中誠信亞太
CCXAP

Rating Methodology

1 April 2021

Manufacturing Industry

Industry-specific rating methodology

CCXAP publishes a new rating methodology for manufacturing industry.

Summary

This rating methodology adopted by China Chengxin (Asia Pacific) Credit Ratings Company Limited ("CCXAP") applies to global manufacturing companies. It is an industry-specific rating methodology derived from the fundamentals of the Rating Methodology for General Corporate published in April 2019.

The scope of this rating methodology applies to manufacturing companies whose principal business being design and manufacturing of product components or final goods, including but not limited to heavy equipment, railroad cars, power generators, semiconductors, home appliances, and personal electronic devices. Manufacturing companies of automobile and pharmaceutical products are excluded from this methodology as they are covered under their corresponding industry-specific rating methodologies.

This rating methodology introduces the key determinants for rating manufacturing companies and explains our approach for assessing each key rating determinants in detail. It also includes a discussion of other rating considerations, the availability of external support, as well as assumptions and limitations underlying the rating methodology.

Analyst Contacts

Guo Zhang +852-2860 7119
Managing Director
guo_zhang@ccxap.com

Elle Hu +852-2860 7120
Director of Credit Ratings
elle_hu@ccxap.com

Client Services

Hong Kong +852-2860 7111

Introduction of Rating Methodology

The key rating determinants are divided into qualitative and quantitative determinants. The rating methodology provides a guideline that summarizes the important factors used in assigning ratings, but it does not include an exhaustive description of all factors that CCXAP may use in its rating considerations. As a result, the mapped rating may not match the final rating for each rated entity.

In this rating methodology there are 5 rating factors comprising 9 sub-factors as follows:

Rating Factors	Sub-factors
Scale	Total Revenue
Business Profile	Market Competition, Diversity, Market Position and Operating Stability
Profitability	EBITDA Margin Return on Assets
Financial Strength	Total Debt/Total Capital Total Debt/EBITDA CFO/Total Debt EBITDA Interest Coverage
Financial Policy	Financial Policy

Apart from these rating factors, CCXAP also assesses other aspects of the company, such as corporate governance and management, and event risk, as well as external support.

Key Rating Determinants

Rating factors and sub-factors are discussed in details in this section, including their rationale and measurement and how they will affect the rating.

1. Scale

Scale is an important factor in evaluating a rated entity’s credit profile given the cyclicity in the manufacturing industry. The operating and financial performances of manufacturing companies are fluctuated due to the volatile demands and costs of raw materials. A larger scale manufacturer will have greater resilience in the industry cycle, in general, benefiting from its bargaining power over the suppliers and consumers, economies of scale, and good access to business and financial resources. On the other hand, the revenue of small-scale manufacturing company will be more volatile, and its credit quality will be undermined during market downturn due to its weak cost absorption.

(1) Total Revenue

CCXAP uses revenue in measuring the scale of rated entities. A higher revenue means that the rated entity has a larger operating scale and better risk resistance capability during market downturn, and vice versa.

2. Business Profile

Business profile is a comprehensive assessment over the rated entity's operating performance. CCXAP considers qualitative determinant for the assessment because this methodology covers large varieties of sub-sectors. In addition, some rated entities engage in different stages of the supply chain, and different sectors and goods have different features. CCXAP mainly evaluates market competition, diversity of the rated entity's product portfolio, its market position and operating stability. Market barriers to entry, such as technological or capital barriers, can reduce potential competition and provide certainties to the company's operating performance, which is credit positive. On the other hand, company that operates in a fragmented market will be exposed to larger uncertainties given the intense market competition and cyclicity, so its credit quality could be undermined in a market downturn.

A manufacturing company that diversifies its business segments to cover the majority stages of the supply chain will have stronger bargaining power with better cost control, which provides stability to its operation. Manufacturing company can also diversify its product portfolio into different goods in order to mitigate the adverse effects of market cyclicity, which means that the company will have stronger risk resistance as compared to a company that concentrates on a single product. However, even if a company engages in manufacturing multiple varieties of products, it does not necessarily mean that it will be assigned a better rating. This is because the company can still be exposed to large credit risk if it lacks operating experience or track record in the majority of its segments. Therefore, apart from the variety of products, CCXAP will also consider a company's track record of performance and the synergies between different segments as well as the business strategy for the assessment of its diversity.

Market position is a key indicator in the evaluation of business profile, especially for manufacturing company that operates in a fragmented market. A company with large market share usually has advantages over areas, such as branding, advanced technology, and research and development, which are key to its sustainability and competitiveness. A small market share may suggest that the company can be easily replaced by other competitors with weak sustainability, so its business operation is fragile in recession. Apart from the current market share, it is important to take the potential market share changes into account, which is based on market trend and development of advanced technology. The reason is that technological shift usually brings a significant impact to the industry and change the competitive structure. We consider that a company with larger market share will have a stronger business profile, and vice versa.

