Steel

Ratings Navigator Companion

Special Report

This report updates and replaces Rating Indian Steel Producers, dated 12 September 2012.

Navigator for Corporates is a graphical peer comparator that forms part of a series of similar tools being introduced across India Ratings and Research (Ind-Ra).

Information on the formal rating criteria that underlie Ind-Ra's corporate ratings can be found in Ind-Ra's Corporate Rating Methodology Master Criteria, dated 4 January 2017.

Click on Navigator Reference File Icon for the full range of Navigator Factor definitions.

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Sector and Sub-Sectors: This report presents the key peer comparator elements observed or expected for steelmakers. The report covers companies across all steel production sub-sectors (e.g. finished and semi-finished products and value-added steel), which include diversified vertically integrated producers, as well as single-plant producers with limited or no access to owned coking coal and iron ore. It is also applicable to other finished or semi-finished metal producers.

Key Factors: The Sector Risk Profile defines and groups companies operating in the sector into a "natural rating territory" based on Ind-Ra's view of the inherent risk profile of the sector. Each company's overall risk profile generally does not stray too far from this rating range. After assessing the Management and Corporate Governance, the Navigator examines four sector-specific factors for given rating levels. Finally, three Financial Profile factors help capture financial attributes commensurate with particular rating categories.

Sector Risk Profile

Rating Range: The sector risk profile for steelmakers can be as high as 'IND AA', based on the level of geographic and product diversification, cost of production, access to raw materials and commodity diversification. However, companies in the sector are exposed to cyclical commodity prices and volumes that are subject to the vagaries of domestic and global economic cycles, and cyclical supply and demand conditions.

Sector-Specific Key Factors

Cost Position: A competitive cost position is fundamental to a robust financial performance and cash generation through the business cycle. This gives flexibility to pay down debt or, if necessary, continue to invest in their businesses through cyclical downturns, thus defending their positions.

Raw Material Self-Sufficiency: Vertical integration into raw materials and captive power provide producers a hedge against price volatility and over time allows them to generate higher and/or more stable profit margins. Integration into all stages of the steelmaking process is a key competitive advantage.

Value Addition: Steelmakers have the ability to significantly increase the value of basic billet and slab through further processing. Higher value-added products are typically associated with higher profit margins and more integration into customer processes, which improves product stickiness.

Diversification: Product and geographical diversification provide steelmakers a hedge against weakness in any one market and could provide opportunities to arbitrage shipments to benefit from favourable currency exchange rate movements.

Financial Profile Key Factors

Financial Profile: The financial metrics are standard Corporate Rating Methodology ratios encompassing mid-point leverage and coverage ratios, and measures of profitability and cash flow, up to the 'IND AA' rating level. EBIT, in addition to cash flow measures, are used to reflect the capital-intensive nature of the sector where expansion-cum-maintenance capex is constantly undertaken, through a mix of debt and equity. Metrics include absolute size of EBIT and margins. Investment-grade entities will typically show the ability to generate positive free cash flow (FCF) across the business cycle.

Sector Risk Profile

Representative companies rated in the sector are in the 'IND AA' rating category down to the single 'IND B' category. A higher-than-average sector risk reflects exposure to significant cyclical demand changes in core end markets (typically construction, automotive and capital goods) and high volatility in raw material input and finished products prices. Highly rated companies can, however, generate good profitability and positive FCF, on average, across a full industry cycle of three-five years.

At one end of the spectrum are integrated players with several hundreds of billions of rupees of investment and turnover. At the other end, there are small re-rollers with just a few billion rupees of investment and turnover. Typically, large players are more vulnerable to changes in commodity prices in international markets. On the other hand, re-rollers with lower value addition and low fixed costs would be better placed to tide over commodity price fluctuations. However, large players are likely to have more stable market and customer bases, whereas small players would be relatively more vulnerable to competition even when markets are relatively stable.

The strongest companies (typically rated 'IND AA') offset the sector's inherent weaknesses with strong liquidity, low operating costs, high value-added product mix, wide diversification (product, geographical and end-sector exposure) and varying degrees of vertical integration into raw materials and captive power.

Low-rated companies will typically exhibit several of the following characteristics: single product, no control on key inputs, single plant, high operating cost positions, weak liquidity and/or high absolute debt levels, more commoditised product mix or reliance on individual market segments.

