NORD/LB Luxembourg S.A. Covered Bond Bank

Public Sector Programme/Lettres de Gage Publiques

Covered Bonds Rating/Outlook	AAA/Stable	Asset type	Public sector
Issuer Default Rating/Outlook	A-/Stable/F1	Cover assets (EURbn)[a]	5.551
IDR uplift	1 notch	Covered bonds (EURbn)[a]	4.434
Payment Continuity Uplift (PCU)	5 notches	Nominal OC (%)[a]	25.2
Recovery uplift	2 notches	OC Fitch considers in its analysis (%)	24.6
Unused notches for rating	2	Basis of OC relied upon	Min last 12 months
'AAA' breakeven OC (%)	19.5	Covered bonds maturity type	Hard bullet
Credit loss (%)	11.5	WAL of the assets (years)[a]	6.8
ALM loss (%)	8.2	WAL of the liabilities (years)[a,b]	5.8

[a] Data as of September 2019. OC – Overcollateralisation
[b] Calculations based on call dates if applicable under the respective final terms
Source: Fitch Ratings

Key Rating Drivers

Two-Notch Rating Cushion: The 'AAA' covered bonds rating is based on NORD/LB Luxembourg S.A. Covered Bond Bank's (NORD/LB CBB) Long-Term Issuer Default Rating (IDR) of 'A-', an IDR uplift of one notch, a Payment Continuity Uplift (PCU) of five notches and a recovery uplift of two notches. The rating is also based on the overcollateralisation (OC) of 24.6% that Fitch Ratings considers in its analysis, which is higher than the 'AAA' breakeven OC of 19.5%. The two-notch buffer against a downgrade of the bank's IDR supports a Stable Outlook on the rating.

One-Notch IDR Uplift: The covered bonds (Lettres de Gage Publiques; LdGPs) are granted a one-notch IDR uplift as LdGPs are exempt from bail-in in a resolution scenario and the issuer's Long-Term IDR is driven by support from its German parent bank Norddeutsche Landesbank Girozentrale (NORD/LB; A-/Stable/F1). Fitch does not expect resolution of the issuer to result in the direct enforcement of recourse against the cover pool and the risk of undercollateralisation at the point of resolution is assessed as low.

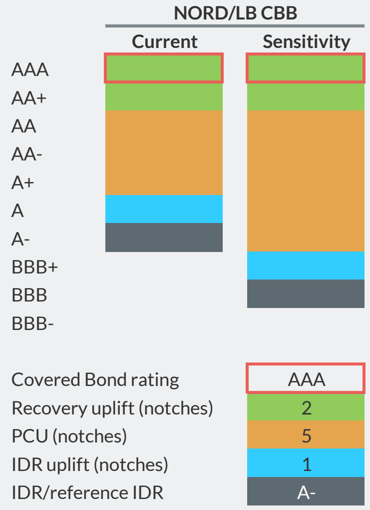
Five-Notch PCU: The five-notch PCU reflects the mandatory 180 days liquidity rule of the Luxembourgian covered bond law. Covered bonds issuers are required to include liquid assets in the cover pool in order to match the maximum negative accumulated balance of cash flow for the next 180 days.

Two-Notch Recovery Uplift: Fitch has granted a recovery uplift of two notches to the programme, as the tested rating on a probability of default (PD) basis of 'AA' is in the investment-grade range and the agency did not identify any limitation to recovery expectations. Foreign-exchange (FX) risk is residual and it is stressed when the agency tests cash flow for timely payments.

Credit Loss Main Breakeven OC Component: The 11.5% credit loss is the main component of the 'AAA' breakeven OC of 19.5%. The credit loss reflects the cover pool's high concentration, with 394 assets related to 171 final obligors and increased exposures to public-private partnerships (PPP; 22.7%) and government-related entities (GREs; 36.4%), according to Fitch's calculations.

Credit-Linked to Germany: The LdGPs' 'AAA' rating remains credit-linked to Germany (AAA/Stable/F1+) given the high share of German assets (43.7%) in the cover pool, which significantly outweighs that of the next two largest countries (UK: 19.9%; US: 13.2%).

Rating Sensitivity to IDR Downgrade



Source: Fitch Ratings

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Programme Highlights

Mitigated Interest-Rate Risk: Fitch considers 51.1% of the asset and 71.7% of the covered bonds as fixed rate on a post-swap basis: this reduces interest-rate mismatches to 20.6% from 39.3% on a pre-swap basis. Fitch models assets and liabilities on a post-swap basis as interest-rate swaps are in place with an eligible counterparty.

Residual FX Risk: Cross-currency swaps are in place with an eligible counterparty to mitigate FX risk in the programme. Open FX positions on a post-swap basis are within Fitch's limit of 10%.

On a post-swap basis, as of September 2019, the programme is mostly exposed to euro-denominated assets (71.2%) and covered bonds (74.8%) with other cover pool currencies being represented by the British pound sterling, the Japanese yen and US dollars (2.7%, 0.3% and 25.8%, respectively) and by the Norwegian krone and dollars on the covered bonds (0.2% and 25.0%, respectively).

IBOR Exposure to Assets and Swaps: The planned, reformed Euribor, which is based on a hybrid calculation, has become compliant under the Benchmark Regulation (see *Uneven IBOR Progress Leaves Key Uncertainties for Structured Finance (October 2019)*), so the phase-out risk is lower than for Libor. However, fall-back provisions are still important to cover Libor phase-out and future developments that could lead to a discontinuation of Euribor (see *IBOR Fall-Back Provisions*).