CCXAP also examines operating stability for business profile, as manufacturing company's operating performance can be affected by the volatile industry environment. A proven track record of stable operating performance along the industry cycle suggests a stronger risk resistance capability, which is credit positive, while a highly fluctuated operating performance represents larger uncertainties and credit risk. Apart from the downstream customers, end-market demand also affects operating stability. A stable end-market demand can provide stability to the operating performance. In addition, CCXAP expects that a manufacturing company will have more stable performance if its products can fit in more varieties of final goods. CCXAP will consider the trend of some operating indicators, such as purchase orders, revenue, and operating profit, in evaluating a company's business profile. In addition, a long-term or exclusive supply contract is considered as credit positive to the operating stability. CCXAP will assign a better rating to the company with a stable or improving operating performance, and vice versa.

3. Profitability

Manufacturing industry is sensitive to the industry cycle, and the company's revenue and cost can be volatile. A manufacturing company may suffer a loss in downturn, which undermines its debt servicing abilities. On the other hand, if a company can maintain high profitability throughout the cycle, it can reinvest its profits in research and development to enhance its competitiveness, thereby gaining a better creditworthiness. Therefore, profitability is a key determinant to evaluate a company's cost control and product competitiveness. CCXAP considers EBITDA margin and return on assets in the evaluation of profitability.

(1) EBITDA Margin

EBITDA margin is calculated by EBITDA divided by revenue. As different manufacturing companies may adopt different accounting policies on depreciation and amortization, CCXAP uses earnings before interest, tax, depreciation, and amortization in the evaluation of profitability. CCXAP may also consider adjusting non-recurring items if the items have significant impact to the assessment.

(2) Return on Assets

In the assessment of profitability, CCXAP also considers return on assets, measured by EBIT divided by average assets. In general, manufacturing industry is capital intensive and, usually has a large investment in property, plant, and equipment. Return on assets can reflect the company's ability and effectiveness to generate profits based on its assets.

4. Financial Strength

CCXAP evaluates a rated entity's leverage and coverage in assessing the rated entity's financial strength. This measures the company's profitability and cash generation capability to cover its debt and interest repayments. CCXAP mainly considers the ratios of total debt/total capital, total debt/EBITDA, CFO/total debt and EBITDA interest coverage.

(1) Total Debt/Total Capital

Total debt refers to interest-bearing debt, including bonds, notes, short-term and long-term borrowings. CCXAP may adjust perpetual bonds in equity as debt, depending on the covenants. A higher ratio represents higher debt leverage, and vice versa.

(2) Total Debt/EBITDA

CCXAP uses total debt/EBITDA ratio as an indicator to evaluate a rated entity's debt servicing ability. Profit is vital to a company's debt repayment ability. A company with an aggressive financial policy has a large scale of debt, and its profit may not be enough to cover its debt repayment. In addition, companies with same debt leverage may have different debt servicing abilities given differences between their profit. A higher ratio represents weaker credit quality, and vice versa.

(3) CFO/Total Debt

CCXAP uses net cash flow from operating activities to total debt for the evaluation of company's cash generation ability to repay its debt. A higher ratio reflects better cash coverage to total debt, and hence, better credit quality, and vice versa.

(4) EBITDA Interest Coverage

EBITDA interest coverage is used for the evaluation of a rated entity's ability to cover its interest payments, which include both interest expenses and capitalized interests. The ratio is calculated by EBITDA divided by interest payments, and a higher ratio reflects a better interest coverage, and vice versa.

5. Financial Policy

CCXAP assesses the rated entity's financial policy mainly based on its dividend payout policy, investment strategy and capital structure. A company that adopts a more aggressive financial policy usually has a high debt leverage and dividend payout ratio. Also, a company that actively explores investment or expansion opportunities is inherently exposed to larger credit risk and may hurt the interests of creditors. On the other hand, a company that has a conservative financial policy with a low and stable debt leverage will favor the creditors, as it has a larger financial flexibility in downturns.

Other Rating Considerations

In assessing the overall creditworthiness of the company, other than the factors and sub-factors discussed above, CCXAP also considers corporate governance, management policy, event risk, and geopolitical risk.

Corporate Governance

Corporate governance refers to the system of rules, practices, and processes by which the company is controlled and directed, and it is an important rating consideration. The company with strong corporate governance has fair and transparent sets of rules and controls in which all stakeholders have aligned incentives, and this can improve its creditworthiness.

Management Policy

The management policy can significantly affect a company's credit profile. Through assessing the feasibility and execution of a company's strategic plan and risk management, CCXAP analyses the company's future performance. An effective long-term strategic plan and conservative risk management can improve the company's credit profile.

Event Risk

CCXAP considers the risks of unexpected events that could cause a sudden and sharp change in the rated entity's overall credit profile, such events include asset sales, spin-off, capital restructuring program, change of major shareholders, mergers and acquisition and significant restructuring program.

