

CREDIT OPINION

18 June 2024

New Issue

Send Your Feedback

Closing date

June 2024

TABLE OF CONTENTS

Ratings	1
Summary	1
Credit strengths	2
Credit challenges	2
Key characteristics	3
Covered bond description	4
Covered bond analysis	6
Cover pool description	9
Cover pool analysis	12
ESG considerations	16
Methodology and monitoring	16
Appendix: Income underwriting and valuation	18

Contacts

Martin Rast +44.20.7772.8676 VP-Sr Credit Officer martin.rast@moodys.com

Verd Boligkreditt - Mortgage Covered Bonds

New Issue – Norwegian covered bonds

Ratings

Exhibit 1			
Cover Pool (NOK)	Ordinary Cover Pool Assets	Covered Bonds (NOK)	Rating
26,623,271,668	Residential mortgage loans and loans to	24.500.000.000	Aaa
20,020,271,000	housing co-operatives	24,500,000,000	Add

All data in the report is as of 31 December 2023 unless otherwise stated *Source: Moody's Ratings*

Summary

CLOSING DATE WILL BE UPDATED TO RATING ASSIGMENT DATE

The covered bonds issued by Verd Boligkreditt AS (Verd BK or the issuer, not rated) under the Verd Boligkreditt - Mortgage Covered Bonds programme are full recourse to the issuer and are secured by a cover pool of assets consisting mostly of residential mortgage loans (85.9%) and mortgage loans to housing co-operatives (0.8%), backed by properties located in Norway, and supplementary assets (13.3%).

Credit strengths include the full recourse of the covered bonds to the issuer and support provided by Norway's covered bond legal framework, which provides for the issuer's regulation and supervision.

Credit challenges include the covered bonds' high level of dependency on the issuer. As with most covered bonds in Europe, there are a few restrictions on the future composition of the cover pool. The cover pool also has geographical concentration risks.

Our credit analysis takes into account the cover pool's credit quality, which is reflected in the collateral score of 4.0% (1.9% excluding systemic risk) and the current over-collateralisation (OC) of 17.0% (on a nominal basis) as of 31 December 2023 (the cut-off date).

In general, we consider environmental and governance credit risks to be low and social credit risks to be moderate for this transaction. Environmental credit risk is low in this programme as covered bondholders benefit from the cover pool's geographical diversification. Social credit risk is moderate in this programme, mainly because social issues that affect the originators can also affect the cover pool. Social credit risks are mitigated by the originators' and the issuer's primary responsibility for addressing them. Governance credit risk is low in this programme due to (i) The Norwegian covered bond legislation; and (ii) the fact that the issuer maintains the cover pool on its balance sheet, incentivising it to maximise cover pool value and aligning its interest with that of covered bond investors. For further details, please see "ESG Considerations" section below.

Credit strengths

- » **Recourse to the issuer**: The covered bonds are full recourse to Verd Boligkreditt AS (rating unpublished), which is a credit institution owned by 18 small and medium sized Norwegian banks (the originators). (See "Covered bond description")
- » Support provided by the Norwegian legal framework: The covered bonds are governed by the <u>Norwegian covered bond</u> <u>legislation</u> (Nowegian legal framework), which includes several strong features. As a regulated financial institution (*kredittforetak*), this issuer is subject to ongoing supervision by the Norwegian Financial Services Authority. (See "Covered bond description")
- » **Specialist issuers**: Norwegian covered bond issuers must be specialist credit institutions. As a result they may continue to operate for a period after their parent or support provider defaults. However, this structure also reduces the value of an unsecured claim because issuers typically have few assets outside the cover pool. (See "Covered bond analysis")
- » *High credit quality of the cover pool*: The covered bonds are supported by a cover pool of high-quality assets. Most of the assets are residential mortgage loans and mortgage loans to housing co-operatives all of which are backed by properties in Norway or substitute assets. In addition, only loans or loan parts of up to 75% LTV are included in the cover pool. The strong collateral quality is reflected in the collateral score, which is currently 4.0%, or 1.9% excluding systemic risk. (See "Cover pool analysis")
- » **Ability to reset loan rates:** The issuer can reset loan rates on floating rate mortgages (99.9% of the mortgage loans) with short notice. In the event of the issuer's default the insolvency administrator will be able to similarly reset the loan rates, which improves the sales value of the cover pool.
- » **Soft-bullet bonds:** Covered bonds issued under this programme benefit from a 12-month maturity extension period, which reduces the bonds' refinancing risk. (See "Covered bond analysis")
- » Interest rate and currency mismatches: Assets and liabilities are well matched. All liabilities and more than 99% of the assets are floating rate. There is no currency risk as all the assets and liabilities are denominated in NOK. (See "Covered bond analysis")
- » Set-off, clawback and commingling risk effectively mitigated: A combination of legislative, structural and operational features mitigates the risk of losses for covered bond investors stemming from set-off, clawback and commingling. (See "Additional cover pool analysis")

Credit challenges

- » *High level of dependency on the issuer:* As with most covered bonds, before the insolvency of the issuer, the issuer can materially change the nature of the programme. For example, the issuer can add new assets to the cover pool, issue new covered bonds with varying promises and enter into new hedging arrangements. Also, similar to most covered bonds in Europe, this programme has few restrictions on the future composition of the cover pool. These changes could affect the credit quality of the cover pool as well as the overall refinancing and market risks. Further, if the quality of the collateral deteriorates below a certain threshold, the issuer would have the ability, but not the obligation, to increase the OC in the cover pool. (See "Covered bond analysis")
- » Refinancing risk: Following a covered bond (CB) anchor event, covered bondholders may need to rely on proceeds that are raised via the sale of, or borrowed against, cover pool assets to make timely payments of the principal on the bonds. Following a CB anchor event, the market value of these assets may be subject to high volatility. A CB anchor event occurs when the issuer, or another entity within the issuer group that supports the issuer, ceases to service the payments on the covered bonds. (See "Covered bond analysis")

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the issuer/deal page on https://ratings.moodys.com for the most updated credit rating action information and rating history.

