

Rating Principles

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BACKGROUND

1. Nordic Credit Rating AS (NCR) is a credit rating agency licensed by the European Securities Markets Authority (ESMA), serving investors by assigning credit ratings to local and regional governments, corporate entities and financial institutions based primarily in Denmark, Finland, Iceland, Norway and Sweden. Established in 2017, NCR is independent of any government, financial or corporate entity and its sole focus is to assess credit quality and assign credit ratings. NCR is based in Oslo and Stockholm and owned by a broad set of Nordic shareholders with no owner holding more than 5% of its shares.

MISSION AND PURPOSE

2. NCR's ultimate mission is to contribute to steady economic growth in the Nordic region. We believe that independent and objective credit ratings can enhance efficiency and transparency in financial markets, thereby lowering transaction costs for borrowers and investors. More efficient financial markets will enable more companies to access funding outside the banking system. These funds can be used in growth projects that will create jobs and support other objectives such as increasing competitiveness and combating climate change.
3. We believe that debt markets in the Nordic region will play an increasingly important role as more companies seek to diversify their funding structures away from the banking system. In addition, new regulation in the banking system provides opportunities for new types of debt instruments to be issued by small and medium-sized banks in the Nordics. NCR will be able to support this market growth by offering insightful credit analysis, benefiting both investors and issuers in the marketplace.
4. NCR is fully committed to the Nordic region and we offer valuable local experience and knowledge. Our analysts have extensive experience from the international financial markets, combining this with local presence and analytical inputs that are difficult to gather at a distance. Our local knowledge enables us to produce thought leadership research that is of strong interest to the investor community.
5. We pride ourselves on our independence, integrity, entrepreneurial mindset and our strong commitment to serving the financial markets with relevant analysis and accurate credit ratings.

WHAT WE DO

6. NCR assigns forward-looking, independent credit ratings based on objective, independent analysis incorporating all relevant credit risks and communicates this to the market in a transparent and comprehensible manner. We assist all market participants in their assessment of the credit risks to which they are exposed through our high-quality analysis and ongoing surveillance of issuers, their debt instruments and the markets in which they operate.
7. Credit ratings are assigned using a familiar rating scale which ranges from 'AAA' to 'D', where 'AAA' indicates the lowest credit risk and 'D' indicates default. Issuer ratings provide a relative ranking of an issuer's overall credit quality and take into account its ability to service senior debt obligations, in full and in a timely manner, according to agreed terms and conditions.

8. Issue ratings are assigned to specific debt obligations (or a specific financial programme) and assess the relative position in the capital structure to reflect contractual and structural subordination, and ultimately signal recovery prospects in insolvency.
9. A rating is published together with a written rationale explaining the underlying factors behind the assessment. A rating can be kept confidential at the issuer's request, although only if the initial rating process is not directly related to public financing. After the rating has been assigned, the analyst conducts ongoing monitoring in order to detect any changes in credit risk.
10. The issue rating only reflects NCR's opinion of relative credit risk with regard to a specific debt instrument. It is not a recommendation to buy, sell or hold a specific financial instrument. In addition, the rating does not consider the suitability of an investment for an investor, nor does it comment on the market price of a security.

METHODOLOGY

11. We assign a rating after a thorough analysis of quantitative and qualitative factors and an in-depth dialogue with the rated entity to understand all relevant factors impacting default risk. Our methodology aims to capture all relevant factors in the most transparent way possible. Ratings methodologies are reviewed annually and continuously developed and adjusted to achieve the best possible assessment of credit risk for any given asset class. We continually review our ratings and assessments with the aim of providing the best possible forward-looking analysis, and we therefore reserve the right to adjust our methodology as markets and regulation develop.