Geopolitical Risk

Manufacturing companies usually have a greater breadth of customers across the world, and their operations could be influenced by rising geopolitical risks, such as introduction of new policies on tariffs or imposition of sanctions. These can disturb the companies' operation as well as access to capital, and hence, adversely affect their credit quality.

Liquidity Management

Liquidity is a critical rating factor for manufacturing companies, especially for non-investment grade companies which typically have less operating and financial flexibility in downturns. CCXAP may evaluate rated entity's reliable sources of liquidity, such as unused credit facilities, as well as its track record of access to capital. In addition, CCXAP may consider its cash conversion cycle, which a shorter period can provide larger financial flexibility.

External Support

In terms of external support, CCXAP considers both shareholder support and government support that a company would receive to decrease the likelihood of default.

Shareholder Support

The support from shareholders benefits the company's future development and overall credit worthiness. In assessing shareholder support, CCXAP considers the nature of the holding company, industry competitiveness and financial status. In addition, CCXAP uses a company's development strategy, market position, ownership structure and importance to the shareholder to evaluate the availability of shareholder support.

Government Support

Government support means that when a company is facing severe pressure of debt servicing, the government would provide support to pay for the company's debt or take other actions to avoid default. In assessing the support from the government, CCXAP considers the following factors such as a company's assets importance to the government, the legal requirements and degree of oversight from the government, government support and bailout histories, and the financial strength of the government.

Assumptions and Limitations

The final ratings assigned are based on CCXAP's forward-looking opinions, which we assume any changes of the macro environment are aligned with our expectations, and do not incorporate any unanticipated changes, such as outbreak of war and destructive natural disaster.

CCXAP assumes that there is a strong correlation between the sovereign credit risk and the rated entity, while refinancing capability is the key driver of credit risk. The debt rating assigned is based on our view that legal priority of claims is the key factor affecting the ratings for different classes of debt issued by the same issuer. Also, we assume that the data used in the rating is true, legal and does not incorporate misleading statements.

The ratings incorporate our expectations of the rated entity's future performance, which are mainly deduced from the historical information via our forward-looking model. Under some circumstances, the expectations would incorporate confidential information. In addition, our expectations would consider the industrial trend, rival analysis, and other considerations. In any case, predication is subject to substantial uncertainty. Therefore, the mapped ratings may not match our final ratings. The ratings may include some qualitative factors. CCXAP would evaluate these factors in an objective and precise approach, but the assessment may be unavoidably affected by subjective view in some cases. Therefore, the weighting of rating considerations could be varied. Specifically, the variation in weighting would happen if the rated entity is in default or approaching to be in default.

Furthermore, the ratings rely on public information and information provided by the rated entity and underwriters. Despite the fact that CCXAP can ensure the integrity, truthiness, and completeness of the data, due to the delay of information, the ratings may on some occasions not reflect the rated entity's credit risk in a timely manner.

Apart from that, the ratings are decided by our rating committee and could be influenced by their empirical views which may not be incorporated in the rating methodology. As a result, the final ratings could be varied with the mapped rating from the methodology.

Copyright © 2021 China Chengxin (Asia Pacific) Credit Ratings Company Limited ("CCXAP"). All rights reserved.

No part of this publication may be reproduced, resold or redistributed in any form or by any means, without prior written permission of CCXAP.

A credit rating is the analytical result of current credit worthiness and forward-looking opinion on the credit risk of a rated entity or a debt issue. Credit ratings issued by CCXAP are opinions on the current and relative future credit risk of the rated entities or debt issues, but do not address any other risks, including but not limited to liquidity risk, market price risk, and interest rate risk.

Credit ratings, non-credit assessments, and other opinions included in CCXAP's publications are not recommendations for investors to buy, sell, or hold particular securities, nor measurements of market value of the rated entities or debt issues. While obtaining information from sources it believes to be reliable, CCXAP does not perform audit and undertakes no duty of independent verification or validation of the information it receives from the rated entities or third-party sources.

All information contained herein belongs to CCXAP and is subject to change without prior notice by CCXAP. CCXAP considers the information contained herein to be accurate and reliable. However, all information is provided on an "as is" and "as available" basis and CCXAP does not guarantee accuracy, adequacy, completeness, or timeliness of the information included in CCXAP's publications.

To the extent where legally permissible, CCXAP and its directors, officers, employees, agents and representatives disclaim liability to any person or entity (i) for any direct or compensatory losses or damages, including but not limited to by any negligence on the part of, and any contingency within or beyond the control of CCXAP or any of its directors, officers, employees, agents or representatives, arising from or in connection with the information contained herein or the use of or inability to use any such information; and (ii) for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if CCXAP or any of its directors, officers, employees, agents or representatives is advised in advance of the possibility of such losses or damages.

China Chengxin (Asia Pacific) Credit Ratings Company Limited

Address: Suites 1904-1909, 19/F, Jardine House,
1 Connaught Place, Central, Hong Kong

Website: www.ccxap.com

Email: info@ccxap.com

Tel: +852-2860 7111

Fax: +852-2868 0656