

## Rating Methodology for General Corporate

### Summary

This rating methodology adopted by China Chengxin (Asia Pacific) Credit Ratings Company Limited (“CCXAP”) is applicable for rating non-financial corporates. Financial institutions and non-profit organizations are not covered by this methodology. CCXAP may publish industry-specific rating methodologies from time to time. These industry-specific rating methodologies are developed based on this rating methodology for general corporate and provide more specific considerations for the credit assessment of companies from a specific industry. This rating methodology for general corporate introduces a general guidance for rating non-financial corporates.

This new rating methodology replaces the “Rating Methodology for General Corporate” published by CCXAP in November 2018. The new version follows the core rating principles of the previous version with some amendments, which helps the users to better understand our methodology. No rating changes will be resulted from the implementation of this new rating methodology.

### Introduction of Rating Methodology

There are 4 key rating aspects for the credit assessment of non-financial corporates such as country risk, industry profile, business profile and financial profile. Both quantitative and qualitative determinants are considered in the credit rating. This methodology provides a general guidance in assigning ratings to corporate entities, but the weighting and scoring of each factor and sub-factor would be adjusted according to the characteristics of each industry. Also, since numerous determinants are considered in the rating, this methodology does not exhaustively include all of them and only lists out some important determinants as detailed explanation.

Categories	Rating Factors	Sub-factors
Country Risk	Macroeconomic risk Political risk Country ceiling	
Industry Profile	Regulation and policy Market competition Industry nature Industry trend	Maturity of regulation and policy Influence of regulation and policy Intensity of competition Rival competition Market concentration Barriers to entry Threat of substitutes Market situation Industry volatility Industry development

Business Profile	Competitiveness	Track record of profitability Competitive advantages Market share Customer base
	Scale, scope and diversity	Revenue Segment diversification Geographic diversification Diversification strategy
	Stability and sustainability	Supply of raw materials Trend of revenue Stage of business development Quality of assets
	Profitability and operating efficiency	Gross profit margin EBIT margin EBITDA margin ROA ROE
	Corporate governance and management experience	Cost structure Board independency Ownership structure Corporate culture Internal controls Financial reporting policy Transparency Proficiency of management Strategic planning Execution of strategies
Financial Profile	Financial policy	Riskiness of financial instruments Sources of financing Dividend payout policy
	Financing capability	Alternative liquidity Access to capital
	Liquidity and cash flow	Cash/interest expense Cash/short-term debt CFO/interest expense CFO/short-term debt (CFO-dividend)/total debt Current ratio Quick ratio Cash ratio
	Financial leverage and coverage	Total debt/total capital Net debt/total equity EBIT/interest expense EBITDA/interest expense Total debt/EBIT Total debt/EBITDA FFO/interest expense FFO/total debt

## Key Rating Considerations

Rating factors and sub-factors are discussed in details in this section, including their rating rationales, their measurements and how they will affect the credit rating of non-financial corporates.

Some companies may operate in multiple countries and industries. The evaluation considers all of the countries and industries that the companies are involved. CCXAP mainly focuses on the business that

generates most of the revenue or profit since it has a more significant influence to the company.

## 1. Country Risk

Country risk is the first aspect for the assessment of companies. Two sub factors, namely macroeconomic risk and political risk, are considered in this section.

Country risk is different from sovereign risk. Country risk focuses on the influences to the business environment while sovereign risk assesses the risk of a sovereign defaulting on its debt obligations. However, given the transfer risk, companies may be incapable to convert local currency to foreign currency, and therefore CCXAP also considers the country ceiling when assigning the credit rating.

CCXAP recognizes that some companies may diversify their business to multiple countries and all the regions that the business operates in would be considered. However, CCXAP may focus on the country that most of the company's revenue comes from or the company mainly operates in. Moreover, country risk is an asymmetric consideration. A company's credit rating may not be upgraded because of healthy operating environment while poor operating environment may trigger the downgrade of a company's credit rating.

