

## CREDIT OPINION

25 September 2019

Update

✓ Rate this Research

### Closing date

September 2014

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# KLP Boligkreditt AS - Mortgage Covered Bonds

Update to New Issue Report, reflecting data as of March 31, 2019 – Norwegian covered bonds

## Ratings

Exhibit 1

Cover Pool (NOK)	Ordinary Cover Pool Assets	Covered Bonds (NOK)	Rating
7,929,279,297	Residential Mortgage Loans	6,908,000,000	Aaa

Source: Moody's Investors Service

## Summary

The covered bonds issued by KLP Boligkreditt AS (the issuer) under the KLP Boligkreditt AS - 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 in Norway. We see a high likelihood of timely payments of the covered bonds even in case of issuer insolvency.

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 few restrictions on the future composition of the cover pool.

Our credit analysis takes into account the cover pool's credit quality, which is reflected in the collateral score of 5.0%, and the current over-collateralisation (OC) of 14.8% (on a nominal basis) as of 31 March 2019.

## Credit strengths

- » **Recourse to the issuer:** The covered bonds are full recourse to the issuer, which is a standalone legal entity wholly owned by [KLP Banken AS \(Aa3\(cr\)\)](#) (the parent company or "KLP Banken"). (See "Covered bond description")
- » **Support provided by the Norwegian legal framework:** The covered bonds are governed by the Norwegian covered bond legislation, 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, so 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 description")
- » **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 (88.0%) backed by properties in Norway. The strong collateral quality is reflected in the collateral score, which is currently 5.0%. (See "Cover pool analysis")
- » **Ability to reset loan rates:** The issuer can reset loan rates on floating rate residential mortgages (100% of the cover pool) on six weeks' notice to the borrower. 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:** There is no currency risk and only limited interest rate risk. As of 31 March 2019, all outstanding covered bonds and cover pool assets are floating rate and denominated in Norwegian Kroner (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 covered bond 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")
- » **Floating interest rates expose borrowers to rising debt service burden:** In line with Norwegian market standards, all the loans 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 facility:** The programme would not benefit from any designated source of liquidity if cash flow collections are interrupted. (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")

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on [www.moody's.com](http://www.moody's.com) for the most updated credit rating action information and rating history.

## Key characteristics

Exhibit 2

### Covered bond characteristics

Moody's Programme Number:	385
Issuer:	KLP Boligkreditt AS
Covered Bond Type:	Residential mortgage loans
Issued under Covered Bonds Law:	Yes
Applicable Covered Bonds Law:	Norwegian covered bond legislation
Entity used in Moody's TPI analysis:	KLP Banken AS
CR Assessment:	Aa3(cr)
CB Anchor:	CR assessment +1 notch
Senior unsecured/deposit rating:	n/a
Total Covered Bonds Outstanding:	NOK 6,908,000,000
Main Currency of Covered Bonds:	NOK (100.0%)
Extended Refinance Period:	Yes
Principal Payment Type:	Soft bullet (an extension of maturity by 12 months)
Interest Rate Type:	Floating rate covered bonds (100.0%)
Committed Over-Collateralisation:	2.0%
Current Over-Collateralisation:	14.8% (on a nominal basis)
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:	5 notches

Sources: Moody's Investors Service, issuer data

Exhibit 3

### Cover pool characteristics

Size of Cover Pool:	NOK 7,929,279,297
Main Collateral Type in Cover Pool:	Residential (88.0%), Supplementary assets (12.0%)
Main Asset Location of Ordinary Cover Assets:	Norway (100.0%)
Main Currency:	NOK (100.0%)
Loans Count:	5,585
Number of Borrowers:	5,667
WA Unindexed LTV (Whole loan/ Senior loan):	53.1% / 50.6%
WA Indexed LTV (Whole loan/ Senior loan):	49.9% / 47.9%
WA Seasoning (in months):	48
WA Remaining Term (in months):	259
Interest Rate Type:	Floating rate assets (100.0%)
Collateral Score:	5.0% (4.6% excluding systemic risk)
Cover Pool Losses:	8.4%
Further Cover Pool Details:	See Appendix 1
Pool Cut-off Date:	31 March 2019

