Cerved Rating Agency

Non-financial corporates

Issuer rating methodology

November 2024

Legal Notices

Table of contents

Document versions

Version	Date	Description
1	02/05/2014	First issue of the document
2	31/01/2019	Description of the model and process for assigning credit ratings to Italian non-financial corporates
3	22/11/2024	Expansion of the current methodology to German, French and Spanish non-financial corporates

1 Rating definition

The Cerved Rating Agency rating is an opinion on the creditworthiness of a company, understood as the company's ability to generate sufficient cash flow to service its debt on time within a given time horizon.

The rating is assigned by specialist analysts whose judgements, supported by quantitative and qualitative data (including statistical scores), are the determining elements in the formation of the rating.

The rating of Cerved Rating Agency:

- is issued on non-financial corporates;
- relies on an estimate of the probability of a default within 12 months, namely of the probability that, at some point over the next 12 months, the company becomes unable to face its financial obligations;
- is processed on the basis of all the data and public / proprietary information about the rated company which are available and up to date at the time of rating issuance;
- is expressed on a 13-grade rating scale;
- can be required by the rated company (solicited rating), or by external parties, such as financial institutions, investors or business partners (unsolicited rating).

2 The rating scale

The rating is expressed on an alphanumeric cardinal scale consisting of 13 classes, grouped in four groups by decreasing level of creditworthiness (safety, solvency, vulnerability and risk), to clearly identify the risk profile of the assessed company.

Table 1 – Cerved Rating Agency rating scale

Area	Class	Description
Safety	A1.1	A company characterised by large size, an excellent economic and financial profile, and an outstanding ability to meet its financial commitments. Minimal credit risk is minimal.
	A1.2	Medium / large size, excellent economic and financial profile and outstanding ability to meet financial commitments. Very low credit risk.
	A1.3	Very good business and financial risk profile. Very good capacity to meet financial commitments. Very low credit risk.
	A2.1	Very good fundamentals and high capacity to meet financial commitments. Low credit risk.
	A2.2	Very good fundamentals and good capacity to meet financial commitments. Low credit risk.
	A3.1	Good fundamentals and good capacity to meet financial commitments. Low credit risk.
Solvency	B1.1	Adequate capacity to meet financial commitments. Potentially vulnerable to serious and unexpected changes in business, financial and economic conditions. Moderate credit risk.
	B1.2	Adequate capacity to meet financial commitments. Vulnerable to serious and unexpected changes in business, financial and economic conditions. Moderate credit risk.
Vulnerability	B2.1	Overall good fundamentals. Vulnerable to unexpected changes in business, financial and economic conditions. Credit risk is below average.
	B2.2	Evidence of weaknesses in business and / or financial profile. Vulnerable to changes in business, financial and economic conditions. Credit risk is substantial but not far from the average.
Risk	C1.1	Serious weaknesses in business and / or financial profile. The company may be unable to meet financial commitments. High credit risk.
	C1.2	Very serious weaknesses in business and / or financial profile. The company may be unable to meet financial commitments. Very high credit risk.
	C2.1	Very serious problems in economic and / or financial profile. The company may be unable to financial commitments even in the short term. Maximum credit risk.

In the event of a default, the company migrates to a nonperforming stage and the rating is withdrawn.

3 Definition of default

The definition of default adopted by Cerved Rating Agency relies on following bankruptcy proceedings, protective measures and other negative events[1]:

1. judicial liquidation;
2. compulsory administrative liquidation;
3. controlled administration;
4. preventive arrangements with creditors;
5. debts restructuring agreements;
6. fraudulent bankruptcy;
7. non-fraudulent bankruptcy;
8. judicial administration;
9. extraordinary administration;
10. judicial seizure;
11. insolvency;
12. conservative shares seizure;
13. protests and relevant prejudicial events;
14. failure to repay principal and/or interest on issued debt securities;
15. request for admission to preventive composition with creditors;
16. appeal for admission to arrangement with creditors;
17. judicial liquidation.

If any of the events from 1 to 13 occur, the rated entity is classified as in default. Events from 14 to 17, which are not directly detected by public registers, instead activate the analytical team. Based on information from reliable sources (for example, Cerved Group's proprietary database and company news/communications), the team decides whether to declare the rated entity as 'in default' or not. After taking into account country-specific characteristics, the analytical team can declare non-Italian entities in default, following the occurrence of events which are not listed above.

