

NASDAQ CLEARING

Credit Score Guideline

Purpose

Nasdaq Clearing uses internal Credit Score to assess and monitor creditworthiness of Account Holders across clearing services. The credit scoring methodology is based on statistical analysis and scores has a scale from 0 to 8, where 8 represents the strongest creditworthiness. The Credit Score represents a relative estimation of the likelihood of default for an Account Holder relative to the other Account Holders. Each Account Holder has a Credit Score as provided for in the Financial Derivatives Clearing Rules (the “FIN Rules”).

Terms not defined in this guideline shall have the same meaning as in the FIN Rules, as applicable.

Credit Score Methodology

Credit Scores for different Account Holders are set by Nasdaq Clearing using statistical models. The models are segmented based on type of Account Holder, including segments for corporates, banks and governmental institutions/municipalities. Each model is based on different risk drivers with different relative importance, which have all been optimized to differentiate risk between counterparties. The table below outlines the key risk factors used in the different models.

Table 1: Risk factors used to determine Credit Score by model

Model	Risk factory type	Risk factor
Corporate model	Financial	Liquidity: Current assets / Current liabilities Size: Total assets Profitability: EBITDA margin Profitability: Return on assets Debt coverage: EBIT / Debt
Bank model	Financial	Liquidity: Cash / Short-term debt Size: Turnover Profitability: Cost / Income ratio Profitability: Net income / RWA Capital structure: Tier 1 ratio
	Behavioural	P&L and IM development: (P&L+IM)/Liquid assets
	Qualitative	Financial crime/FSA fines
Governmental institutions / Municipality		S&P country rating

Overrides

In addition to the statistical models described above, the credit analysts at Nasdaq Clearing can apply override to the model Credit Score. Overrides are based on aspects not factored in the models and include:

- Ownership structure, i.e. taking into consideration group support provided from an owner.
- Early warning indicators, i.e. signs that an Account Holder might be in distress which have not been sufficiently accounted for in the Credit Score (e.g. negative news, profit warnings, deterioration in equity price, change in external ratings, significant changes in reported liquid assets or capital, repetitive late EoD margin payments etc.).
- Speculative trading operations credit score is capped at 3, due to increased risk for Nasdaq Clearing.
- Country ceiling, i.e. an Account Holder cannot exceed the local sovereign rating in the jurisdiction where it is registered.
- Score ceiling, i.e. an Account Holder that is not a government or municipality or state agency, cannot have score higher than 7, including overrides.
- Financial developments, i.e. signs that an Account Holder's financial situation changes significantly due to large changes of interim financial or business developments and adjustments of large one-off items' impact on Credit Score.
- Any other sufficient reason for why the statistical Credit Score is not appropriate given the Account Holders' creditworthiness. In cases where an unlimited guarantee has been provided, the Credit Score of the guarantor shall be used for the purposes of Credit Score assessments.

Usage of Credit Score

The Credit Score is used in several areas of the risk management practices at Nasdaq Clearing and such areas of application include:

- **Minimum membership requirement:** an Account Holder needs a score of at least 1 to become an Account Holder at Nasdaq Clearing.
- **Exposure limit setting:** an Account Holder's maximum Exposure towards Nasdaq Clearing is limited by a combination of the Account Holder's Liquid Assets, Capital and Credit Score (see Exposure Limit and Liquid Assets Guideline for more information).
- **Risk based monitoring and controls:** Nasdaq Clearing uses the Credit Score in the daily risk management to identify Account Holder's with elevated risk towards Nasdaq Clearing.
- **Risk profile assessment:** Assessment of aggregate and individual risk profile at Nasdaq Clearing across Account Holders, from perspective of risk appetite control.

Assessment and Consequences

The Credit Score of a membership applicant is determined, upon application for membership, based on the applicant's latest audited annual financial statements and the applicant's relevant population's average values for behavioral and qualitative factors, where applicable. Once an applicant is admitted, the Credit Score is updated daily, using the latest available financial information (the latest annual audited financial statements), the latest available annual Due Diligence questionnaire (as defined in the Operational Requirements Guideline) and the latest available behavioral information, where applicable. The need and rationale for any override is also assessed before the final score is assigned. Once a Credit Score is updated for an Account Holder, the Credit Score is assessed against the minimum requirement.



In case of an Account Holder breaching the minimum Credit Score Requirement, i.e. its Credit Score <1, the Account Holder is asked to remediate the breach within two business days. If the Account Holder fails to remediate the breach within two business days, sanctions and timeline to be used by Nasdaq Clearing are set out in section 1.8.4 – 1.8.13 in the FIN Rules.

Contact Information

Nasdaq Clearing Credit Risk team: credit@nasdaq.com

The credit score of an Account Holder can be found on the Member Portal (under Report tab of Membership section, updated daily).