CRISIL
An S&P Global Company

Rating criteria for securities firms

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Executive summary

CRISIL Ratings rates securities firms, such as primary dealers (PDs) and brokerage firms, for their long-term and short-term debt and commitments to counterparties. The analytical framework discussed here applies to the securities related businesses of banks and other financial institutions as well.[1]

Securities firms essentially act as agents or principals. Their business encompasses fund-based activities (such as government securities underwriting and trading, corporate debt underwriting and trading, and margin lending) and fee-based ones (for instance, equity and debt broking, equity and debt placement, advisory services and asset management).

Securities firms face market risk (arising from fluctuations in security prices or interest rate) and counterparty risk. For retail brokers, the large daily transaction volume entails operational and legal risks. Unlike for commercial banks and financial institutions, analysis of the balance sheets and financial ratios of securities firms does not entirely capture their risk profile. That's because the key risks these firms face are market and business risks, which are volatile and difficult to measure from year-end reports.

Hence, it is necessary to factor in the systems and processes put in place by these firms to mitigate these risks, as well as their ability to absorb losses arising from any adverse market movement.

CRISIL Ratings' evaluation of securities firms comprises an analysis of:

- **Business risk**
  - Market position
  - Risk management systems (RMS)
  - Resources
- **Financial risk**
  - Capital position
  - Earnings
  - Liquidity
- **Management risk**

Scope of criteria

This criteria details CRISIL Ratings' methodology in rating securities companies such as primary dealers and broking companies. The document also covers CRISIL Ratings' approach to financial ratios used for analysing securities companies, including adjustments it carries to the reported metrics in the financial statement.

[1] For accessing the previous published document on 'Rating criteria for securities companies', kindly refer to the following link: https://www.crisil.com/content/dam/crisil/criteria_methodology/financials/archive/CRISIL-Ratings-crieria-securities-companies-july2020.pdf

Business risk

A securities company's business risk is a function of the inherent volatility, cyclicality and unpredictability of the industry, the company's market position across business segments, and diverse environmental factors. CRISIL Ratings tracks developments in the securities industry and gauges their impact on business conditions.

CRISIL Ratings approach to analysing a securities company's risk profile is to deconstruct its operations into its various lines of business, such as government securities underwriting and trading, corporate debt underwriting and trading, debt broking, equity broking (retail and institutional), equity trading, and investment banking. Many securities firms have a dedicated quant desk to trade using algorithms for institutional clients or on their own books (proprietary trading). As these algorithms run with minimal human intervention, operational risks arising due to improper input (*fat finger error*) or algorithm malfunctioning (*runaway-loop situation*) need to be addressed.

The risk profiles of the individual business lines are evaluated in terms of inherent business risks, the company's market position and its stability, track record, systems and processes (including RMS), skill of the staff, profitability, funding profile and the risk culture. The risk profiles of the individual businesses are then aggregated, not necessarily by an additive process.

A company with diverse businesses that are counter-cyclical to one another may achieve a lower aggregate risk profile. External factors such as regulations, state of the economy, government borrowing programme, capital needs of the corporate sector, and liquidity in the capital and money markets also have a direct bearing on business potential.

Market position

While there are only a few PDs, the broking business is highly fragmented and has various segments (such as cash and future & options [F&O]). The entity's market share in each segment is evaluated. Branch and franchisee network play a key role in enhancing market position. Sustainability and scalability also assume importance, as they ensure fixed costs are distributed better and bring in additional revenue streams such as distribution income. Other factors include the client mix (in terms of retail, high networth individuals [HNIs] and institutional) and the proportion of active clients.

Risk Management System (RMS)

In its assessment of RMS, CRISIL Ratings evaluates business-specific systems, policies and practices as well as those pertaining to the general operations of the company.

Through management discussions and client interaction, CRISIL Ratings ascertains the risk policies and how well they are adhered to.

Securities companies face numerous risks, including market, credit, operational, legal, regulatory, and business risks. While some risks can be quantified, CRISIL Ratings goes beyond quantitative parameters to evaluate whether the company has taken appropriate steps and established systems to address the risks.

CRISIL Ratings assesses a securities company's ability to define, measure, monitor and control market, credit and operational risks and lay out clear guidelines for traders and staff. The independence of the risk management process–in terms of reporting lines and ability to overcome subtle pressures to co-opt its independence–is very important. In this context, the following factors are analysed[2]:

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[2] *Presents only an indicative list of factors considered by CRISIL Ratings*

Business segments	RMS factors assessed
Equity broking, loan or margin against shares	• Margin policy – Stated margin policies and practices followed by the company, including the thresholds beyond which exposures will be automatically squared off. • Debtor policy – What is the policy regarding collection of dues from clients? • Hair-cut policy – While extending margin or loans against shares in the client's depository account, what kind of hair-cuts does the company apply? Are they as stipulated by regulations?
Proprietary trading	• Factors taken into account while assigning limits to a trader • Systems to prevent traders from exceeding limits or breaching securities they are allowed to invest in
Primary dealership	• Models used for measuring and reporting market risks • Capital adequacy to absorb the impact of market-related factors and interest rate shocks
Operational risk assessment	• Systems and processes to implement risk management policies. This includes real-time monitoring of exposures, automation of margin calls, and squaring off of exposures. • Organisational structure and decision making that enables independence of risk management functions; autonomy granted to the risk management function from the trading desk • Business continuity/disaster recovery plans • Adherence with compliance policies, such as know-your-customer and anti-money laundering policies • For brokerage firms engaged in algorithmic trading, whether systems and the associated infrastructure have been audited by the exchange, or if there have been materially adverse observations in the systems audit report.