All information that contributes to the formulation of the default event is available from Cerved Rating Agency's information bases.

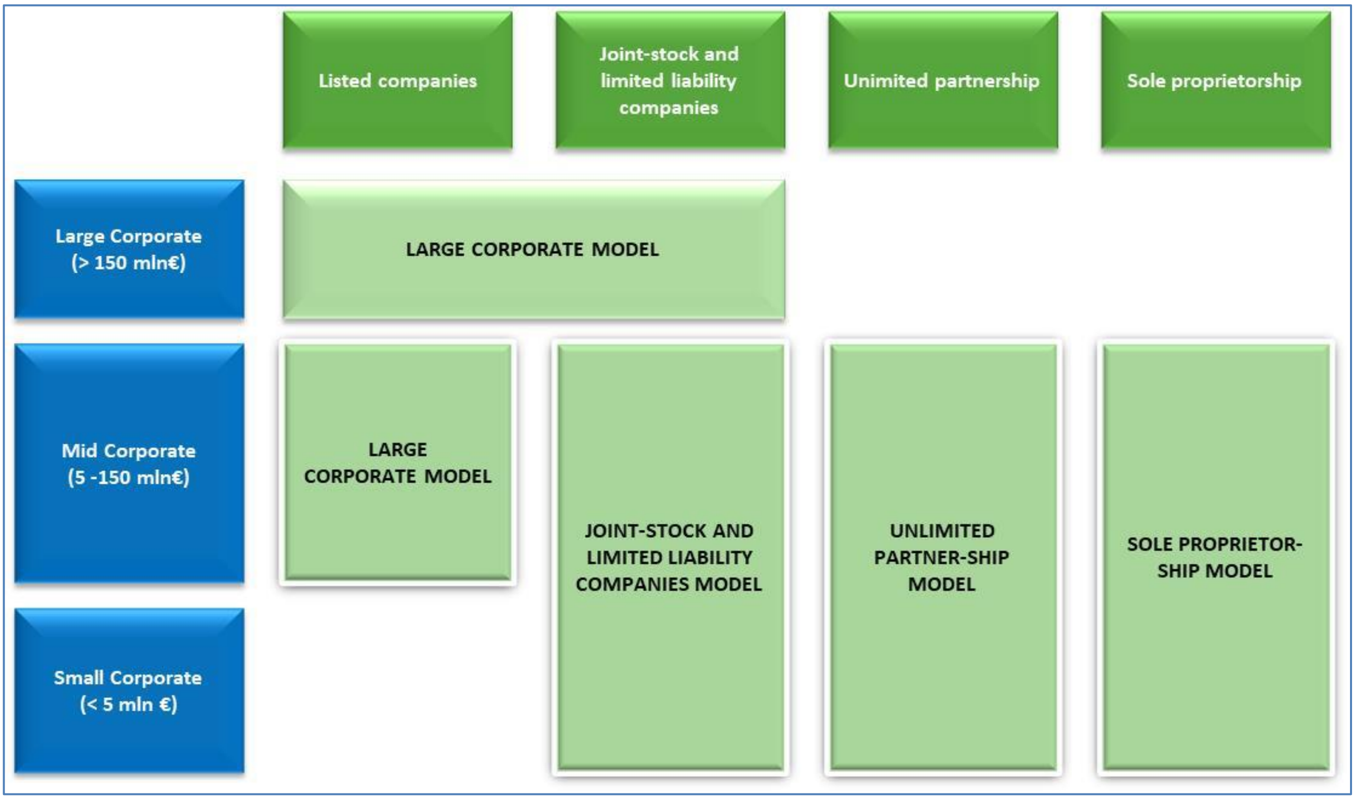
[1] The considered default categories are defined consistently with the current regulation on this subject.

4 Rating model

The rating assignment methodology and statistical models used to calculate intermediate scores take into account, among other factors, the size and legal form of the rated entity. Larger companies tend to present, on average, a lower risk level.

