

Covered Bonds follow-up Rating

NORD/LB Luxembourg S.A. Covered Bond Bank
Public Sector Covered Bond Program

Rating Object	Rating Information	
NORD/LB Luxembourg S.A. Covered Bond Bank, Public Sector Covered Bond Program	Rating / Outlook : AA / Stable	Type: Rating Update (unsolicited)
Type of Issuance : Public Sector Covered Bond under Luxembourgish law Issuer : NORD/LB Luxembourg S.A. Covered Bond Bank	Rating Date : Rating Renewal until : Maximum Validity: Rating Methodology :	12.10.2022 Withdrawal of the rating 01.01.2050 CRA „Covered Bond Ratings“
LT Issuer Rating : BBB+ (NORD/LB CBB) ST Issuer Rating : L3 Outlook Issuer : Stable		

Program Overview			
Bonds nominal value	EUR 3,508 m.	WAL maturity covered bonds	6.04 Years
Cover pool value	EUR 4,290 m.	WAL maturity cover pool	6.44 Years
Cover pool asset class	Public Sector	Overcollateralization (nominal/committed)	22.28%/ 2.00%
Repayment method	Hard Bullet	Min. overcollateralization	2.00%
Legal framework	Covered Bond Law	Covered bonds coupon type	Fix (96.77%), Floating (0.00%)

Cut-off date Cover Pool information: 30.06.2022

Rating Action

Content

Rating Action	1
Issuer Risk	2
Structural Risk	2
Liquidity and Refinancing Risk	4
ESG Criteria	4
Credit and Portfolio Risk	5
Cash-Flow Analysis	8
Counterparty Risk	10
Appendix	11

This follow-up report covers our analysis of the public sector covered bond program issued under Luxembourgish law by NORD/LB Luxembourg S.A. Covered Bond Bank („NORD/LB CBB“). The total covered bond issuance at the cut-off date (30.06.2022) had a nominal value of EUR 3,508.15 m, backed by a cover pool with a current value of EUR 4,289.70 m. This corresponds to a nominal overcollateralization of 22.28%. The cover assets predominantly include public sector assets from Germany, United Kingdom and the USA.

Taking into consideration the issuer rating, our analysis of the regulatory framework, liquidity- and refinancing risks, as well as our cover pool assessment and results of the cash flow analysis, Creditreform Rating AG (“Creditreform Rating” or “CRA”) affirms the covered bond program with an AA rating. The AA rating represents a very high level of credit quality and very low investment risk.

Analysts

Philip Michaelis
Lead Analyst
p.michaelis@creditreform-rating.de
+49 2131 109 2157

Qinghang Lin
Analyst
Q.Lin@creditreform-rating.de
+49 2131 109 1938

Neuss, Germany

Key Rating Findings

- + Covered Bonds are subject to strict legal framework for covered bonds
- + Covered Bond holders have full recourse to the issuer.
- + Covered bonds are backed by appropriate cover asset class
- + Stability of the issuer through Sparkassenfinanzgruppe and its Institutional Protection Scheme as well as its Joint Liability Scheme
- Continued high expenses due to transformation process, also ongoing extremely low profitability even without extraordinary charges

Table1: Overview results

Risk Factor	Result
Issuer rating	BBB+ (rating as of 10.10.2022)
+ Legal and regulatory framework	+4 Notches
+ Liquidity and refinancing risk	+1 Notch
= Rating after 1 st uplift	AA
Cover pool & cash flow analysis	A
+ 2 nd rating uplift	+/-0 Notch
= Rating covered bond program	AA

Issuer Risk

Issuer

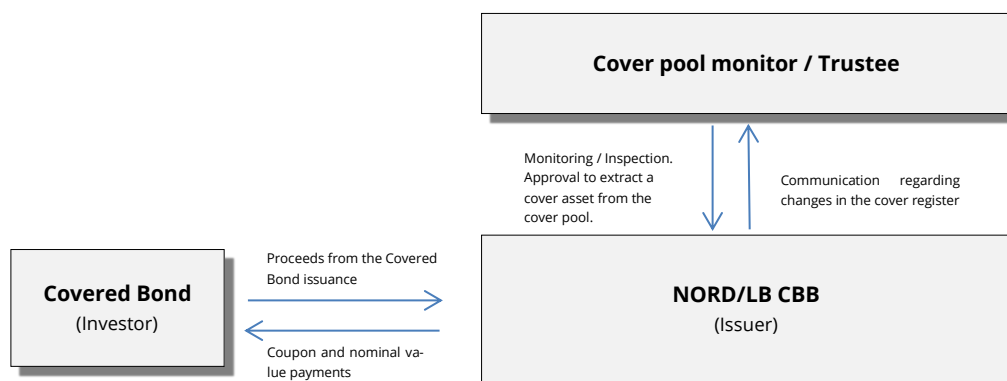
Our rating of NORD/LB CBB covered bond program is reflected by our issuer rating opinion of NORD/LB (Group) due to its group structure. CRA affirmed the Long-term rating of NORD/LB at 'BBB+' in a Rating Update dated 10.12.2022.

