ACRA

Principles of Assessing Industry Factors in the Rating Analysis of Non-financial Corporations

General Manufacturing

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 manufacturing companies.

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

1 Industry Companies

The assessment approaches described in this document are applicable to companies whose core business is the manufacturing of a wide range of goods from intermediate components to final products. The range of manufactured goods includes railroad cars, generators, compressors, mass market clothes and shoes, etc. The companies in the industry are very different in terms of size and geographic footprint, ranging from global players operating in numerous markets with production facilities in many countries to local ones focused on manufacturing products for a small range of consumers.

2 Rating Factor Structure

Creditworthiness analyses of rated entities in the manufacturing industry are based on assessing eight indicator blocks, which are combined in 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 manufacturing companies

Profile	Factors	Factor weighting	Sub-factors
Operational profile	Business profile	20%	Market position
			Volatility of financial performance
			Diversification and dependence on suppliers
	Financial policy and corporate governance	10%	Financial policy
			Corporate governance
Financial profile	Size	20%	Revenue (USD bln)
	Profitability	10%	EBIT margin
			Return on assets (ROA)
	Leverage	15%	Total debt to funds from operations (FFO) before interest payments
			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 manufacturing sector, 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 6.

3.1. Business Profile

The business profile assessment is based on a qualitative analysis of a number of indicators, including the company's market position and the size of its market share, entry barriers, the speed of introducing new technologies, and the level of production costs. In addition, ACRA assesses past volatility of product and geographic (markets, production sites) diversification. The assessment also takes into account the structure of the company's main target market (monopoly, oligopoly, monopolistic competition) and dependence on vendor components. The business profile is assessed taking into account the following subfactors.

3.1.1. Market position

Assessing market position involves determining the company's market share for its key products, the stability of the market position, whether it is possible to expand it, as well as competitive advantages and conditions for maintaining it in the future. In addition, ACRA assesses the company's ability to control the level of production costs and maintain a competitive cost of production, and the ability to shift the increase in expenditures to the price of the final product. Leading positions in the global market have a positive impact on the rated entity's financial stability. At the same time, a limited geographic footprint (exclusively present in the local market) and a weak competitive position adversely affect creditworthiness.

The qualitative assessment category for market position is determined according to Table 2.

Table 2. Qualitative assessment of the market position

Assessment category	Main features
I	World leader in segments where competition is virtually nonexistent because of the use of unique technologies or complexity of production; low cost of production allows the company to maintain a very high level of profitability; not affected by increases in prices of raw materials or components
II	Key global market player in a number of segments where competition is limited; low cost of production allows the company to maintain a high level of profitability; slightly affected by fluctuations in component prices because of vertical integration or can potentially shift price increases to the end customer
III	Key player in a national market where competition is moderate; an industry-average cost of production allows the company to maintain a reasonable level of profitability; moderately affected by increases in prices of components and raw materials; can partly shift price increases to the end customer
IV	Player in a local market where competition is significant; cost of production does not allow maintaining a stable, positive level of profitability; highly affected by increases in prices of raw materials and components; cannot shift price increases to the end customer
V	Small player in a local market where competition is significant; cost of production does not allow maintaining a positive level of profitability; critically affected by increases in prices of raw materials and components; cannot shift price increases to the end customer

Source: ACRA

3.1.2. Volatility of financial performance

Volatility in financial performance is often associated with the cyclicality of individual industries. Its assessment helps better predict the operating and financial performance of a company and reduce the risk of acute liquidity shortage, which has a positive effect on the company's creditworthiness assessment score.

The qualitative assessment category for volatility in financial performance is determined according to Table 3.

Table 3. Qualitative assessment of the volatility in financial performance

Assessment category	Main features
I	Very low volatility of key financial indicators; operations ensure very high predictability of financial performance
II	Low volatility of key financial indicators; operations ensure good predictability of financial performance
III	Moderate volatility of key financial indicators; operations ensure sufficient predictability of financial performance
IV	High volatility of key financial indicators; operations do not ensure sufficient predictability of financial performance
V	Very high volatility of key financial and operating indicators; financial performance is unpredictable

Source: ACRA

3.1.3. Diversification and dependence on suppliers

Operational diversification includes geographic and product diversification. Geographic diversification implies diversification by target markets and production sites. Good product diversification reduces dependence on demand for a particular product, market diversification, and demand volatility. Manufacturing is vulnerable to fluctuations in global economic cycles. However, various markets may exhibit different behavior at different times in terms of demand for products or distribution geography, so a good level of diversification reduces the impact of economic shocks in the regions of operation. Diversification of production across multiple sites, in turn, allows companies manage costs more efficiently (labor costs vary greatly in different jurisdictions) and reduce the risk of interrupting production in the case of adverse events due to possible accidents. The degree of dependence on vendor components makes it possible to assess the level of third-party influence on the stability of the rated entity's operations.