The overall articulation of the rating system is represented in the chart below:

Figure 1 – Macro segmentation of Cerved assessment models



Starting from this first segmentation level, the rating models are further specialised in terms of:

- analysed risk factors, which vary by nature, type and materiality;
- presence / absence of information and related economic relevance;
- further peculiarities for each company type, according to other specific factors of the rated company.

The rating system rests on two pillars **areas**:

1. **Quantitative analysis**. Based on statistical models continuously updated at the occurrence of relevant events (e.g. issuance of a new financial statement, declaration of prejudicial acts, cancelled or withdrawn protest), this measures the economic / financial and behavioural risk profiles of the company, through an automated grading system;
2. **Qualitative analysis**. This is carried out by the analyst, who examines the results of the quantitative analysis and enriches it on the basis of qualitative and quantitative information directly gathered by Cerved Rating Agency.

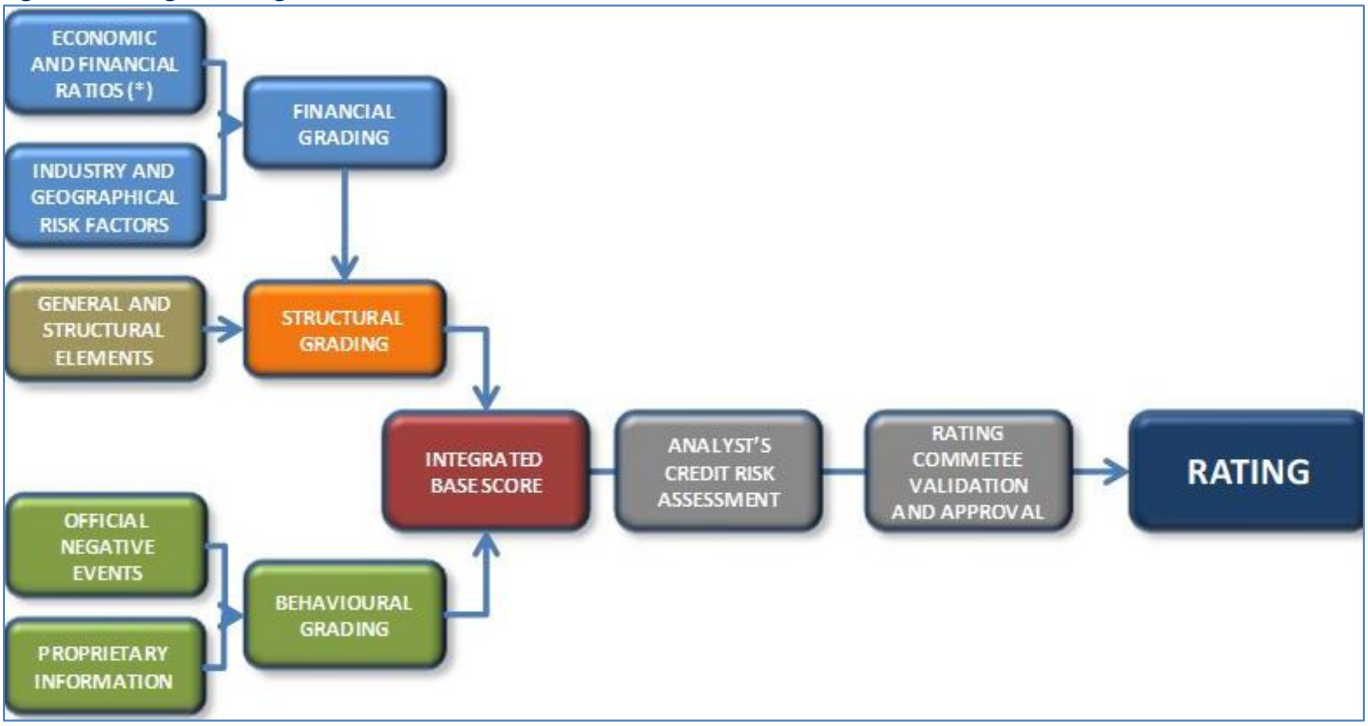
According to the diagram illustrated below, quantitative and qualitative analysis converge into two valuations:

3. the **integrated rating**, which integrates quantitative and qualitative assessments through statistical procedures;
4. the **final rating**, i.e. the integrated rating *plus* a 'notch' up or down, decided by the analyst.