- » Floating interest rates expose borrowers to rising debt service burden: In line with prevailing Norwegian market practice, majority of the loans (99.9%) in the cover pool feature floating interest rates. These interest rates expose the borrowers to the risk of increasing debt service payments in case of increasing interest rates, possibly leading to higher pool arrears. Furthermore, increasing interest rates may exert downward pressure on house prices, increasing the loan-to-value (LTV) ratios in the cover pool. (See "Cover pool analysis")
- » Lack of liquidity reserve: The programme does not benefit from a liquidity reserve for principal payments that would be available if cash flow collections are interrupted after a CB anchor event. (See "Covered bond analysis")
- » *Time subordination*: After a CB anchor event, later-maturing covered bonds are subject to time subordination. Principal cash collections may be used on a first-come, first-served basis, paying earlier-maturing covered bonds before later-maturing covered bonds. This subordination could lead to the erosion of OC before any payments are made to later-paying covered bonds. (See "Covered bond analysis")

Key characteristics

Exhibit 2

Covered bond characteristics

Moody's Programme Number:	520
Issuer:	Verd Boligkreditt AS
Covered Bond Type:	Mortgage covered bonds
Issued under Covered Bonds Law:	Yes
Applicable Covered Bonds Law:	Norwegian covered bond legislation
Entity used in Moody's TPI analysis:	Verd Boligkreditt AS
CR Assessment:	Unpublished
CB Anchor:	CR assessment +1 notch
Senior unsecured/deposit rating:	Unpublished
Total Covered Bonds Outstanding:	NOK 24,500,000,000
Main Currency of Covered Bonds:	NOK (100.0%)
Extended Refinance Period:	Yes
Principal Payment Type:	Soft bullet (12 months extension)
Interest Rate Type:	Floating rate covered bonds (100.0%)
Committed Over-Collateralisation:	5.0%
Current Over-Collateralisation:	17.0%
Intra-group Swap Provider:	No
Monitoring of Cover Pool:	Cover pool monitor, mandatory by operation of the Norwegian covered bond legislation
Trustees:	n/a
Timely Payment Indicator:	High
TPI Leeway:	Unpublished

Sources: Moody's Ratings and issuer data

Exhibit 3

Cover pool characteristics

Size of Cover Pool:	NOK 24,500,000,000
Main Collateral Type in Cover Pool:	Residential (85.9%), loans to housing co-operatives (0.8%), subsitute collateral(13.3%)
Main Asset Location of Ordinary Cover Assets:	Norway (100.0%)
Main Currency:	NOK (100.0%)
Loans Count:	12,499 (12,490 residential, 9 loans to housing co-operatives)
Number of Borrowers:	12,287 (12,278 residential, 9 loans to housing co-operatives)
WA unindexed LTV:	52.2% Residential, 50.2% loans to housing co-operatives
WA indexed LTV:	53.6% Residential
WA Seasoning (months):	44 Residential, 26 loans to housing co-operatives
WA Remaining Term (months):	246 Residential, 393 loans to housing co-operatives
Interest Rate Type:	Floating rate assets(99.9%), floating rate assets (0.1%)
Collateral Score:	4.0% (1.9% excluding systemic risk)
Cover Pool Losses:	7.8%
Further Cover Pool Details:	See Appendix 1
Pool Cut-off Date:	31 December 2023

Sources: Moody's Ratings and issuer data

Exhibit 4

Transaction counterparties

Counterparty Type	Transaction Counterparty	
Sponsor	Verd Boligkreditt AS	
Servicer	The respective originator of the loan.	
Back-up Servicer	n/a	
Back-up Servicer Facilitator	n/a	
Cash Manager	n/a	
Back-up Cash Manager	n/a	
Account Bank	Sparebank Vest AS, DNB Bank ASA	
Standby Account Bank	n/a	
Account Bank Guarantor	n/a	

Sources: Moody's Ratings and issuer data

Covered bond description

The covered bonds issued under the mortgage covered bond programme of Verd Boligkreditt AS are full recourse to the issuer. Upon a CB anchor event, covered bondholders would have access to a cover pool of assets consisting of residential mortgage loan receivables and receivables from mortgage loans to housing co-operatives.

Structure diagram

Exhibit 5



Source: Issuer

Structure description

The bonds

All outstanding covered bonds benefit from a 12-month maturity extension. If the Issuer fails to redeem the covered bonds in full on the scheduled maturity date the maturity of the principal amount outstanding of the covered bonds will, subject to triggers being breached, automatically be extended, up to one year, to the extended maturity date. A maturity extension will not constitute an event of default or give holders of the covered bonds any right to accelerate payments on the covered bonds.

Issuer recourse

The covered bonds are full recourse to the issuer. Therefore, the issuer is obliged to repay principal and pay interest on the covered bonds.

Recourse to cover pool and over-collateralisation

If the issuer becomes insolvent, the covered bondholders would have priority claims over a pool of assets (cover pool). The Norwegian legal framework requires the cover pool assets to fully cover the present value of the bonds, and also requires 5.0% overcollateralisation. These requirements need to be fulfilled at all times, taking into account the value of mortgage loans in the cover pool only up to a maximum of 75% of the mortgaged property's prudent market value, and giving no value to non-performing loans. (See "Cover pool description" for the cover pool characteristics and "Cover pool analysis" for our analysis of the pool)

As of December 2023, the OC in the cover pool was 17.0% on a nominal basis of which the issuer provides 5.0% in a committed form. Under our Cobol model, the minimum OC consistent with the Aaa rating is 4.5%. This shows that our analysis currently only relies on OC that is in committed form.