### (1) Macroeconomic risk

The economic condition can influence companies' creditworthiness. For example, consumers are reluctant to spend in economic downturn and companies would have a lower revenue level, which means they have less resource to satisfy their own debt obligations. Due to globalization, changes in global economy will also affect the domestic economy. Therefore, in the evaluation of macroeconomic risk, CCXAP considers the influences of both domestic and global economic changes as well as the global economic trend.

### (2) Political risk

Political risk is the risk that company's operation may be deteriorated because of the political instabilities in a country. A stable political environment may not improve companies' performance but companies' operation can be disturbed under an unstable environment. For example, companies' assets cannot be well protected in the country with civil wars or unreliable/unfair judicial system. Given the geopolitical risk, relationship with neighboring countries can also affect the domestic business environment. An intense relationship with neighboring countries can increase the political risk because of the possible outbreak of conflicts.

### (3) Country Ceiling

Country ceiling may affect companies' credit rating. For example, sovereigns may impose exchange control when they suffer into financial distress or default so as to restrict capital outflow. Hence, companies may be incapable to convert local currency into foreign currency and fail to fulfil their debt obligations.

Country ceiling is set according to the sovereign credit rating and may be adjusted by a number of additional considerations, including but not limited to: multilateral institutional constraints on restricting

international trade and financial flows and the credibility and characteristics of exchange rate regime. Companies' credit rating can pierce the country ceiling (i.e., be rated higher than the government in foreign currency) if the companies have strong fundamental strength and low default dependence with the sovereign. On the other hand, if the companies' debt serviceability is significantly influenced by the transfer risk, the companies' credit rating may be capped at the level of country ceiling.

## **2. Industry Profile**

The evaluation of industry profile considers the fundamental aspects of the industry that may affect companies' creditworthiness. The evaluation of industry profile is a benchmark in the assessment of a company's business and financial profile. Weak industry profile may have a negative effect to the company's rating. For example, the companies in a highly competitive, declining or volatile industry are considered riskier than companies in an industry with high entry barriers and stable growth. Therefore, those companies that mainly operate in a risky industry are less likely to receive the highest rating. In evaluating a company's industry profile, CCXAP considers four sub-factors: regulation and policy, market competition, industry nature and industry trend.

### **(1) Regulation and policy**

CCXAP considers industry regulation and policy as a vital factor to influence companies' operation. The maturity of regulation as well as its influence is assessed. Industries with a more mature regulation have lower uncertainties since the regulation is unlikely to change frequently. While operating in an industry, the potential for changes can increase uncertainties.

CCXAP considers the tightness of regulation to be either a favorable factor or unfavorable factor based on its influence on the companies' operation. For example, if the entry barriers are higher due to a tight regulation, CCXAP may consider this as a favorable factor to companies since the market competition is less intense. On the other hand, if a tight regulation aims to constrain the development of companies, it may be considered as an unfavorable factor.

### **(2) Market competition**

The intensity of competition in the industries can affect companies' creditworthiness while industries with intense competition are inherently riskier. In the evaluation of industry profile, rival competition, entry barriers and threat of substitutes are examined. In order to assess the rival competition, CCXAP considers the numbers of companies within the industry and market concentration. The competition of a highly concentrated market with few competitors is less intense than the industry with lower concentration and many participants. Investment, licenses and technology requirements are some of the factors for the evaluation of entry barriers. With low entry barriers, the new competitors can easily enter the market which can cause the competition to be more intense.