The conceptual framework of the Agency's rating model, as illustrated in the diagram, has a modular structure. In this structure, gradings (automated partial assessments of individual analysis factors) are jointly examined to produce an integrated score. This score represents an initial summary assessment of creditworthiness, optimized based on statistical models developed using large, representative samples of the Italian economy. This assessment is made available to the analyst who, based on their experience and other available information not considered in the score, independently expresses their opinion on the creditworthiness of the rated entity. The analyst's assessment may differ significantly from that produced by the statistical model.

The modular structure allows to better highlight the assessment of each individual factor and facilitates the understanding of the impact of each individual area of analysis.

Figure 2 – Rating model logical structure



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5 The information set

Cerved Rating Agency's rating methodology leverages on all information available in the Group's information system related to the rated entity and its associated legal entities and individuals. This information may be obtained from official sources (e.g., Business Register, court archives), from the rated entity itself, from intermediaries who gather information on foreign markets, or from other sources deemed reliable by Cerved Rating Agency.

The information set used to assign a credit rating includes:

- biographical and corporate information of the assessed entity (legal form, corporate structure, seniority, sector, geographical area, shareholders, management);
- company financial statements, intended as the main source of analysis of the economic and financial risk profile, but also as a source of information on company activities and strategies. Where available, consolidated and interim financial statements are also examined;
- official adverse events on the rated entity and its related parties (official insolvencies, prejudicial events, Extraordinary Wages Guarantee Fund);
- data on payments related to commercial transactions and relations with credit institutions, measured with a proprietary data collection and processing system (Payline) and/or through data and information collected through specific interviews with the rated entity and/or its business partners;
- historical sectoral data and forecasts;
- news by national, regional and local newspapers and other publicly available information;
- other information gathered through direct contact with the rated entity and/or its business partners.

For credit ratings requested by the rated entity, the information set is enriched by data and information in documentary form acquired by the analysts directly from the rated entity (e.g. business plan and Central Risk Report) and through interviews with top management. All public information (chamber of commerce visas, balance sheets, insolvencies) is constantly monitored and updated and made available to analysts for the issuance and review of credit ratings.

The table below summarises the information used for rating issuance with details of the minimum contributions deemed necessary:

Table 1 – Minimum informative set for rating issuance

Data	Data source	Data type[2]	Legal form of the rated entity[3]	Compulsoriness	Automatic rating issuance block
Company registration	Chamber of Commerce	O	SC, SP/DI	Yes	Yes
Financial statement[4]	Chamber of Commerce	O	SC	Yes	Yes
Consolidated financial statement	Chamber of Commerce	O	SC	No	No

[2] O = official, P = proprietary. For the official data, the reliance of the data is ensured by the related responsible body, whereas the proprietary data are subject to ordinary data quality checks of the Cerved Group.
[3] SC = *Società di Capitali* (i.e. joint stock companies or limited liability companies), SP = *Società di Persone* (i.e. unlimited partnerships), DI = *Ditte Individuali* (i.e. sole proprietorships).
[4] Financial statements having a closure date not older than 24 months are considered valid.

Data	Data source	Data type[2]	Legal form of the rated entity[3]	Compulsoriness	Automatic rating issuance block
Financial data in case of lack of up to date financial statement[5]	Rated company	P	SC	Yes	No
Financial data	Rated company	P	SP/DI	Yes	No
Protests checks	Chamber of Commerce	O	SC, SP/DI	Yes	Yes
Prejudicial events checks	Central registries, courts	O	SC, SP/DI	Yes	Yes
Corporate groups	Cerved Database	P	SC	No	No
Payline payments experience	Cerved Database	P	SC, SP/DI	No	No
Payments experience	Business partners of the rated entity or rated entity or official sources	P	SC, SP/DI	No	No
Unemployment insurance	Cerved Database	P	SC, SP/DI	No	No
Press release	Cerved Database, Press release	P	SC, SP/DI	No	No
Web-site of the rated entity	Internet	P	SC, SP/DI	No	No
Business plan	Rated company	P	SC, SP/DI	No	No
Credit Bureau report	Rated company	P	SC, SP/DI	No	No
Amortisation plan of existing loans	Rated company	P	SC, SP/DI	No	No
Client portfolio with exposures / suppliers	Rated company	P	SC, SP/DI	No	No
Organisational structure / Corporate organisational chart	Rated company	P	SC, SP/DI	No	No
Statistics / Macroeconomic scenarios	Specialised sources	P	SC, SP/DI	No	No
Statistics / Sectorial scenarios	Specialised sources, Cerved	P	SC, SP/DI	No	No

A rating may only be assigned where information is deemed sufficient. If the analyst in charge considers the available information insufficient and/or outdated, he must refrain from drafting the rating proposal.