Sources: Moody's Investors Service, issuer data

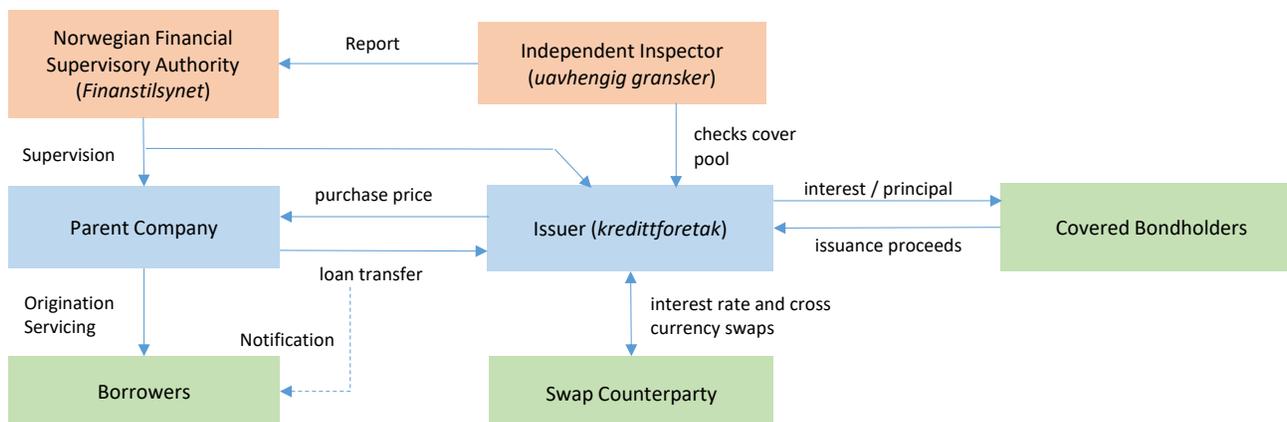
## Covered bond description

The covered bonds issued under the mortgage covered bond programme of KLP Banken AS are full recourse to the issuer. Upon a CB anchor event, covered bondholders would have access to a cover pool of residential mortgage loan receivables.

## Structural diagram

Exhibit 4

### Legal structure of a typical covered bond transaction



Source: Moody's Investor Service

## 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 covered bonds will automatically be extended up to one year to the extended maturity date without constituting an event of default or giving 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 net present value of the bonds, and also requires 2.0% over-collateralisation (OC) on a nominal basis. 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. The coverage test excludes non-performing loans. (See "Cover pool description" for the cover pool characteristics and "Cover pool analysis" for our analysis of the pool)

As of March 2019, The OC in the cover pool is currently 14.8% on a nominal basis of which the issuer provides 2.0% in a committed form. Under our Cobol model, the minimum OC consistent with the Aaa rating is 0.5%.

Although the issuer has the ability to increase the OC in the cover pool if collateral quality deteriorates below a certain threshold, the issuer does not have any obligation to do so. The 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, including the following provisions: (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 "Moody's related publications: 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 is unrated. The reference point for the issuer's credit strength in our analysis is the CB anchor of KLP Banken which, in line with other Norwegian covered bond issuers, is the counterparty risk (CR) assessment plus one notch.

The covered bond rating is linked to the credit strength of KLP Banken, mainly because the parent has established a revolving credit facility for the benefit of the issuer. KLP Banken's commitment to the covered bond programme is further underlined by the range of functions it carries out on behalf of the issuer. KLP Banken's CR assessment is Aa3(cr). For a description of the parent's (KLP Banken) rating drivers, see its [Credit Opinion](#), published in April 2019.

