



Rating Methodology for Steel Companies

Steel industry plays an important role in the growth of an economy. Steel is a ubiquitous component in several major sectors. In infrastructure, steel contributes through structural steel which is used in construction of bridges, highways, airports, seaports, railways, electricity and telecommunication. It contributes majorly towards the manufacturing sector as a raw material for the manufacturing machinery, i.e. the capital goods. It is a raw material for some other types of industries such as bearings, cables, automobiles, ships, airplanes etc. It is also a raw material for various consumer goods such as flexible packaging for the fast moving consumer goods (FMCG). Furthermore, it is a necessary component for some other essential activities such as water supply, electrical and gas/fuel supply which have major social implications as well.

Thus, growth of steel sector is essential to overall economic as well as social growth. This has been empirically established with a positive correlation of Gross Domestic Product (GDP) per capita to the per capita consumption of steel.

In 2013, the domestic steel demand witnessed growth in line with the GDP growth rate in Indonesia. The national consumption of steel increased to 12.6 million tonnes (mt) from 11.7 mt during 2012. Over the 13 year period 2001-2013, the steel industry has grown at a Compounded Annual Growth Rate (CAGR) of 8%. This number makes it the fourth fastest growing country in the world in terms of steel consumption, behind China, United Arab Emirates and Turkey (Source: OECD Secretariat). Lately, the domestic steel industry has faced challenges, on account of the global steel industry slow down. Global steel prices have dropped following the oversupply condition, which came into being due to global economic slowdown since 2008-2009. The domestic steel prices also remained range bound over last whole year. While the prices have remained subdued, the demand has steadily increased from 7.4 mt in 2009 to 12.6 mt in 2013.

The per capita consumption of steel in Indonesia was 40 kilograms (kg) in year 2012, an increase of 7.2% from 37.3 kg in 2011 (Source: Association for Iron and Steel Industry of Indonesia (IISIA) and Investment Coordinating Board (BKPM)). This is less in comparison with the average consumption per capita in other Asian economies and in fact quite less when compared with the average world consumption per capita, which stood at 217 kg per capita. This definitely indicates a significant potent demand that will surface once the global economic growth will gain momentum. Particularly, when compared to China, whose per capita consumption of steel stood at 477 kg (Source: World Coal Association), the domestic demand promises a huge scope for expansion. In fact, IISIA has projected an increase in per capita consumption of steel from 40 kg to 100 kg over next 5.5 years (by year 2020). Given the current stable rate of growth of the Indonesian economy, recorded at 5.78% in 2013, the demand for steel is expected to multifold going forward as the global economy recovers and the contribution of the steel sector to the economy over the next few years would be worth watching.

Indonesia ranks 36th largest producer of steel in the world with estimated 3.7 mt of crude steel production in 2012 (World Steel Organisation report, 2013). This is entirely manufactured by PT Krakatau Steel (Persero) Tbk (KRAS) who is the only primary steel producer in Indonesia. The industry is also characterised by presence of more than 300 secondary players of various sizes, significant part of whose raw material demand is met by importing steel scraps, billets etc. Indonesia is a net importer of steel with 6 mt out of the estimated 14.7 mt needed to be imported. However, by

2016, Indonesian steel industry is expected to produce 12 mt on account of additional capacity being added by KRAS and the reliance on the imports is expected to reduce, strengthening the domestic market.

The sector employs more than 300,000 people in various capacities and across the value chain and is capable of producing around 10 mt of crude steel and steel products annually (OECD Secretariat, 2013 report).

Being dependant on international market for the raw materials, the steel demand and supply are susceptible to fluctuations on account of business cycles within the end user industries, as well as the economic trends in the world market. These translate into volatility in steel prices and vulnerability of profitability and the cash accruals of the players within the industry to such external events. These uncertainties pose challenge to the rating process as predicting the issuer's future cash flow patterns, an integral part of analyzing the credit protection levels, may get unduly influenced by the position of the industry on its cyclical trajectory at the time of the rating exercise. However, ICRA Indonesia's rating framework focuses on the issuer's fundamental credit quality and seeks to evaluate its credit risk profile across steel cycles.