The streamlining process as part of NORD/LB 2024 is being systematically pursued, accompanied by the reduction of the NPL portfolio and a sharp contraction in total assets and a general focus on key business areas. This process continues to place a heavy burden on the bank, and there is also a lack of inherent profitability in the current market environment. In contrast, capitalization and asset quality are showing encouraging signs. Opportunities and risks arise with the onset of the interest rate turnaround in the euro area, while the extremely high inflation and the uncertainties caused by the Ukraine war are likely to continue to weigh on the European economy in the medium term. For a more detailed overview of the issuer rating, please refer to the webpage of Creditreform Rating AG.

Structural Risk

Transaction structure

Figure1: Overview of Covered Bond emission | Source: CRA



Legal and Regulatory Framework

The legal framework that governs the covered bonds in Luxembourg has changed significantly recently. On 8 December 2021, the new covered bonds Law in Luxembourg has been approved by parliament. The amendments are implementing the EU covered bonds Directive 2019/2162 of 27 November 2019 as well as the amendments of Regulation (EU) 575/2013, Regulation (EU) 2019/2160 also from 27 November 2019, which came into force on 08 July 2022. This new covered bond law is applicable for covered bonds issued from 08 July 2022. However, based on the grandfathering conditions the old legal framework may also be applicable.

According to Nord/LB Luxembourg¹, the Lettres de Gage (covered bonds) of NORD/LB Covered Bond Bank have all been issued prior to July 08, 2022. As the Bank will not issue any new Lettres de Gage from the existing cover pools as of this date, the transitional provisions of Article 41 of the Law of 8 December 2021 will apply to these outstanding Lettres de Gage. This means that all outstanding Lettres de Gage will continue to retain their status as covered bonds under Directive (EU) 2019/2162 (EU Covered Bond Directive) until their respective maturity dates.

The following is a brief summary of the Luxembourg Covered Bond Legislation. We have pointed out the major provisions of the old Law and their subsequent amendments as well as the new Law. For a comprehensive overview of the old Law, please refer to our previous reports and follow-up rating reports of Nord/LB Luxembourg public sector covered bond program.

Under the old framework, the legal regulations governing covered bonds in Luxembourg (“Lettres de Gage”), which was introduced on the financial sector law on 1993, was firstly implemented on 1997 and last amended on 2018. Under this framework, credit institutions with specialized banking license can issue covered bonds backed by pool of mortgages, public sector exposures, movable assets, i.e. mortgage loans on ships, aircrafts, trains or other classes of movable assets, assets issued by credit institutions and lending for renewable energy projects. In addition to those, the new law introduces *Obligations Garanties Européennes* (European Covered Bonds) as well as *Obligations Garanties Européennes Lettres de Gage du Qualité Supérieur* (High-quality European Covered Bonds), which can be issued. The new law also permits that all credit institutions that are incorporated in Luxembourg may issue covered bonds based on the fulfilment of certain criteria (i.e. 20% cover asset limit based on total liabilities).

The covered bondholders have direct recourse to the issuer and a preferential claim to the cover pool assets secured by its cover asset class. For public sector covered bonds (“Lettres de Gage publiques”), the cover assets comprise of exposures to public sector entities, credit institutions and PPI where public sector cash flows are conditional.

The cover assets including substitution assets can be acquired globally with restriction in form of credit quality steps and percentage for Non-EU, EEA or OECD countries.

The issuer has to nominate a special cover pool monitor approved by the supervisory authority CSSF. Among others, a special auditor is reliable for controlling the cover pool and the respective cover register and the outstanding covered bonds. The issuers are required to publish information on the structure of the cover pool, the covered bonds and the issuers as well. According to the new law, the CSSF is also required to publish information regarding covered bond issuers, relevant laws, regulations and CSSF circulars relevant to covered bonds on its website.

¹ https://www.nordlb.lu/online/www/menu_top/invrel/lettre/ENG/index.html

If an issuer defaults, one or more special administrators different from the general bankruptcy administrator are approved by the court, who have direct access to the cover pool assets.

In general, we considered the structural framework in Luxembourg as positive as it defines clear rules to mitigate risks in particular regarding: insolvency remoteness, asset segregation, investor's special claim vis-à-vis other creditors, the roll and appointment of a special administrator, among other provisions. Due to those reasons we have set a rating uplift of four (+4) notches for the legal and regulatory framework of the Luxembourgish covered bond programs.

