

CREDIT OPINION

21 November 2025

Update



Send Your Feedback

RATINGS

KLP Banken AS

Domicile	Norway
Long Term CRR	Aa3
Type	LT Counterparty Risk Rating - Fgn Curr
Outlook	Not Assigned
Long Term Debt	Not Assigned
Long Term Deposit	A2
Type	LT Bank Deposits - Fgn Curr
Outlook	Stable

Please see the [ratings section](#) at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

Contacts

Anna Sherbakova +44.20.7772.1954
VP-Senior Analyst
anna.sherbakova@moodys.com

Nondas Nicolaides +357.25.693.006
VP-Sr Credit Officer
nondas.nicolaides@moodys.com

Simon James Robin +44 207 772 5347
Ainsworth
Associate Managing Director
simon.ainsworth@moodys.com

Otto Aspemo +46.8.5179.1257
Ratings Associate
otto.aspemo@moodys.com

CLIENT SERVICES

Americas 1-212-553-1653

Asia Pacific 852-3551-3077

KLP Banken AS

Update to credit analysis following an upgrade

Summary

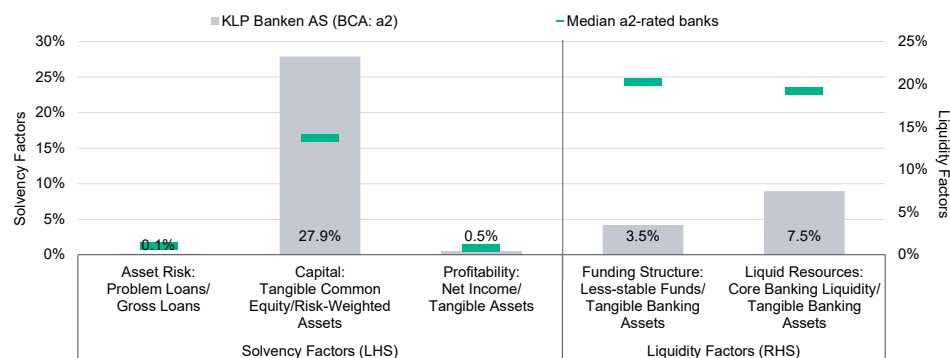
[KLP Banken AS's](#) (KLP Banken) long-term deposit and issuer ratings of A2 are underpinned by the bank's Adjusted BCA of a2 and our assumptions of moderate loss-given-failure for these instruments under our Advanced Loss Given Failure (LGF) analysis, which does not result in any uplift from the Adjusted BCA. We also assume low probability of support from the [Government of Norway](#) (Aaa stable), which does not result in any rating uplift.

We assume KLP Banken will continue to benefit from a very high probability of affiliate support from its parent company [Kommunal Landspensjonskasse](#) (KLP, A2 Insurance Financial Strength Rating, stable), given the importance of the bank to its business strategy. However, KLP Banken's BCA of a2 does not benefit from any rating uplift from the parent's support, because it is positioned at the same level as the parent's rating. We also assume that any potential support from KLP will be subordinated to the claims of its own policyholders.

KLP Banken's BCA of a2 is supported by the bank's strong asset quality, reflective of the low risk profile of its loan portfolio, mainly comprising loans to the Norwegian public sector and retail mortgages that are predominantly extended to public sector employees. KLP Banken's BCA also reflects the bank's strong capitalisation, its modest but stable profitability, and its limited reliance on short-term and less stable funding.

Exhibit 1

Rating Scorecard - Key financial ratios



These are our [Banks Methodology](#) scorecard ratios. Asset risk and profitability reflect the weaker of either the three-year average and latest figure. Capital is the latest reported figure. Funding structure and liquid resources reflect the latest fiscal year-end figures.

Source: Moody's Ratings

Credit strengths

- » Low asset risk, driven by focus on public-sector lending and residential mortgages in Norway
- » Strong capitalisation, supported by the parent in case of need
- » Limited reliance on short-term and less-stable funding

Credit challenges

- » High dependence on net interest income
- » Relatively modest profitability
- » Narrower diversification of wholesale funding sources compared with larger peers

Outlook

The stable outlook on the long-term deposit ratings reflects our expectation that KLP Banken will be able to maintain its financial performance and that affiliate support will remain very high.

Factors that could lead to an upgrade

Upward pressure on the BCA could develop if KLP Banken substantially improves its profitability and operating efficiency, without increasing the risk of its loan portfolio, while maintaining strong asset quality, capitalisation and liquidity and funding profile. The deposit and issuer ratings could be upgraded if the parent's ratings are upgraded or if the bank's liability structure changes to include substantially higher amounts of senior unsecured or more junior debt.

Factors that could lead to a downgrade

Downward pressure on KLP Banken's BCA could develop from: (1) significantly weaker asset quality or evidence of the bank's increased risk appetite; (2) sustained deterioration in profitability; and (3) increasingly higher earnings dependence on one of the bank's business lines. KLP Banken's Counterparty Risk Ratings and CR Assessments could be downgraded due to reduced volume of liabilities that are subordinated to these instruments. A downgrade of the parent could trigger a downgrade of KLP Banken's ratings.

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.moody's.com> for the most updated credit rating action information and rating history.