CRISIL Ratings notes that the models to evaluate market risks and the assumptions underlying the models are not standardised across Indian securities firms. For instance, the different risk monitoring tools used by debt traders include calculation of modified duration of the portfolio (weighted average maturity), value at risk calculations, and daily earnings at risk calculations. Similarly, sensitivity to interest rate is measured by using various types of interest rate shocks by different debt traders: some consider a non-uniform shift in yield curve while others assume a uniform (or parallel) shift. As a result, CRISIL Ratings closely analyses the market risk models used by debt traders and looks at the result of back testing these models with actual historical data. This is done to assess the efficacy of the models.

Resources

It is important that funding sources for securities firms be diversified in terms of fund and non-fund based avenues. PDs, given the nature and tenure of their investments, typically rely on short-term borrowings, including systemic sources of funding. Broking firms borrow mainly for margin requirements and rely on nonfund-based or short-term borrowings. Having multiple investor/lender relationships ensures there is no excessive dependence on a single funding source.

Financial risk

CRISIL Ratings assesses the financial risk associated with a securities firm on three parameters: capital position, earnings and liquidity. The amount of capital in relation to business size is an important indicator of the ability to absorb losses. Earnings indicate the efficacy of the cost structure. Liquidity is critical to meet short-term needs.

Capitalisation

CRISIL Ratings assesses a securities company's capital position in conjunction with its risk culture. The extent of proprietary trading vis-à-vis capital is also a critical factor. A large networth provides the strength to withstand shocks from trading and other losses. The traditional methods of measuring capitalisation, include absolute networth and gearing (debt-to-equity ratio).

Gearing = adjusted total debt/ networth

In adjusted borrowings, CRISIL Ratings includes all forms of on-balance sheet debt (including bank loans, debentures, deposits etc) and off-book securitised[3] assets, if any.

However, there are limitations in realistically reflecting capitalisation of securities firms using gearing. Therefore, for PDs and brokerage firms, CRISIL Ratings may use networth coverage in addition to the traditional capitalisation metrics. For brokerage firms, CRISIL Ratings may evaluate the net-worth available to set off losses at a short notice. Therefore, fixed assets, doubtful debts and similar such illiquid assets are excluded.

Networth coverage:

For broking companies, networth coverage is a parameter to understand the adverse impact on net-worth due to credit risk (non-realization of receivables). Higher networth coverage reflects the resilience of the securities firm to continue its operations unabated during adverse conditions.

$$\text{Networth coverage} = \frac{\text{Networth (adjusted for illiquid, risky and bad asset or investment in group companies)}}{\text{Receivable risk}}$$

For Primary dealers (PDs), the Reserve Bank of India (RBI) has stipulated a minimum capital adequacy of 15% of risk- weighted assets (RWAs). This takes into account the underlying credit risk as well as market risk (based on the value-at-risk approach). PDs have the flexibility to use their own internal risk management framework or adopt the standardised approach prescribed by the RBI for arriving at RWAs. Additionally, CRISIL Ratings takes into account the ability to withstand a shock to interest rates[4], that is, networth coverage for portfolio losses assuming a 100 basis point parallel shift in yield curve. Higher the ratio, better equipped the company is to absorb such losses.

$$\text{Networth coverage} = \frac{\text{Networth (adjusted for credit risk charge)}}{\text{Loss in portfolio value on account of a 100-basis point shift in yield curve}}$$

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[3] *Securitisation here refers to securitising assets via both the trust route as well as direct assignment route*
[4] *PDs are exposed to marked-to-market (MTM) losses (on account of drop in prices of held securities) if the systemic interest rates undergo an upward shift.*

Earnings

The volatility, cyclicality and unpredictability of the industry is best reflected in the earnings of securities firms. To get a true sense of the size and stability of a firm's returns, CRISIL Ratings examines performance over a longer market cycle period. It is essential to examine these returns in light of the company's risk appetite.

Better-managed firms handle the inherent volatility by diversifying into different segments and controlling their fixed cost. Therefore, CRISIL Ratings focuses on the cost to income ratio of these companies on a steady state basis. This ratio indicates the ability to counter the volatility in income streams inherent in the business. Hence, CRISIL Ratings analysis includes an understanding of the management's strategy to address the inherent volatility.