RATING DEFINITIONS

LONG-TERM RATINGS

12. NCR assigns long-term credit ratings on a scale comprising several categories ranging from 'AAA', reflecting the strongest credit quality, to 'D', reflecting the lowest. The rating is an ordinal ranking of credit quality, whereby we consider default risk to rise exponentially as we move down the rating scale. For example, instruments assigned an 'AAA' rating are expected to show a very low default frequency as well as considerable stability over time. In contrast, issuers assigned a 'C' rating are expected to show both a high default frequency and a material probability of migration to a higher rating. Our objective is to be able to clearly display this pattern in future studies of actual ratings performance.
13. According to market convention in the investment community, ratings assigned in the 'BBB' category and above are considered 'investment grade', whereas ratings assigned in the 'BB' category and below are considered 'non-investment grade'. NCR makes no such distinction in the methodology for specific asset classes, although there might be certain characteristics that are required to reach the 'BBB-' rating level.

Figure 1. Long-term rating scale

Rating	Description
AAA	'AAA' rated entities and instruments demonstrate exceptional credit quality and lowest expectation of default risk.
AA	'AA' rated entities and instruments demonstrate very high credit quality with a very low default risk.
A	'A' rated entities and instruments demonstrate high credit quality with a low default risk.
BBB	'BBB' rated entities and instruments demonstrate medium credit quality with a moderate default risk.
BB	'BB' rated entities and instruments demonstrate speculative credit quality with a slightly increased default risk.
B	'B' rated entities and instruments demonstrate highly speculative credit quality with an increased default risk.
CCC	'CCC' entities and instruments demonstrate very low credit quality with a high default risk.
CC	'CC' rated entities and instruments demonstrate very low credit quality and an event of default is very likely.
C	'C' rated entities and instruments demonstrate the lowest credit quality and an event of default is imminent.
D/SD	'D' rated entities and instruments have defaulted, as defined by NCR. 'SD' (selective default) rated entities have only defaulted on certain debt obligations.
Plus (+) and minus (-)	Rating categories from 'AA' to 'B' are modified by a plus (+) or a minus (-), where required, to show their relative position within the rating category.

SHORT-TERM RATINGS

14. Short-term ratings are assigned to instruments that are considered to be short term in the market, usually corresponding to an original maturity of no more than one year (365 days). This includes commercial paper, which is a common source of funding for Nordic corporate entities.
15. The short-term rating is assigned on a separate scale indicating short-term credit quality. Although this scale is correlated to the long-term rating, short-term credit quality places more emphasis on an entity's liquidity profile.

Figure 2. Short-term rating scale

Rating	Description
N1	The issuer has exceptional capacity for the timely payment of short-term debt obligations.
N2	The issuer has high capacity for the timely payment of short-term debt obligations.
N3	The issuer has satisfactory capacity for the timely payment of short-term debt obligations.
N4	The issuer has moderate capacity for the timely payment of short-term debt obligations.
N5	The issuer has weak capacity for the timely payment of short-term debt obligations.
N6	The issuer has weak capacity for the timely payment of short-term debt obligations and has an increased risk compared with higher-rated instruments.
D/SD	'D' rated entities and instruments have defaulted, as defined by NCR. 'SD' (selective default) rated entities have only defaulted on certain debt obligations.

Figure 3. Long- and short-term rating mapping

Long-term rating	Short-term rating guidelines
AAA	N1
AA+	N1
AA	N1
AA-	N1
A+	N2
A	N2
A-	N2, Weak liquidity can lead to N3
BBB+	N3, Strong liquidity can lead to N2
BBB	N3
BBB-	N3, Weak liquidity can lead to N4

Long-term rating	Short-term rating guidelines
BB+	N4, Strong liquidity can lead to N3
BB	N4
BB-	N4
B+	N5
B	N5
B-	N5
CCC	N6
CC	N6
C	N6
SD	SD
D	D

