

Global Rating Methodology for Real Estate Development Industry

Summary

This rating methodology adopted by China Chengxin (Asia Pacific) Credit Ratings Company Limited (“CCXAP”) applies to real estate development industry, including companies that are mainly engaged in the development and sales of residential and commercial properties. This new rating methodology replaces the “Rating Methodology for Real Estate Development Industry” published by CCXAP in May 2017. The new version corrects the typographical errors of the previous version. No rating changes will be resulted from the implementation of this new rating methodology.

REDCs refer to the companies with over 50% of revenues generated from residential, commercial or other properties. The residential property types include single- and multi-family houses and apartments, while the commercial property types include offices, shops and logistics warehouses. The companies with their revenues mainly generated from rental income by holding commercial or other properties are covered by the “Rating Methodology for REITs and REOCs” adopted by CCXAP.

This rating methodology introduces the key determinants that influence the credit quality of global REDCs. CCXAP assigns credit ratings to them using its rating scale.

Introduction of Rating Methodology

This rating methodology provides a summarized guidance for the important factors used in assigning ratings, but it does not include all aspects of rating consideration. As a result, the mapped rating may not match the final rating of each company.

In this rating methodology, there are three rating factors comprising 11 quantitative and qualitative sub-factors as follows.

Rating Factors	Sub-factors
Business Profile	Operating Environment Scale Geographic Diversification and Market Position Operating Performance and Strategy Execution
Financial Strength	Gross Profit Margin Return on Equity Net Gearing Ratio Total Debt/EBITDA

	EBITDA/Interest
Financial Flexibility	Liquidity Access to Capital

Key Rating Determinants

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

1. Business Profile

In the evaluation of business profile, CCXAP reviews the operating environment of the rated company, as well as its scale, market position, operating performance and strategy execution. The business profile factor reflects the non-financial aspects of the company and is measured from qualitative perspective.

(1) Operating Environment

The macroeconomic conditions and the market supply and demand dynamics of each country determine the long-term development of real estate industry. In the aspect of macroeconomic conditions, the key factors related with the development of real estate industry include economic growth, industrial structure, monetary policy, as well as the position and support of real estate industry in the domestic economy. In the aspect of market supply and demand dynamics, the key factors related with the foundation of real estate industry include population distribution and structure, urbanization rate, household disposable income, the preference of housing ownership, and the supply of land bank. In addition, the varieties of land policy, presale policy and housing construction policy lead to the divergence of operating risks in the real estate industry among countries. CCXAP evaluates the operating environment of global real estate companies from the perspectives of macroeconomic conditions and the supply and demand dynamics hereinbefore.

(2) Scale

Scale is an important factor to reflect the comprehensive strength of REDCs. In an established market, the market leaders can cooperate with reputable contractors and acquire high-quality land bank, having stronger bargaining power and lower costs of capitals. Meanwhile, the companies with larger operating scale and better competitive position show risk resistance capability during the economic downturns, while the smaller-scaled companies may be takeover by the larger ones. CCXAP uses the contracted sales to assess the company's operating scale.

(3) Geographic Diversification and Market Position

The regional characteristic of REDCs not only reflects the differences among the real estate industries in various countries, but also reveals the differences caused by the regional factors including economic growth, net population migration, household income, and housing supply. CCXAP believes that the geographically diversified companies can better resist the downturn risks of real estate sub-market within a single region. Meanwhile, the well-positioned companies with geographic footprint in line with

the market development can meet market demand accurately.

In addition, since REDCs often face challenges on management skills during the process of regional expansion, geographic diversification should match the company's own strength, otherwise more risky for the companies without suitable position. Therefore, CCXAP balances the company's geographic diversification and market position in these regions, and gives recognition to the REDCs with diverse geographic distribution and leading market position.