Although the issuer has the ability to increase the OC in the cover pool if the collateral quality deteriorates below a certain threshold, the issuer does not have any obligation to do so. A failure to increase OC following a deterioration of the collateral could lead to a negative rating action.

Legal framework

The covered bonds are governed by the Norwegian covered bond legislation. There are a number of above-average strengths in this legislation, which include, inter-alia, the following conditions: (1) because issuers are specialist credit institutions, a default of the parent or the group supporting the issuer would not necessarily trigger an immediate default or insolvency of the issuer; (2) the issuer must limit interest rate risk (unless swapped) by reference to the potential losses resulting from a parallel shift of one percentage point in all interest-rate curves and distortions of the interest rate curves; (3) swap counterparties must post collateral or provide other security if

their credit quality declines; (4) nonperforming assets are excluded from cover pool tests and therefore are less likely to dilute the cover pool quality; and (5) set-off is excluded in respect of any asset in the cover pool. (See "Norway - Legal Framework for Covered Bonds")

Other structural features

In its capacity as a regulated financial institution under the terms of the Norwegian covered bond legislation, the issuer has obtained a license from the Norwegian Financial Services Authority (*Finanstilsynet*) to issue covered bonds and is subject to ongoing supervision. The license and its subsequent maintenance are subject to the issuer satisfying, on an ongoing basis, several requirements in respect of procedures and risk control systems set out by the Norwegian covered bond legislation and other applicable regulations.

Covered bond analysis

Our credit analysis of the covered bonds primarily focuses on the issuer's credit quality, refinancing risk, interest rate risk and currency risk, as well as the probability that payments on the covered bonds would be made in a timely fashion following a CB anchor event which we measure using the timely payment indicator. (See "Timely Payment Indicator")

Primary analysis

Issuer analysis - Credit quality of the issuer

The issuer rating is unpublished. The reference point for the issuer's credit strength in our analysis is the CB anchor of Verd Boligkreditt AS, which in line with other Norwegian covered bond issuers, is the counterparty risk assessment plus one notch.

Verd BK is one of four jointly owned covered bond issuers in Norway, the others are Eika Boligkreditt AS (A2(cr)), Sparebank 1 Boligkreditt AS (Aa3(cr)), and Sparebank 1 Naeringskreditt AS (unrated). Verd BK is owned and used by two Norwegian savings bank associations, De SamarbeidendeSparebankene (DSS) and LOKALBANK (LBA). In total, Verd Boligkreditt has 18 owner banks, 8 from DSS and 10 from LBA.

Issuer analysis - Dependence on the issuer's credit quality

The credit quality of the covered bonds depends primarily on the credit quality of the issuer (as measured by the CB anchor). If the issuer's credit strength were to deteriorate, there would be a greater risk that a CB anchor event would occur, leading to refinancing risk for the covered bonds. Consequently, the credit quality of the covered bonds would deteriorate unless other credit risks were to decrease. In the event that the CB anchor is lowered, the issuer would have the ability, but not the obligation, to increase the OC in the cover pool. A failure to increase the level of OC under these circumstances could lead to a negative rating action.

The reasons for the covered bonds' strong dependence on the issuer also include the bonds' exposure to decisions made by the issuer in its discretion as manager of the covered bond programme. For example, before a CB anchor event, the issuer may add new assets to the cover pool, remove assets from the cover pool, issue further bonds and enter new hedging arrangements. Such actions could reduce the value of the cover pool.

As with most covered bonds in Europe, there are few contractual restrictions on the future composition of the cover pool, which creates substitution risk. Nevertheless, the cover pool quality will be protected over time by, among other things, the requirements of the Norwegian legal framework, which specifies what types of assets are eligible. (See "Norway - Legal Framework for Covered Bonds")

Refinancing risk

Following a CB anchor event, the natural amortisation of the cover pool assets alone cannot be relied on to repay the principal. We assume that funds must be raised against the cover pool at a discount if covered bondholders are to receive timely principal payment. Where the portion of the cover pool that is potentially exposed to refinancing risk is not legally limited, our expected loss analysis typically assumes that this amount is in excess of 50% of the cover pool. After a CB anchor event, the market value of these assets may be subject to volatility. Examples of the stressed refinancing margins we use for different types of prime-quality assets are published in our rating methodology. (See "Moody's Approach to Rating Covered Bonds, March 2024")

The refinancing-positive factors for this programme outweigh the refinancing-negative ones. The refinancing-positive aspects of this covered bond programme include:

» The high credit quality of the cover pool, which is reflected in the low collateral score of 4.0%. A high credit quality cover pool will enable a lower write-off for losses and lower refinancing margins to be applied, all other variables being equal.

- » Provisions to allow for a principal refinancing period of 12 months which should, following a CB anchor event, improve the sales value of the cover pool and increase the chances of timely principal payments on the covered bonds.
- » After issuer default, the public administration board would have wide powers to manage cover pool assets and liquidity, and a duty to ensure timely payment. These powers include (1) entering into contracts for hedging after issuer default; (2) selling cover pool assets for the purpose of making timely payments; and (3) entering into liquidity loans or repo agreements. However, note that cover pool assets may not be pledged in favour of a particular creditor, and unsecured lending would not benefit from a priority right to the cover pool.
- » The issuer's ability to increase the interest rate charged on floating-rate loans to the underlying borrowers on six weeks' notice, which enables margins on the cover pool assets to increase and reduces any refinancing discount. This right also applies to the public administration board in charge of the cover pool after issuer default.