16. For corporate issuers, where Figure 3 allows for more than one alternative, the short-term issuer rating is determined using our forward-looking 12-month liquidity analysis, as described in our corporate methodology. When committed sources are more than double the liquidity commitments, we typically regard this as a strong liquidity profile and assign the higher short-term rating alternative. Conversely, we typically view cases where committed sources are less than liquidity commitments as a weak liquidity profile and assign the lower short-term rating alternative.
17. For financial institutions, where Figure 3 allows for more than one alternative, the short-term issuer rating is dependent on whether a financial institution has direct access to central bank funding and emergency liquidity assistance. If so, we typically consider the liquidity profile as strong when the average reported liquidity coverage ratio (LCR) over the last 12 months is higher than 200%, and assign the higher short-term rating alternative. Where there is no direct access to such funding, we expect the institution to maintain strong liquidity buffers, and typically consider an average reported LCR over the last 12 months of below 150% to reflect a weak liquidity profile, and assign the lower short-term rating alternative.
18. For local and regional government issuers, where Figure 3 allows for more than one alternative, the short-term issuer rating is expected to be the stronger of the two alternatives in most instances given the expectation of central government support.

THE 'D' AND 'SD' RATING AND DEFINITION OF DEFAULT

19. Unlike other ratings, the 'D' rating is not forward looking and is only used when a default has actually occurred and not when it is merely expected. NCR defines default as any scenario whereby an issuer has failed to fulfil its original commitment on a debt obligation. Specifically, NCR changes ratings to 'D':
 - following the failure to make principal or interest payments in accordance with the contractual terms of a rated financial instrument (after a contractual grace period, if applicable);
 - upon bankruptcy filing or similar action that will likely cause a miss or delay in future contractually required debt service payments;
 - upon completion of a distressed exchange, whereby existing debt obligations are replaced with a new obligation with a lower value than the original commitment (such as a swap of debt with lower coupon or face value, lower seniority, or with longer maturity) or the exchange is carried out in order to avoid a near-term default of the issuer; and
 - the rated entity is under a significant form of regulatory supervision owing to its financial condition, which is likely to prohibit its ability to fulfil contractual debt service payments.
20. NCR does not typically consider a technical default (i.e. a covenant violation) on its own as sufficient grounds for assigning a 'D' rating to an issuer or instrument.
21. With respect to issuer ratings, failure to meet a financial obligation – rated or unrated – leads to an issuer rating of either 'D' or 'SD' (selective default). In situations where an issuer defaults on all of its obligations, the issuer is rated 'D'. The 'SD' issuer rating is assigned when an issuer defaults on selective debt obligations but continues to fulfil its original commitment on other obligations. A common example is a targeted distressed exchange offer, whereby an issuer restructures part of its capital structure in order to avoid a general bankruptcy.
22. Debt instruments which contractually allow the deferment or non-payment of coupons and/or the permanent or temporary write-down of principal, such as hybrid debt or preferred shares, are an exception. For these instruments, the use of non-payment or write-down features will result in an issue rating of 'D'. However, due to the intended loss-absorbing nature of such instruments, the issuer rating 'SD' does not necessarily have to be applied to the issuer when the action taken adheres to the instrument's terms.

INDICATING FUTURE RATING DIRECTION: OUTLOOK AND WATCH

23. NCR assigns outlooks to long-term issuer ratings to indicate where they could move in the near term (normally 12–18 months). A stable outlook indicates that the rating is unlikely to move within the near term. A positive or a negative outlook indicates that a rating could be upgraded or downgraded, respectively, in the near term. NCR's rating outlooks and rating drivers typically reflect a one-notch change in the rating, unless further potential rating volatility is specifically noted. Outlooks can be used when the prospects of an issuer are uncertain, for example due to a change in the regulatory environment or changing market dynamics, which could result in an improvement or deterioration in credit quality over time. However, the outlook is not necessarily a precursor of a rating change. A developing outlook is expected to be assigned on very rare occasions where we think the rating could be upgraded or downgraded in the near term, depending on the outcome of one or several events. This scenario could be related to an

announced refinancing, which if successful would remove liquidity pressure but if unsuccessful could lead to a deteriorating credit profile.