ESG Relevance Scores

The highest level of ESG credit relevance is a score of '3'. ESG issues are credit-neutral or have only a minimal credit impact on the programme, either due to their nature or the way in which they are being managed by the programme.

For more information on our ESG Relevance Scores, visit www.fitchratings.com/esg or access Fitch's *ESG Navigator*.

IBOR Exposure

IBOR Risks for Programme[a]

Assets	Liabilities	Hedges
13.8% of the asset references are to Euribor, 20.2% to pound sterling Libor and 3.4% to dollar Libor.	No Euribor or Libor exposure as all the covered bonds are fixed rate.	48.9% of the cover pool is swapped into floating: 44.5% references to Euribor, 1.2% to pound sterling Libor and 3.2% to dollar Libor. The fixed rate on 28.1% of the covered bonds is swapped to Euribor (18.1%) and to dollar Libor (10%).

[a] Percentages are calculated based on euro-equivalent amounts.
Source: Fitch Ratings,

For the various risks associated with the expected phase out, please refer to *IBOR Exposure and Fall-Back Provisions.*

Peer Comparison

The *Peer Comparison: Key Rating Drivers* table compares the key rating drivers for NORD/LB CBB's LdGPs with those of the four other non-guaranteed public sector programmes rated 'AAA' by Fitch and issued by German banks. The selected peers are listed in the right margin.

Fitch's 'AAA' breakeven OC for NORD/LB CBB's programme is the second highest in the peer group, and, as for half of the other programmes, it is driven by credit loss. The 11.5% credit loss for NORD/LB CBB reflects the cover pool concentration as well as the high share of exposures towards PPP loans and GREs (see *Cover Pool Analysis* for details).

Bayern LB and Helaba have relatively homogenous programmes with a high share of German sovereign and German municipal exposure, while international exposure is limited. Helaba's

Applicable Criteria

Covered Bonds Rating Criteria (July 2019)
Bank Rating Criteria (October 2018)
Structured Finance and Covered Bonds Country Risk Rating Criteria (February 2020)
Structured Finance and Covered Bonds Counterparty Rating Criteria (January 2020)
Structured Finance and Covered Bonds Interest Rate Stresses Rating Criteria (December 2019)
Structured Finance and Covered Bonds Counterparty Rating Criteria: Derivative Addendum (January 2020)
CLOs and Corporate CDOs Rating Criteria (July 2019)
Fitch's Foreign-Currency Stress Assumptions for Residual Foreign-Exchange Exposures in Covered Bonds and Structured Finance (Excel) (July 2019)
U.S. Public Finance State Revolving Fund and Municipal Finance Pool Program Rating Criteria (September 2019)
Covered Bonds and CDOs Public Entities' Asset Analysis Rating Criteria (October 2019)
Government-Related Entities Rating Criteria (November 2019)
Fitch Ratings Interest Rate Stress Assumptions for Structured Finance and Covered Bonds (Excel) (December 2019)

Related Research

Fitch Ratings 2020 Outlook: Global Covered Bonds (November 2019)
Covered Bonds Surveillance Snapshot (January 2020)

Selected Peers for Comparison

Issuer/ Programme	IDR/ Outlook	CVB Rating
Bayerische Landesbank (Bayern LB)	A-/ Stable	AAA/ Stable
Landesbank Hessen-Thueringen Girozentrale (Helaba)	A+/ Stable	AAA/ Stable
Landesbank Saar (Saar LB)	A-/ Stable	AAA/ Stable
UniCredit Bank AG (UC AG)	BBB+/ Negative	AAA/ Stable

Source: Fitch Ratings

'AAA' Pfandbrief rating is based on a two-notch recovery uplift above the IDR adjusted by the IDR uplift. There is no test for timely payments.

The high credit loss of Saar LB derives from a notable exposure towards France. Therefore, in rating scenarios exceeding the rating of the French sovereign (AA/Stable/F1+), a high share of French municipalities is assumed to default. UC AG's cover pool exhibits exposure to sovereign assets from non 'AAA' rated countries, namely France and the United Kingdom. Under Fitch's criteria, the recoveries assumption in an 'AAA' rating scenario for defaulted sovereign assets are 15%, which is far below the recovery expectations for subnational public entities from Germany, France and United Kingdom.

The asset and liability mismatches (ALM) loss for NORD/LB CBB and for the peers considers the impact of interest rates and FX risk as well as the presence of maturity mismatches between amortising assets and hard-bullet liabilities. For Bayern LB, there is a significant maturity mismatch, mainly due to very long-dated sterling-denominated assets. For UC AG's programme the ALM loss arises from interest-rate mismatches and dollar-denominated assets and liabilities with different maturities.

Peer Comparison: Key Rating Drivers

	NORD/LB CBB	Bayern LB	Helaba	Saar LB	UC AG
IDR/Outlook	A-/Stable	A-/Stable	A+/Stable	A-/Stable	BBB+/Neg
IDR uplift (notches)	1	1	2	1	2
PCU (notches)	5	5	5	5	5
Recovery uplift (notches)	2	2	2	2	2
'B' portfolio loss rate (%)	2.2	0.7	0.4	1.9	0.3
'AAA' breakeven OC (%)	19.5	10.5	6.0	28.5	18.0
Breakeven OC components (%)					
Credit loss (%)	11.5	3.5	6.2	26.4	8.7
ALM loss (%)	8.2	6.8	0.0	2.2	9.4

Source: Fitch Ratings; data as of September 2019.