ICRA Indonesia's Risk Analysis Framework for Steel Companies

This note highlights some of the key factors that are specifically evaluated while assessing the credit quality of a steel company. For analytical convenience, these factors may be grouped under the following heads:

- Cost efficiency
- Scale of operations and product-market diversity
- New project risks
- Financial health
 - Profitability
 - Leverage and cash flows
 - Foreign currency related risks
 - Tenure mismatches and risks related to interest rates and refinancing
 - Debt servicing track record
 - Contingent liabilities/off-balance sheet exposures
 - Consolidated financial analysis
 - Adequacy of future cash flows
- Management quality and corporate governance

Issuer's competitive position

Cost competitiveness

Steel's nature as a commodity based business activity makes the manufacturing cost efficiency an important factor in determining the steel producer's fundamental credit quality. Indonesian steel market is exposed to global steel trends, more so as a net importer. The producers of steel therefore need to be internationally cost competitive to remain profitable across the business cycles. Furthermore, the demand for steel by its users is driven by general economic growth, business cycles of the end user industries and other factors external to the steel manufacturing industry that remain dynamic. As a result, the steel players remain majorly the price takers with their customers having a better bargaining power, and therefore lower costs of production tend to protect margins.

Within the overall costs, raw material cost is the largest cost component and therefore is the single most important driver of profitability of a steel company. A secured source of raw materials, via established relationships with the suppliers and a cost structure that safeguards from volatility in prices is therefore a credit positive. For example, the prices of steel billets witnessed a high of USD

1,004 per tonne in August 2008 just before the beginning of meltdown in the global economy and also a major low within nine months to USD 340 per tonne. Thereafter, it took more than two years to reach a high of USD 675 per tonne in October 2011. Currently, the prices have reduced again to USD 528 per tonne (May 2014, source: <http://www.steelonthenet.com>). During the periods of incessant volatility, there would have been substantial changes in cost structure of the manufacturers over very short term. As such, in absence of order-backed production, the producers would have suffered a substantial erosion of their margins.

Availability of add-on inputs too plays a vital role. Iron ore (primary producers) or pig/sponge iron (secondary producers) is one of the important components required in making of steel. Further, the secondary steel producers mainly produce using Electric Arc Furnace (EAF) or Induction Furnace (IF) which require substantial amount of continuous electric supplies, while the primary steel producers may use the Blast Furnace (BF) or EAF route of steel making and are substantially dependent on timely availability of coke. Vertical integration with captive sources of raw materials leads to significant cost advantages for integrated steel makers over those without any captive raw material sources, which help them better withstand pressures on finished product prices during a down cycle. ICRA Indonesia's therefore focuses on steel producers' arrangements for raw material procurement and extent of vertical integration.

Scrap prices, which account for around half the cost of secondary steel producers usually, move in tandem with finished steel prices and thus secondary players using greater proportion of scrap have lower volatility in their margins. Sponge iron producers, on the other hand, are dependent on the cost and availability of thermal coal, in addition to that of iron ore. If the sponge iron players also have waste-heat based captive power generating facilities, it is viewed positively by ICRA Indonesia because of the availability of cheap power for their operations.

Transportation costs

Steel business is highly material intensive in nature, with one metric tonne of finished steel requiring almost four metric tonnes of material to be handled. This makes freight costs a very important part in the overall cost structure of a steel company. Proximity of the steel plant to the nearest port will control its freight cost and thus impact profit margins positively. For primary steel manufacturers, the proximity to raw material sources improves the competitive position of a steel producer in the form of lower raw material costs and better inventory management.

