ACRA

Principles of Assessing Industry Factors in the Rating Analysis of Nonfinancial Corporations

Steel Industry

This document is part of the Methodology for Assigning Credit Ratings to Non-financial Corporations under the International Scale (hereinafter, the Methodology) and describes the specifics in conducting rating analyses of the operational and financial profiles of steel companies.

The document provides lists of indicators used, factor weights, assessment score boundaries for quantitative factors, and the principles of assessing qualitative factors for the steel sector.

1 Industry Companies

The assessment approaches described in this document are applicable to companies whose core business is steelmaking and the production of various semi and finished steel products.

2 Rating Factor Structure

Creditworthiness analyses of rated entities in the steel industry are based on assessing eight indicator blocks, which are combined into two profiles and have their own weights totaling 100%. The weights presented in Table 1 are base weights, i.e., they may change depending on the assessment scores derived for factor blocks (see Subsection 4.1.3 of the Methodology for a description of the floating weights concept).

Table 1. Scorecard for steelmaking companies

Profile	Factors	Factor weighting	Sub-factors
Operational profile	Business profile	20%	Degree of vertical integration, including the level of self-sufficiency in main raw materials
			Production cost competitiveness and technological advantages
			Product and geographic diversification
	Financial policy and corporate governance	15%	Financial policy
			Corporate governance
Financial profile	Size	15%	Revenue (USD bln)
	Profitability	10%	EBIT margin
	Leverage	15%	Total debt to funds from operations (FFO) before interest payments
			Total debt of the company to equity
			Qualitative leverage assessment
	Coverage	15%	FFO before interest payments to interest payments
	Liquidity	5%	Liquidity ratio
			Qualitative liquidity assessment
	Cash flow	5%	Free cash flow (FCF) margin
			Qualitative assessment of FCF stability

Source: ACRA

3 Operational Profile

The following describes the basic factors in the rating analysis of the operational profile, the degree of their influence when determining the credit rating of a non-financial corporation, and assessment specifics.

To assess operational profile qualitative indicators for rated entities in the steel industry, ACRA uses a set of characteristics specific to the industry that translate into a qualitative assessment category. Operational profile indicator weights are shown in Table 5.

3.1. Business Profile

The business profile assessment of steel companies is part of the creditworthiness analysis, given the capital intensity and cyclical nature of the industry.

The sector exhibits high cyclicality, volatility of financial performance, and high capital costs incurred both to maintain current production volumes and to develop new projects. The companies in the industry operate in an ever-changing market context, so it is important to assess their ability to keep costs low regardless of changes in environment. A company's competitive advantages, such as a high degree of vertical integration, cost effectiveness and technological competence coupled with product and geographic diversification, improve its financial sustainability.

The business profile is assessed taking into account the following subfactors subject to qualitative assessment.

3.1.1. Degree of vertical integration, including the level of self-sufficiency in main raw materials

Having high level of self-sufficiency in main raw materials through ownership of mining assets makes a company independent from external suppliers and provides flexibility in the event of adverse changes in the pricing environment for iron ore, coking coal, scrap and other raw materials. During some periods, there are countercyclical changes in commodity prices, e.g., when they increase, steel product prices may fall. In such cases, having a high level of vertical integration increases a company's ability to control costs.

In view of the above, a rated entity with a high degree of vertical integration (including self-sufficiency in raw materials and ownership over resource base) may be assigned a higher rating than a rated entity with lower level of self-sufficiency, given its dependence on external suppliers.

The qualitative assessment category for the degree of vertical integration is determined according to Table 2.

Table 2. Qualitative assessment of vertical integration

Assessment category	Main features
I	The company carries out a full production cycle from mining and processing raw materials to making the final product; more than 70% of raw material requirements are covered by the company's own resource base
II	Vertically integrated production, but no full production cycle; 30–70% of raw material requirements are covered by the company's own resource base
III	Minimum vertical integration of production; less than 30% of raw material requirements are covered by the company's own resource base
IV	No vertical integration
V	The company carries out minimum processing or uses a tolling scheme

Source: ACRA

3.1.2. Production costs competitiveness and technological advantages

Low production cost is a key competitive advantage factor for companies in the industry. To a large extent, this advantage is secured through vertical integration, i.e., by a company's ability to control the cost of production along the entire production chain from the mining of iron ore and coal to steelmaking. Moreover, the mining assets themselves must have competitive costs of production and provide the steel making process with raw materials of sufficient quality and necessary technological requirements. The assessment of the production cost involves detailed analysis, in addition to operating expenses, of transportation costs for the delivery of raw materials from mining sites to production sites (significant geographic remoteness may reduce the benefits of their development and use).

The qualitative assessment category for cash cost and ease of production is determined according to Table 3.

Table 3. Qualitative assessment of cash cost and ease of production

Assessment category	Main features
I	1st quartile of the global cost curve, extremely high level of technological advantages
II	2nd quartile of the global cost curve, high level of technological competitiveness
III	3rd quartile of the global cost curve, moderate level of technological competitiveness
IV	4th quartile of the global cost curve, moderately low ease of technological competitiveness
V	Negative cash profitability of mining, absence of technological competitiveness

Source: ACRA

3.1.3. Product and geographic diversification

Assessing product diversification in a company involves analyzing its product offering. Production of a single product or a limited range makes the company more vulnerable during the periods of decreased demand for that product. By contrast, a diversified range allows a company to distribute the risks associated with the structural changes in consumption and supply of a particular product. As part of the product diversification assessment, the type of output is also evaluated, i.e., whether the final product is a low-value added product (commodity type) or high-value added product.