Country Risk Impact

The programme is exposed to several countries (see *Cover Pool Analysis*) with concentrations in Germany (43.7%), the UK (19.9%) and the US (13.2%). The high share of German assets results in the programme's rating being credit-linked to Germany.

In addition, the LdGPs continues to be rated 'AAA' as exposures to countries with a country cap, either Country Ceiling or cap above the respective sovereign Local-Currency IDR, below 'AAA' is limited and below 4% of the total cover pool.

The Issuer

NORD/LB CBB was established in 2015 as a legal successor of NORD/LB Luxembourg S.A. after NORD/LB Luxembourg S.A.'s merger with its fully owned subsidiary NORD/LB Covered Finance Bank S.A. NORD/LB CBB is wholly owned by NORD/LB, which guarantees fulfilment of NORD/LB CBB's obligations with a letter of comfort.

NORD/LB CBB operates as a specialised covered bonds bank with the task of generating additional covered refinancing for the core business of the NORD/LB group by issuing covered bonds in accordance with Luxembourg's law. The covered bond holders benefit from a dual recourse against NORD/LB CBB, which is secured by the cover assets, and an unsecured, unsubordinated recourse against NORD/LB CBB (see *Appendix 1* for a programme summary).

For further details on NORD/LB CBB, please refer to: *Norddeutsche Landesbank Girozentrale (February 2020)* and *Fitch Affirms NORD/LB's IDR at 'A-'; off RWN; Outlook Stable (January 2020)*.

Abbreviations

IDR: Issuer Default Rating
PCU: Payment Continuity Uplift
PD: Probability of Default
OC: Overcollateralisation
AP: Asset Percentage
WA: Weighted Average
WAL: Weighted Average Life
RDR: Rating Default Rate
RRR: Rating Recovery Rate
RLR: Rating Loss Rate

IDR Uplift: One Notch

The one-notch IDR uplift granted to the LdGPs reflects that collateralised covered bonds in Luxembourg are exempt from bail-in in a resolution scenario and that Fitch deems the risk of undercollateralisation to be sufficiently low. A resolution of NORD/LB CBB is not expected to lead to a direct enforcement of recourse to the cover pool.

The one-notch IDR uplift further reflects that the bank's 'A-' IDR is support-driven from the German parent bank NORD/LB.

PCU: Five Notches

The PCU of five notches reflects the mandatory 180-day liquidity rule in the Luxembourgian covered bonds law. Liquid assets are included in the cover pool to match the maximum negative accumulated balance of cash flow for the next 180 days, which provides effective protection for interest and principal payments on the covered bonds.

None of the other factors influencing payment continuity analysed by Fitch (see *Appendix 4*) is a high risk, which in Fitch's view would be otherwise reflected in a PCU reduction.

Recovery Uplift: Two Notches

The maximum recovery uplift of two notches has been granted to the covered bonds, as the tested rating on a PD basis is in the investment-grade range and Fitch did not identify any limitations to recovery expectations. The residual FX risk is stressed when the agency tests cash flow for timely payments.

Cover Pool Analysis

Cover Pool Composition

The cover pool comprises 394 exposures related to 171 obligors; the top 10 exposures by obligor are roughly 34% of the cover pool, as calculated by Fitch. The majority of the exposures in the cover pool are represented by GREs (36.4%) and PPP loans (22.7%); sovereign/supranational are 4% with regions and municipalities accounting for 26.1% of the total cover pool. Most of the assets are fixed rate and amortising; loans are 62.8% of the total assets, followed by bonds (30.6%), covered bonds (4.9%) and promissory notes (1.8%).

The cover pool description is based on a loan-by-loan data, as of 30 September 2019.

Cover Pool

Characteristics as of September 2019

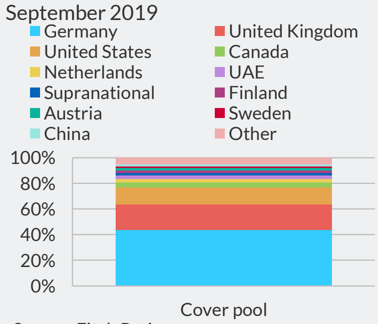
General		Instrument type	
Current principal balance (EURbn)	5.551	Bonds (%)	30.6
Number of exposures	394	Covered bonds (%)	4.9
Number of obligors	171	Loans (%)	62.8
Average exposure amount (EUR)	14,089,397	Promissory notes (%)	1.8

Obligor type		Repayment type	
Supranational (%)	2.1	Bullet (%)	34.4
Sovereign (%)	1.9	Amortising (%)	65.6
Financial institutions/covered bonds (%)	10.8		
Municipalities (%)	13.8	**Interest rate type**	
Regions/federal states (%)	12.3	Fixed (%)	58.1
GRE (%)	36.4	Floating (%)	38.2
PPP (%)	22.7	Zero coupon (%)	3.7

Source: Fitch Ratings, programme documents

Geographical Breakdown

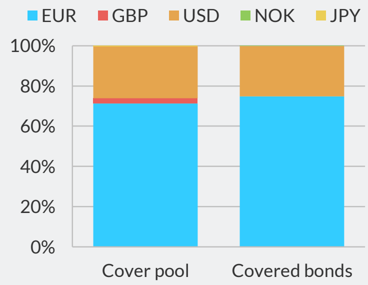
September 2019



Source: Fitch Ratings

Currencies After Swaps

September 2019



Source: Fitch Ratings

Cover Pool Credit Analysis

Fitch analysed the collateral portfolio using its applicable loss criteria assumptions for public sector assets, outlined in its *Covered Bonds and CDOs Public Entities' Asset Analysis Rating Criteria*.

