This report addresses India Ratings and Research Private Limited's (India Ratings) specific credit factors used when analysing Indian steel companies on the national scale. After highlighting the sector risk profile, it defines and groups the ratings of companies operating in the sector into a "natural rating territory", based on India Ratings' view of the inherent risk profile of the sector.

The report then examines additional company-specific traits that may influence the rating and therefore more finely categorise companies by rating level. Finally, the report explains how a company's financial profile (credit metrics) influences its creditworthiness and final rating.

Sector Risk Profile

Cyclical Industry: The Indian steel sector is exposed to price volatility, stemming from variations in end-user demand and raw material prices. This volatility is, however, less than for global companies. Representative companies in the sector are rated across the rating scale, though a large proportion of them are rated in the 'IND A' and below categories.

Higher-Rated Entities: Entities rated in the 'IND AA' and 'IND AAA' categories have benefits of scale, product and geographical diversification, and a competitive cost structure driven by access to captive raw materials. They further benefit from strong liquidity and capital structures, allowing them to manage cyclicality better than the lower-rated peers. Some of them also benefit from potential support from the government of India.

Lower-Rated Entities: Entities rated 'IND A' category and below will typically exhibit less diversification in all aspects, higher operating cost positions, weaker liquidity and/or higher absolute debt levels, or a more commoditised product mix, or a reliance on individual segments.

Company-Specific Traits

Rating Categories: India Ratings examines a number of sector-specific characteristics and outlines rating categories for companies that display these under company-specific traits. It is rare that a company will track exactly to the same rating category for each trait or ratio. While rating committees take all factors into consideration, they will weight some of the factors more heavily than others, such as the cost position of operations, liquidity and financial profile.

Differentiating Factors: India Ratings' approach to differentiating between steel producers focuses on their level of vertical integration, cost position, operational scale, geographical/product diversification, extent of value-added products in the sales mix, and financial profile/policies including liquidity. The financial profile and policy of a company could override other factors, especially in the 'IND BB' and below categories.

Cost Position of Operations: Given that steel producers are price takers, they have to rely on cost competitiveness to remain profitable. Low-cost producers generate higher cash flows/profit margins compared to higher-cost producers.

Costs and Flexibility: The higher profitability/cash flows of lower-cost producers means that they have more funds to expand/strengthen their operational profile through acquisitions or plant modernisation, whilst typically maintaining more conservative financial profiles. In contrast higher-cost producers will often use periods of strong prices to reduce debt levels and will not typically be able to significantly expand their operations, with the focus being more on the maintenance or refurbishment of existing operations.

Building Blocks - Indian Steel

	Sector Risk Profile	Company-Specific Traits					Financial Profile (historical where relevant and forecast)				
		Cost position (EBITDAR/tonne blended steel)	Level of backward Integration (% of overall raw material)	Prouction of higher value added products (Rev/tonne blended steel)	Product & geographic diversification	Scale of operations	Size - Annual EBITDAR (INRbn)	Op.EBITDAR margin (%)	CFO margin (%)	Adjusted net debt/Op. EBITDAR (x)	Op. EBITDAR/ Net interest expense (x)
IND AAA											
IND AA		• Low (>INR8,000)	• 10-50	• High (>INR35,000)	• Significant product/geographic diversification or leading position in value added segment	• Large (>INR50bn)	>20	>20	>10	<3	>5
IND A		• Medium (INR6,000 – 8,000)	• Minimal or No captive raw material linkage	• Medium (INR25,000 – 35,000)	• Good diversification or good position in value added segment	• Medium (INR30bn-INR50bn)	3-20	15-20	7-10	3-4	3-4
IND BBB		• High (INR4,000-6,000)		• Low (INR20,000 - 25,000)	• Limited diversification or commodity nature of product	• Small (INR10b-30bn)	1-3	10-15	5-7	4-5	2-3
IND BB & below		• Very High (<INR4,000)		• Very Low (<INR20,000)		• Very Small (<INR10bn)	<1	<10	<5	>5	<2

General
- Essential material for industrial use
- Cyclical industry with periodic dips in demand
- Efficient production typically requires economies of scale
- Volatile end product demand and pricing
- Volatile raw material input pricing
- Prices also susceptible to swings in inventory/stock levels
- Ability to get regulatory approvals
- Abiltity to secure captive raw material linkages
- Limited constraints on new supply
- Diversified product portfolio
- Regional/geographical diversification

Indicative factors observed or extrapolated for rated issuers. Ratio levels refer to the mid-point of a through-the-cycle range; actual observations are likely to vary from these. Certain sub-sectors may contain a small number of observations; where no observations currently exist, guidelines for a category are extrapolated based on India Ratings judgement. The factors give a high-level overview and are neither exhaustive in scope nor uniformly applicable. Additional factors will influence ratings, particularly where group relationships constrain or enhance a rating level.