Management and Corporate Governance

See Appendix I

Limitations

This report outlines the indicative factors observed or extrapolated for rated issuers. Ratio levels refer to the mid-point of a through-the-cycle range, and actual observations are likely to vary from these. Certain sub-sectors may contain a small number of observations overall, or at any given rating category. Where no observations exist, guidelines for a category are extrapolated based on Ind-Ra's judgment. The relative importance of factors will vary substantially over time both for a given issuer and between issuers, based on the significance agreed upon by the rating committee. 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.

Sector-Specific Key Factors

Cost Position

In common with companies in other cyclical and commodity industries, steelmakers rely on low production costs for their long-term competitiveness. Low-cost producers generate higher cash flows/profit margins than more marginal producers at all price levels and have positive cash flows from operations for longer periods during cyclical downturns. Moreover, low-cost producers may maintain production volumes during downturns when high-cost producers may reduce production volumes or idle their operations. Cost position is an important factor in differentiating between companies as domestic producers are the price takers for finished goods and profitability will be highly dependent on the cost position.

Applicable Criteria

Corporate Rating Methodology Master Criteria (January 2017)

Costs and Flexibility

Higher profitability/cash flows of low-cost producers mean that they have more funds to expand/strengthen their operating profiles (i.e. through acquisitions or plant modernisation), while typically maintaining more conservative financial profiles. In contrast, high-cost producers will often use periods of strong prices to reduce debt levels and will not typically be able to significantly expand operations, as their focus is more on the maintenance or refurbishment of existing operations to achieve cost savings.

Cost Position Assessment

Ind-Ra assesses the cost positions of steelmakers by calculating their gross margins and comparing them with the weighted average industry margin based on a company's product mix.

For the calculation of the cost position, Ind-Ra categorises steelmakers into the following:

- Integrated Steel Players – Such players produce finished goods from iron ore and coal. The average selling price of a product less the costs of iron ore and coal for making one tonne of steel will be considered as the industry average gross margin.
- Non-Integrated Players – Such players produce finished goods from sponge iron/pig iron/scrap. The average selling price of a product less the costs of sponge iron/pig iron/scrap and coal for making one tonnes of steel will be considered as the industry average gross margin.
- Re-Roller – Such players produce finished goods from billets (steel). The average selling price of a product less the costs of billet/ingot/bloom/slab for making one tonne of steel will be considered as the industry average gross margin.

Ind-Ra believes that companies not involved in the entire value chain of steelmaking would have higher production costs. The calculation of this measure excludes revenue generated by non-steel operations (e.g., third-party sales of raw materials) to assess the cost profile of a company's core steel operations.

On a case-to-case basis, Ind-Ra will also make desired adjustments for other key cost components such as employee, freight cost based on relative advantage or disadvantage of a company over other players.

Figure 1
Cost Position

Category	Cost position
IND AA	Low
IND A	Medium
IND BBB	High
IND BB and below	High

Source: Ind-Ra

Raw Material and Power Self-Sufficiency

Ind-Ra views favourably companies with high levels of vertical integration (i.e. participation at all stages of the steel value chain, including raw material, captive power plant, primary steel making, value-added processing capacity and distribution). Upstream integration into the key steelmaking raw materials (iron ore, coking coal and power) provides producers a hedge against input price volatility and over time typically allows them to generate higher and/or more stable profit margins. Companies that lack control of raw materials may nevertheless be able to compensate for this through their ability to pass through price rise to end customers. Companies may have this ability because they operate in consolidated markets or they produce a highly specialised product.

In assessing the benefit of raw material self-sufficiency, Ind-Ra examines the proportion of raw material met from a captive source or a tie-up and the source of input for power generation, and will obtain information on their relative cost profile.

Figure 2

Raw Material Self-Sufficiency: Sub-Factors

Category	Raw material self-sufficiency	Captive power self-sufficiency
IND AA	Significant in-house control of key raw material inputs (both iron ore and coal)	80%-100% of requirements met by captive power, with the majority from waste heat, a captive coal mine or a power purchase agreement (PPA) with strong counterparties/associates/JVs
IND A	In-house control on one of the key raw material inputs	Most (50%-80%) of requirements met by captive power, the majority of which is through linkage coal, waste heat or PPA with strong counterparties/associate/JVs
IND BBB	Partial control of key raw material inputs	Part (20%-50%) of requirements met by captive power or PPA with strong counterparties/associate/JVs
IND BB and below	Negligible control of key raw material inputs	No captive power or PPA

Source: Ind-Ra

Value Addition

This factor includes sub-factor proportion of higher value-added products and proportion of contracted sales.