About 87% of the cover pool carries either a public rating or a Fitch's internal credit opinion; rating assumptions were applied for unrated public-sector entities, which also include municipalities and GREs. A conservative probability of default assumption equivalent to a 'CCC' rating was assigned to unrated obligors representing less than 2% of the portfolio balance. The specific asset model assumptions are outlined in more detail below.

Recovery rates are applied in line with the criteria; Fitch assumed superior recoveries (45% in an 'AAA' scenario) for PPP exposures.

Credit-Linked to Germany

Fitch credit links NORD/LB CBB's LdGPs rating to Germany based on its significant exposure to the country (43.7%). As a consequence, the sovereign is assumed not to default in rating scenarios up to and including the rating of Germany. Assets credit-linked to Germany are assumed to be risk free (i.e. probability of default of 0%) in all rating scenarios up to and including that of the sovereign.

Rating Assumptions for German Municipalities

Unrated municipalities are assigned a rating assumption based on internal credit opinions provided by Fitch's International Public Finance team. In case the exposure to such municipality, on an aggregate basis, is less than 2%, a 'BBB-' rating is assumed, in line with *Covered Bonds and CDOs Public Entities' Asset Analysis Rating Criteria*.

GRE

When a public rating for the GRE itself was available, this rating was applied; in case of guaranteed exposures the rating of the guarantor, if available, was applied. In all other cases, rating assumptions provided by Fitch's International Public Finance team and based on the approach outlined in *Government-Related Entities Rating Criteria* were applied.

PPP

Internal credit opinions by Fitch's Global Infrastructure Group were used for all PPP exposures. Fitch assumed superior recoveries (45% in an 'AAA' scenario) for these loans.

Unrated US Municipal Exposure

Unrated US municipal bonds are about 2% of the cover pool; rating assumptions were applied in line with *U.S. Public Finance State Revolving Fund and Municipal Finance Pool Program Rating Criteria*.

Loss Rate Breakdown

Fitch derived a stressed cumulative default rate and recovery rate for the cover pool based on the loan-by-loan analysis of the cover assets, and related obligors. The RDR in the 'AA' rating scenario, corresponding to the tested rating on a PD basis for the covered bonds, is equal to 20.8% and the 'AA' RRR is 50.5%. This is equivalent to an 'AA' expected loss rate of 10.3%. This expected loss on the pool results in a credit loss component of 11.5% expressed in percentage of the bonds.

Default Model Output (%)

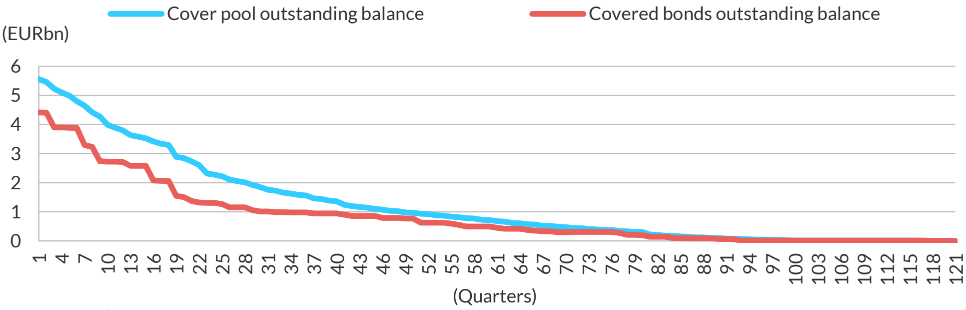
Rating level	RDR (%)	RRR (%)	RLR (%)
AAA	23.8	40.8	14.1
AA+	21.8	49.5	11.0
AA	20.8	50.5	10.3
B	8.7	74.7	2.2

Source: Fitch Ratings

Cash Flow Analysis

Fitch's cash flow model simulates the asset cash flow to reflect prepayment, servicing costs, defaults and recoveries in multiple stress scenarios under various issuer default timings and adverse variations of interest and FX rates. The model tests whether the cover pool can service principal and interest payments on the covered bonds in a timely manner, while hypothesising a switch to the cover pool as a source of payment at different dates. Based on Fitch's analysis, an OC of 19.5% is sufficient to withstand the agency's 'AA' tested rating on a PD basis under Fitch's covered bonds cash flow model.

Assets and Liabilities Unstressed Amortisation Profile



Source: Fitch Ratings

Maturity Mismatches

Most cover assets (65.6%) are amortising with an unstressed WAL of 6.8 years; while the covered bonds are hard bullet with a shorter WAL of 5.8 years. Temporary liquidity surpluses or shortfalls may arise, putting strain on available resources. About 3% of the covered bonds are callable: bonds are assumed to have a shorter life in case an alternative manager would have excess cash flow to repay the LdGPs at their call dates.