The issuer is a specialist credit institution. An advantage of this is that, should KLP Banken default, the issuer may continue to operate on a standalone basis for a period of time. A disadvantage, however, is that most of the issuer's assets are inside the cover pool, which lowers the value of covered bondholders' unsecured claim on the issuer.

##### Issuer analysis - Dependency on the issuer's credit quality

The credit quality of the covered bonds depends primarily on the credit quality of the issuer. 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, all else being equal. 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. Failure to increase the level of OC under these circumstances could lead to a negative rating action.

The reasons for the high level of dependency of the covered bonds with the issuer also include 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 and 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, cover pool quality over time will be protected by, among other things, the requirements of the Norwegian legal framework, which specifies what types of assets are eligible. (See "Moody's related publications: 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 on covered bonds. 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 contractually 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 related publications - Moody's Approach to Rating Covered Bonds")

Aspects of this programme that are positive with respect to refinancing risk include:

- » The high credit quality of the cover pool, which is reflected in the low collateral score of 5.0%. A high credit quality of the cover pool will lead to a lower write-off for losses and lower refinancing margins applied, all other variables being equal
- » Provisions to allow for a principal refinancing period of 12 months which should improve the sales value of the cover pool, following a CB anchor event, and increase chances of timely principal payments on the covered bonds
- » The administrator has wide powers to manage cover pool assets and liquidity, and a duty to ensure timely payment. This includes (1) entering into contracts for hedging post-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 ability of the lender to increase the interest rate charged on floating-rate loans to the underlying borrowers with a notice period of six weeks. This right also applies to any potential public administrator in charge of the cover pool after a CB anchor event

Aspects of this programme that are negative with respect to refinancing risk include:

- » In line with other covered bond programmes, upon a CB anchor event the cover pool assets will have a materially 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 insolvency estate and management of the cover pool. While the public administrator board is not dedicated to the cover pool, it should, however, 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 designated source of liquidity if cash flow collections are interrupted

#### Interest rate and currency risk

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

Exhibit 5

#### Overview of assets and liabilities

	WAL Assets (Years)	WAL Liabilities (Years)	Assets (%)	Liabilities (%)
Fixed rate	n/a	n/a	n/a	n/a
Variable rate	11.7	2.6	100.0%	100.0%

Sources: Moody's Investors Service, 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:

- » The floating-rate nature of all loans in the cover pool. Interest risk may be limited by the variable nature of the assets in the cover pool
- » It is expected that swaps if added to the cover pool, will be entered into with counterparties that are not part of the issuer's group. These hedging agreements would include collateral posting and transfer triggers. As of the date of this report, there are no swaps in the cover pool

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

- » The possibility of material change of the nature of the programme by the issuer. For example, the issuer may issue fixed-rate covered bonds denominated in currencies other than Norwegian kroner. This would introduce material interest rate and/or currency mismatches, although we note that KLP Banken's current risk policy excludes currency risk exposures

### 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.

Based on the current TPI of High, the TPI leeway for this programme is five notches. This five-notch leeway implies that we might downgrade the covered bonds' rating because of a TPI constraint if we were to lower the CB anchor by more than five notches, all other variables being equal.

### 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:

- » Despite a CB anchor event in relation to the parent, the issuer is able to remain solvent, in which case the issuer may continue to operate the covered bond programme for the time being. However, the issuer or the parent may decide to terminate arrangements by which the parent provides services to the issuer.
- » 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 designated source of liquidity 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
- » The administrator's ability to enter into loan agreements 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 March 2019

As of 31 March 2019, the cover pool consisted of residential mortgage loans (88.0%), and further cover assets that constitute supplementary assets under the Norwegian legal framework (12.0%). All of the properties backing the loans are located in Norway. All loans are performing.