Liquidity and Refinancing Risk

The legal framework requires a mandatory minimum overcollateralization of 2% on both a nominal and a net present value basis. The amendments of the Lettre de Gage law in June 2018 also included the introduction of a liquidity buffer of 180 days for hard bullet covered bonds. Issuers must perform regular cover tests (internal: daily, trustee: weekly, CSSF: monthly) to monitor the cover pool for minimum cover.

According to the new law, it is required to perform nominal coverage. For mortgage covered bonds, movable assets covered bonds, renewable energy covered bonds as well as European covered bonds minimum OC is given by minimum of 5%.

According to the Article 10 of the new law, the issuer may not issue covered bonds in the form of soft bullets; i.e. maturity extension is ruled out by law.

According to the old law, covered bond issuers are not obliged to perform particular covered bond stress tests on their covered bond programs. However, they execute voluntary stress tests on their own and are compelled to common supervisory monitoring. In order to reduce the exposure to market risk, such as interest rate and currency risk, derivative contracts can be made to hedge these risks.

In the event of the issuer's insolvency, the legislation stipulates that the special administrator can sell assets of the cover pool or use them as a guarantee for liquidity operations if liquidity shortfalls are foreseeable.

In general, the regulatory requirements for liquidity and risk management for Luxembourgish covered bonds are relatively strong. However, the legislation does not describe specific stress tests for interest rate and currency risk. In addition, refinancing risks cannot be structurally reduced due to the hard bullet repayment structure, which can only be cushioned by sufficiently high overcollateralization or other liquid funds. Nevertheless, we assess the overall legal provisions on liquidity management for covered bonds programs under the Luxembourg's covered bond legislation as positive and set a rating uplift of only one (+1) notch.

ESG Criteria

CRA generally takes ESG-relevant factors (environmental, social and governance) into account when assessing Covered Bond ratings. Overall, ESG factors have a significant impact on the current rating of this Covered Bond program. CRA identifies governance factors, in particular, to have a highly significant impact on Covered Bond ratings. Since Covered Bonds are subject to strict legal requirements, regulatory risk plays an important role in assessing the credit rating.

The Luxembourgish covered bond legislation defines clear rules to mitigate risks in particular regarding: insolvency remoteness, asset segregation, investor's special claim vis-à-vis other creditors, the roll and appointment of a special administrator, among other provisions. Additionally, Risk management and internal controls as well as the macroeconomic factors such as hedging strategies, interest rates and yield curve are considered to have a highly significant impact on the assessment of the credit rating. Other individual factors with a potential key rating influence were not identified, and therefore did not affect the final rating.

Credit and Portfolio Risk

Cover pool analysis

The analysis of the cover pool is based on public information which has been made available by the Issuer, in particular the Harmonised Transparency Template („HTT“) as per regulatory requirements. This information was sufficient according to CRA´s rating methodology “Covered Bond Ratings”.

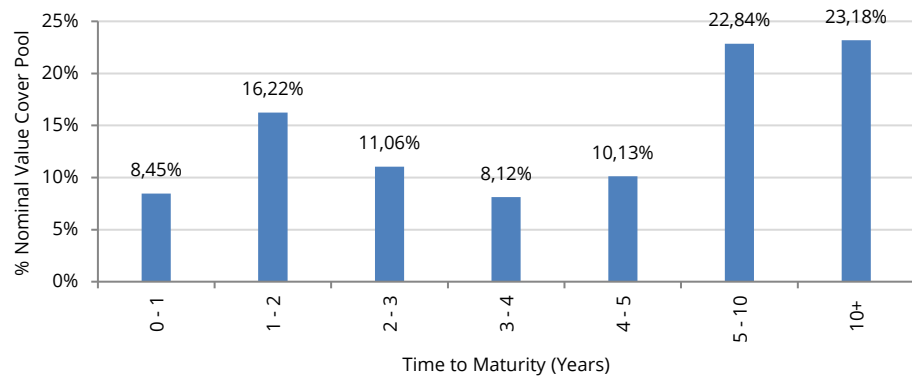
At the cut-off-date 30.06.2022, the pool of cover assets consisted of 331 debt receivables from 184 debtors, of which 38.16% are domiciled in Germany. The total cover pool volume amounted to EUR 4,289.70 m in bonds (31.10%), loans (68.90%) and others (0.00%) which have been lent to the central government, regional authorities and entities, and other debtors. The ten largest debtors of the portfolio total to 23.86%. Table 2 displays additional characteristics of the cover pool:

Table 2: Cover pool characteristics | Source: NORD/LB CBB

Characteristics	Value
Cover assets	EUR 4,290 m.
Covered bonds outstanding	EUR 3,508 m.
Substitute assets	EUR 105.50 m.
Cover pool composition	
<i>Public Sector</i>	97.54%
<i>Substitute assets</i>	2.46%
<i>Other / Derivative</i>	0.00%
Number of debtors	184
<i>Bonds</i>	31.10%
<i>Loans</i>	68.90%
<i>Other</i>	0.00%
Average asset value	EUR 12,959.83 k.
Non-performing loans	0.0%
10 biggest debtors	23.86%
WA seasoning	95.7 Months
WA maturity cover pool (WAL)	6.44 Years
WA maturity covered bonds (WAL)	6.04 Years