The refinancing-negative aspects of this covered bond programme include:

- » In line with other covered bond programmes, upon a CB anchor event, the cover pool assets will have a significantly higher weighted-average life than the outstanding covered bonds.
- » There is no separate cover pool administrator following a CB anchor event. The Norwegian covered bond legislation provides for a public administration board to be appointed for both the issuer's insolvency estate and management of the cover pool. While the public administration board is not dedicated to the cover pool, it should nevertheless face a minimum of conflicts because the issuer is a specialist institution with few creditors outside the cover pool.
- » The covered bond programme does not benefit from any liquidity reserve for principal payments that would be available if cash flow collections are interrupted after a CB anchor event.

Interest rate and currency risk

As with the majority of European covered bonds, there is potential for interest rate and currency risks that could arise from the different payment promises made on the cover pool and the covered bonds, and their different respective durations.

Exhibit 6 Overview of assets and liabilities

	WAL Assets (Years)	WAL Liabilities (Years)	Assets (%)	Liabilities (%)
Fixed rate	10.3	n/a	0.1%	0.0%
Variable rate	9.1	3.1	99.9%	100.0%

WAL: weighted average life

Sources: Moody's Ratings and issuer data

In the event of issuer insolvency, we currently do not assume that the public administration board would always be able to efficiently manage any natural hedge between the cover pool and the covered bonds. Therefore, following a CB anchor event, our model would separately assess the impact of increasing and decreasing interest rates on the expected loss of the covered bonds, taking the path of interest rates that leads to the worst result. The interest rate and currency stresses used over different time horizons are published in our rating methodology.

Aspects of this covered bond programme that are market-risk positive include:

- » Most of the loans in the cover pool (99.9%) have a floating rate. Interest rate risk is limited by the variable nature of the assets in the cover pool.
- » There is no currency risk in the programme as all assets and liabilities are denominated in Norwegian kroner.

Aspects of this covered bond programme that are market-risk negative include:

» The weighted average maturity of the cover pool assets is longer than the outstanding covered bonds. Also, we expect the weighted average life of the cover assets to continue to be longer than the maturity of outstanding covered bond.

Timely Payment Indicator

Our timely payment indicator (TPI) assesses the likelihood that timely payments would be made to covered bondholders following a CB anchor event, and thus determines the maximum rating a covered bond programme can achieve with its current structure while allowing for the addition of a reasonable level of OC. We have assigned a TPI of 'High' to these covered bonds, which is in line with covered bonds from a number of other Norwegian issuers.

The TPI leeway for this programme is unpublished.

Additional analysis

Scenarios following a CB anchor event

Following a CB anchor event, the Norwegian covered bond legislation would not contemplate the dissolution of the issuer, nor would it include any acceleration event or event of default. Following a CB anchor event, any one or more of the following scenarios may occur:

- » Should the issuer become insolvent, payments to the creditors with a preferential claim over the cover pool (which include covered bondholders and, if derivatives form part of the cover pool, derivative counterparties) could be continued by the public administration board of the issuer. The public administration board would be appointed by the Ministry of Finance and would be responsible for running the general insolvency estate and the cover pool of the issuer.
- » Should the issuer become insolvent, the public administration board may decide that it may not be able to repay covered bondholders in full and introduce a halt of payments. The creditors would be informed of the halt of payments and the date on which it is to be introduced. All preferential claims over the cover pool would be calculated by discounting them to present value as of the date when payments have been halted. The liquidation proceeds from the cover pool would be used to repay the claims of all preferential creditors of the cover pool on a present-value basis.

Liquidity

The programme does not benefit from any liquidity reserve for principal payments that could be expected to be available if cash flow collections are interrupted following an insolvency of the issuer. As a result, the issuer's ability to make interest or principal payments on the covered bonds may be adversely affected. This risk is partially mitigated by:

- » The 12-month maturity extension period on the covered bonds; and
- » The administrator's ability to enter into loan agreements or other arrangements, or carry out asset sales to create liquidity.

Time subordination

After a CB anchor event, later-maturing covered bonds would be subject to time subordination. Principal cash collections may be used on a first-come, first-served basis, paying earlier-maturing covered bonds before later-maturing covered bonds. Such payments could result in the erosion of OC before any payments are made to later-paying covered bonds, although the possibility for a halt of payments mitigates this risk.

Cover pool description

Pool description as of 31 December 2023

As of 31 December 2023, the cover pool consisted of residential mortgage loans (85.9%), mortgage loans to housing co-operatives (0.8%) and substitute assets (13.3%) permitted under the Norwegian legal framework. All properties that are serving as security for the loans are located in Norway, with some geographical concentration of residential mortgages in the Agder (32.2%), Rogaland (25.7%) and Trøndelag (15.6%) regions. Most of the loans in the cover pool (99.5%) are performing. For loans to housing co-operatives, all properties backing the loans are based in Trøndelag region and all loans are performing.

On a nominal value basis the cover pool assets total NOK 26.6 billion and back NOK 24.5 billion in covered bonds, resulting in an OC level of 17.0% on a nominal value basis. (For Verd BK's underwriting criteria, see "Appendix: Income underwriting and valuation")

The valuation of the properties at loan origination is either carried out by an external valuer or using an automated valuation method provided by Eiendomsverdi. External valuers internally inspect the property. Automated valuations do not include a physical inspection of the property. When updating property values for the cover pool calculations, valuations by a valuer may be used for up to three years when they will be replaced by Eiendomsverdi valuations. Such automatic valuation method may be a more accurate basis for revaluation than using a property index.

Exhibits below show more details about the cover pool characteristics as of the cut-off date.

Residential mortgage loans

Residential mortgage loans represent the largest portion of the pool, accounting for 85.9% of the total cover pool.