On a nominal value basis, the cover pool assets total NOK 7.93 billion, which back NOK 6.91 billion in covered bonds, resulting in an OC level of 14.8% on a nominal value basis. The OC reported by the issuer considers only loan parts within the 75% loan-to-value limit and excludes non-performing loans. (For KLP Banken's underwriting criteria, see "Appendix: Income underwriting and valuation")

The market value of the properties backing the pool's mortgage loans is determined with an automated valuation method provided by Eiendomsverdi. These valuations do not include a physical inspection of the property. The quarterly revaluations of the cover pool also use this method, which may be a more accurate basis for revaluation than using a property index.

Exhibits below show more details about the cover pool characteristics.

### Residential mortgage loans

Exhibit 6

#### Cover pool summary

Overview		Specific Loan and Borrower characteristics	
Asset type:	Residential	Loans with an external guarantee in addition to a mortgage:	0.0%
Asset balance:	6,981,446,992	Interest only Loans / Flex Loans	19.6% / 0.0%
Average loan balance:	1,250,035	Loans for second homes / Vacation:	n/d
Number of loans:	5,585	Buy to let loans / Non owner occupied properties:	n/d
Number of borrowers:	5,667	Limited income verified:	n/d
Number of properties:	5,650	Adverse credit characteristics	n/d
WA remaining term (in months):	259		
WA seasoning (in months):	48		
		Performance	
		Loans in arrears (≥ 2months - < 6months):	0.0%
		Loans in arrears (≥ 6months - < 12months):	0.0%
		Loans in arrears (≥ 12months):	0.0%
		Loans in a foreclosure procedure:	0.0%
		Multi-Family Properties	
		Loans to tenants of tenant-owned Housing Cooperatives:	0.0%
		Other type of Multi-Family loans (**)	0.0%
Details on LTV			
WA unindexed LTV: Whole Loan / Senior Loan (*)	53.1% / 50.6%		
WA Indexed LTV: Whole Loan / Senior Loan:	49.9% / 47.9%		
Valuation type:	Market Value		
LTV threshold:	75.0%		
Junior ranks:	2.5%		
Prior ranks:	n/d		

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

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

(note \*\*\*) Junior ranks are equal to the delta between unindexed whole loan WA LTV (including internal junior ranks) and unindexed senior loan WA LTV (excluding internal junior ranks).

(note \*\*\*\*) Unindexed LTV on whole loan basis includes junior ranks at parent bank level. Indexed LTV on senior loan basis as in cover pool.

(note \*\*\*\*\*) Interest only loans includes loans which currently are in an initial interest only period before they start amortising.

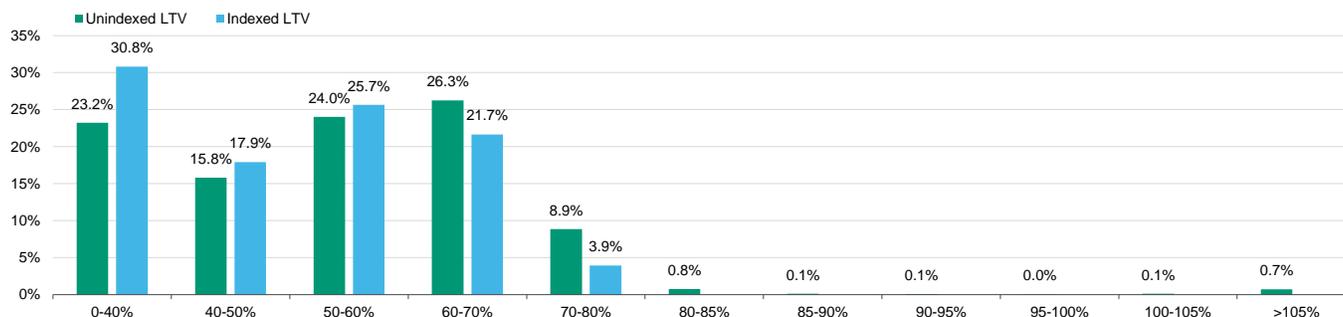
(note \*\*\*\*\*) Flexloans have an amortisation profile and can be re-drawn by the customer up to a certain limit.