Steel companies have the ability to significantly increase the value of basic steel products, such as billet and slab, through further processing in rolling mills and other types of additional processing, such as galvanisation. A higher value-added product mix not only offers the possibility of higher product margins and profitability, but can also indicate a close integration with end customers. Product customisation to meet specific end-customer needs can render it more difficult for such customers to easily change suppliers and can add stability to a steelmaker’s earnings.

Proportion of Higher Value-Added Products

In evaluating a company’s value-added product composition, Ind-Ra calculates value added by a company’s manufacturing process in entire value chain of the production of finished steel. Value addition is computed by the simple process of deducting the value of key inputs from the value of final products that a company manufactures. Ind-Ra brackets companies into the categories of low, medium and high proportion of value-added products basis value addition by their manufacturing facilities.

For example, a secondary steel producer not involved in the entire value chain (may be one or few stages) of steelmaking may sell a high proportion of value-added products, but its margins will be low because it does not have not presence in the entire chain of value addition. Such companies cannot be rated in the ‘IND AA’ category and will be capped at the ‘IND A’ category or below, depending on its presence in the steel value chain and the importance of the value-added product to its customers.

Contracted Sales to Long-Term Customers

Steel companies will often have close relationships with particular customers. Such relationships can be a source of stability in a downturn. Steel companies frequently participate in customers’ R&D efforts to provide a product customised to their specific needs. Others benefit from synergies due to physical proximity or transport links.

Figure 3

Value Addition: Sub-Factors

Category	Proportion of higher value-added products	Proportion of contracted sales
IND AA	High (>50%)	High proportion to long-term customers (>70%)
IND A	Medium (20-50%)	Medium proportion to long-term customers (30-70%)
IND BBB	Low (<20%)	Low proportion to long-term customers (<30%)
IND BB and below	no value-added products	No contracted sales

Source: Ind-Ra

Diversification

Product Diversification

Product diversification is beneficial to steelmakers as they are able to satisfy the different steel requirements of different non-correlated user industries. Steel consumption in consumer durables and automotive is weighted towards flat products and a higher value-added product mix, whereas there is typically greater demand for long products and commodity grades of steel such as billet, TMT bars in infrastructure and construction.

Geographical Diversification

Similarly, having a broad geographical presence helps protect a steel producer from a downturn in an individual country or a region. Product and geographical diversification taken together help moderate the impact of price cyclicality on a company's financial performance.

Operational Diversification

Operational diversification is described as the number of steel plants, rolling mills and other processing facilities that a steel company operates. A consideration of a company's operational diversification incorporates aspects of its scale, geographical/product diversification (discussed above), operational flexibility and the impact of event risks. Companies with a number of operating facilities are less affected by event risks such as fires and explosions than companies with single plant operations. In assessing this factor, Ind-Ra undertakes a simple count of the number of blast furnaces, electric arc furnaces and other facilities that a company operates.

Figure 4

Diversification: Sub-Factors

Category	Product diversification	Geographical diversification	Operational diversification
IND AA	Significant product diversification or leading position in a niche segment	Significant geographic diversification	High (numerous plants and mill)
IND A	Good diversification or good position in a niche product	Good geographical diversification	Medium (several plants and mills)
IND BBB	Limited diversification	Limited diversification	Low (two to three plant and mills)
IND BB and below	No diversification	No diversification	Single plant

Source: Ind-Ra

Financial Risk Profile

The steel sector is highly capital-intensive and may be cash generative across the price cycle. It is important to stress that financial metrics can alleviate only some of the pressure from the sector risk profile and company traits, and do not enable a company to completely insulate itself. Conversely, a company with strong business traits may be burdened by a high leverage, which may exert a strong downward pressure on its rating level.

Profitability and Cash Flow

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

Figure 5

Profitability: Sub-Factors

Mid-points	FFO margin (%)	EBIT margin (%)	FCF margin (%)	Annual EBIT
IND AA	10.0	12.0	5.0	>INR5 billion
IND A	7.0	9.5	2.0	INR1 billion-INR5 billion
IND BBB	4.0	7.5	Positive	INR150 million-INR1.0 billion
IND BB and below	2.5	4.0	Neutral to Negative	<INR150 million

Source: Ind-Ra

Absolute scale represents a further measure of flexibility, suggesting a degree of diversification and leverage over financial partners. Annual EBIT is used as an absolute scale measure. When assigning it, Ind-Ra will consider not just current year metrics but historical and expected levels too.