The high credit quality of the cover pool is evidenced, among other things, by the following features:

- » These loans consist of prime, first-lien Norwegian residential mortgage loans originated by the originators and secured against properties that are geographically well dispersed across Norway.
- » The current weighted-average (WA) indexed loan-to-value (LTV) of the residential mortgage loans is 53.6% (excluding junior ranking loan parts outside the cover pool). This ratio is in line with LTVs observed for other residential loans backing covered bonds that we rate in Norway.
- » Most residential mortgage loans (99.9%) have floating interest rates. These loans have an average seasoning of 44 months. All of them are denominated in NOK.

Only loans and loan parts below 75% LTV are in the cover pool. Financings that have a higher LTV at origination can only be transferred to the issuer and subsequently included in two scenarios: (i) borrower takes out two loans, the one below 75% LTV is transferred to the issuer, and the higher-LTV loan remains with the originator, or (ii) the loan amortises below 75% and is subsequently transferred to the issuer.

Cover pool summary - Residential assets

Overview		Specific Loan and Borrower characteristics	
Asset type:	Residential	Loans with an external guarantee in addition to a mortgage:	0.0%
Asset balance:	22,873,655,358	Interest only Loans	26.9%
Average loan balance:	1,831,358	Loans for second homes / Vacation:	0.0%
Number of loans:	12,490	Buy to let loans / Non owner occupied properties:	1.3%
Number of borrowers:	12,278	Limited income verified:	0.0%
Number of properties:	13,657	Adverse credit characteristics (**)	0.0%
WA remaining term (in months):	246		
WA seasoning (in months):	44	Performance	
		Loans in arrears (≥ 2months - < 6months):	0.5%
Details on LTV		Loans in arrears (≥ 6months - < 12months):	0.0%
WA unindexed LTV (*)	52.2%	Loans in arrears (≥ 12months):	0.0%
WA Indexed LTV:	53.6%	Loans in a foreclosure procedure:	0.0%

Valuation type:	Market Value		
LTV threshold:	75%	Multi-Family Properties	
Junior ranks:	n/d	Loans to tenants of tenant-owned Housing Cooperatives:	n/d
Loans with Prior Ranks:	0.0%	Other type of Multi-Family loans (***)	0.0%

(note *) may be based on property value at time of origination or further advance or borrower refinancing

(note **) Typically borrowers with a previous personal bankruptcy or borrowers with record of court claims against them at time of origination

(note ***) This "other" type refers to loans directly to Housing Cooperatives and to Landlords of Multi-Family properties (not included in Buy to Let)

Sources: Moody's Ratings and issuer data

Cover pool characteristics

Exhibit 8 Balance per LTV band



Sources: Moody's Ratings and issuer data

Exhibit 9 Percentage of reside

Percentage of residential assets







Sources: Moody's Ratings and issuer data

Exhibit 11 Main country regional distribution



Sources: Moody's Ratings and issuer data

Exhibit 12

Seasoning (in months)



Source: Moody's Ratings and issuer data

Loans to housing co-operatives

All mortgage loans to housing co-operatives (0.8% of the cover pool) are secured by properties in Trøndelag region of Norway.

The co-operative housing model is very popular in Norway, holding a significant share of the housing market in most cities. The key characteristics of this housing model are:

- » Members of the housing co-operative (residents or shareholders) buy shares, which give them an exclusive right of residence to a specific unit, but the whole property is owned by the housing co-operative. The number of shareholders equals the number of units, and each shareholder has one vote.
- » The General Assembly is the overall authority. The Board of Directors (elected by the General Assembly) is responsible for the management, often assisted by a co-operative housing association acting as a business manager.
- » Shareholders contribute a proportionate share of the operating expenses, including servicing of the housing co-operative's debt (joint expenses). Shareholders are jointly liable for shared debt.
- » Shares can be normally transferred in the open market at their full market value. Members of the co-operative housing associations sometimes have the right of pre-emption, at a price set in the market.
- » The co-operative holds a lien in the share of each shareholder for the payment of joint costs. If a shareholder fails to pay his part of the joint expenses, the housing co-operative can force a sale of the share.
- » If a housing co-operative stops paying on its debt, the bank can initiate foreclosure on the property.

The current WA unindexed LTV of the loans to housing co-operatives is 50.2% (without including the effect of potential junior loans). Loans to co-operatives effectively rank prior to residential mortgage loans to individuals.

Most mortgage loans to housing co-operatives are interest-only loans (83.6%) and all of them have variable interest rate (100.0%). These loans have an average seasoning of 26 months. All of them are denominated in NOK.

Substitute assets

Of the cover assets, NOK 3.5 billion (13.3%) are substitute assets. Substitute assets mainly comprise covered bonds (66.1%) of Skandinavian issuers, none of which is part of the issuer group. In addition, deposits at Prime-1-rated Norwegian banks are used cash deposits (18.1%). The remainder is debt of public-sector (12.5%) and supranational borrowers (3.3%) in Scandinavian countries.

Cover pool monitor

There is an external cover pool monitor (*uavhengig gransker*) responsible for monitoring various operations with respect to the cover pool. The appointment of an independent cover pool monitor is mandatory by operation of the Norwegian covered bond legislation. (See "<u>Norway - Legal Framework for Covered Bonds</u>")

Cover pool analysis

Our credit analysis of the pool takes into account specific characteristics of the pool, as well as legal risks.

Primary cover pool analysis

We calculate the collateral score for the cover pool using a scoring model to assess the credit risk for the loans in the cover pool. Our analysis takes into account, among other factors, the LTV ratios of the mortgage loans, the seasoning and the geographical distribution.

The strong collateral quality is reflected in the 4.0% collateral score of the pool, or 1.9% excluding systemic risk, which compares favourably with the average collateral score of 4.8% in other Norwegian mortgage covered bonds. (For details, see "<u>Moody's Global</u> <u>Covered Bonds Sector Update, Q1 2024</u>").