Sources: Moody's Investors Service, issuer data

Exhibit 7  
Cover pool characteristics

Exhibit A

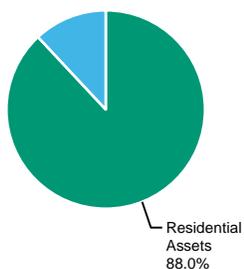
Balance per LTV band



Sources: Moody's Investors Service, issuer data

Exhibit B

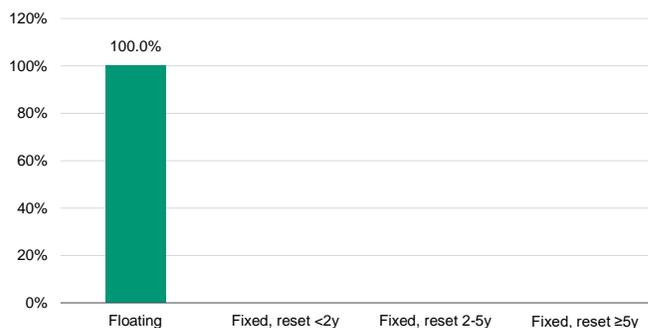
Percentage of residential assets



Sources: Moody's Investors Service, issuer data

Exhibit C

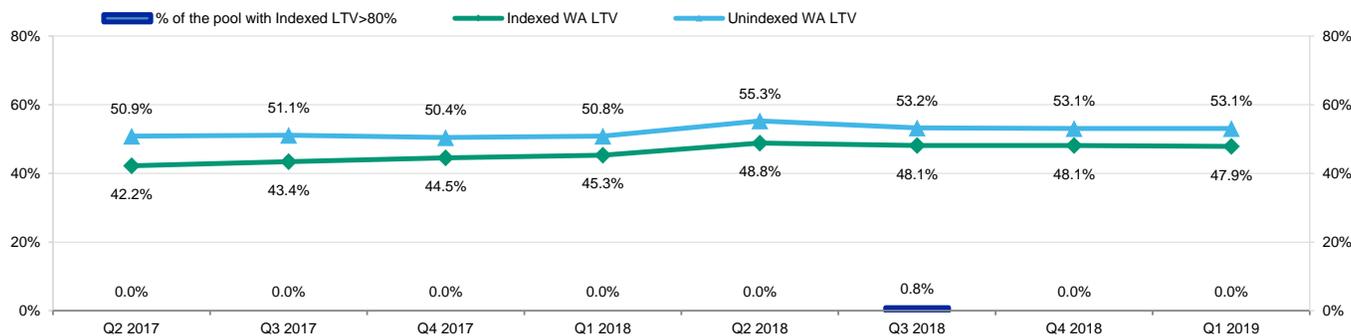
Interest rate type



Sources: Moody's Investors Service, issuer data

Exhibit D

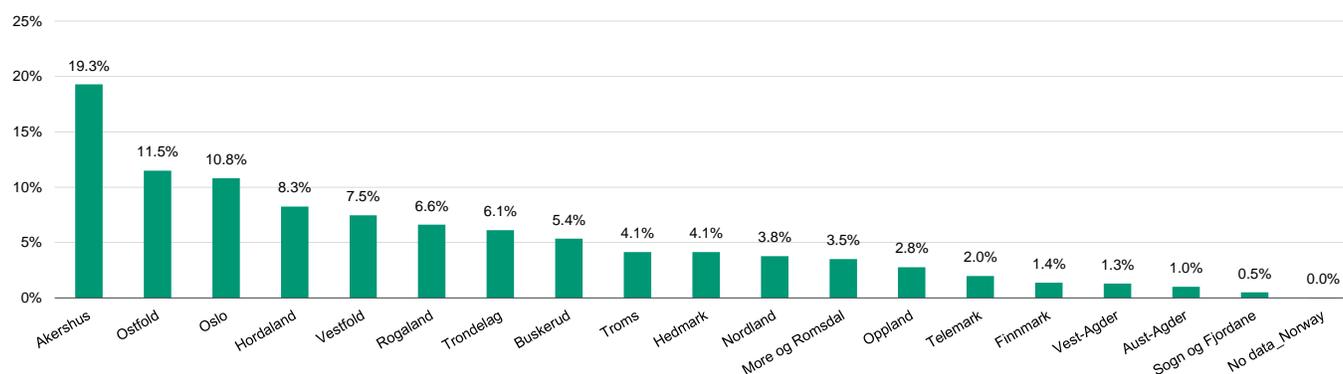
LTV



Sources: Moody's Investors Service, issuer data

## Exhibit E

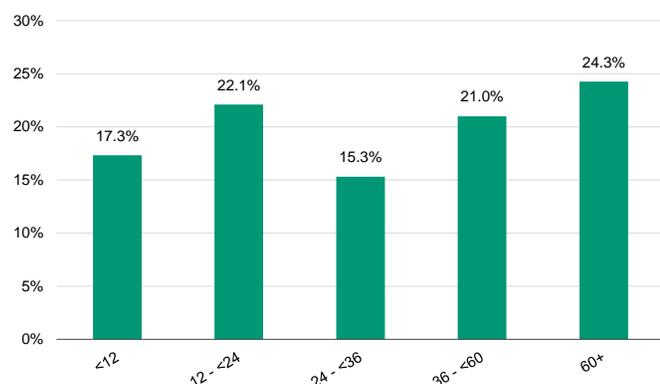
## Main country regional distribution



Sources: Moody's Investors Service, issuer data

## Exhibit F

## Seasoning (in months)



Sources: Moody's Investors Service, issuer data

### Substitute assets

Of the cover assets, NOK 947.8 million (12.0%) are substitute assets. These comprise deposits at Norwegian banks (around 30%) and covered bonds (around 30%) of other Norwegian issuers. About 40% are covered bonds issued by the issuer itself.

### 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 "Moody's related publications: Norway - Legal Framework for Covered Bonds")

### 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 residential assets 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 5.0% collateral score of the pool, in line with the average collateral score in other Norwegian mortgage covered bonds. (For details, see "Moody's related publications - Moody's Global Covered Bonds Sector Update, Q2 2019")

The following factors support the credit quality of the pool:

- » All mortgage loans are performing as of the cut-off date of this report
- » Borrowers' income is always independently verified, and the income restricts the amount that can be lent
- » These loans consist of prime, first-lien Norwegian residential mortgage loans originated by the parent and secured against properties that are geographically well dispersed across Norway
- » The weighted-average LTV of the residential mortgages is relatively low at 53.1% (unindexed LTV, including junior loan ranks within the KLP Banken group)

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

- » In line with Norwegian market standard, 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 income affordability testing
- » Around 19.6% of the loans in the residential assets are interest only loans. This category includes loans which currently are in an initial interest only period before they start amortising. 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 it is common in Norway, valuations backing loans may be based on an automated valuation method (AVM) provided by Eiendomsverdi. These valuations do not include a physical inspection of the property