With regard to the information deemed mandatory by the methodology, in the absence of data from public sources, Cerved Rating Agency collects information from the rated entity and/or its business partners. With particular regard to foreign counterparties, the Agency collects information from suppliers in the relevant countries.

If the analyst determines that it is acceptable to issue or update a rating despite the absence of certain necessary information, they must clearly indicate in the analytical report that the rating has been issued without this information. Additionally, the analyst should provide a comprehensive explanation of the factors that mitigated the risks associated with the lack of certain information.

[5] Recently established companies that prosecute an existing activity or entities that have changed their legal form.

6 The layers of the analysis

6.1 Quantitative analysis

6.1.1 Structural grading

Financial grading

The quantitative assessment of the economic-financial situation of the rated entity is based on the CeBi Score 4, which provides a predictive measure of the economic-financial risk profile of the rated entity, placed in its current and prospective economic reference system (sector and geographic area). The CeBi Score 4 is a suite of over 200 specialised models for:

- sector of activity of the rated entity;
- seniority of the rated entity;
- number of available financial statements: the models use a set of up to three financial statements.

The main areas of analysis are:

- cash flow, profitability and earnings quality;
- weight of financial expenses and debt service;
- financial structure and time composition of debt;
- financial balance and liquidity;
- growth;
- income and cash flow volatility;
- operating structure and general efficiency.

Each of these indicators is analysed temporally, i.e. assessing their trend over time by comparing successive financial years and compared with sector average parameters.

Registry and structural elements

Analyses are carried out on the demographic and qualitative characteristics of the company such as its ownership and organisational structure, whether it belongs to a group, its size, seniority, sector and geographical area, the structure and composition of its governing bodies, including an assessment of the quality of the manage.

6.1.2 Behavioural grading

Negative events

The rating process includes an assessment of negative events such as judicial liquidations, bankruptcy proceedings, protests and conservatory prejudices recorded on the entity valued and the main subjects connected to it. The effect of a negative event on the rating depends on multiple factors such as the type of event, the subject on which the event is recorded (the valued entity itself or subjects connected to it), the extent of the event if quantifiable, the date on which the event occurred.

Other information. The rating process considers any information, either public or proprietary, that is deemed relevant, including but not limited to: real estate assets data, payments data (collected through e.g. the proprietary Payline system), press reports, CIGS requests, market data.

Focus on foreign jurisdictions

The methodology to rate non-financial enterprises can also be applied to enterprises operating in jurisdictions other than Italy, and in particular to enterprises based in Germany, France and Spain. In these cases, the quantitative component (i.e. the logical equivalent of the CGS score for Italian entities), will be attributed on a statistical basis by assigning average values differentiated by:

- reference country, in relation to its credit standing;
- sector, in relation to its overall specific performance;
- company size, as defined by the European directive.

In detail, the process of assigning the average CGS on the foreign subjects of Germany, France and Spain is divided into a series of sequential steps:

1. calculation of average CGS ratings, broken down by sector and size, on a sample of over 130,000 credit ratings assigned to Italian firms over the last 5 years
2. analysis of the systemic risk profile of the reference countries, expressed by systemic bank default rates
3. calculation of a differential between the average default rates of the reference countries with respect to Italy;
4. application of the differential on risk levels expressed by CGS averages and introduction of a “modifier” per country;
5. recalculation of average CGS values broken down by country and applied by sector and size.

This attribution of risk profile, of a systemic nature, will then be idiosyncratically declined on the individual company during risk assessment by means of the qualitative analysis described below.