The following factors support the credit quality of the pool:

» Most of the assets (99.5%) are performing as of the cut-off date. Furthermore, there are high incentives for originators to buy back their non-performing loans on an ongoing basis (for more details on this aspect of the present transaction see below under "Additional cover pool analysis").

- » Borrowers' income is always independently verified, and the income restricts the amount that can be lent.
- » All mortgage loans are secured by a first economic lien on residential properties in Norway.
- » The WA LTV of the residential mortgages and the loans to co-operatives is low at 52.2% and 50.2% respectively, on a senior loan basis excluding junior ranking loan parts not transferred to the cover pool. Furthermore, the maximum LTV at time of transfer from the originators to the issuer is 75%.

On the other hand, we regard the following portfolio characteristics as credit negative:

- » In line with Norwegian market practice, the loans in the cover pool feature floating interest rates. This exposes the borrowers to the risk of increasing debt service payments in case of increasing interest rates, possibly leading to higher pool arrears. This risk is partially mitigated by a standard five-percentage-point stress applied to the interest rate during the borrower's debt affordability testing.
- » Around 26.9% of the loans in the cover pool are interest-only loans. This category includes loans which currently are in an initial interest-only period before they start amortizing. This loan product may increase default risk if it leads to large principal payment obligations for borrowers at the end of the interest-only period.
- » As is common in Norway, valuations backing loans may be based on an automated valuation method provided by Eiendomsverdi. These valuations do not include a physical inspection of the property.
- » There is geographical concentration risk with concentration of residential loans in the Agder (32.2%), Rogaland (25.7%) and Trøndelag (15.6%) region of Norway and concentration of housing co-operative loans in the Trøndelag region (100.0%) of Norway.

Additional cover pool analysis

Set-off risk

Under the Norwegian covered bond legislation, no right of set-off may be declared for an asset included in the cover pool. It is our understanding that if a borrower exercises set-off in violation of the Norwegian covered bond legislation, the issuer will have a monetary claim against the borrower equal to the amount set off. Furthermore, the issuer is not a deposit-taking institution.

Commingling risk

The originators also act as servicers for their respective loans. The payments are collected from the borrowers mostly (>90%) by direct debit to accounts of the issuer at the bank which services the respective loan.

In addition, the issuer has opened accounts (the "transaction accounts") at Sparebanken Vest AS (Prime-1 deposit) and DNB Bank ASA (Prime-1 deposit) which it uses to hold cash. Both accounts are registered in the cover pool and therefore the cash is available to the covered bondholders on a priority basis.

The issuer's accounts at banks of the DSS group are swept daily to the transaction accounts. These accounts are also registered in the cover pool.

In contrast, the amounts standing on the accounts at members of LOKALBANKEN are not swept regularly. Commingled amounts in these accounts on or after originator insolvency would reduce the balance of borrower loans in the cover pool. However, these accounts are not registered in the cover pool and therefore disregarded for the calculation of OC.

The issuer and, following a CB anchor event, the public administration board has the right and the ability to redirect all payments made by the Norwegian Interbank Clearing System to a suitable issuer collection account within a very short time frame. This limits the risk that payments from borrowers are commingled with the assets of an originator in case of its insolvency.

Clawback risk

All borrowers will have been notified at the time the loans are transferred from the relevant originators to the issuer. Provided that the transfer was performed in accordance with correct procedures, it cannot be subject to clawback by the transferor or any public administration board appointed in respect of the transferor.

Non-performing loans

The Issuer is a vehicle for obtaining low cost funding for the originators and not a medium for the transfer of credit risk. The issuer has the right to hold back provisions on all non-performing loans. This gives the originators an incentive to promptly buy back non-performing loans. Although they are not obliged to do so, in practice the originators buy back non-performing loans.

Comparables

Exhibit 13

Comparables - Verd Boligkreditt - Mortgage Covered Bonds and other selected deals

PROGRAMME NAME	Verd Boligkreditt Mortgage Covered Bonds	Eika Boligkreditt AS - Mortgage Covered Bonds	SpareBank 1 Boligkreditt AS - Mortgage Covered Bonds	Sparebanken Vest Boligkreditt AS - Mortgage Covered Bonds
Overview				
Programme is under the law	Norway	Norway	Norway	Norway
Main country in which collateral is based	Norway	Norway	Norway	Norway
Country in which issuer is based	Norway	Norway	Norway	Norway
Total outstanding liabilities	24,500,000,000	103,589,150,000	289,488,225,025	120,032,024,145
Total assets in the Cover Pool	26,623,271,668	113,457,581,785	305,319,335,359	147,265,960,669
Issuer name	Verd Boligkreditt AS	Eika Boligkreditt AS	SpareBank 1 Boligkreditt	Sparebanken Vest Boligkreditt
Issuer CR assessment	Unpublished	A2(cr)	Aa3(cr)	Aa3(cr)
Group or parent name	18 Norwegian banks	58 Norwegian banks and OBOS	Sparebank 1 Alliance	Sparebanken Vest
Group or parent CR assessment	n/a	n/a	n/a	Aa3(cr)
Main collateral type	Residential	Residential	Residential	Residential
Collateral types	Residential 86.7%, Commercial 0%, Public Sector 0%, Other/Supplementary assets 13.3%	Residential 86%, Commercial 0%, Public Sector 0%, Other/Supplementary assets 14%	Residential 90%, Commercial 0%, Public Sector 0%, Other/Supplementary assets 10%	Residential 95%, Commercial 0%, Public Sector 0%, Other/Supplementary assets 5%
Ratings				
Covered bonds rating	Aaa	Aaa	Aaa	Aaa
Entity used in Moody's EL & TPI analysis	Verd Boligkreditt AS	Eika Boligkreditt AS	SpareBank 1 Boligkreditt AS	Sparebanken Vest Boligkreditt AS
CB anchor	CR assessment +1 notch	A1	Aa2	Aa2
CR Assessment	Unpublished	A2(cr)	Aa3(cr)	Aa3(cr)
SUR / LT Deposit	Unpublished	n/a	Aa3	n/a
Unsecured claim used for Moody's EL analysis	Yes	Yes	Yes	Yes
Value of Cover Pool				
Collateral Score	4.0%	4.0%	4.0%	4.7%
Collateral Score excl. systemic risk	1.9%	2.4%	2.4%	n/a
Collateral Risk (Collateral Score post-haircut)	2.7%	2.7%	2.7%	3.1%
Market Risk	5.1%	5.8%	5.8%	6.4%
Over-Collateralisation Levels				
Committed OC*	5.0%	5.0%	5.0%	5.0%
Current OC	17.0%	9.5%	5.5%	22.7%
OC consistent with current rating	4.0%	2.0%	0.0%	0.0%
Surplus OC	13.0%	7.5%	5.5%	22.7%
Timely Payment Indicator & TPI Leeway				
ТРІ	High	High	High	Probable-High
TPI Leeway	Unpublished	3	5	4
Reporting date	31 December 2023	31 December 2023	31 December 2023	31 December 2023