## Comparables

Exhibit 8

## Comparables - KLP Boligkreditt AS - Mortgage Covered Bond and other selected deals

PROGRAMME NAME	KLP Boligkreditt AS - Mortgage Covered Bonds	DNB Boligkreditt AS - Mortgage Covered Bonds	SpareBank 1 Boligkreditt AS - Mortgage Covered Bonds	Eika Boligkreditt AS - Mortgage Covered Bonds	Sparebanken Vest Boligkreditt AS - Mortgage Covered Bonds
<b>Overview</b>					
Programme is under the law	Norway	Norway	Norway	Norway	Norway
Main country in which collateral is based	Norway	Norway	Norway	Norway	Norway
Country in which issuer is based	Norway	Norway	Norway	Norway	Norway
Total outstanding liabilities	6,908,000,000	459,527,393,500	189,901,981,718	89,688,242,250	71,737,000,000
Total assets in the Cover Pool	7,929,279,297	632,072,492,861	204,179,477,382	99,039,748,769	89,464,245,024
Issuer name	KLP Boligkreditt AS	DNB Boligkreditt	SpareBank 1 Boligkreditt	Eika Boligkreditt AS	Sparebanken Vest Boligkreditt
Issuer CR assessment	n/a	Unpublished	A2(cr)	A3(cr)	n/a
Group or parent name	KLP Banken AS	DNB Bank ASA	Sparebank 1 Alliance	66 Norwegian banks and OBOS	Sparebanken Vest
Group or parent CR assessment	Aa3(cr)	Aa2(cr)	n/a	n/a	A1(cr)
Main collateral type	Residential	Residential	Residential	Residential	Residential
Collateral types	Residential 88%, Commercial 0%, Public Sector 0%, Other/Supplementary assets 12%	Residential 97%, Commercial 3%, Public Sector 0%, Other/Supplementary assets 0%	Residential 92%, Commercial 0%, Public Sector 0%, Other/Supplementary assets 8%	Residential 83%, Commercial 0%, Public Sector 0%, Other/Supplementary assets 17%	Residential 94%, Commercial 0%, Public Sector 0%, Other/Supplementary assets 6%
<b>Ratings</b>					
Covered bonds rating	Aaa	Aaa	Aaa	Aaa	Aaa
Entity used in Moody's EL & TPI analysis	KLP Banken AS	DNB Boligkreditt AS	SpareBank 1 Boligkreditt AS	Eika Boligkreditt AS	Sparebanken Vest
CB anchor	CR Assessment + 1 notch	CR Assessment + 1 notch	CR Assessment + 1 notch	CR Assessment + 1 notch	CR Assessment + 1 notch
CR Assessment	Aa3(cr)	Unpublished	A2(cr)	A3(cr)	A1(cr)
SUR / LT Deposit	n/a	n/a	n/a	n/a	n/a
Unsecured claim used for Moody's EL analysis	No	Yes	Yes	Yes	No
<b>Value of Cover Pool</b>					
Collateral Score	5.0%	5.0%	5.0%	5.0%	5.0%
Collateral Score excl. systemic risk	4.6%	4.2%	2.8%	1.9%	3.6%
Collateral Risk (Collateral Score post-haircut)	3.4%	3.4%	3.4%	3.4%	3.4%
Market Risk	5.1%	7.4%	5.6%	5.3%	5.3%
<b>Over-Collateralisation Levels</b>					
Committed OC*	2.0%	2.0%	2.0%	5.0%	2.0%
Current OC	14.8%	37.5%	7.5%	10.4%	24.7%
OC consistent with current rating	0.5%	1.5%	2.5%	4.5%	2.5%
Surplus OC	14.3%	36.0%	5.0%	5.9%	22.2%
<b>Timely Payment Indicator &amp; TPI Leeway</b>					
TPI	High	Probable	High	High	High
TPI Leeway	5	3	3	2	4
Reporting date	31 March 2019	31 March 2019	31 March 2019	31 March 2019	31 December 2018

\*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 Investors Service, issuer data

### 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 programme addresses commingling risk by daily transferring all collections paid by borrowers from the KLP Banken account to the issuer's account bank held at DNB Bank ASA (Aa2/Prime-1). Upon a rating downgrade of the issuer account bank's rating below P-1, the issuer account bank shall be replaced by a suitably rated new entity. Furthermore, following a CB anchor event the insolvency administrator has the right and the ability to redirect all payments made by Norwegian Interbank Clearing System (NICS) to a suitable issuer collection account within very short time frame.