We have listed an extended view of the composition of the cover pool in the appendix section “Cover pool details”. The following chart displays the maturity profile of the cover assets at the cut-off date 30.06.2022 (see figure 2):

Figure 2: Distribution by remaining time to maturity | Source: NORD/LB CBB



Maturity profile

The following charts present the cash flow profile of the Issuer (see figure 3 and figure 4):

Figure 3: Cover asset congruence | Source: NORD/LB CBB

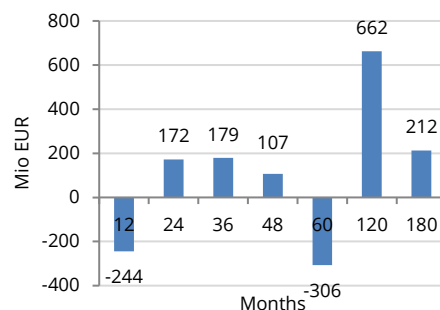
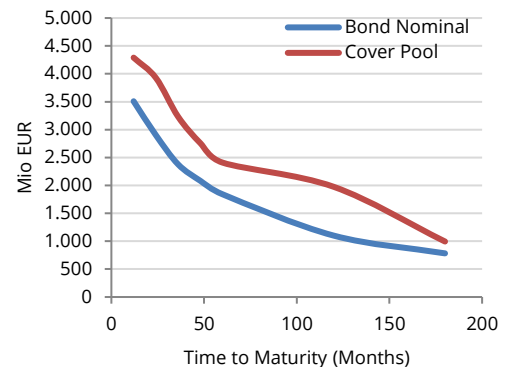


Figure 4: Amortization profile | Source: NORD/LB CBB



During its cash flow modelling, CRA has taken into consideration the maturity structure of cover assets and liabilities. This structure was an integral part of the cash flow analysis.

Interest rate and currency risk

The program exhibits significant currency risks as 30.08% of the cover assets and 24.02% of the covered bonds are denominated in currencies other than euros after swaps. On the other hand, 41.86% of cover pool assets pay a floating rate which create interest rate mismatches.

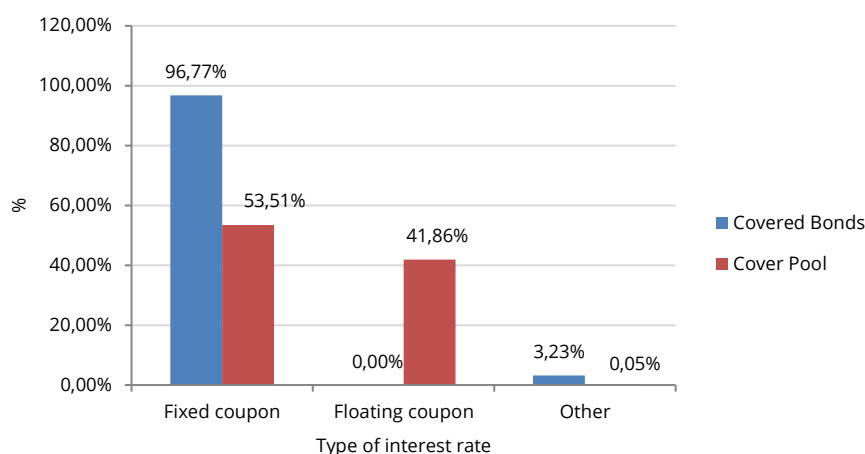
The legal framework does not provide for obligatory stress tests to be conducted to hedge interest rate- and currency risks. Although the available documentation does not reveal the derivatives agreements to the full extent, CRA assumes that the issuer has entered into partial interest rate and currency swaps to mitigate these risks. As we assume that the covered bond program will be exposed to the significant interest rate and currency risks, we have applied interest rate and currency stresses on the cash flows for each rating level according to the methodology.

Table 3: Program distribution by currency (after swaps) | Source: NORD/LB CBB

Currency	Volume	Share (%)
<i>Cover Pool</i>		
EUR	2,997 m	69.92%
GBP	148 m	3.45%
USD	1,131 m	26.38%
Other	11 m	0.25%
<i>Covered Bond</i>		
EUR	2,704 m	75.98%
USD	855 m	24.02%

Figure 5 shows the types of interest rate used in this program

Figure 5: Type of interest rate | Source: NORD/LB CBB



Credit Risk

In Covered Bond Public Sector programs, CRA assesses the credit risk of the cover assets primarily through an assessment of the creditworthiness of the obligors and their future ability to meet all payment obligations. In order to derive a base case assumption for credit risk, CRA uses the CRA Sovereign Ratings of all obligors in the portfolio, which will be taken into account pro-rata. The rating reports of relevant sovereigns can be accessed at www.creditreform-rating.de. Using all portfolio information available (number of debtors, sovereign – sub-sovereign, maturity profile, regional diversification etc.), CRA has modelled the cover asset portfolio and, using Monte Carlo simulations, derived a distribution of defaults which can be used to elicit rating-level dependent default assumptions.