*We consider this level of OC as committed according to our methodology even though the level of OC provided via the asset cover test might be higher because the issuer could reduce the level of OC down to this level without a rating impact on our covered bond rating.

Sources: Moody's Ratings and issuer data

ESG considerations

We assess Environmental, Social and Governance (ESG) credit risks in our analysis based on general principles described in detail in the ESG cross-sector rating methodology available on moodys.com.

Environmental considerations

Overall exposure to meaningful environmental credit risks is low in this programme.

- » In respect of physical risks to the cover pool, the geographical diversification of the pool mitigates the risk. The largest concentration is 32.2% in the Agder region in southern Norway.
- » In respect of regulatory risk, we expect that over time properties that do not meet climate-aligned standards for energy efficiency or carbon emissions will face regulatory sanctions and value impairment. However, we expect much of this risk to be gradually absorbed into the periodic updating of property valuations and income underwriting.

In the event of shocks in connection with regulation or physical hazards, the impact on property collateral will be partly mitigated by borrowers' liability to repay mortgage loans regardless of property value.

Social considerations

Overall exposure to social factors is moderate for this programme. [Misconduct, poor handling of data security and customer privacy breaches by lenders are the most significant social risks that may in due course affect the credit quality of the cover pool, although lenders' financial and operational flexibility and track record of adjusting to social issues may mitigate this.] In addition, the diversified nature of the cover pool is a mitigant to exposure to social factors.

Social factors that potentially affect the cover pool have varied implications. Social risks can arise from changing demographic trends such as aging, urbanization, an increase in telecommuting and flight from cities, population declines or ways of living trends in general that impact the supply or demand for housing in particular areas, which can reduce home values. Societal and demographic trends will be relevant but typically develop over an extended timeframe that smooths out materiality for expected loss.

Social issues may also be driven also by a political agenda related to housing and consumer protection, particularly in down cycles, creating pressure on recovery values.

In respect of the property collateralizing loans in the cover pool, externally driven demographic trends and societal preferences are the main social considerations affecting credit. These considerations generally affect the operations of building owners in respect of demand for space.

Governance considerations

Overall exposure to meaningful governance credit risks is low and similar to other covered bond programmes under the Norwegian covered bond law.

The principal sources of governance for this programme is Norway's covered bond law. In this programme, there are control mechanisms in place that are designed to protect covered bondholders from mistakes, misallocation of cash flows and misappropriation of assets, and that promote compliance with the covered bond legal framework and operational and reporting requirements.

In particular, we note that (i) the issuer and the originators are regulated credit institutions with experience and expertise in carrying out residential lending and servicing activities; (ii) the issuer maintains the cover pool on its balance sheet, incentivising it to maximise cover pool value and aligning its interest with that of covered bond investors; (ii) the cover pool monitor is an independent role mandated and governed by the covered bond law and reports to the Norwegian Financial Supervisory Authority annually; and the covered bond law (iii) ensures the bankruptcy remoteness of the cover pool; and (iv) contains detailed reporting requirements and sanctions for issuer noncompliance.

Methodology and monitoring

The primary methodology we use in rating the issuer's covered bonds is "<u>Moody's Approach to Rating Covered Bonds</u>", published in March 2024. Other methodologies and factors that may have been considered in the rating process can also be found on <u>http://</u>

<u>www.moodys.com</u>. In addition, we publish a weekly summary of structured finance credit, ratings and methodologies, available to all registered users of our website, at www.moodys.com/SFQuickCheck.

We expect the issuer to deliver certain performance data to us on an ongoing basis. In the event that this data is not made available to us, our ability to monitor the ratings may be impaired. This lack of data availability could negatively impact the ratings or, in some cases, our ability to continue to rate the covered bonds.