Liquidity shortfalls are assumed to be bridged via asset sales; Fitch calculates refinancing spread levels on the basis of the country of the assets as well as on the exposure/debtor type. In calculating refinancing spread levels, the agency also assumed the alternative manager to be able to select the most liquid assets given the multi-jurisdictional and multi-asset type nature of the cover pool. Fitch models any cash not needed to repay liabilities as being reinvested at an assumed rate of 50bp below the three-month Euribor reference rate.

Hedging

NORD/LB CBB has entered into different swap agreements to hedge interest-rate and FX risk. Fitch has modelled the post-swap cash flow in its analysis as swaps are entered with an eligible counterparty and remedial actions upon the counterparty becoming ineligible are in place. Open FX positions are less than 10% and are, therefore, considered a residual risk.

Breakeven OC for the Rating

Fitch calculated an 'AAA' breakeven OC of 19.5%. The 'AAA' breakeven OC relates to a 'AA' tested rating on a PD basis and two-notch recovery uplift to the 'AAA' covered bond rating.

The credit loss of 11.5% is the greatest contributor to the breakeven OC and represents the lifetime credit losses on the cover assets simulated by the agency in a stress scenario corresponding to the 'AA' tested rating on a PD basis (see *Cover Pool Analysis*).

The ALM loss is 8.2% and takes into account the post-swap residual FX risk and open interest positions between assets and liabilities. As of September 2019, 51.1% of assets are considered fixed as opposed to 71.7% fixed-rate covered bonds. As for currency risk, 71.2% of assets are euro-denominated compared with 74.8% of covered bonds; dollars are 25.8% of assets and 25.0% of liabilities. The remainder is split between the pound sterling, the yen and the krone.

OC Fitch Relies Upon in Its Analysis

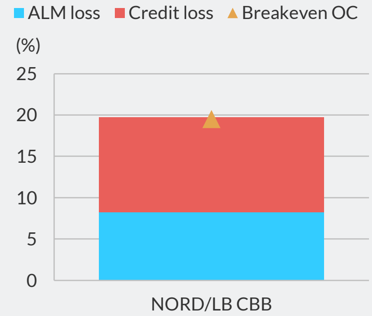
In its analysis, Fitch gives credit to the minimum nominal OC for the covered bonds over the past 12 months as the Short-Term IDR of NORD/LB CBB is 'F1' and the programme is not considered in wind-down. We give credit in our analysis to an OC of 24.6% (as of June 2019), which provides more protection than Fitch's 'AAA' breakeven OC of 19.5%.

Sensitivity Analysis

The covered bonds' 'AAA' rating would be vulnerable to a downgrade if: (i) NORD/LB CBB's IDR is downgraded by three notches to 'BBB-' or below; (ii) the German sovereign is downgraded to 'AA+' or below; or (iii) the relied-upon OC drops below Fitch's 'AAA' breakeven OC of 19.5%.

If the OC that Fitch relies upon in its analysis decreases to the legal minimum OC of 2%, the rating of the covered bonds would likely be downgraded to 'A+'.

Breakeven OC Breakdown



Source: Fitch Ratings

Applicable Criteria, Models and Data Adequacy

Applicable Criteria

Fitch applies the *Covered Bonds and CDOs of Public Entities' Asset Analysis Rating Criteria* as its sector-specific criteria under the *Covered Bonds Rating Criteria* master criteria. The cross-sector criteria apply to specific counterparty and interest-rate risks. A full list of applicable criteria is detailed on page 2 of this report.

Applicable Models

Fitch derived its portfolio default rate, recovery rate and loss rate assumptions for the pool of public-sector entities using its Portfolio Credit Model. The model uses a Monte Carlo simulation to determine RDR and RLR for each rating level based on the simulated distribution of portfolio default and loss rates. The RDR and RLR are percentiles of portfolio default and loss rates distributions that correspond to specific confidence levels.

Fitch derived the breakeven OC for the instrument rating using its covered bonds cash flow model. Fitch's cash flow model, built on stressed net present value calculations, determines the level of OC that supports timely payment (tested rating on a PD basis) in a given scenario above the Long-Term IDR, adjusted by the IDR uplift. Stresses include prepayments, fees, change in interest and currency rates and refinancing spread levels.

Data Adequacy

Fitch's analysis takes into account the loan characteristics and borrower profile factors that influence the default and loss rate assumptions for different rating stresses. The analysis also includes a review of NORD/LB CBB's origination, underwriting and servicing practices and procedures, which are deemed to be of a high quality. The composition and credit quality of the cover pool may change over time because of the dynamic nature of the programme.

Programme Review

Cover pool and covered bond information is updated on a quarterly basis and displayed on Fitch's covered bond surveillance pages, available at www.fitchratings.com, and in the quarterly Covered Bonds Surveillance Snapshot.

Disclaimer

References in this report to the content and impact of relevant legislation and/or regulation represent Fitch's interpretation. Fitch relies on legal opinions or memoranda provided by issuers and/or other outside legal counsel. As Fitch has always made clear, Fitch does not provide legal advice or confirm that a country's legal or regulatory framework, the legal opinions or memoranda, or any other programme documents or any structures are sufficient for any purpose. The disclaimer at the foot of this report makes it clear that this report does not constitute legal, tax and/or structuring advice from Fitch, and should not be used or interpreted as legal, tax and/or structuring advice from Fitch. Should readers of this report need legal, tax and/or structuring advice, they are urged to contact relevant advisers in the relevant jurisdictions.