Geographic diversification is assessed both in terms of whether a company has operating assets in several countries (decreases geopolitical risks), and in terms of not concentrating production in one place or a limited number of production sites (decreases risks of production termination because of failures or adverse events). As part of the product diversification assessment, the type of output is also evaluated, i.e., whether the final product is a product with low or high added value.

The qualitative assessment category for product and geographic diversification is determined according to Table 4.

Table 4. Qualitative assessment of product and geographic diversification

Assessment category	Main features
I	Diversified product line, high value-added products dominate, no concentration of assets in one country; excellent diversification of production and sales
II	Product line is not concentrated, significant share of high value-added products, no concentration of assets in one country; good diversification of production and sales
III	Product line is concentrated around several products, significant share of low value-added products, concentration of assets in one country; average diversification of production and sales
IV	Product line is concentrated on one product, low value-added products dominate, production assets are in one country; weak diversification of production and sales
V	Producer of a single product, production of low-margin products, production assets are in one country; very weak diversification of production and sales

Source: ACRA

3.2. Financial Policy and Corporate Governance

To assess financial policy and corporate governance, ACRA uses a common set of characteristics that translate into a qualitative assessment category for all industries (for a general description of the concept of corporate governance qualitative assessment, see Section 5 of the Methodology). The assessment of financial policy and corporate governance is carried out according to Table 5.

4 Financial Profile

The following describes the basic factors in the rating analysis of the financial profile, the degree of their influence when determining the credit rating of a non-financial corporation, and assessment specifics.

To assess qualitative indicators in the financial profile of rated entities in the steelmaking industry, ACRA uses a common set of characteristics that translate into a qualitative assessment category for all economy sectors (for a general description of qualitative assessment of financial profile indicators, see Section 6 of the Methodology).

Quantitative indicators in the financial profile are assessed in points on the basis of being part of a particular range and qualitative indicators, on the basis of qualitative assessment categories according to Table 6.

4.1. Size

To assess the business scale of steelmaking companies, ACRA uses the size of their revenue, which is important for assessing the creditworthiness of rated entities.

4.2. Profitability

The profitability of steelmaking companies is assessed based on EBIT, which ACRA believes best reflects the efficiency of operating cost management. Given the cyclical nature of the industry, companies often have to adjust the volumes of steel produced and finished steel products and control operating expenses to maintain profitability. A high profitability assessment score shows that a company is able to optimize expenditures in a volatile environment.

4.3. Leverage

The leverage assessment is a key factor in analyzing the financial sustainability of steelmaking companies, given their exposure to commodity prices and the product balance of supply and demand. To assess the leverage of rated entities in the steelmaking industry, ACRA uses an indicator calculated as the ratio of total debt to FFO before interest payments. The second indicator used is the ratio of total debt to the company's equity (this indicator allows ACRA to assess the relative use of borrowed funds and shareholder funds by the company). Qualitative characteristics are also used to assess leverage.

4.4. Coverage

To assess coverage, ACRA uses an indicator calculated as the ratio of FFO before interest payments to interest payments.

4.5. Liquidity

To assess liquidity, ACRA uses the short-term liquidity ratio and qualitative characteristics.

4.6. Cash Flow

To assess cash flow, ACRA uses the FCF margin, as well as the qualitative assessment of FCF stability.

The ability to fund an investment program with operating cash flow is important to companies in the industry, as their market position is largely dependent on the technological level of production and the degree depreciation of fixed assets. Dividend payouts made by the company are analyzed separately. Amid high capital costs, high dividend payouts can exert significant pressure on FCF.

Table 5. Operational profile factors

Factors	Sub-factors	Sub-factor weighting	Sub-factor score				
			5	4	3	2	1
Business profile	Degree of vertical integration, including the level of self-sufficiency in main raw materials	40%	V	IV	III	II	I
	Production cost competitiveness and technological advantages	30%	V	IV	III	II	I
	Product and geographic diversification	30%	V	IV	III	II	I
Financial policy and corporate governance	Financial policy	50%	V	IV	III	II	I
	Corporate governance	50%	V	IV	III	II	I

Source: ACRA

Table 6. Financial profile factors

Factors	Sub-factors	Sub-factor weighting	Sub-factor score				
			5	4	3	2	1
Size	Revenue (USD bln)	100%	[0;1)	[1;5)	[5;10)	[10;50)	[50; ∞)
Profitability and efficiency	EBIT margin	100%	(−∞; 3%)	[3%; 7%)	[7%; 15%)	[15%; 25%)	[25%; ∞)
Leverage	Total debt to FFO before interest payments	50%	(7; ∞)	(4; 7]	(2.5; 4]	(1; 2.5]	[0; 1]
	Total debt of the company to equity	30%	(1; ∞)	(0.8; 1]	(0.4; 0.8]	(0.2; 0.4]	[0; 0.2]
	Qualitative leverage assessment	20%	V	IV	III	II	I
Coverage	FFO before interest payments to interest payments	100%	(−∞; 1)	[1; 3)	[3; 6)	[6; 10)	[10; ∞)
Liquidity	Liquidity ratio	50%	(−∞; 0.8)	[0.8; 1)	[1; 1.25)	[1.25; 1.5)	[1.5; ∞)
	Qualitative liquidity assessment	50%	V	IV	III	II	I
Cash flow	FCF margin	50%	(−∞; −10%)	[−10%; 0%)	[0%; 5%)	[5%; 10%)	[10%; ∞)
	Qualitative assessment of FCF stability	50%	V	IV	III	II	I

Source: ACRA

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