(4) Operating Performance and Strategy Execution

Operating strategy is an important factor to affect the credit quality of REDCs. The companies with solid operating strategy can better resist the market risks, while the companies with aggressive strategy may face liquidity challenges during the market downturn. The land bank policy is a critical aspect in assessing the operating strategy of REDCs. Meanwhile, CCXAP considers the consistency and execution of operating strategy. The company's operating strategy should align with the market changes and maintain a high degree of consistency, and the execution of operating strategy is particularly important given the characteristic of cross-regional operations of REDCs. Finally, the selection and execution of operating strategy will be revealed by the operating performance of the company. CCXAP assesses the operating performance by using some financial factors, and mainly consider the fluctuations of operating performance in this qualitative factor.

2. Financial Strength

CCXAP evaluates the company's financial strength by reviewing a series of financial factors. The profitability factors indicate the company's operating efficiency and cost control, and the gearing factors reflect the company's financial flexibility and long-term sustainability.

(1) Gross Profit Margin

CCXAP uses the gross profit margin in assessing cost control of REDCs. Companies with higher gross profit margin tend to have better quality of management to control operating costs and to negotiate with suppliers. The gross profit margin also reflects the geographic allocation and product mix of the company.

(2) Return on Equity

The other factor is return on equity to measure the profitability of REDCs. Comparing to gross margin, the return on equity reveals the operating efficiency in terms of net assets, which indicates the overall earning capacity of the company.

(3) Net Gearing Ratio

Since the ability of asset liquidation is relatively weak for REDCs, the companies require a large amount of cash to deal with short-term liquidity risk. Therefore, CCXAP uses net gearing ratio, as measured by the total interest-bearing debt net of cash over the net assets, in order to measure the static leverage of the company.

(4) Total Debt/EBITDA

CCXAP also considers the financial leverage relative to expected cash flow, as measured by the total

debt over EBITDA, in order to measure the dynamic leverage of the company.

(5) EBITDA/Interest

Because REDCs are highly dependent on financial leverage, interest expenditures appear as erosion to cash flow of the company. CCXAP uses the EBITDA interest coverage ratio to evaluate the company's ability to cover the interest payments.

3. Financial Flexibility

Since real estate industry is capital intensive by its business nature, liquidity and funding are especially important for the financial flexibility of REDCs. In the evaluation of this factor, CCXAP considers the company's liquidity coverage and funding capacity.

(1) Liquidity

CCXAP compares the sources and purposes of liquid funds over the next 12-18 months to analyze the company's expected cash flow. Sources of liquidity include operating cash flows, credit lines, cash balances and asset sales. Uses of liquidity include debt repayments (interests and principals), dividend payments, and capital expenditures.

(2) Access to Capital

In addition to internal cash flow, REDCs also rely on the external cash flow as liquidity buffer. The channels of external cash flow include equity financing and debt financing. In general, listed companies have better access to capital markets where they can raise funds more conveniently. In addition, CCXAP evaluates the access to capital of REDCs by considering whether the company obtains additional liquidity at a reasonable cost, because the financing cost is another important aspect.

Other Rating Considerations

Other than the factors and sub-factors discussed above, external support can help improve the credit quality of the company. In assess the overall creditworthiness of the company, CCXAP considers its financial policy, corporate governance and management, and support from shareholders.

Financial Policy

Financial policy reveals the risk appetite of the corporate management, and directly influences the capital structure and credit quality of the company. CCXAP pays attention to the establishment and execution process of the financial policy, and monitor whether the board of directors and the management has accomplished the financial targets.

Corporate Governance and Management

Corporate Governance and management represents the rules and regulations, management experience and process, which is an important factor for credit rating consideration. The company with better corporate governance and management show higher transparency and fairness, and all the stakeholders share the common interests.

External Support

The support from shareholders influences the company's future development and overall credit strength. CCXAP considers the shareholder support as determined by the importance of subsidiary company to the holding company. CCXAP uses development strategy, market position, ownership structure and the importance of the subsidiary company to evaluate the shareholder support. CCXAP also views that a company with strong shareholders may receive support in forms of capital injection.

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