The qualitative assessment category for diversification and dependence on suppliers is determined according to Table 4.

Table 4. Qualitative assessment of diversification and dependence on suppliers

Assessment category	Main features
I	Very well diversified global target markets with very low volatility of demand through the business cycle and very low saturation; global technology leader in its product segments with a well-balanced product line; production is diversified outside the national market, i.e., production sites are located in several jurisdictions; production of components is very well diversified, or most components are manufactured at the company's enterprises
II	Well diversified global target markets with low volatility of demand through the business cycle and low saturation; important player in its product segments and a global leader for a number items in the product line, product line well balanced; production of components is well diversified, or components are partly manufactured at the company's enterprises
III	Sufficiently diversified target markets with moderate volatility of demand through the business cycle and moderate saturation; product line partially diversified, but the range of products mostly includes consumer goods; production is concentrated in a single country; production of components partially diversified, the number of suppliers is partly limited, as is the ability to manufacture components at the company's enterprises
IV	Poorly diversified target markets with significant volatility of demand through the business cycle and significant saturation; product line is composed of consumer goods; production is carried out at a limited number of sites within the same jurisdiction; production of components poorly diversified, the number of suppliers is limited; no ability to produce even a limited number of components at the company's enterprises
V	Target markets are not diversified and exhibit high volatility of demand through the business cycle; product line is limited and composed of consumer goods; production is concentrated at a single site; no diversification of production components, a very limited number of suppliers, disruption of supplies may entail disruption of the process cycle

Source: ACRA

3.2. Financial Policy and Corporate Governance

To assess the financial policy and corporate governance of rated entities in the industry, 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 qualitative assessment of financial policy and corporate governance, 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 industry, ACRA uses a common set of characteristics, 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), and an individual set of qualitative characteristics according to Table 5.

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 companies in the industry, ACRA uses the size of their revenue, which is important for their creditworthiness. In addition, ACRA analyzes revenue dynamics: the companies whose indicator exhibits high growth rates are assessed above those whose revenue stagnates or exhibits low growth rates.

4.2. Profitability

The profitability of companies in the industry is assessed based on EBIT, which ACRA believes to best reflect the efficiency of operating cost management. Companies with cyclical target markets often have to adjust their production volumes and watch their operating expenditures to maintain profitability. High profitability assessment scores show that a company is able to optimize expenditures in a volatile environment. The assessment of return on assets (ROA) analyzes the efficiency of a company's asset management, while taking into account the capital intensity of production for a particular product line.

4.3. Leverage

To assess the leverage of rated entities in the industry, ACRA uses the ratio of total debt to FFO before interest payments. Qualitative characteristics are also used to assess leverage.

4.4. Coverage

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

4.5. Liquidity

In order to assess liquidity of rated entities, ACRA uses the short-term liquidity ratio and qualitative characteristics.

4.6. Cash Flow

To assess cash flow for companies in the industry, ACRA uses the FCF margin indicator, as well as the qualitative assessment of FCF stability.

If a company in the industry runs a full production cycle, it needs to maintain a high level of capital expenditures and to fund them with cash flow (in order to avoid depreciation of production assets, technological inferiority to peers, or deterioration of financial performance). Dividend payouts made by a company are analyzed separately. Amid high capital costs, high dividend payments 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	Market position	40%	V	IV	III	II	I
	Volatility of financial performance	30%	V	IV	III	II	I
	Diversification and dependence on suppliers	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	EBIT margin	70%	(−∞; 3%)	[3%; 7%)	[7%; 15%)	[15%; 25%)	[25%; ∞)
	ROA	30%	(−∞; 0%)	[0%; 5%)	[5%; 10%)	[10%; 20%)	[20%; ∞)
Leverage	Total debt to FFO before interest payments	70%	(7; ∞)	(4; 7]	(2.5; 4]	(1; 2.5]	[0; 1]
	Qualitative leverage assessment	30%	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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