Recovery and loss-severity assumptions have been determined in accordance with CRA rating methodology. This includes a differentiation of sovereign- and sub-sovereign credits in terms of loss severities, which is included using the current portfolio composition to determine a weighted average recovery rate.

Using both rating-level dependent default and recovery assumptions, the following loss assumptions have been derived for the current cover pool (see Table 4)

Table 4: Cover Pool Base case assumptions | Source: CRA

Rating	Default Rate (%)	Recoveries (%)	Expected Loss (%)
AA	25.27%	34.61%	16.52%
AA-	22.50%	36.28%	14.34%
A+	21.13%	37.95%	13.11%
A	20.13%	39.61%	12.16%
A-	18.83%	41.28%	11.06%
BBB+	17.30%	42.95%	9.87%
BBB	16.02%	44.61%	8.87%

Cash-Flow Analysis

Model Assumptions

Based on public information and using the base case loss assumptions, we implement a scenario-based cash flow model. This model aims to test the ability of the structure to service all covered bonds according to their payment profile in diverse stress scenarios. The CRA cash flow analysis assumes that the Issuer has defaulted, i.e. all obligations will be met using cash flows from the cover pool assets only. We also assume that no additional assets will be added to the cover pool during the wind-down phase.

The cash-flow analysis considers, among other factors, asset value haircuts (“asset-sale discount”), and the possible positive yield spread between covered assets and covered bonds (“yield spreads”). To derive the asset-sale discount, CRA assumes, based on secondary market data, a rating level haircut on the asset value. Furthermore, CRA, using available public information (i.e. issuer’s annual accounts), has derived estimations for yield spreads (see table 5):

Table 5: Cash-Flow Model assumptions | Source: CRA

Rating level	Asset-Sale Discount	Yield Spread
AA	11.76%	0.07%
AA-	10.97%	0.11%
A+	10.36%	0.15%
A	9.86%	0.17%
A-	9.20%	0.21%
BBB+	8.51%	0.25%
BBB	7.84%	0.29%

Rating Scenarios

In our cash flow model rating scenarios have been tested considering several central input parameters, such as:

- Portfolio composition (diversification, concentration, granularity)
- Probability of default of cover assets
- Correlations of cover assets and systematic risk factors
- Recoveries

- Maturity profile of covered bonds and cover assets (ALM)

Within an A rating scenario, the cash flow model showed that obligations can be paid fully and in a timely manner. Overall, the cash flow analysis revealed that the portfolio, given all available information as of 30.06.2022, may ensure the repayment of bonds' nominal capital notwithstanding the occurrence of the presented stressed scenarios.

Overcollateralization Break-Even Analysis

CRA also performed a break-even OC analysis taking into considerations the following drivers: ALM, Loss level, Interest rate spreads, foreign currency mismatches and Recoveries. Performing the break-even OC analysis, we took rating-level specific stressed outcomes into account. Based on these analyses, the maximum OC required for each relevant rating level during the whole period has been presented in table 6.

Table 6: Breakeven Analysis | Source: CRA

Rating Level	Break-Even OC
AA-	25.00%
A+	22.44%
A	20.68%
A-	18.56%
BBB+	16.33%
BBB	14.44%
BBB-	12.80%

Sensitivity Analysis

CRA also evaluates the sensitivity of the structure and program with respect to important input parameters. In particular, the following factors have been varied:

- Credit quality of cover assets
- Recoveries

The following table presents the rating impact of a decline in recoveries and an increase in the credit risk of single debtors (sovereigns). Starting from the best-case, which is represented by our base case assumptions, the analysis reveals the sensitivity of the rating with respect to recovery rates and credit risk. In the worst-case scenario, i.e. a 50% decrease of base case assumptions leads to a reduction in the base-case rating by 5 notches to BB+ (see Table 7):

Table 7: Covered Bond Program Sensitivity: Credit Quality und Recovery Rates | Source: CRA

Recovery Defaults	Base Case	-25%	-50%
Base Case	A	A-	BBB+
+25%	BBB+	BBB	BBB-
+50%	BBB	BBB-	BB+

In general, based on the presented cash flow analysis results, the rating of the cover pool within our covered bond program rating has been set at A. This, however, does not ensure any secondary rating uplift which was set at zero (0) notch. Consequently, the final rating of the covered bond program was confirmed as AA.