Appendix: Income underwriting and valuation

Exhibit 14

Income underwriting and valuation

A. Residential Income Underwriting	
1 Is income always checked?	Yes
2 Does this check ever rely on income stated by borrower ("limited income verification") ?	No. Official tax records are always used
3 Percentage of loans in Cover Pool that have limited income verification	Zero
4 If limited income verification loans are in the Cover Pool, describe what requirements lender has in place for these loans.	n/a
5 Does income in all cases constrain the amount lent (for example through some form of Income Sufficiency Test ("IST")?	Yes
6 If not, what percentage of cases are exceptions.	The originator may occasionally use exemptions as allowed in the macro-prudential rules. Such loans may be included in the cover pool to a very limited extent.
For the purpose of any IST:	
7 Is it confirmed that income after tax is sufficient to cover both interest and principal?	Yes
8 If so over what period is it assumed principal will be paid (typically on an annuity basis)? Any exceptions?	30 years
9 Does the age of the borrower constrain the period over which principal can be amortised?	No
10 Are any stresses made to interest rates when carrying out the IST? If so when and for what type of products?	Yes, for all products. Maximum [current rates + 5% ; 8 %]
11 Are all other debts of the borrower taken into account at the point the loan is made?	Yes
12 How are living expenses of the borrower calculated? And what is the stated maximum percentage of income (or income multiple if relevant) that will be relied on to cover debt payments. (specify if income is pre or post tax)	Expenses are based on an index prepared by SIFO which calculates standard living costs based on family size. The borrower will only be offered a principal which leaves a positive amount from the IST which subtracts tax-debt payments, living costs as calculated by SIFO and child care expenses from the monthly gross income.
Other comments	
B. Residential Valuation	
1 Are valuations based on market or lending values?	Conservative market values
2 Are all or the majority of valuations carried out by external valuers (with no direct ownership link to any company in the Sponsor Bank group)?	All
3 How are valuations carried out where an external valuer not used?	n/a
4 What qualifications are external valuers required to have?	External valuations are provided by recognized external valuation companies (Eiendomsverdi AS) or authorized real estate brokers or authorized appraisers.
5 What qualifications are internal valuers required to have?	n/a
6 Do all external valuations include an internal inspection of a property?	Yes
7 What exceptions?	Valuations provided by Eiendomsverdi AS do not require an internal inspection of the property.
8 Do all internal valuations include an internal inspection of a property?	n/a
9 What exceptions?	n/a
Other comments	

Source: Issuer

© 2024 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved. CREDIT RATINGS ISSUED BY MOODY'S CREDIT RATINGS AFFILIATES ARE THEIR CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT-LIKE SECURITIES, AND MATERIALS, PRODUCTS, SERVICES AND INFORMATION PUBLISHED OR OTHERWISE MADE AVAILABLE BY MOODY'S (COLLECTIVELY, "MATERIALS") MAY INCLUDE SUCH CURRENT OPINIONS. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE APPLICABLE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S CREDIT RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS, NON-CREDIT ASSESSMENTS ("ASSESSMENTS"), AND OTHER OPINIONS INCLUDED IN MOODY'S MATERIALS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S MATERIALS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. AND/OR ITS AFFILIATES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS DO NOT COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS, ASSESSMENTS AND OTHER OPINIONS AND PUBLISHES OR OTHERWISE MAKES AVAILABLE ITS MATERIALS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS, AND MATERIALS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS OR MATERIALS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER.

ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT. FOR CLARITY, NO INFORMATION CONTAINED HEREIN MAY BE USED TO DEVELOP, IMPROVE, TRAIN OR RETRAIN ANY SOFTWARE PROGRAM OR DATABASE, INCLUDING, BUT NOT LIMITED TO, FOR ANY ARTIFICIAL INTELLIGENCE, MACHINE LEARNING OR NATURAL LANGUAGE PROCESSING SOFTWARE, ALGORITHM, METHODOLOGY AND/OR MODEL.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the credit rating process or in preparing its Materials. To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information. NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CREDIT

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CREDIT RATING, ASSESSMENT, OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any credit rating, agreed to pay to Moody's Investors Service, Inc. for credit ratings opinions and services rendered by it. MCO and Moody's Investors Service also maintain policies and procedures to address the independence of Moody's Investors Service credit ratings and credit rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold credit ratings from Moody's Investor Service, Inc. and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at <u>www.moodys.com</u> under the heading "Investor Relations — Corporate Governance — Charter Documents - Director and Shareholder Affiliation Policy."

Moody's SF Japan K.K., Moody's Local AR Agente de Calificación de Riesgo S.A., Moody's Local BR Agência de Classificação de Risco LTDA, Moody's Local MX S.A. de C.V, I.C.V., Moody's Local PE Clasificadora de Riesgo S.A., and Moody's Local PA Calificadora de Riesgo S.A. (collectively, the "Moody's Non-NRSRO CRAs") are all indirectly wholly-owned credit rating agency subsidiaries of MCO. None of the Moody's Non-NRSRO CRAs is a Nationally Recognized Statistical Rating Organization.

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for India only: Moody's credit ratings, Assessments, other opinions and Materials are not intended to be and shall not be relied upon or used by any users located in India in relation to securities listed or proposed to be listed on Indian stock exchanges.

Additional terms with respect to Second Party Opinions (as defined in Moody's Investors Service Rating Symbols and Definitions): Please note that a Second Party Opinion ("SPO") is not a "credit rating". The issuance of SPOs is not a regulated activity in many jurisdictions, including Singapore. JAPAN: In Japan, development and provision of SPOs fall under the category of "Ancillary Businesses", not "Credit Rating Business", and are not subject to the regulations applicable to "Credit Rating Business" under the Financial Instruments and Exchange Act of Japan and its relevant regulation. PRC: Any SPO: (1) does not constitute a PRC Green Bond Assessment as defined under any relevant PRC laws or regulations; (2) cannot be included in any registration statement, offering circular, prospectus or any other documents submitted to the PRC regulatory authorities or otherwise used to satisfy any PRC regulatory disclosure requirement; and (3) cannot be used within the PRC for any regulatory purpose or for any other purposes which is not permitted under relevant PRC laws or regulations. For the purposes of this disclaimer, "PRC" refers to the mainland of the People's Republic of China, excluding Hong Kong, Macau and Taiwan.

REPORT NUMBER 1410036

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454