In addition to the analysis of a steel company's ability to generate profits and cash flow, Ind-Ra assesses cash outflow-related actions, including investment programmes, acquisitions and shareholder-friendly actions (i.e. dividends and/or share buybacks), which can leave companies with negative FCF, thus leading to external borrowings.

Higher investment-grade companies would generally be expected to fund capex from internal sources or borrowing to an extent that they maintain a comfortable financial profile (i.e. having a clear strategy of maximum leverage). Lower rated entities would typically experience periods of negative FCF during downturns, thereby relying on borrowings without a defined strategy of maximum leverage. Some allowance is given to companies going through high capex phases, where underlying projects are likely to produce long-term benefits either by improving cost profile or strengthening operating profile.

Financial Structure

Ind-Ra bases its analysis on both net and gross leverage ratios. While the main focus is on FFO-based leverage and ratios, Ind-Ra also assesses EBITDA-based metrics, which are typically close to each other. Gross leverage is a key ratio, as cash can dwindle rapidly when companies are in financial stress due to, for example, substantial cash outflows from working capital. However, net leverage is also relevant for companies holding a high level of cash for prudential reasons beyond what is needed for operational purposes.

The net debt/(CFO-capex) ratio measures leverage on the basis of discretionary cash flows after interest costs and investment requirements but before dividends distribution. When assessing an issuer in a strong expansionary phase, it may be relevant to only deduct from CFO a standardised capex figure, reflecting maintenance and improvement of existing assets rather than the total amount of investment spending.

Figure 6

Financial Structure: Sub-Factors

Mid-points	Lease-adjusted FFO net leverage (x)	Total adjusted gross debt/ operating EBITDAR (x)	Net debt/(CFO-Capex) (x)
IND AA	1.0	2.0	2.0
IND A	2.5	3.0	3.0
IND BBB	3.5	4.0	4.5
IND BB and below	4.5	5.0	>6.0 or negative (CFO-Capex)

Source: Ind-Ra

Financial Flexibility

Financial flexibility allows an issuer to meet its debt service obligations and manage periods of volatility without eroding credit quality.

Financial Discipline

The more conservatively capitalised an issuer, the greater its financial flexibility. In general, a commitment to maintaining debt within a certain range allows an issuer to cope better with the effect of unexpected events. This is reflected in the Financial Discipline Sub-Factor.

Liquidity

Other factors that contribute to financial flexibility are the ability to revise plans for capital spending, strong banking relationships, the degree of access to a range of debt and equity markets, committed, long-dated bank lines and the proportion of short-term debt in the capital structure. These issues are incorporated in the Liquidity Sub-Factor. Once liquidity reaches a certain level, it is generally not a source of rating differentiation, hence the identical definition for the 'IND A' and 'IND AA' rating categories.

FFO Fixed Charge Coverage and EBITDAR Gross Interest Coverage

Fixed charge coverage ratios are a central measure of the financial flexibility of an entity, which compares the operational cash-generating ability of an issuer (after tax) to its financing costs. Many factors influence coverage ratios – including general funding costs, the mix of fixed-rate versus floating-rate funding, the use of zero-coupon debt, and so on. For this reason, the coverage ratios should be considered alongside the appropriate leverage ratios.

FX Exposure

Foreign exchange exposure can also impact Financial Flexibility. Some companies may have a natural currency hedge (oil and gas), or an acceptable unhedged exposure in pegged currency regimes, given the type of products they sell and their own cost base. For other companies, there may be a material mismatch between the currency borrowed and the currency in which they have internal cash resources. Where there is a mismatch, Ind-Ra will assess the company's approach and management of that exposure.

Debt-Equity

Debt-equity ratio is often an indicator of an entity's flexibility to borrow from the banking system.