### **(3) Industry nature**

The evaluation of industry nature is mainly used as a benchmark in the evaluation of business and financial profile. CCXAP recognizes that each industry has its unique nature, which can affect the performance of companies. For example, labor intensive industries have a lower profitability while capital intensive industries have a higher leverage. Therefore, it is not fair to compare companies in

different industries with the same benchmark. In the assessment of industry nature, CCXAP aims to understand the unique characteristics of different industries and set up the appropriate benchmarks for the latter evaluation. Industry volatility is also a vital part in the evaluation of industry nature. A volatile industry increases uncertainties of companies with the unstable revenue and lower financial flexibility which can damage companies' creditworthiness. CCXAP recognizes that the cyclical economy is one of the factors that cause a volatile industry. For example, in economic downturn, GDP as well as consumption decrease causes lower revenue. Therefore, in order to evaluate the industry volatility, CCXAP mainly focuses on the volatility of the revenue and factors which can influence the revenue, such as price and demand, are considered. Also, we take into consideration the dependence on technology factors and the impact of technological improvements in order to assess the vulnerability to technology risks of the industry.

#### (4) Industry trend

It is vital to have an understanding of industry trend, which influences companies' operation. A growing industry with positive outlook would have lower industry risk and is a favorable factor for participants of the industry, while a declining industry would impose higher industry risk because companies may involve in price competition in order to sustain their business. This in turn can hurt their abilities to meet their own debt obligations.

However, it is noteworthy that rapid industry growth may also be caused by the emergence of a young industry, which indicates higher risk as it has not established track record of profitability. In such cases, care should be taken in assuming that rapid industry growth is a favorable factor. CCXAP evaluates the situation on a case by case basis.

### **3. Business Profile**

According to the characteristics of each industry, different benchmarks are set for the evaluation of business profile and financial profile, while the comparison with peers is also considered. In the evaluation of business profile, CCXAP reviews the companies' competitive position, operational performance and structure. Market position and competitive strength indicate the ability of companies to withstand intense competition. The scale, scope and diversification of business can affect both companies' competitiveness and performance. With dynamic market environment, the stability and sustainability of companies' operation can affect their creditworthiness. Corporate governance and management experience are also considered since it may affect a company's future performance.

#### (1) Competitiveness

CCXAP starts evaluating a company's business profile from understanding its competitiveness, while competitive advantages and market share are some of the considerations.

With competitive advantages, companies can be easier to maintain or even expand the market share. Advanced technology, branding and economies of scale can be the strong competitive advantages for companies.

Market share can be another determinant for assessing the competitiveness of companies. In some

industries, companies with larger market share have stronger pricing power and create greater entry barriers for potential competitors. Also, a broad and consolidated customer base can strengthen a company's competitiveness since it implies high level of dependency.

CCXAP believes that companies with stronger competitiveness are more capable to withstand intense competition and are thus more likely to meet their debt obligations.

## (2) Scale, scope and diversity

This section mainly deals with evaluating the size and business model of companies. Revenue is one of the indicators to assess companies' scale. Companies with larger size are more advantageous, such as in accessing resources. Moreover, large companies have better risk resistance capability during economic downturn while small companies may be easier to suffer into financial distress or even be takeover by large companies.

Apart from the size, diversification is another strategy to increase the risk resistance of companies. Product variety and geographic diversification are two common strategies that companies implemented. Companies that diversify their business segments are less vulnerable to the economic cycles and demand fluctuations while geographic diversification can lower the influence of operational risk, such as strike, in a specific region. In the evaluation of diversification, CCXAP takes into account the companies' diversification strategy as a whole instead of only considering the number of segments and regions diversified into.

## (3) Stability and sustainability

In order to assess the stability of companies, CCXAP reviews the trend of companies' revenue and aims to evaluate their performance in economic downturn. The stage of business development is another factor to affect company's revenue. For example, company in growth stage has a higher growth in revenue while its growth in revenue may slow down when it is in mature stage. Therefore, CCXAP considers the stage of business development when evaluates the stability of companies.

Some industries heavily rely on raw materials. Procurement is one of the sources to get raw materials, so CCXAP reviews the effect of change in price and supply of raw materials to companies' operation. Some companies may have their own raw material reserve and the quality and adequacy of reserve are examined. A better quality and adequate reserve can ensure the sustainability of business. If a business is not sustainable, the company's creditworthiness can be negatively affected since its revenue may decrease in the future. The quality of assets is also examined in order to assess the sustainability of companies. In economic downturn, the value of assets may be impaired which can be detrimental to companies' income and value while companies with higher quality of assets are less vulnerable to economic downturn.