- **Cost to Income Ratio:**

  Cost to Income ratio is an important determinant for securities firms as it gives a reflection of cost optimization to improve on the margins/profitability. Lower the ratio, better managed the operations are in order to reduce the cost vis-à-vis income. Cost to income ratio is calculated after adjusting for non-regular streams of income. Operational cost includes employee cost, administrative cost, and selling & distribution cost for securities firm. However, cost-to-income may not be appropriate for securities firm which have recently commenced their operations as they will have relatively high operational cost in the initial period, since their operational income is yet to scale

$$\text{Cost to income ratio} = \frac{\text{Total operating cost}}{\text{Total income (net of market related income and other adjustments)}}$$

- **Average return on equity (RoE):**

  Return on equity for broking firms may vary across years due to market related factors. Hence, average of RoE is considered to understand the performance of broking firm over a medium-term. A high average RoE reflects that the firm is providing good returns to equity holders on their investments.

$$\text{Return on equity} = \frac{\text{Net Income}}{\text{Shareholders' equity}}$$

- **Return on assets (ROA)**

  Return on assets (ROA) assesses the ability of a firm to manage its assets efficiently to generate profits over the period. A high ROA reflects better efficiency of the firm. While RoE is typically used to assess earnings profile, for some entities which are also active in lending (Margin Trade Financing or Loan against securities), RoA metric may also be evaluated.

$$\text{Return on assets} = \frac{\text{Profit after Tax}}{\text{Total average assets}}$$

Liquidity

Securities businesses are based on confidence—even a perception of trouble in the market can impact a company significantly. To the extent that the firm depends on confidence-sensitive financing, it is exposed to the risk of funding disruptions. Many firms manage this risk by maintaining adequate alternative liquidity (in the form of unencumbered assets) that can be quickly pledged in return for secured loans. Many also maintain committed bank lines. To be effective, these sources require good operational systems that permit the pledging of assets and the drawing-down of committed bank lines, regardless of market conditions. Securities firms may also use extended debt tenure to lower funding risks. In the Indian scenario, however, very few securities firms have raised long-term debt.

CRISIL Ratings reviews a company's contingency liquidity plans, the feasibility of such plans, the liquidity of assets funded, and access to repo/call or securities lending markets. For PDs, especially, CRISIL Ratings factors in their strong liquidity (in terms of the reasonably liquid nature of government securities and access to RBI refinance and call and repo markets).

Management quality

CRISIL Ratings considers management quality an important credit consideration for securities firms. Even at large firms, business units may depend on a few individuals. As a result, the ability to attract, develop and retain quality professionals can provide an important competitive edge.

CRISIL Ratings evaluates the experience and stability of the management team, its track record in responding to market changes and the company's risk culture in terms of the management's risk appetite and risk mitigation strategies. The size of trading operations vis-à-vis the company's capital and income is a significant factor in assessing the management's risk appetite.

Conclusion

CRISIL Ratings rates securities entities based on their business, financial and management risks. RMS across various business lines (such as broking, lending and arbitrage trading) and market position form an integral part of the business risk assessment. This is complemented by the ability to tap diversified sources of funds. The financial risk is evaluated on the basis of capitalisation, earnings and liquidity. While traditional gearing metrics are also used, networth coverage assumes prominence. Ability to tide over cycles and a lean cost structure are beneficial as far as earnings are concerned. A securities firm should have ample liquidity to meet short-term needs. Finally, a strong management profile is critical in such a regulated and confidence-sensitive industry.

About CRISIL Limited

CRISIL is a leading, agile and innovative global analytics company driven by its mission of making markets function better.
It is India's foremost provider of ratings, data, research, analytics and solutions with a strong track record of growth, culture of innovation, and global footprint.
It has delivered independent opinions, actionable insights, and efficient solutions to over 100,000 customers through businesses that operate from India, the US, the UK, Argentina, Poland, China, Hong Kong and Singapore.
It is majority owned by S&P Global Inc, a leading provider of transparent and independent ratings, benchmarks, analytics and data to the capital and commodity markets worldwide.

About CRISIL Ratings

CRISIL Ratings is part of CRISIL Ltd ("CRISIL"). We pioneered the concept of credit rating in India in 1987. CRISIL is registered in India as a credit rating agency with the Securities and Exchange Board of India ("SEBI"). With a tradition of independence, analytical rigour and innovation, CRISIL sets the standards in the credit rating business. We rate the entire range of debt instruments, such as, bank loans, certificates of deposit, commercial paper, non-convertible / convertible / partially convertible bonds and debentures, perpetual bonds, bank hybrid capital instruments, asset-backed and mortgage-backed securities, partial guarantees, other structured debt instruments and also the resolution plans for stressed assets. We have rated over 27,180 large and mid-scale corporates and financial institutions. CRISIL has also instituted several innovations in India in the rating business, including rating municipal bonds, partially guaranteed instruments and microfinance institutions. We also pioneered the unique rating service for Micro, Small and Medium Enterprises (MSMEs) and significantly extended the accessibility of rating services to a wider market. Over 150,000 MSMEs have been graded by us.

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