#### Clawback risk

All borrowers will be notified at the time the loans are transferred from the parent to the issuer. Provided that the borrowers have been notified and that the transfer has been performed in accordance with market practice, it cannot be subject to clawback by the transferor or any public administration board appointed in respect of the transferor.

### Methodology and monitoring

The primary methodology we use in rating the issuer's covered bonds is "Moody's Approach to Rating Covered Bonds", published in February 2019. Other methodologies and factors that may have been considered in the rating process can also be found on <http://www.moodys.com>. 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](http://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 affect the ratings or, in some cases, our ability to continue to rate the covered bonds.

## Appendix: Income underwriting and valuation

Exhibit 9

### Income underwriting and Valuation

<b>A. Residential Income Underwriting</b>	
1 Is income always checked?	Yes
2 Does this check ever rely on income stated by borrower ("limited income verification") ?	No
3 Percentage of loans in Cover Pool that have limited income verification	None, income is always checked
4 If limited income verification loans are in the Cover Pool, describe what requirements lender has in place for these loans.	Not applicable
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.	No exceptions
<b>For the purpose of any IST:</b>	
7 Is it confirmed that income after tax is sufficient to cover both interest and principal?	Yes, this is verified through debt-to-income and liquidity assessments
8 If so over what period is it assumed principal will be paid (typically on an annuity basis)? Any exceptions?	Payment of interest and principal on an annuity basis over 30 years, or less
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 every product an IST is performed with 5% interest rate stress
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 standard indices prepared by the [SIFO]. These are integrated in our loan processing system. The percentage of post tax income that is assumed to be available for debt repayment varies.
Other comments	
<b>B. Residential Valuation</b>	
1 Are valuations based on market or lending values?	Market value
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)?	Yes
3 How are valuations carried out where an external valuer not used?	External valuation is required
4 What qualifications are external valuers required to have?	Qualifications required: valuers approved by real estate agencies, Eiendomsverdi
5 What qualifications are internal valuers required to have?	No internal valuers
6 Do all external valuations include an internal inspection of a property?	No, on loan refinancing on familiar properties we may rely solely on Eiendomsverdi (data driven valuations)
7 What exceptions?	None
8 Do all internal valuations include an internal inspection of a property?	We don't use internal valuations
9 What exceptions?	None
Other comments	

Source: Issuer

## Moody's related publications

### Rating Methodology

- » [Moody's Approach to Rating Covered Bonds, February 2019 \(1154442\)](#)

### Special Comments

- » [Covered Bonds: Sector update – Q2 2019: First positive impact and block chain covered bonds from France; Libor transition continues, August 2019 \(1184222\)](#)
- » [Covered Bonds: Sector update - Q1 2019: EU covered bond law supports credit standards; first covered bonds from Romania May 2019 \(1166962\)](#)
- » [Norway - Legal Framework for Covered Bonds, October 2016 \(1036290\)](#)
- » [Cross Sector - Norway maintains stricter Oslo-specific mortgage regulations, a credit positive for banks, June 2018 \(1131511\)](#)
- » [Covered Bonds - Norway: Covered Bonds Well-Placed Amid Rising Housing Market Risks in Oslo, February 2017 \(1056788\)](#)
- » [Proposal to tighten mortgage lending rules is credit positive for Norway's banks and covered bonds, September 2019 \(1194398\)](#)

### Performance Overview

- » [KLP Boligkreditt AS - Mortgage Covered Bonds](#)

### Credit Opinion

- » [KLP Banken AS](#)

### Webpages

- » Covered Bonds: [www.moodys.com/coveredbonds](http://www.moodys.com/coveredbonds)
- » Covered Bond Legal Frameworks: [www.moodys.com/Pages/CoveredBondLegalFrameworks.aspx](http://www.moodys.com/Pages/CoveredBondLegalFrameworks.aspx)

To access any of these reports or webpages, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

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