Key Credit Factors

- Cost Position.
- Vertical Integration.
- Value-added versus commodity products.
- Geographical and product diversification.
- Regulatory Risks.
- Financial Profile.

Cost Position

The main cost parameters that India Ratings assesses while rating a steel company are the level of integration, the method of steel making and technology, the availability of captive power, and operating efficiency in terms of energy consumption and productivity.

India Ratings seeks information from the entities regarding their absolute cash production costs and position on industry cost curves. This information is however generally regarded as confidential by issuers, and the agency will typically not be able to publish detailed information in this regard in its credit reports.

Another key method used by India Ratings is the calculation of companies' relative EBITDAR per tonne of crude steel produced (see Figure 1). The calculation of this measure excludes EBITDAR generated by non-steel operations (eg, third-party sales of raw materials) in order to assess the cost profile of the company's core steel operations. Based on the calculated ratio, and other indicators, India Ratings brackets the companies into the categories of low, medium and high cost.

It is important to note here that the EBITDAR per tonne figures given in Figure 1 are current prevailing numbers across the rating cycle and could change depending upon the price movement of finished goods and the extent of vertical integration of the steel company. India Ratings however relies on the relativities of these numbers to ascertain the cost structure of the rated entities.

Figure 1

Operating Costs – EBITDAR per Tonne of Blended Steel Across the Rating Cycle

Rating category	Cost position (EBITDAR per tonne of blended steel)
'IND AA' and above	Low (>INR8,000)
'IND A'	Medium (INR6,000-8,000)
'IND BBB'	High (INR4,000-6,000)
'IND BB' and below	Very High (<INR4,000)

Source: India Ratings

Vertical Integration (Raw Material Sufficiency)

Steel producers with fully vertically integrated operations are able to exercise better control over their costs compared to partial/non-integrated steel producers. Iron ore and coking coal are the key raw materials, making up more than 70% of the total raw material cost. Companies with captive iron ore and coal mines are better placed in managing the volatility in raw material prices.

India is self-sufficient in iron ore due to its vast reserves. Some of the large steel producers have raw material linkage by way of captive mines and most of the others have long-term raw material supply contracts with NMDC Limited, India's largest iron ore mining company. However, due to a lack of high-grade coking coal in India, most of the steel producers are dependent on imports for meeting their requirements.

Figure 2

Backward Integration

Rating category	Level of backward integration
'IND AAA'	>50% of overall raw materials
'IND AA'	10%-50% of overall raw materials
'IND A' and below	Minimal or no captive raw material linkage

Source: India Ratings

However, this linkage is also assessed with the quality of reserves which has an important bearing on the final EBITDAR/tonne for the producer.

The method of steel manufacturing also influences the cost efficiency of a company. Companies manufacturing steel with blast furnaces have the benefit of scale and are less power intensive compared to EAF (electric arc furnace) producers. Given India's power shortage and its high cost, companies with captive power plants have an edge in terms of cost, reliability and quality over the companies relying on an external supply of power.

Freight is another cost component that affects the profitability of the steel companies. Companies with manufacturing facilities located in the vicinity of iron ore mines have an advantage in terms of freight cost and better working-capital cycle management (a lower inventory holding level). Furthermore, the ability of a steelmaker to temporarily curtail production during a downturn to reduce costs while serving customer demand, is positive for the ratings.

Share of Higher Valued-Added Products

India Ratings also considers the product mix of a company's output in its ratings. Steel companies have the ability to significantly increase the value of basic steel products such as billet and slab by further processing in rolling mills, or through other types of additional processing. A higher value-added product mix not only offers the possibility of higher margins, but also implies a close integration with end-customers. The supply of product to meet specific customer needs can make it more difficult for end-customers to easily change suppliers.

In evaluating a company's product composition India Ratings receives information about the volumes of products produced and calculates average revenue per tonne of steel as an indicative measure of how high value a company's product mix is. As with the calculation of other measures this excludes revenues generated by non-steel operations (eg, third-party sales of raw materials). Based on the calculated ratio, and other indicators, India Ratings brackets the companies into the categories of having a low, medium or high proportion of value-added products.