Counterparty Risk

Derivatives

Based on the available information, CRA assumes that the issuer has entered into partial derivative agreements in the form of cross-currency and interest rate swaps with its parent company NORD/LB Girozentrale.

Commingling

In order to avoid commingling of funds, the Luxembourg's covered bond legislation stipulates that the cover assets should be isolated from the general bankruptcy estate (insolvency-free assets) and one or more special cover pool administrator/s will be appointed to manage the cover pool. Under that mandate the cover pool administrator/s will have the first priority on the up-coming cash flows from the cover pool assets. These cash flows in turn should be used to cover interest and principal payments of the covered bond holders in event of the Issuer's insolvency.

Appendix

Rating History

Event	Rating Date	Publication Date	Result
Initial Rating	11.02.2019	21.02.2019	AA- / Stable
Monitoring	18.12.2019	23.12.2019	AA- / Watch Unknown
Monitoring	24.03.2020	28.03.2020	AA- / Watch Negative
Rating Update	25.09.2020	01.10.2020	A+ / Stable
Monitoring	05,07,2021	06,07,2021	A+ / Watch Unknown
Rating Update	08.10.2021	14.10.2021	AA / Stable
Rating Update	12.10.2022	18.10.2022	AA/ Stable

Details Cover Pool

Table 8: Characteristics of Cover Pool | Source: NORD/LB CBB

Characteristics	Value
Cover Pool Volume	EUR 4,290 m
Covered Bonds Outstanding	EUR 3,508 m
Substitute Assets	EUR 106 m
Share Derivatives	0.00%
Share Other	100.00%
Substitute Assets breakdown by asset type	
Cash	0.00%
Guaranteed by Supranational/Sovereign agency	0.00%
Central bank	0.00%
Credit institutions	100.00%
Other	0.00%
Substitute Assets breakdown by country	
Issuers country	0.00%
Eurozone	90.52%
Rest European Union	9.48%
European Economic Area	0.00%
Switzerland	0.00%
Australia	0.00%
Brazil	0.00%
Canada	0.00%
Japan	0.00%
Korea	0.00%
New Zealand	0.00%
Singapore	0.00%
US	0.00%
Other	0.00%
Cover Pool Composition	
Public Sector	97.54%

Covered Bonds follow-up Rating

NORD/LB Luxembourg S.A. Covered Bond Bank
Public Sector Covered Bond Program

Total Substitute Assets	2.46%
Other / Derivatives	0.00%
Number of Debtors	184
Distribution by debtor type	
Central Government	2.70%
Regional authorities	12.92%
Municipal authorities	18.46%
Other	65.92%
Distribution by asset type	
Loans	68.90%
Bonds	31.10%
Other	0.00%
Average asset value	EUR 12,960 k
Share of Non-Performing Loans	0.00%
Share of 10 biggest debtors	23.86%
WA Maturity (months)	119.20
WAL (months)	77.29
Distribution by Country (%)	
Austria	2.28
Czechia	0.21
Finland	1.17
France	1.56
Germany	38.16
Netherlands	2.80
Ireland	1.38
Poland	1.22
Sweden	0.79
United Kingdom	25.30
Canada	4.84
Japan	0.25
Korea	0.61
New Zealand	0.09
Supranational	0.87
US	15.01
Other	3.47

Table 9: Participant counterparties | Source: NORD/LB CBB

Role	Name	Legal Entity Identifier
Issuer	NORD/LB CBB	CAF7KSNT1N0CTA93RI98
Account Bank	Banque et Caisse d'Epargne de l'Etat	R7CQUF1DQM73HUTV1078

Table 10: Interest rate and Swap counterparties | Source: NORD/LB CBB

Name	Legal Entity Identifier	Agreement Type
Norddeutsche Landesbank Girozentrale	DSNHHQ2B9X5N6OUJ1236	Cross-Currency, Interest Rate