Appendix 1: Structural and Legal Aspects of the Programme

Overview and Basis of Dual Recourse

Under this programme, NORD/LB CBB can issue LdGPs, which are governed by dedicated articles 12-1 to 12-12 in the Luxembourgian Financial Sector Act and supplementary circulars issued by the Luxembourgian regulator Commission de Surveillance du Secteur Financier (CSSF). The public-sector covered bonds are secured by a dynamic pool of public-sector assets, which remain on NORD/LB CBB's balance sheet and are serviced by the issuer.

All cover assets are recorded on a dedicated cover register. The covered bonds rank pari passu among themselves and represent direct, unsecured and unconditional obligations of NORD/LB CBB. The programme is regulated by CSSF, which is also responsible for appointing an alternative manager upon the opening of insolvency proceedings on NORD/LB CBB.

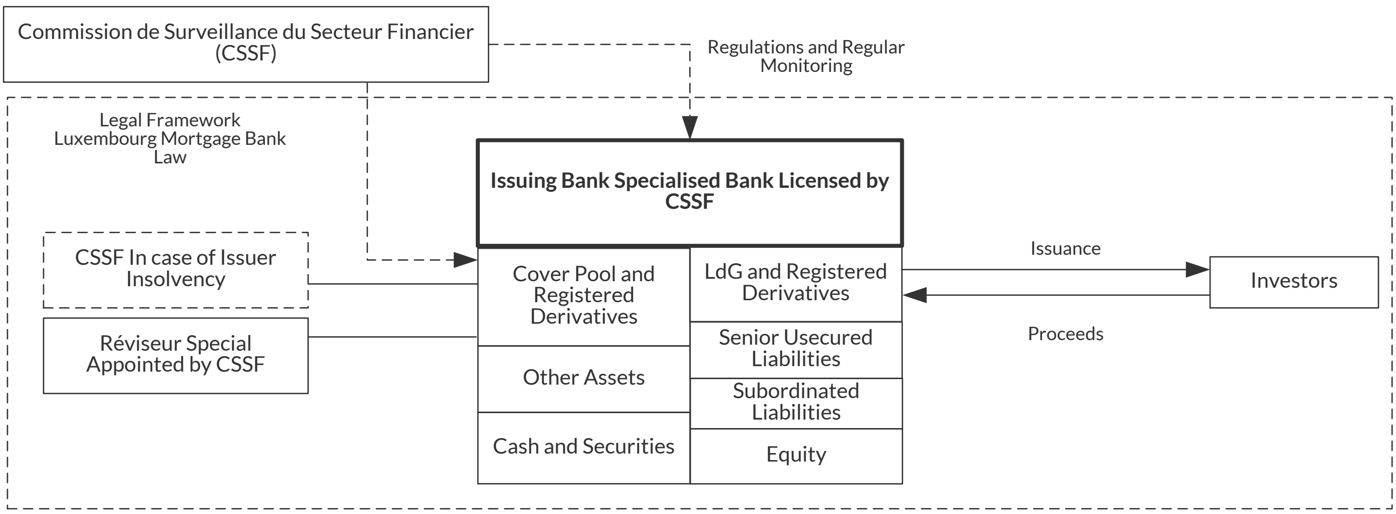
The cover assets would not be affected by the opening of insolvency proceedings, as they would be separated from NORD/LB CBB's general insolvency estate. This separated estate would form a covered bonds bank with limited business activity, similar to the Pfandbriefbank with limited business activity concept stipulated in the German Pfandbrief Act. The entity would solely fulfil the purpose of managing the cover assets to repay LdGPs in a timely manner and in full. Therefore, it carries a banking licence and the alternative manager is provided with extended rights to manage the cover pool assets, including the right to sell assets and to receive cash flow from the assets.

Key Parties

Issuer originator servicer account bank	NORD/LB CBB (A-/Stable/F1)

Source: Fitch Ratings

Simplified Issuance Structure Diagram



Source: Fitch Ratings, programme documents

Summary of Certain Structural Features

NORD/LB CBB's public-sector covered bonds programme is based on the Luxembourgian legislation on LdGPs. The programme does not contain any additional structural features.

Financial Structure and Flow of Funds within the Programme

Eligible cover assets become part of the cover pool upon registration of the exposure in the cover pool. The issuance proceeds of the covered bonds flow in the general account of the bank and are not specifically earmarked for the funding of public sector loans origination.

Two different priorities of payment apply for cash flow received from the cover assets and reimbursement of covered bonds. These depend on the timing of the appointment of the alternative manager.

Priority of Payments Prior to Alternative Manager Appointment

Prior to an alternative manager appointment, all cash flow from the asset portfolio flows to the general bank account. Whenever covered bond payments, interest or principal, are due, the issuer must settle these in full and timely according to the bonds' terms and conditions. The issuer also bears all administrative costs related to the cover pool and the bonds.

The issuer is accountable for compliance with all legal requirements, in particular adherence with all eligibility criteria, minimum OC and liquidity requirements.

Priority of Payments Post-Alternative Manager Appointment

Following its appointment, the alternative manager holds the exclusive right to manage the patrimonial compartments. This includes liquid assets and incoming cover asset interest and principal repayments as well as recoveries and realisation of collateral.

