

Rating Methodology for Securities Industry

Summary

This rating methodology adopted by China Chengxin (Asia Pacific) Credit Ratings Company Limited (“CCXAP”) applies to global securities firms, which actively involved in the businesses of securities brokerage and trading, underwriting, lending, and investing within the broad securities industry. Securities firms cover large investment banks, regional and independent securities firms, which are typically not registered as banks or bank holding companies. Banks with large securities operations are rated using our rating methodology for banks, while securities subsidiaries of these banks are rated using this rating methodology.

This rating methodology introduces the key determinants for rating securities firms. CCXAP assigns credit ratings to them using its rating scale.

Introduction of Rating Methodology

The key rating determinants are divided into qualitative determinants and quantitative determinants. The rating methodology provides a summarized guidance for the important factors used in assigning ratings, but it does not include every aspect of rating consideration. As a result, the mapped rating may not match the final rating of each company.

In this rating methodology, there are eight rating factors comprising 18 sub-factors as follows:

Rating Factors	Sub-factors
Operating Environment	Economic and Industry Environment Legal and Regulatory Environment Financial and Capital Markets
Business Profile	Franchise Strength Business Stability Business Diversity
Company Management	Management Quality Corporate Governance
Risk Management	Credit/Market/Operational Risk Risk Infrastructure and Risk Appetite
Scale	Net Assets Total Revenue
Profitability	Pre-Tax Margin Return on Average Assets

Leverage & Capital	Net Assets/ Total Assets Risk Assets/ Total Assets
Liquidity & Funding	Liquidity Ratio Funding Ratio

Key Rating Determinants

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

1. Operating Environment

CCXAP starts the credit analysis from evaluating the market conditions where the company operates. The securities firm's business operation is affected by macroeconomic conditions and industry development, including economic and industry environment, legal and regulatory environment, financial and capital markets.

(1) Economic and Industry Environment

The economic strength of the country where the securities firm is operated is a significant factor to determine the country's resilience for any market fluctuation and the company's capacity to sustain its creditworthiness. The industry development and competitive landscape is also a significant factor to affect the securities firm's operating and financial strategy.

(2) Legal and Regulatory Environment

The legal regime and regulatory framework affects the development and risks of securities firms. A well-developed legal and regulatory system can help stabilize the financial system. A well-regulated market requires securities firms to establish good management system and to avoid taking excessive risks. A prudent regulatory system has the characteristics such as a high degree of transparency, an independent regulator, and effective regulatory implementation and supervision.

(3) Financial and Capital Markets

In assessing financial and capital markets, CCXAP takes into consideration the maturity of financial infrastructure and market participants. A mature financial and capital market has the characteristics such as a well-established financial infrastructure, diverse and experienced market participants, and a sound regulatory framework with clear instructions and effective enforcement powers.

2. Business Profile

In the evaluation of business profile, CCXAP reviews the franchise strength of securities firms, as well as business stability and diversity.

(1) Franchise Strength

CCXAP assesses the franchise strength of a securities firm by categorizing the activities into

brokerage, capital markets, asset/wealth management and proprietary trading. A high franchise value of various business lines can help a securities firm not only sail through difficult market conditions, but also seize business opportunities.

(2) Business Stability

In the assessment of business stability, CCXAP evaluates the Company's stability or volatility of its operating performance in the face of any economic and market fluctuations. A securities firm with strong business stability indicates that its business mix is relatively stable with no material high-risk business lines, and the company demonstrates strong and stable market position as compared to other peers.

(3) Business Diversity

In the assessment of business diversity, CCXAP considers the number of business sectors and the breadth of each business sector covered by the securities firm. This factor helps determine whether the company relies on a single business line or spreads across multiple business activities. A securities firm with higher degree of business diversification has greater stability of income streams and market values.

3. Company Management

The company management factor of securities firms is evaluated by the strategic competence, management quality, and corporate governance, which have a great impact on the company's creditworthiness.

(1) Management Quality

Management quality represents the management's strategic positioning and execution ability, including the development strategy related to the company's trade-off between growth and risk, and the financial policies related to the company's capability and willingness to protect bondholders' interests. CCXAP observes the management performance throughout the business cycles. A securities firm with high quality of management indicates its high degree of credibility and dependability. A company with good depth and breadth across the major business lines could withstand loss of key personnel which could seriously affect the routine operation of the company and cash flows in its major business segments.

(2) Corporate Governance

Corporate governance represents the system of rules, practices and processes by which the company is controlled and directed. A securities firm with strong corporate governance has fair and transparent sets of rules and controls in which all stakeholders have aligned incentives.

4. Risk Management

Securities firms face different kinds of risk in daily operation, and therefore managing risks is an inherent and core aspect. The task of risk management is to remove or minimize the risks that the securities firm is facing and to maximize the earnings. If the risks are not managed appropriately, a securities firm's profitability will be affected and its credit quality will be hampered. The management of

credit risk, market risk and operational risk are the key areas to focus on when evaluating the quality of risk management.

(1) Credit/Market/Operational Risk

(i) Credit Risk

Whether a securities firm can manage credit risk, it depends on the management's risk-taking attitude and the ways of dealing with credit risk. In analyzing a securities firm's ability to manage and monitor credit risk, geographic allocation should not be neglected in the assessment. In addition, counterparty risk is considered as an important factor by evaluating the concentration of transactions with a single counterparty or a small group of counterparties. Having diversified counterparties helps reduce the credit risk arising from transactions.

(ii) Market Risk

Market risk is the major risk a securities firm deals with in its day-to-day business. CCXAP reviews the track record of trading profit and loss as compared with VaR limits for assessing the market risk of a securities firm. As market conditions may change suddenly, a securities firm is required by its financial regulator to perform regular stress tests according to pre-set criteria.