Covered Bonds follow-up Rating

NORD/LB Luxembourg S.A. Covered Bond Bank
Public Sector Covered Bond Program

Figure 6: Arrears Distribution | Source: NORD/LB CBB

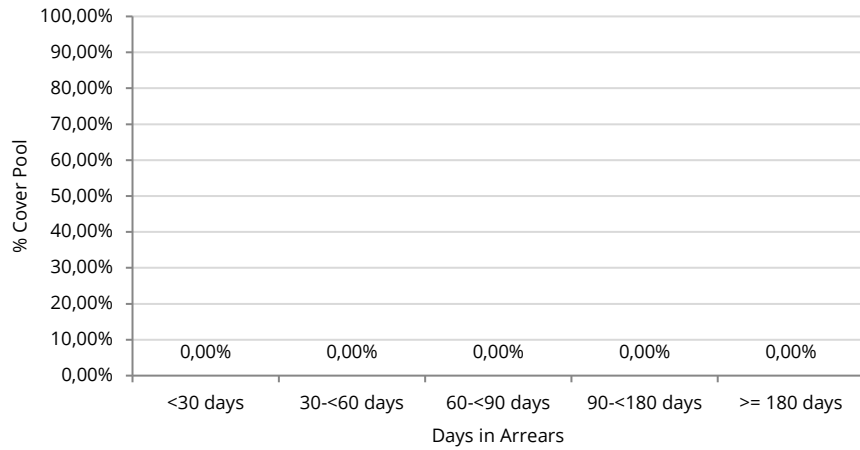
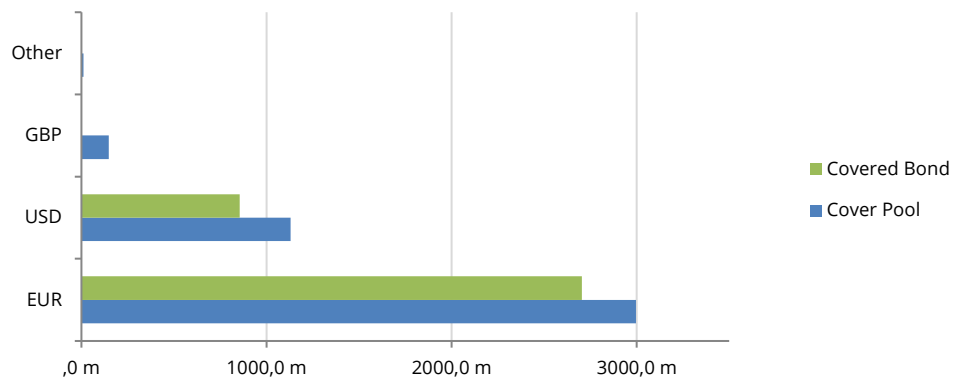


Figure 7: Program currency mismatches after swaps | Source: NORD/LB CBB



Key Source of Information

Documents (Date: 30.06.2022)

Issuer

- Audited consolidated annual reports of NORD/LB (Group) 2018-2021
- Final Issuer Rating update as of 10.10.2022
- Miscellaneous Investor Relations Information and Press releases
- Other rating relevant data from the CRA/ eValueRate databank

Covered Bond and Cover Pool

- HTT Reporting from NORD/LB CBB as of 30.06.2022
- Market data of Public Sector Covered Bond Program

Regulatory and Legal Disclosures

Creditreform Rating AG was neither commissioned by the rating object nor by any other third parties for the rating. The analysis took place on a voluntary basis by Creditreform Rating AG and is to be described in the regulatory sense as an unsolicited rating. The rating was conducted on the basis of Creditreform Rating's "[Covered Bond Ratings" methodology \(v1.1, April 2022\)](#) and "[Technical Documentation Portfolio Loss Distributions" \(v.1.0, July 2018\)](#) in conjunction with Creditreform's basic document "[Rating Criteria and Definitions" \(v1.3, January 2018\)](#). On the subject of ESG (environment, social and governance), Creditreform Rating AG has published the basic document "[The Impact of ESG Factors on Credit Ratings" \(March 2020\)](#).

Unsolicited Credit Rating

With Rated Entity or Related Third Party Participation	NO
With Access to Internal Documents	NO
With Access to Management	NO

The rating is based on publicly available information and internal evaluation methods for the rated bank and program. The issuer's quantitative analysis is based mainly on the latest annual accounts, interim reports, other information of the bank pertaining to investor relations, and key figures calculated by CRA/eValueRate. The cover pool's quantitative analysis for the rated Covered Bond Program was based on the "Harmonised Transparency Template" (HTT) published by the NORD/LB CBB.

Information on the meaning of a rating category, definition of default and sensitivity analysis of relevant key rating assumptions can be found at "Creditreform Rating AG, Rating Criteria and Definitions":

<https://www.creditreform-rating.de/en/about-us/regulatory-requirements.html>

This rating was carried out by analysts Philip Michaelis (Senior Analyst) und Qinghang Lin (Analyst) both based in Neuss/Germany. On 12.10.2022, the rating was presented to the rating committee by the analysts and adopted in a resolution. The function of Person Approving Credit Ratings (PAC) was performed by Artur Kapica (Senior Analyst).

On 12.10.2022, the rating result was communicated to NORD/LB CBB, and the preliminary rating report was made available. The Issuer and all relevant parties examined the rating report

prior to publication and were given at least one full working day to appeal the rating committee decision and provide additional information. The rating decision was not amended following this examination.

The rating is subject to one-year monitoring from the creation date (see cover sheet). Within this period, the rating can be updated. After one year at the latest, a follow-up is required to maintain the validity of the rating.

In 2011 Creditreform Rating AG was registered within the European Union according to EU Regulation 1060/2009 (CRA-Regulation). Based on the registration Creditreform Rating AG (CRA) is permitted to issue credit ratings within the EU and is bound to comply with the provisions of the CRA-Regulation.