Payments to derivative counterparties rank pari passu with covered bond payments. The remuneration of the alternative manager and other fees shall be borne by the bank with limited business activity and rank privileged to other debts, including covered bonds.

The flow of funds may be affected by events listed in *Appendix 2*.

IBOR Exposure and Fall-Back Provisions

Assets

New loans closed by NORD/LB CBB take into account current regulatory environment and therefore include fall-back provisions related to replacement of reference interest rates. In addition, the issuer will adjust existing legacy loans agreements on a bilateral basis according to changes in reference rates.

Hedges

NORD/LB CBB will adhere to the ISDA 2018 Benchmarks Supplement Protocol and will implement the requirements of the EU Benchmark Regulation on a bilateral basis, if needed.

Appendix 2: Summary of Events and Relevant Consequences

Table of Events and Relevant Consequences to the Issuer and the Bondholders

Event	Trigger	Structural consequence	Payer	Acceleration	Timely payments	Full repayment
Initial (before any of the following events)	None	The issuer makes scheduled payments to the covered bonds out of its resources. All costs incurred are borne by the issuer. Any funds in connection with privileged swap agreements are to be paid directly to or by the issuer.	Issuer	No	Interest and principal to be paid timely at their due date.	Principal payments to be met in full by the issuer.
Appointment of an alternative manager	Suspension of payments Winding up of the issuer	The different category of covered bonds with their collateral are separated and constitutes different patrimonial compartments (compartiments patrimoniausix). The initial authorisation of the bank for issuing covered bonds remains in place for the bank with limited business activity. One or several administrators for the bank with limited business activity are appointed with the scope of managing the different patrimonial compartments and repay the outstanding covered bonds. The alternative manager has the right to issue further covered bonds and manage the collateral, including asset sales, in order to act in the best interest of covered bonds holders.	Patrimonial compartments – bank with limited business activity	No	Interest and principal remain due as scheduled.	Principal to be met in full by the bank with the limited business activity.
Dissolution and winding up of the patrimonial compartment	Suspension of payments is not able to rectify the situation which caused it Liquidity is irreparably threatened Commitments to covered bonds holders cannot be fulfilled	CSSF or the state prosecutor's office may apply for the dissolution and winding up of the patrimonial compartment. All covered bonds become immediately due and payable at their early redemption amount plus accrued interest.	Insolvency estate of the patrimonial compartment	Yes	No	Depending on the proceeds deriving from the asset sale.

Source: Fitch Ratings, Luxembourgian Covered Bonds Law

Appendix 3: Main Characteristics of Applicable Legislation

The table below is based on Fitch's understanding of certain aspects of the applicable regime (Luxembourgian Financial Sector Act, implemented in 1997 and last amended in June 2018) and programme structure and is not a substitute for the original texts and/or Luxembourgian legal advice.

Main Characteristics of Luxembourgian Lettres de Gage Publiques

Issuers	Specialised financial institutions (banques d'émission de Lettres de Gage (LdG)).
Supervision	All LdGPs programmes are overviewed by the CSSF.
Public Sector Eligible Assets	Ordinary cover assets for LdGPs programmes generally contain two types of assets: 1. Claims against public bodies, which also comprise covered bonds backed by public sector debt; 2. Claims against public sector entities. The public owner must have the controlling stake in the company. This comprises companies where the public owner is either the majority shareholder, has the majority of voting rights or appoints the majority of board members. Geographical scope to EU, EEA, OECD and countries with high and highest sovereign ratings from recognised rating agencies.
Substitute Assets	Up to 20% of the outstanding LdG can be constituted by: • Cash; • Deposits with central banks or financial institutions located in the EU, EEA, OECD or in a country with a sufficiently high rating (credit quality step 1 or 2); • Obligations fulfilling the criteria laid down by article 42(3) of the law of 17 December 2010 (national implementation of Undertaking for Collective Investment in Trasferable Securities (UCITS) directive).
Overcollateralisation	2% nominal and on a net present value basis. The Luxembourgian Financial Sector act stipulates that excess assets can only be returned to the general insolvency estate of the issuer after full redemption of all outstanding LdG.
Protection Against Mismatches	The amendments of the LdG law in June 2018 introduced a mandatory liquidity protection for covered bonds. The 180 days liquidity rules requires issuers to hold liquid assets to cover for the calculated net liquidity shortfall in the next 180 days; level 1 or 2A assets are considered eligible to provide protection against payment interruption risk.
Treatment of Swap Counterparties	Registered swap counterparties benefit from the same priority of payments as covered bondholders.
Bankruptcy Remoteness	The issuer can either hold the cover assets on its balance sheet or reference cover assets from a third -party bank by use of the refinancing register. The cover assets are segregated through registration in a cover register. A register can only be used for one type of LdG. Post-issuer insolvency, the cover pool is separated from the issuer's general insolvency estate and forms a covered bond bank with limited business activity, which holds a banking licence. The alternative manager who runs the entity can issue new LdG.
Asset Monitor	The issuer manages the programme, but is regularly checked by the cover pool monitor (réviseur d'entreprises agréé spécial). The cover pool monitor is an audit firm different to the auditor of annual accounts. The duties of the cover pool monitor comprise the regular monitoring of the cover pool, especially prior to new issuances, and an annual report to the Luxembourgian regulator CSSF.