24. We may also put a rating on 'watch' if we think the rating could move in the near term, typically a period of up to three months. This is likely to be associated with an event, such as an acquisition or a change in capital structure or ownership that has been announced but that has not yet taken place and for which we need additional information to form a view of the change in credit quality. We will signal if we think the rating could be upgraded (Watch Positive) or downgraded (Watch Negative) as a result of the event. In rare instances, we may put a rating on Watch Developing if we think the rating is likely to move either up or down, but are uncertain of the direction. The watch listing is normally resolved within three months, but may take longer if the outcome of a specific event is pending.
25. Rating changes can also occur without the rating first being put on Watch or having the outlook modified from stable. The rating will always reflect our current and most up-to-date view of credit quality and hence be modified immediately if any prior expectations change. This may occur, for example, due to high-impact events or unexpected changes in the industry environment.

ISSUE RATINGS

26. NCR assigns credit ratings to both issuers and debt instruments. The issuer rating is our current opinion of an issuer's relative credit quality, or its capacity and willingness to pay its financial obligations in a timely fashion, while issue ratings also take account of the protection afforded by, and the relative position of, the obligation in the event of a default by the issuer. Well-secured debt may therefore be rated above the issuer credit rating and junior debt is typically rated below both secured debt and the issuer. This differentiation applies when an entity has a capital structure with both senior and subordinated obligations, secured and unsecured obligations, obligations issued by a holding company (not the operating company of the group), or hybrid instruments.
27. This practice of rating debt issues higher or lower than the issuer rating is called 'notching'. To determine the appropriate notching, NCR will review the position of the debt issue in the capital structure and, if the debt is secured, the quality of the collateral. Debt secured with high-quality collateral may be rated several notches above the issuer rating, signalling the expectation of full recovery in the event of a default. Conversely, subordinated debt or instruments with weak recovery prospects will generally be rated below the issuer rating. The precise notching guidelines are specific to each ratings practice and explained further in our practice-specific methodologies.

FORWARD-LOOKING ASPECT OF RATINGS

28. NCR assigns ratings that are forward looking to provide investors with useful indications of credit risk. The time horizon is as long as analytically foreseeable but, due to limitations in taking all possible future events into account, it normally focuses on the next three to five years. If the time horizon is too short, ratings could be volatile, strengthening and declining with market sentiment, and of little use for long-term debt investors. If the horizon is too long, the assessment could be overly punitive, as it would try to capture every potential risk, and the relativity would be lost.
29. Our credit ratings should not fluctuate with a company's short-term performance, nor merely be a snapshot of current financial performance. That is why our rating methodology considers the nature of cycles within a particular industry, and generally assigns lower ratings to more volatile

and risky industries. On the other hand, the rating cannot be static through the business cycle as every cycle is unique and difficult to predict. For example, in a severe cyclical downturn there might be high default rates for companies with liquidity shortages but otherwise healthy business prospects due to a lack of refinancing options. As a result, although the rating will take a long-term view, it must also consider the short-term deterioration of credit quality and increased risk of default in a cyclical downturn.

- 30. Due to the prevalence of economic cycles, the rating cannot represent an absolute risk of default or a given probability of default over a given time period. During recessions, cash flows decline, debt service becomes strained, asset values tumble and defaults soar. Conversely, during economic upswings, strong cash flows will boost debt service and defaults become scarcer. Hence, actual default rates will vary between years and periods depending on market conditions. However, the relative ranking of issuers persists regardless of the credit cycle, i.e. there should always be higher default rates for lower-rated issuers compared with higher-rated issuers and vice versa.

EXPECTED AVERAGE DEFAULT RATES

- 31. Over the long term, NCR expects default rates to be as shown in Figure 4. For example, when looking back at our rating population over several five-year horizons in various credit cycles, we expect around 18% of all issuers that were assigned a 'B' rating at the start of the period to default. We also expect, on average and over several credit cycles, that there will be a very low default frequency of entities rated 'A' or higher over both five-year and ten-year horizons.
- 32. We also expect higher-rated entities to display a higher degree of ratings stability. This is intuitive, as performance of lower-rated entities is more uncertain and could improve or deteriorate at short notice compared with higher-rated firms.
- 33. We analyse ratings performance on a regular basis and publish statistics of the performance of the entities and securities we rate, including default and transition studies. The findings provide investors and issuers alike with transparency about our assessments, as well as providing NCR with input when reviewing and further developing our methodologies. We note that select 1-, 3-, 5- or 10-year periods may occur without significant periods of financial stress or with exceptional crisis periods. The figures in the table below are NCR's ideal expectations, including longer time series.