(iii) Operational Risk

CCXAP assesses operation risk through the securities firm's management system, policies and practices during daily operation. Operational risk arises from human error and technical deficiency. Human error can be mitigated by internal segregation of duties and computerization, whereas technical deficiency is more complicated to handle well.

(2) Risk Infrastructure and Risk Appetite

(i) Risk Infrastructure

The factor of risk infrastructure indicates how well the securities firms manage the credit risks, market risks and operational risks and the related risk management system. CCXAP not only evaluates the risk management track record of loss history and loss expectations, but also determine whether the risk control indicators set by the risk management department are well-managed.

(ii) Risk Appetite

The risk appetite of securities firms is fundamental to assess the management's tolerance in measuring risks. There is a trade-off between risk and return. CCXAP reviews risk appetite from the recent trends of risk measurement and the risk goals stated by the management.

5. Scale

Scale is an important factor to reflect the comprehensive strength of securities firms. The companies with larger operating scale and better competitive position show stronger capability of risk resistance during the economic downturns, while the smaller-scaled companies may be takeover by the larger

ones. CCXAP uses net assets and total revenue to assess the company's operating scale.

(1) Net Assets

The indicator of net assets reflects the securities firm's asset liquidity. A securities firm with sufficient net assets could better resist market risk, credit risk and operational risk.

(2) Total Revenue

The indicator of total revenue measures the securities firm's franchise strength and competitive positioning of its various business lines.

6. Profitability

In assessing profitability of securities firms, CCXAP uses the indicators of pre-tax margin and return on average assets to measure the strength and stability of the company's earning ability.

(1) Pre-Tax Margin

CCXAP uses pre-tax margin to evaluate its strength of earnings, which is a securities firm earnings before tax as a percentage of total revenue. The higher the pre-tax profit margin, the more profitable is the securities firm.

(2) Return on Average Assets

In assessing profitability of a securities firm, CCXAP also uses return on average assets, which is calculated by dividing net income or loss after tax by average total assets. This indicator shows the company's ability to generate a return on its asset base.

7. Leverage and Capital

Leverage and capital is important factor to measure a securities firm's business financing capability to attract capital needed for investments and debt repayments.

(1) Net Assets / Total Assets

CCXAP uses leverage ratio to evaluate the financial leverage of a securities firm, which is calculated as net assets divided by total assets. The lower the ratio, the more leverage the company takes to pursue business; the higher the ratio, the more buffers the company holds to resist loss.

(2) Risk Assets / Total Assets

CCXAP uses the percentage of risk assets to estimate the asset quality of a securities firm. Risk assets indicate the financial assets of securities and investments which are categorized as "level 2" and "level 3" in the fair value hierarchy. The lower the ratio, the lower is the inherent risk in the securities firm's assets and exposures.

8. Liquidity and Funding

Since securities firms must have adequate available resources to support their regular business operation under volatile market situation, liquidity and funding are especially important for the financial flexibility. In the evaluation of this factor, CCXAP reviews the company's liquidity ratio and funding ratio.

(1) Liquidity Ratio

CCXAP uses liquidity ratio to evaluate the company's vulnerability to liquidity risk and capability to maintain business operations. The liquidity ratio is measured by liquidity inflows over outflows. The company with higher liquidity ratio can maintain its competitiveness in a tight liquidity situation.

Liquidity inflows, which are the numerator, include the sum of unrestricted cash, amounts due from other financial institutions, securities investments net of haircuts, and cash inflows from operating assets. Liquid outflows, which are the denominator, include the sum of short-term funding liabilities, and cash outflows from operating liabilities.

(2) Funding Ratio

Funding ratio measures the company's long-term funding structure relative to its asset risk and other obligations, as calculated by sources of long-term capital over uses of long-term capital. The company with higher funding ratio can sustain its long-term funding structure with asset risk.

Sources of long-term capital, which are the numerator, include the sum of long-term debt and shareholders' equity (excluding non-controlling interest). Uses of long-term capital, which are the denominator, include the sum of haircuts applied to securities investments, long-term assets, and other assets.

The haircut rates for each type of securities for calculation of liquidity and funding ratio are based on fair value classification, which categorize into three levels of financial assets. "Level 1" financial assets are the most liquid securities, "level 2" financial assets tend to be less liquid than level 1 assets, while "level 3" financial assets are the least liquid among the three categories.

Other Rating Considerations

Other than the factors and sub-factors discussed above, CCXAP gives consideration to regulatory requirement, event risk, and support from government and group when assessing a securities firm's overall creditworthiness.

Regulatory Requirement

Regulation and supervision is important rating consideration that affects the transparency and credibility of securities firms when comparing with other competitors worldwide. Since regulatory requirement varies across different regions, CCXAP considers the company's licenses, detailed capital regulation, supervision from the local regulators, and other related regulation rules.

Event Risk

The potential event risk may have significant adverse effect to the company's business activities. In the evaluation of the event risk, CCXAP considers the possibility of typical events including leveraged buyout, regulatory sanction, and litigation risk resulting from underwriting.

External Support

From the perspective of external support, CCXAP evaluates both government support and group support that a securities firm would receive to avoid default.

Government Support

Government support means that when a securities firm is facing severe pressure of debt servicing, the government may provide support to serve debt or take actions to avoid default. In assessing the support from the government, we may consider the following factors such as the economic and political importance of the company, the legal requirements and degree of oversight from the government, and the support and bailout histories.

Group Support

Support from its parent company and/or affiliate companies affects the company's future development and credit profile. The capability of support is based on the credit assessment of the group. The willingness of support is measured by development strategy, market position, ownership structure, and the company's importance to the group.

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