Endorsement

Creditreform Rating did not endorse the rating according Article 4 (3), CRA-Regulation.

Conflict of Interests

No conflicts of interest were identified during the rating process that might influence the analyses and judgements of the rating analysts involved or any other natural person whose services are placed at the disposal or under the control of Creditreform Rating AG and who are directly involved in credit rating activities or approving credit ratings and rating outlooks.

In the event of provision of ancillary services to the rated entity, CRA will disclose all ancillary services in the credit rating report of the issuer.

Rules on the Presentation of Credit Ratings and Rating Outlooks

The approval of credit ratings and rating outlooks follows our internal policies and procedures. In line with our policy "Rating Committee," all credit ratings and rating outlooks are approved by a rating committee based on the principle of unanimity.

To prepare this credit rating, CRA has used following substantially material sources:

1. Transaction structure and participants
2. Transaction documents
3. Issuing documents
4. Other rating relevant documentation

There are no other attributes and limitations of the credit rating or rating outlook other than displayed on the CRA website. Furthermore, CRA considers satisfactory the quality and extent of information available on the rated entity. In regard to the rated entity, Creditreform Rating AG regarded available historical data as sufficient.

Between the disclosure of the credit rating to the rated entity and the public disclosure no amendments were made to the credit rating.

The rating report and/or the press release indicate the principal methodology or version of methodology that was used in determining the rating, with a reference to its comprehensive description.

In cases where the credit rating is based on more than one methodology, or where reference only to the principal methodology might cause investors to overlook other important aspects of the credit rating, including any significant adjustments and deviations, Creditreform Rating AG explains this fact in the credit rating and indicates how the different methodologies and other aspects are taken into account in the credit rating. This information is integrated in the credit rating report.

The meaning of each rating category, the definition of default or recovery, and any appropriate risk warning, including a sensitivity analysis of the relevant key rating assumptions, such as mathematical or correlation assumptions, accompanied by worst-case scenario credit ratings as well as best-case scenario credit ratings, are explained.

The date at which the credit rating was released for distribution for the first time and when it was last updated including any rating outlooks, is indicated clearly and prominently in the rating report and/or the press release as a "Rating action"; first release is indicated as "initial rating", other updates are indicated as an "update", "upgrade or downgrade", "not rated", "confirmed", "selective default" or "default".

In the case of a rating outlook, the time horizon is provided during which a change in the credit rating is expected. This information is available within the rating report and/or the press release.

In accordance to Article 11 (2) EU-Regulation (EC) No 1060/2009 registered or certified credit rating agency shall make available in a central repository established by ESMA information on its historical performance data, including the ratings transition frequency, and information about credit ratings issued in the past and on their changes. Requested data are available at the ESMA website: <https://cerep.esma.europa.eu/cerep-web/statistics/defaults.xhtml>.

An explanatory statement of the meaning of Creditreform`s default rates are available in the credit rating methodologies disclosed on the website.

Disclaimer

Any rating performed by Creditreform Rating AG is subject to the Creditreform Rating AG Code of Conduct which has been published on the web pages of Creditreform Rating AG. In this Code of Conduct, Creditreform Rating AG commits itself – systematically and with due diligence – to establish its independent and objective opinion as to the sustainability, risks and opportunities concerning the enterprise or the issue under review.

Future events are uncertain, and forecasts are necessarily based on assessments and assumptions. This rating is therefore no statement of fact, but an opinion. For this reason, Creditreform Rating AG cannot be held liable for the consequences of decisions made on the basis of any of their ratings. Neither should these ratings be construed as recommendations for investors, buyers or sellers. They should only be used by market participants (entrepreneurs, bankers, investors etc.) as one factor among others when arriving at corporate or investment decisions. Ratings are not meant to be used as substitutes for one's own research, inquiries and assessments.

We have assumed that the documents and information made available to us by the client are complete and accurate and that the copies provided to us represent the full and unchanged contents of the original documents. Creditreform Rating AG assumes no responsibility for the true and fair representation of the original information.

This report is protected by copyright. Any commercial use is prohibited without prior written permission from Creditreform Rating AG. Only the full report may be published in order to prevent distortion of the report's overall assessment. Excerpts may only be used with the express consent of Creditreform Rating AG. Publication of the report without the consent of Creditreform Rating AG is prohibited. Only ratings published on the Creditreform Rating AG web pages remain valid.

Creditreform Rating AG

Contacts

Creditreform Rating AG

Europadamm 2-6
D - 41460 Neuss

Fon +49 (0) 2131 / 109-626
Fax +49 (0) 2131 / 109-627
E-Mail info@creditreform-rating.de
Internet www.creditreform-rating.de

CEO:
Dr. Michael Munsch
Chairman of the board:
Michael Bruns

HRB 10522, Amtsgericht Neuss