Figure 4. Expected average cumulative default rate per category (%)

	AAA	AA	A	BBB	BB	B	CCC AND BELOW
1 year	0.00	0.00	0.02	0.20	1.80	4.00	25.00
3 year	0.00	0.03	0.25	1.00	5.00	13.00	40.00
5 year	0.00	0.08	0.50	1.90	7.50	18.00	45.00
10 year	0.01	0.20	1.40	4.00	13.50	25.00	50.00

RATING PROCESS

34. NCR follows a transparent process for assigning new public ratings, outlined below. For issuers who want to maintain a rating purely for internal purposes (and to be shared with selected advisors), a confidential rating may be assigned, which follows all steps below apart from the publication of the report. An issuer with a confidential issuer rating may decide to go public with its rating at any time.
- NCR's commercial representatives sign an engagement letter with the issuer. The analytical team is notified of the engagement and a primary analyst is assigned.
 - The analytical team gathers documentation from the issuer and conducts an initial analysis.
 - A meeting between the analytical team and the issuer takes place, preferably at the issuer's premises, and may include a site visit of appropriate assets.
 - The analytical team drafts a rating report and a recommendation of the proposed rating, based on the applicable methodology. The report is circulated to rating committee members at least 24 hours in advance of the rating committee.
 - A rating committee takes place to discuss the recommended rating and determine the final rating. The committee consists of at least three analysts, one of which has sufficient seniority to chair the committee.
 - The rating outcome is communicated to the issuer and a draft report, setting out the principal grounds on which the rating is based, is distributed to the issuer as soon as practically possible but no later than two business days after the committee's decision. Notification of the issuer must take place during the issuer's business hours and at least a full business day before publication. If NCR notifies the issuer outside of the issuer's business hours, notification is deemed to have been received at the start of the issuer's business hours the following business day.
 - The issuer has at least 24 hours (8 of which must fall within business hours) to respond to the report. The issuer may remark on factual errors and/or the inadvertent inclusion of confidential information, if applicable. If the issuer gets back to NCR before the expiry of the minimum 24 hours confirming that it has not identified any factual errors, NCR may publish the rating before expiry of the 24 hours.
 - The issuer has the right to appeal the rating. A rating committee may reconvene only if there are new facts that were not previously considered in the report.
 - Completion of the rating report by the analytical team.
 - Publication of the report.
 - Ongoing surveillance of the issuer's credit quality.
35. Following the publication of a rating, NCR reserves the right to change the rating as it considers appropriate given its assessments and expectations. This can be done at any time throughout the year. Each rating is reviewed a minimum of once a year to ensure previous expectations are in line with recent financial or economic developments. The review is normally preceded by a meeting with the management of the rated entity to discuss performance and outlook. This is

followed by an internal analysis which, if warranted, is followed by a committee and publication of a rating or outlook change. Even if credit quality is unchanged, we will regularly comment on recent developments for all rated entities.

INFORMATION REQUIREMENTS

36. NCR relies on diverse sets of data and information for its analysis of rated entities. Most of the data needed are available in the public domain, such as annual and interim reports, company presentations, industry data, and reports from public institutions. In addition, market data may provide additional benefit for the rating process, for example in determining the standing of a company in the credit markets. As part of the ratings process, we engage in an open dialogue with the rated entity to fully understand the entity's exposure to credit risk. This dialogue adds significant value for the ratings process as it fosters a deeper understanding about management's strategy and risk appetite. Due to our interaction with management, we may receive non-public information which could have an impact on the rating outcome. However, confidential information will never be disclosed to the market.
37. While our information requirements are not onerous, we do rely on the issuer to maintain an ongoing dialogue and regular (normally annual) meetings. If we were to assess that the information received is not of sufficient quality or quantity we may at any time discontinue the relationship and withdraw the rating.

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