Scale of operations and product-market diversity

A steel producer is better insulated from the cyclical volatility when it has a strong market position, large scale of operations and a diversified product mix. Typically a large and well diversified operation generates more reliable cash flows than a smaller operation with concentrated product lines of more commoditised nature. Companies with a large revenue base have benefits of economies of scale attached to their position which result in a more enduring ability to weather the cyclicity inherent in the industry. The economies of scale lead to a better control on costs through a greater bargaining power against the raw material suppliers and the customers. Larger companies also tend to have better access to capital markets, thereby reducing the cost of capital, have greater financial flexibility and benefit from economies of scale which accrues from size.

Steel industry is susceptible to the business cycles of its end users. However, it also has a substantial variety of end user applications and this can be used by a business in order to control the impact of cyclicity within the end-user industries. Business diversification in terms of product segments, diversified customer base for a wide geographic presence and the diversification within the customers with respect to end-user industry are viewed as positive rating factors. Forward integration by steel players into downstream facilities increases the overall value addition in business and lesser competitive pressures. Additionally, a steel player present in both long and flat product segments is less exposed to the ups and downs of a particular end user industry because of its ability to cater to diverse sectors at the same time. Despite the fact that steel is a commodity, branding of various grades is practiced by some of the players in certain product segments. A consistent performance of

these products leads to stickiness of the customers and brand loyalty over time. Conformance to Standar Nasional Indonesia (SNI), the Indonesian National Standards, in addition to various international grades such as Society of American Engineers (SAE) steel grades, British Standards, Japanese Industrial Standards (JIS) etc will improve the competitiveness of the player and hence will be considered to fortify the business risk profile.

New project risks

Given the low consumption per capita as well as a bid to reduce substantial reliance on imports, an increase in the installed steel capacity of the country is expected over the medium to long term. However, steel projects are highly capital intensive, with around one billion US Dollars being required for setting up a greenfield capacity of one million metric tonnes. ICRA Indonesia therefore evaluates the various risks associated with large steel projects including completion risk, funding risk, technology risk and off take risk, and examines the impact of the same on the entity to ascertain its overall credit risk profile.

Financial health

The financial strength of a steel producer is an important rating consideration. While assessing the financial position of a steel producer, ICRA Indonesia reviews the accounting policies followed by the company, notes to accounts and auditors' comments that are part of the annual report. Any deviation from the Indonesian Accounting Standards (known as "PSAK" or Indonesian GAAP) is noted and the financial statements of the issuer are adjusted to reflect the impact of such deviations and also to compare more meaningfully against peers in the industry. Apart from balance sheet strengths which determine a player's ability to withstand a deep down cycle, ICRA Indonesia also evaluates the profitability and cash generating ability of the business as well as other sources of financial flexibility available to an entity to evaluate its overall financial risk profile.

- **Profitability**

Profitability of a primary producer is primarily a function of its cost structure and product mix. However steel being a cyclical industry, profitability varies significantly along the cycle. Nevertheless, producers having cost structures better than the industry median level can generally be expected to remain profitable across cycles.

- **Leverage and cash flows**

As with companies in other commodity industries exhibiting cyclical price trends, a low financial leverage is viewed as a credit quality positive for steel players. Besides protecting cash flows of players by imposing a lower debt service burden, especially during periods of cyclical stress, a low gearing also imparts greater financial flexibility to steel producers to access funds from institutional sources.

Besides capital structure, ICRA Indonesia pays special attention to coverage indicators including interest coverage, operating profit and net cash accruals relative to the total debt while evaluating the financial health of a steel company. ICRA Indonesia is particularly concerned with a company's capability to honour its contractual obligations under stress conditions. The more robust a company's performance is likely to be under a range of reasonable projections; the better it is from a credit evaluation perspective. ICRA Indonesia also critically looks at other sources of financial flexibility available to an issuer, which could be in the form of, among others, availability of a portfolio of liquid financial assets, strategic importance of the entity to the group to which it belongs along with the financial strength of group entities.