## (4) Profitability and operating efficiency

Profitability and operating efficiency are the key indicators to determinate the companies' performance.

In order to provide an accurate and comparable result, CCXAP may adjust the numbers stated in the annual report. Furthermore, based on the features of industries, CCXAP chooses different determinants for the assessment of companies' profitability and efficiency. For example, EBIT margin would be considered as a more reasonable proxy for companies' profitability than EBITDA margin for the industries with higher level of capital expenditure on fixed assets since companies need to roughly match or exceed depreciation in order to sustain the business. The composition and changes of cost structure are also considered in the assessment of companies' profitability and efficiency while cost structure can be a proxy to estimate a companies' future profitability.

#### (5) Corporate governance and management experience

Corporate governance represents the group structure, practices and processes by which the company is controlled and directed, and it is an important rating consideration. The rationale of assessing corporate governance is to understand companies' effectiveness of managing the relationships between the companies and different stakeholders. A company with strong corporate governance has fair and transparent sets of rules and controls in which all stakeholders have aligned incentives. On the other hand, weak corporate governance can disturb the operation of companies. In the evaluation of corporate governance, CCXAP considers several factors including but not limited to board independency, executive compensation packages, ownership structure, culture, related-party transactions, internal controls, financial reporting policy and transparency.

In the evaluation of management experience, CCXAP considers the proficiency of management team and its strategic planning and execution capabilities. Management profile and track records of companies are the considerations of the proficiency of management team. With a professional management team, a company is more capable to adapt the dynamic market environment while a company can have a more stable performance.

The strategic planning and execution indicates the management experience of companies. Consistency, feasibility and track record of execution are examined for strategies. A consistent and feasible strategic planning can lower uncertainties since the strategic plans are in alliance with the companies' capabilities and long-term goals as well as the market conditions. Innovative and variant strategic plans do not necessarily mean that companies have poor strategic planning but can increase uncertainties. In addition, excellent strategic planning may not lead to excellent performance because of the bad execution of strategies. Good execution of strategies should be tracked, adjusted and controlled.

#### **4. Financial Profile**

The evaluation of financial profile is mainly based on the information from financial reports. CCXAP recognizes that the financial statements may not fully reflect companies' financial performance. Off-balance-sheet activities, adoption of accounting policies and differences between accounting standards are some of the reasons that can cause problems. Therefore, adjustments would be made when calculating the financial ratios so as to enhance the accuracy and consistency of the assessment. In evaluating a company's financial profile, CCXAP considers the company's financial policy, financing capabilities, liquidity and cash flow, and financial leverage and coverage.

### (1) Financial policy

In the evaluation of financial policy, aggressiveness of financial policy is examined. The riskiness of financial instruments, sources of financing and dividend payout policy are some of the considerations. CCXAP would consider financial policy that offers a better protection to creditors to be conservative. Companies with a conservative financial policy may have a stronger financing capability with a lower cost while it can improve the company's creditworthiness.

### (2) Financing capability

Most of the companies rely on both the internal sources and external sources to finance their business. In the evaluation of financing capability, CCXAP focuses on the companies' capability of external financing. Alternative liquidity is the first consideration and it represents the ability to raise fund in an emergency situation. A company may face a liquidity crisis and are required to raise enough funds to release them from this crisis. Companies with strong alternative liquidity can easily avoid the crisis or prevent themselves from suffering into from such crisis. If a company has a weak alternative liquidity, its development may be constrained while it needs to hold a larger amount of cash by giving up some development opportunities. This can reflect negatively on its creditworthiness.

Another consideration is the access to capital, which evaluate companies' ability to raise fund for long-term operation. Listed companies have a broader way to raise fund than private companies. For example, listed companies' shares can be offered to the public. In addition, companies can have a better access to capital if they have a strong relationship with the banks. CCXAP also considers companies' financing records. Companies with high average financing cost and history of default are difficult to access to capital.