Source: Fitch Ratings, Luxembourgian Covered Bonds Law

Appendix 4: Other Payment Continuity Risk Considerations

Asset Segregation

Fitch expects that ring-fencing of the cover pool will be effective given the 'all or nothing' nature of this risk. The ring-fencing of cover assets from any claims from unsecured creditors of the defaulted financial institution is achieved by virtue of law. This is often in the form of an exemption to normal bankruptcy legislation, or through a transfer of the assets to a bankruptcy-remote SPV acting as a guarantor of the issued covered bonds.

Asset Segregation: No Negative Impact on PCU

Component Driver	Fitch Assessment
Segregation of cover pool from other creditors of issuer	The covered bond framework ensures that all assets recorded on a dedicated cover register will be isolated from the insolvency estate and will solely be available for covered bond holders in the event of the issuer's insolvency.
Excess OC immune from claims from other creditors	No, but preferential rights of LdGPs holders rank higher than any other legal claim.
Asset and liability claw back risk	Preferential rights of LdGPs holders rank higher than any other legal claim. As a result, Fitch regards risks such as claw back risk as remote as cash flow from assets is separated through the registration of cover assets in a cover register and the preferential claim excludes other enforcements besides the claims by LdGPs holders.
Commingling risk	The cover pool does not form part of the general insolvency estate (Article 12-9 (1) of the Financial Sector Act). The management of the cover pool must be independent and separated from the general insolvency estate and solely following the interests of LdGPs holders (Article 12-10 (5) of the Financial Sector Act). In addition, commingling risk is considered immaterial by Fitch based on the frequency the issuer records new assets in the cover register. According to NORD/LB CBB, new assets are included in the register as soon as they are declared eligible.
Set-off risk for deposits	Loans can only be removed from the cover pool if the special auditor agrees (Article 12-7 (3) of the Financial Sector Act). Banks usually ask in loan contracts to exclude set-off. However, even when a customer refuses to exclude set-off, the preferential claim of LdGPs holder would rank higher than any enforcement (Article 12-8 of the Financial Sector Act).

Source: Fitch Ratings

Alternative Management

Systemic Alternative Management

Fitch takes into consideration the framework or contractual clauses governing the appointment of a substitute manager, together with the length of time required to appoint one. We also consider any potential conflict of interest (in cases where a single administrator in a bankruptcy takes care of covered bonds and other creditors) and the manager's responsibilities in the servicing. Other factors we consider include liquidation of the cover assets to meet payments due on the covered bonds and any further protection due to oversight or potential support for regulated covered bonds.

Systemic Alternative Management: No Negative Impact on PCU

Component Driver	Fitch Assessment
Administrator takes exclusive care of covered bondholders? When are they appointed?	An alternative administrator is appointed by court upon the insolvency of the issuer.
Importance of timeliness of payments in the legal provisions	The special estate corresponding to a covered bond bank with limited business activity solely pursues the goal to pay back all LdGPs timely and in full.
Substitute manager able to sell cover assets or borrow to make timely payments	Similar to the German approach in the Pfandbrief Act, the segregated cover pool will form a bank with limited business activities upon issuer insolvency, retaining its banking license, which allows selling assets.
Regulatory oversight	CSSF

Source: Fitch Ratings

Cover Pool-Specific Alternative Management

Fitch focuses on the likely ease of the transferability of relevant data and IT systems to an alternative manager and buyer, with such quality and ease also judged on the quality and quantity of data provided to Fitch.

We would lower the programme PCU driven by its liquidity protection if Fitch assesses the alternative management to represent a high risk. This would reflect a greater link to the Long-Term IDR of the issuing institution via a reduction by one notch if the otherwise achievable PCU is in the one-to-three-notch range. A reduction of two notches would apply if it is in the four-to-eight-notch range.

Cover Pool Alternative Management: No Negative Impact on PCU

Component Driver	Fitch Assessment
Cover assets, debtors' accounts and privileged swaps clearly identified within IT systems	Market standard systems are in place, which ensure the identification of registered assets.
Standardised or custom-made IT systems used	Fitch considers the used IT systems as standard among peers in Germany, enabling an alternative manager to easily take over his role as cover pool manager.
Automation and speed of cover pool reporting	Reporting is fully automated.
Adequate filing of loan documentation, evidence of security	A relatively small number of assets in CBB's cover pool, with a high share of marketable assets (bonds and covered bonds) should make the take-over by an alternative manager less difficult. Loan files for public-sector loans are available in paper-based form.

Source: Fitch Ratings

Appendix 5: Origination and Servicing

NORD/LB CBB is an experienced LdGPs issuer. Fitch deems the underwriting and servicing processes of NORD/LB CBB to be in line with market standards.

Origination and Underwriting

Loan origination and customer relationship management activities for NORD/LB CBB are generally handled by the parent bank NORD/LB. The cooperation between the two entities is regulated through agency and various service level agreements.

NORD/LB CBB focuses its lending activity in Europe, mainly Germany and UK, and selected areas outside Europe such as Asia and Middle East. The lending activity remains subject to the financing and environmental, social and governance criteria of NORD/LB group.

Servicing

NORD/LB CBB has various servicing agreements with its parent bank regarding loan administration as well as risk assessment and workout.

IT Systems

NORD/LB CBB's LdGPs programme is managed in-house with market standard software.The integrated IT platform allows managing all loans, irrespective of their currencies and tenors, within one system.

The ratings above were solicited and assigned or maintained at the request of the rated entity/issuer or a related third party. Any exceptions follow below.