Figure 3

Product Mix – Revenue Per Tonne of Blended Steel Across the Rating Cycle

Rating category	Revenue per tonne of blended steel
'IND AA' and above	High (>INR35,000)
'IND A'	Medium (INR25,000-35,000)
'IND BBB'	Low (INR20,000-25,000)
'IND BB' and below	Very low (<INR20,000)

Source: India Ratings

Most of the steel imported into the country is high value added and Indian steel companies have been using technical collaboration as a tool to move up the value chain. However, for convertors (companies that produce value-added steel from hot rolled coil/billets) which may have high revenues per tonne because of their product profile, EBITDAR/ton will be a better indicator of their ability to absorb volatility in raw material prices.

Geographical and Product Diversification

India Ratings views positively geographical diversification, as large, well-diversified companies are able to manage the inherent cyclicality associated with the steel industry. Though India is largely a single market, there do exist differences in prices driven by regional dynamics. Geographical diversification also includes exports to various countries.

The greater the extent of diversification in a company, the more protected it is from downturns, as recession in one particular country or region may be offset by growth in another country and region. However, with exports being limited, the benefits of geographical diversification remain restricted except for some of the larger companies who have built up operations overseas, primarily through acquisitions.

A product portfolio geared towards high-value-added steel is regarded as a positive factor due to the higher profitability, relative market stability, and cash flow predictability entailed by those products.

Figure 4

Product and Geographic Diversification

Rating category	Level of product and geographic diversification
'IND AA' and above	Significant product/geographic diversification or leading position in value-added segment
'IND A(ind)'	Good diversification or good position in value-added segment
'IND BBB(ind)' below	Limited diversification or commodity nature of products

Source: India Ratings

Scale of Operations

In analysing a steel company, India Ratings takes into consideration its scale, key drivers to its growth, its margins and cash flows. Larger scale as viewed in terms of absolute revenue, EBITDAR and cash flows is often associated with other favourable characteristics, such has higher product diversification and low operating cost. A company with large scale has greater bargaining power with suppliers and is better placed to survive the cyclical downturns of the steel industry.

Figure 5 shows an example of scale as a differentiating factor: in this instance showing indicative absolute revenue and EBITDAR levels.

Figure 5

Scale of Operations

	Revenue (INRm)	EBITDAR (INRm)	Rating category
Large	>50,000	>20,000	'IND AA' and above
Medium	30,000-50,000	3,000-20,000	'IND A'
Small	10,000-30,000	1,000-2,000	'IND BBB'
Very small	<10,000	<1,000	'IND BB' and below

Source: India Ratings

Regulatory Risks

The steel industry is increasingly exposed to the risks of regulations relating to land acquisition, mining rights, and environmental approvals. The risks are predominant for greenfield projects but are also visible in brownfield projects and for existing operations. Since most of the greenfield projects are being set up under the assumption of the availability of iron ore and coal as captive sources (for sponge iron production as they use thermal coal which is abundant in India unlike coking coal), India Ratings views entities which proceed with projects without tying up the necessary captive raw materials as inherently riskier. Consequently, while assessing the future cash flows, India Ratings discounts the benefits of the captive sources which may result in an increase in the overall financial risk profile.

Corporate Governance

India Ratings also evaluates corporate governance issues. Good governance practices will not increase a rating, all other factors being equal. However, poor issuer-specific corporate governance issues can result in lower ratings than typical quantitative and qualitative credit factors may otherwise imply. Most of the entities rated 'IND BB and below', which are generally proprietorship or partnership firms, have weak corporate governance.

When looking at issuer-specific governance characteristics, India Ratings focuses on the following:

- board effectiveness;

- management effectiveness;
- transparency of financial information;
- related-party transactions.

Financial Profile

India Ratings's master "*Corporate Rating Methodology*", dated August 2011, lists the main ratios used in rating companies, and explains adjustments for features such as operating leases and pensions. The ratios listed below are viewed as key to analysing the steel companies' current and projected financial profiles. Financial metrics can alleviate only some of the pressure from the sector risk profile and company traits, and do not enable the company to completely detach itself, even where, for example, financial leverage levels are very low. A company with strong company traits may be burdened by high leverage which may exert a strong pressure on rating levels.