6.2 Qualitative analysis

The role of the analyst is fundamental in the rating assignment process as it allows leveraging on information not captured by the quantitative credit score, a summary measure of creditworthiness. As previously described, the analyst verifies the adequacy of the input variables and, on the basis of the available data and information, expresses, following a standardised process, an assessment of the rated entity's ability to honour its debts. The analyst's intervention aims to assess the prospective business riskiness, highlighting the evolutionary trends of the entity assessed in economic and financial terms. In particular, the analyst's intervention is structured in three parameters that express the main risk factors:

- financial situation;
- payments;
- trend.

The three parameters, further detailed in the following paragraphs, are built on the information available in the Cerved databases on both Italian and foreign companies and on any additional information received by the analyst during the interview phase or from other sources.

6.2.1 Financial situation

The qualitative analysis of the entity's financial situation focuses on capital structure, short- and medium- to long-term financial balances and income-generating capacity, assessed against the entity's financial needs.

The analyst's assessment of the financial position is based on historical financial statements (full or condensed) and interim financial statements, if available. For partnerships and sole proprietorships, in the absence of filed financial statements the assessment is based on significant economic and financial data collected during the interview with the entity, or on estimated data that take into account ownership structure, sector and the geographical area of operations.

The analysis of the financial situation is hinges on a set of debt sustainability indicators specialised by sector and legal form, such as:

- EBIT Interest Coverage;
- Net Financial Position / Shareholders' Equity;
- Net Financial Position / EBITDA;
- Debt Ratio;
- Financial autonomy index;
- Return On Investment (ROI);
- Return On Sales (ROS).

In addition to these primary indicators, the analyst may consider additional elements to support their assessment on the entity's ability to face its obligations, namely:

- economic indicator: revenue;
- debt indicators: Financial debt / Total debt;
- economic/equity indicators:
    - ✓ Shareholders' Equity / Total Liabilities;
    - ✓ Operating Net Working Capital / Production Value;
    - ✓ Level II Structure Quotient;
- cash flow indicators:
    - ✓ Free Cash Flow / Gross Financial Position;
    - ✓ Net Operating Cash Flow.

6.2.2 Payments

The second part of the qualitative analysis focuses on the payment profile of the rated entity.

The analyst's judgement on payments is based on the analysis of proprietary information (e.g. Payline), evidence on payment habits and/or the statement of the Central Risk Centre and/or the empirical experience gathered during the interview and/or the assessment of future cash flows inferable from the business plan.

For all companies, the analysis of payments takes into account any negative events.

The habits of the evaluated entity are compared with those of peers in the reference sector. In the case of holding companies, data on controlled companies' payments can be included in the analysis.

6.2.3 Trend

The third component of the qualitative analysis regards the prospective performance of the rated entity, in terms of trends in production value and profitability.

The analysis of trends for capital companies is structured around the examination of financial statements, focusing primarily on production value and the EBITDA margin, as well as assessments of ROS and ROI. These indicators are analysed both as historical and prospective values and in relation to industry benchmarks. Subsequently, other factors are considered, such as the performance of the relevant sector, business strategies, and both completed and planned investments.

In the case of partnerships and sole proprietorships, the assessment is based on indicators of the economic-financial trend of the assessed entity, collected also via interview with it.

6.3 Rating proposed by the model

The quantitative and qualitative analyses are combined, in an automated fashion, into a comprehensive assessment of the rated entity. This constitutes the basis for the assignment of the final rating: the modelled rating.

6.4 Other risk factors and notches

The modelled rating is either confirmed by the analyst or modified, in the event that the analyst has objective evidence that an adjustment is required, before assigning the final rating

The evidence considered in such a confirmation / notching (adjustment) process comprises information spanning:

- revenue, production value and invested capital of the assessed entity (dimensional criteria);
- financial structure, debt sustainability and capitalisation level;
- cash flow *vis-à-vis* the entity financial needs;
- ongoing or planned extraordinary corporate transactions;
- redundancy plans or layoffs
- soundness of ownership, relationships with related parties, quality of management and governance;
- sustainability of the business plan (where available);
- risks and opportunities related to regulatory changes (regulatory risk);
- negative events, such as protests, prejudgment, bankruptcy proceedings, negative news;
- macroeconomic trends and peculiarities of the reference market;
- other factors that may jeopardize the firm as a going concern.