### (3) Liquidity and cash flow

The assessment of liquidity and cash flow provides an understanding of companies' ability to meet their payment obligations. A company which does not have enough cash for repayment of short-term liability may have higher risk of going concern and indicate a weaker credit profile. Therefore, CCXAP may use coverage ratios such as cash to interest, cash to short-term debt, cash flow from operating activities to short-term debt to assess a company's liquidity profile. In the evaluation of liquidity, CCXAP considers the composition of companies' current assets because some companies can quickly reverse their inventories into cash while those inventories are more liquid. Based on the features of industries, CCXAP focuses on different liquidity indicators.

### (4) Financial leverage and coverage

In the evaluation of financial leverage, CCXAP considers current leverage of the corporate by assessing ratios such as total capitalization ratio and net gearing ratio to determine the issuer's general risk from leverage. And a high leverage ratio may indicate higher credit risk. CCXAP recognizes coverage as the company's long-term ability to meet obligations and considers the ability to generate stable income as favorable indicator which indicates stronger ability to meet obligations. In addition, CCXAP considers the use of the interest coverage ratio, such as EBIT coverage ratio or EBITDA coverage ratio, as one indicator of companies' ability to generate income to cover their

interest payments. Finally, CCXAP recognizes use of debt to income (i.e. EBIT, EBITDA) ratio as indicator of both financial strength and coverage, when a higher ratio indicates higher credit risk of the company.

## **Other Rating Considerations**

Other than the factors and sub-factors discussed above, CCXAP may consider a number of additional factors, including but not limited to external support, contingent liabilities and event risk.

### **External support**

External support is an adjustment factor while it can influence companies' future performance and strengthen its credit profile. Evaluation of external support can be split into two aspects, which are parental support and other institutional support.

Other institutional support is defined as the support from government or banks, which are not the shareholders of companies. Those institutions usually have a strong financial profile and are willing to support those companies which are strategically important to the country. Therefore, we consider these companies to have a strong external support and good creditworthiness.

Parental support is usually come from the shareholders and the parent company. We consider the willingness and degree of support in order to assess the parental support. In the evaluation of willingness of support, CCXAP considers the company's importance, market position and ownership structure. For example, if a company is important to the conglomerate, such as generating a large proportion of income, then the conglomerate is more willing to support the company. Shareholders' financial profile is examined in order to analyze the degree of support because capital injection is the most common way of support. CCXAP recognizes that government can be the shareholder of companies and can offer a more consolidated support to company. However, we also recognize that companies operation can be intervened by government, which can be unfavorable to the companies' operation.

Companies' credit profile will not be damaged if they do not have external support but strong external support can lower companies default probability and companies' credit rating deserves uplift.

### **Contingent liabilities**

Contingent liabilities increase uncertainties because companies may increase their spending because of the happen of specific event in the future. The most influential contingent liabilities come from the guaranteed loans. A company can be a guarantor for the loans of other companies. If those companies failed to meet the payment obligation, the guarantor has to repay the obligation on their behalf, which can damage the guarantor's financial profile. Apart from that, some companies offer warranties to their customers. Although the warranties expense is recorded in the financial report in advanced, the expense may not fully reflect the future expenses which imply that uncertainties exist. Litigation is one of the considerations that are examined in the evaluation. Possible income brought by litigation is not a factor to adjust companies' credit rating but a significant expense can damage companies' credit profile, which may cause the downgrade in credit rating.

## **Event risk**

CCXAP will consider apply stress tests to the issuer's overall credit profile by considering safety margin of a rating when the issuer is under certain changes in rating factors, including but not limited to increase/decrease in key financial ratios, changes in regulation or industry competition pattern, etc. CCXAP would also consider the possibility of unexpected events that impact credit ratings, such as asset sales, spin-offs, capital restructuring program, change of major shareholders, mergers and acquisition, technological transform and significant restructuring program.

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