- **Foreign currency related risks**

Foreign currency risk management plays an important part in the operations of a typical Indonesian steel producer given the fact that a substantial part of scrap is imported. In case the manufacturers purchase scrap from local traders, they will be shielded from the foreign exchange risk to an extent. The selling prices are, even if the company sells its product within

the country, linked to the exchange rate, being typically benchmarked against the landed cost of imports. The foreign currency risk can also arise if the entity has not covered its foreign currency transactions against the risk of fluctuation by resorting to mechanisms such as buying currency forwards/futures or any other hedging mechanisms. Relatively, the liabilities denominated in non-US dollar foreign currencies would be even more susceptible to fluctuation risk given the possibility that there might not be an active forex market for the said currency. ICRA Indonesia's analysis also focuses on the hedging policy of the issuer concerned in the context of the tenure and nature of its contracts with counterparties (short term/long term, fixed price/variable price).

- **Tenure mismatches and risks relating to interest rates and refinancing**

Large dependence on short term borrowings to fund long term investments can expose an issuer to significant refinancing risks, especially during periods of tight liquidity. The existence of adequate buffers of liquid assets/bank lines to meet short-term obligations is viewed positively. Similarly, the extent to which an issuer could be impacted by movements in interest rates is also evaluated.

- **Debt servicing track record**

The debt servicing track record of a company is an important input for any credit rating exercise. Any delays or defaults in the past in the repayment of principal or interest payments reduce the comfort level with respect to the steel player's future debt servicing capability and willingness.

- **Contingent liabilities/off-balance sheet exposures**

In this case, the likelihood of devolvement of contingent liabilities/off-balance sheet exposures and financial implications of the same are evaluated.

- **Consolidated financial analysis**

In case of groups consisting of companies with strong financial and operational linkages, various parameters such as capital structure, debt coverage indicators and future funding requirements are assessed at the consolidated/group level.

- **Adequacy of future cash flows**

Since the prime objective of the rating exercise is to assess the adequacy of the issuer's debt servicing capability, ICRA Indonesia draws up projections on the likely financial position of the issuer under various scenarios. Besides, ICRA Indonesia takes into account the commitments of the company towards other group companies, new ventures and its investments in subsidiaries/special purpose entities (SPEs). Subsequently, future cash flows are projected after taking into account the company's capacity utilization levels and the likely prices of raw materials and finished products; the growth it envisages for itself; debt repayment schedule; its funding requirements; and the funding options available to it. These cash flows are then used to determine the company's future debt servicing capability under various scenarios. Apart from cash flow projections, the other ratios used to assess cash flows are fund flow from operations (FFO) interest coverage, FFO debt coverage and FFO capital expenditure coverage.

Management quality and corporate governance

Management quality is one of the most important factors that ICRA Indonesia evaluates in assigning ratings, but is an intangible and difficult to quantify. For steel players, ICRA Indonesia looks at management strategies with respect to the company's cost position and product portfolio. ICRA Indonesia also evaluates how the management responds to the cyclical behavior of the industry, i.e. strategies followed to mitigate the risks arising out of such cyclical behavior. Generally speaking, a record of conservative financial philosophy provides an extra level of comfort for the rating.

Some of the other points assessed are:

- Experience of the promoter/management in the line of business concerned
- Commitment of the promoter/management to the line of business concerned
- The issuer's policies on leveraging, interest risks and currency risks
- The issuer's plans on new projects, acquisitions, expansions, etc
- Strength of the other companies belonging to the same group as the issuer
- The ability and willingness of the group to support the issuer through measures such as capital infusion, if required.

Summing up

ICRA Indonesia's credit ratings are a symbolic representation of its current opinion on the relative credit risk associated with the instrument being rated. This opinion is arrived at following a detailed evaluation of the issuer's business and financial risks, its competitive strengths, its likely cash flows over the life of the instrument being rated and the adequacy of such cash flows vis-a-vis its debt servicing obligations, and its management. As the note has highlighted, for steel companies, special attention is also paid on the company's raw material security, extent of backward/forward integration, product diversity, management strategies for managing cyclical downturns and overall approach towards investment and growth.

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**) Adopted and modified from ICRA Limited's Rating Methodology - rating methodology for steel company*