In its forecasts for steel companies, India Ratings models a variety of price scenarios. One approach is to model cyclical movements. For example, if prices are believed to represent a cyclical peak, then the agency will model various gradual or cyclical price reduction scenarios. Another approach is to use long-term average or mid-cycle prices. This approach can help to assess the long-term sustainable profitability and cash flow generation of companies by removing the impact of cyclical price movements.

Revenue and Profitability

Revenue and profitability levels and trends serve a number of analytical functions. They can be an indicator of several operational factors. For example, consistently high absolute and relative profitability can indicate a low operating cost position, while declining margins over time may indicate rising costs of production. They can also set the pattern for cash flow dynamics. Steel companies with consistently high profitability levels are, in addition, better positioned to invest in future growth without jeopardising their financial profile.

Figure 6

EBITDAR Margin

Rating category	Op. EBITDAR margin (%)
'IND AA' and above	> 20
'IND A'	15-20
'IND BBB'	10-15
'IND BB' and below	<10

Source: India Ratings

Cash Flow and Liquidity

The agency's analysis is focused on stability and sustainability of earnings and cash flow, which underpin a company's ability to repay debt and finance operations. Cash flow from operations (CFO) is a more robust credit protection than external sources of capital. Given the inherent cyclicality in the sector, and potential for wide fluctuations in cash flow performance between cyclical peaks and lows, India Ratings focuses on the stability and sustainability of cash flow measured by CFO margin through the cycle.

Figure 7

CFO Margin

Rating category	CFO margin (%)
'IND AA' and above	>10
'IND A'	7-10
'IND BBB'	5-7
'IND BB' and below	<5

Source: India Ratings

Free cash flow (FCF) provides an indication of management's strategy and appetite for credit risk. However, most of the Indian steel companies typically have negative FCF, given their quest for expansion to meet the demand growth in India. It is important to note that India Ratings distinguishes discretionary from non-discretionary capex (maintenance and committed capex) to assess a company's flexibility to scale down investment during a downturn.

In addition to the analysis of a steel company's ability to generate cash flow, India Ratings also assesses actions related to cash outflows. These include investment programmes, acquisitions, as well as shareholder-friendly actions (ie, dividends and/or share buybacks), which can leave companies with negative FCF, and thus lead to external borrowing. In its analysis of liquidity, India Ratings compares the company's FCF, available cash and undrawn committed facilities against near-term debt-service requirements.

Leverage and Interest Coverage

Leverage is a key factor in analysing steel companies' long-term creditworthiness and solvency, given the high capital intensity of the sector. India Ratings analyses various leverage ratios (including the gross debt to EBITDA ratio and the net debt to EBITDA ratio adjusted for leases and pensions) as part of its overall corporate methodology. In addition to EBITDAR-based leverage and coverage ratios, India Ratings focuses on funds from operations (FFO) based ratios. FFO offers a measure of the ability to generate operational cash post-interest and tax, pre-working capital and before investments.

Figure 8

Leverage and Coverage Ratios

Rating category	Total adjusted debt net of cash/op. EBITDAR (x)	Op. EBITDAR/net interest expense (x)
'IND AA' and above	<3	>5
'IND A'	3-4	3-4
'IND BBB'	4-5	2-3
'IND BB' and below	>5	<2

Source: India Ratings

External Liquidity

Most steel companies remain reliant on the domestic markets (and invariably the banking system) to fund their long-term growth and short-term working-capital funding requirements. The Indian steel industry is one of the largest borrowers from the banking system in India. While higher-rated issuers invariably have access to bank funding as well as to the capital markets in certain cases, most of the issuers in the 'IND BBB' and below categories are largely reliant on bank financing.

Entities rated 'IND BBB' and below usually have a stretched liquidity position, which is exemplified by the very high utilisation level of their working-capital limits. India Ratings typically asks entities to submit the last-twelve-months utilisation level of working-capital limits to ascertain the liquidity position and the cushion available for working-capital volatility.

Limitations

This Sector Credit Factor report describes indicative features observed for rated issuers in India. Ratio levels refer to the mid-point of a through-the-cycle range, and as a result actual observations are likely to vary from these. The weighting factors will vary substantially based over time for a given issuer and between issuers based on relative significance agreed upon by the rating committee. The factors described give a high-level overview as a convenience for rating users, and are neither exhaustive in scope nor uniformly applicable. These may vary for a given rating category.