Figure 7

Financial Flexibility: Sub-Factors

Mid-points	Financial discipline	Liquidity	FFO fixed charge cover (x)	FX exposure	EBITDAR/ (gross interest + rent) (x)	Debt-equity (x)
IND AA	Publicly announced conservative financial policy; Track record of strict compliance	Very comfortable liquidity with no need to use external funding in the next 24 months or more; Well-spread maturity schedule of debt; Diversified sources of funding; One year liquidity ratio above 1.25x	6.5	Negligible unhedged forex exposure	7.0	0.3
IND A	Clear commitment to maintain a conservative policy with only modest deviations allowed	Very comfortable liquidity; Well-spread debt maturity schedule; Diversified sources of funding; One year liquidity ratio above 1.25x	3.0	Unhedged forex exposure within 10% of EBITDA.	3.5	0.6
IND BBB	Financial policies less conservative than those of peers but generally applied consistently;	One-year liquidity ratio above 1.25x; well-spread maturity schedule of debt but funding may be less diversified	2.25	Unhedged forex exposure within 20% of EBITDA	2.5	1.0
IND BB	Financial policies in place but flexibility in applying it could lead to temporarily exceeding downgrade guidelines	Liquidity ratio around 1.0x; less smooth debt maturity or concentrated funding	1.75	Unhedged forex exposure within 40% of EBITDA	2.0	1.4
IND B	No financial policy or track record of ignoring it; opportunistic behaviour	Liquidity ratio below 1.0x; overly reliant on one funding source	1.5	Unhedged forex exposure higher than 40% EBITDA	1.5	>1.4

Note: Liquidity score is defined as: available cash + undrawn portion of committed facilities + FCF (if positive)/debt maturities + FCF (if negative).
Source: Ind-Ra

Appendix I: Management and Corporate Governance

Figure 8

Management and Corporate Governance: Sub-Factors

Category	Management strategy	Governance structure	Group structure	Financial transparency
IND AA	Consistent and robust strategy and very strong track record in implementation	No record of governance failing; Strong management team, experienced board with presence of independent directors and functional heads	Transparent group structure; Related party transactions, if any, are insignificant and have an economic rationale.	High-quality and timely financial reporting
IND A	Coherent strategy and good track record in implementation	Good governance track record Experienced board exercising effective check and balances	Group structure shows some complexity but mitigated by transparent reporting. Related party transactions have an economic rationale.	Good quality and timely financial reporting
IND BBB	Strategy may include opportunistic/aggressive elements but soundly implemented	Adequate governance track record	Some group complexity; No significant related-party transactions without appropriate economic rationale	Average financial reporting without significant failing
IND BB	Strategy lacks consistency/coherence and/or weakness in implementation	Inadequate governance structure; Very high Key-man risk	Complex group structure or non-transparent ownership structure; Presence of significant related-party transactions	Financial reporting is appropriate but with some failings (e.g., lack of interim or segment analysis)
IND B	Lack of adequate strategic planning and implementation	Poor governance structure; Significant instances of governance failing	Highly complex group with large and opaque related-party transactions or opaque ownership structure	Defective financial reporting; Aggressive accounting policies

Source: Ind-Ra

Management and Corporate Governance

The company-specific Management and Corporate Governance Factor is composed of four Sub-Factors: Management Strategy, Corporate Governance, Group Structure and Financial Transparency.

Sub-Factors

Management Strategy

Ind-Ra considers management‘s track record in terms of its ability to create a healthy business mix, maintain operating efficiency, and strengthen its market position. Financial performance over time notably provides a useful measure of the management's ability to execute its operational and financial strategies.

Corporate goals are evaluated centring upon track record and future strategy. Risk tolerance and consistency are important elements in the assessment. The historical mode of financing acquisitions and internal expansion provides insight into management‘s risk tolerance.

Governance Structure, Group Structure and Financial Transparency

The three other Sub-factors address different aspects of the general issue of corporate governance. The purpose of addressing Governance Structure is to assess the way effective power within an issuer is distributed.

Elements considered are notably the presence of effective controls for ensuring sound policies, an effective and independent board of directors, succession plan, talent bench, management compensation, related-party transactions, integrity of the accounting and audit process and key-man risk.

Corporate Governance operates as an asymmetric consideration. Where it is deemed adequate or strong, it typically has little or no impact on the issuer’s credit ratings, i.e. it is not an incremental positive in the rating calculus. Where a deficiency which may diminish lenders’ protection is observed, the consideration may have a negative impact on the rating assigned. Ind-Ra’s approach to evaluating corporate governance is described in the Criteria Report *Evaluating Corporate Governance* dated 4 April 2016.

The Corporate Governance Sub-Factor focuses on the structural aspects of governance, in particular board of directors’ characteristics.

Group Structure and Financial Transparency assess how easy it is for investors to be in a position to assess an issuer’s financial condition and fundamental risks. These aspects are somewhat linked to Corporate Governance as high-quality and timely financial reporting is generally considered by Ind-Ra to be indicative of robust governance. Likewise, publishing intentionally inaccurate or misleading accounting statements is symptomatic of deeper flaws in an issuer‘s governance framework. The public exposure of techniques that subvert the spirit of accepted accounting standards or, worse yet, are designed to mask fraudulent activity can undermine investor confidence.

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