The entire information set available to Cerved Rating Agency contributes, according to codified rules and uniform operational procedures, to the attribution of the Agency's final rating.

7 The rating process

The rating model and the processes governing its use were developed in adherence to the requirements dictated by the current regulations on rating agencies, pursuant to Regulation (EC) No 1060/2009, as amended.

The rating assignment process proceeds as follows:

1. the process is initiated following a request submitted by the rated entity or by a third party;
2. the rating analyst examines the available information, in terms of completeness and timeliness, and verifies the value of the automatic score and of the individual ratings;
3. the analyst collects additional data if he/she deems the information set to be incomplete and/or stale. In case of a solicited rating, Cerved Rating Agency engages the rated entity asking for specific information, either in documentary form or by visiting the entity. The visit includes interviews with the key corporate figures and is aimed at deepening knowledge about the company and management, gathering information on prospective economic-financial trends and competitive positioning to identify main strengths and weaknesses;
4. the analyst expresses their evaluation about the entity, with regards to the income profile and financial structure, economic / financial trend and regularity of the payments. The evaluation process follows a series of strictly regulated steps, including a comparison with sectorial benchmarks, to ensure maximum objectivity in the judgement;
5. the appraisal expressed by the analyst is combined with the integrated score by an automated system attributing a preliminary rating; the analyst, if needed, the analyst can take action with further corrections (*notch*);
6. the ensuing final rating proposal is submitted to a supervisor or to the Rating Committee for approval; during the rating validation phase, the supervisor or, depending on the case, Rating Committee can either confirm the proposal by the analyst, modify it or require further analysis;
7. the approved rating and the elements on which the rating relies on are communicated to the rated company at least 24 working hours prior to publication, allowing the entity to communicate material errors;
8. all public credit ratings issued by Cerved Rating Agency, regardless of the type of the requiring subject, are subjected to continuous monitoring and review, at least on an annual basis. The monitoring and review activities are articulated into:

Automatic triggers[6]

a) all the official and proprietary information, both qualitative and quantitative, that has contributed to the rating is continuously monitored and updated by dedicated Cerved Group structures; in particular the following information is monitored:
   - ✓ company financial statements (refreshed, reclassified and made available to the analyst as soon as received from the Chambers of Commerce);
   - ✓ extraordinary corporate operations;
   - ✓ insolvency proceedings;
   - ✓ prejudicial and protest events related to the rated company and the reference physical persons;
   - ✓ payments data;

[6] The process is currently automatic for Italian corporates and partly automated for German, French and Spanish firms.

b) news by national, regional and local providers, as well as the information taken from internet: cross-checking system verifies the consistency between the new information and the rating;
c) in the cases of significant discrepancies, a trigger (CRON PEN) is activated, leading to the launch of a rating review process, carried out by the relevant analyst;

1. *Alerts*

   a) Cerved Rating Agency continuously monitors events that can impact the rated entity, its representatives, its sector or the economy at large;
   b) it channels information relative to these events to the analyst;
   c) the analyst assesses the events and, if needed, triggers a rating review process;

2. *Autonomous launch of the process by the analyst*

   Each analyst has vision of the entities rated in the previous year ('watch list'). The analyst, in presence of information or events which they believe may affect the rating, can autonomously launch the review process.

On a monthly basis, Cerved Rating Agency monitors the distribution and several statistics of its ratings, and the underlying probabilities of default, paying attention to significant month-on-month changes.

The validity of the ratings in each case has a natural maturity of one year. The entire rating process can be schematised as follows:

Figure 3 – Rating assignment process

1 – REQUEST FOR ISSUE OF CREDIT RATING

2 – CHECK OF FULL AVAILABILITY OF AND UPDATING OF THE INFORMATIVE SET

3 – COLLECTION, PROCESSING AND STORAGE OF OFFICIAL AND PROPRIETARY DATA

4 – EVALUATION OF QUANTITATIVE AND QUALITATIVE RISK PROFILE

5 – RATING PROPOSAL

6 – RATING APPROVAL

7 – RATING COMMUNICATION TO RATED ENTITY AND RATING PUBBLICATION

8 – RATING MONITORING

Cerved Rating Agency