Key indicators

Exhibit 2

KLP Banken AS (Consolidated Financials) [1]

	09-25 ²	12-24 ²	12-23 ²	12-22 ²	12-21 ²	CAGR/Avg. ³
Total Assets (NOK Billion)	53.6	51.8	48.9	50.5	47.5	3.3 ⁴
Tangible Common Equity (NOK Billion)	3.6	3.4	3.2	3.0	2.5	10.3 ⁴
Problem Loans / Gross Loans (%)	0.1	0.1	0.1	0.1	0.1	0.1 ⁵
Tangible Common Equity / Risk Weighted Assets (%)	27.9	22.7	21.7	20.7	18.7	22.4 ⁶
Problem Loans / (Tangible Common Equity + Loan Loss Reserve) (%)	1.7	1.9	1.4	1.5	1.4	1.6 ⁵
Net Interest Margin (%)	1.0	1.0	0.9	0.8	0.7	0.9 ⁵
PPI / Average RWA (%)	2.6	2.2	2.0	1.3	0.9	1.8 ⁶
Net Income / Tangible Assets (%)	0.6	0.6	0.5	0.3	0.3	0.5 ⁵
Cost / Income Ratio (%)	44.7	45.8	48.1	57.1	66.0	52.3 ⁵
Gross Loans / Due to Customers (%)	269.9	271.1	304.8	307.6	309.6	292.6 ⁵
Core Banking Liquidity (Non-HQLA) / Tangible Banking Assets (%)	--	7.5	--	--	--	6.6 ⁵
Less-stable Funds (Non-LCR) / Tangible Banking Assets (%)	--	3.5	--	--	--	4.9 ⁵

[1] All figures and ratios are adjusted using Moody's standard adjustments. [2] Basel III - fully loaded or transitional phase-in; IFRS. [3] May include rounding differences because of the scale of reported amounts. [4] Compound annual growth rate (%) based on the periods for the latest accounting regime. [5] Simple average of periods for the latest accounting regime.

[6] Simple average of Basel III periods. [] Further to the publication of our revised methodology in November 2025, only ratios from annual 2024 onwards included in this report apply reported risk weights for all exposures, discontinuing our previously applied standard adjustment for certain government securities.

Sources: Moody's Ratings and company filings

Profile

KLP Banken AS is an internet bank in Norway with a focus on the retail and public sectors. The head office is located in Trondheim, and the bank also has a branch office in Oslo. KLP Banken, together with its wholly owned subsidiaries KLP Kommunekreditt AS and KLP Boligkreditt AS, form the KLP Banken AS Group. The bank was founded in February 2009 and is wholly owned by the mutual insurance company KLP. As of September 2025, KLP Banken's consolidated assets totaled NOK53.6 billion (equivalent of approximately EUR4.6 billion).

KLP Banken's presence in the market for public-sector lending is through KLP Kommunekreditt, which provides long-term financing to the Norwegian regional and local government (RLG) sector, including municipalities, counties and companies with public-sector guarantees. In the retail market, KLP Banken predominantly provides housing mortgages. KLP's primary retail customers are members of KLP's pension schemes, who represent about 70% of its retail customer base.

The bank also has a small portfolio of loans to retired individuals against their properties. In addition, the bank offers credit cards, overdrafts and other consumer loans, which in aggregate account for less than 1% of its loan portfolio, as well as savings products and other services.

Recent developments

In September 2025, KLP Banken signed an agreement with the Norwegian Nurses Organization (NSF) to deliver retail banking services. The partnership, which will take effect in 2026, is anticipated to drive substantial growth in the bank's mortgage and deposit volumes within this customer segment.

In February 2025, KLP Banken announced that it had entered into an agreement to join the Eika Alliance. With KLP Banken acquiring a 0.16% stake in Eika Gruppen AS, it will get access to the shared services within the alliance. KLP Banken and Eika Gruppen are working to have the conversion finalized during the spring of 2026.

Detailed credit considerations

Norway's Very Strong- macro profile remains supportive of the bank's stand-alone credit profile

KLP Banken operates only in Norway and thus its operating environment is reflected by the [Very Strong -](#) macro profile we assign to the country. Norwegian banks benefit from operating in a wealthy and developed country with very high economic, institutional and government financial strength, and very low susceptibility to event risk. Norway has a diversified and growing economy, which demonstrated resilience amid the weakening in the oil sector in 2014-15 and again in 2020.

The main risks to the banking system stem from the high level of household debt, high real estate prices and domestic banks' extensive use of market funding. However, these risks are mitigated by the strength of households' ability to service debt, banks' adequate capitalisation and the relatively small size of the banking system compared with the total size of the economy.

Nonetheless, we expect the Norwegian mainland economy (excluding any oil-related activity) to grow by around 1.5% in 2025-2027 after weak growth averaging 0.6% in 2023-2024.

Low asset risk reflecting focus on public-sector lending and residential mortgages

The assigned asset risk score of aa3, two notches below the initial score, reflects low risk of KLP Banken's loan portfolio and the bank's strong asset quality, as evidenced by historically minimal credit losses and a very low level of problem loans. The bank's loan portfolio mainly comprises loans to the Norwegian public sector and residential mortgages, predominantly extended to public-sector employees with high job security. The assigned score also incorporates the risk of potential deterioration in the bank's asset quality, particularly given its growth aspirations in mortgages through the announced partnership with the Norwegian Nurses Organization, as well as operational risk related to the expansion.

KLP Banken's problem loans ratio remained low, at 0.14% as of the end of September 2025, and its credit costs stayed close to zero, reflective of very low amounts of credit losses.

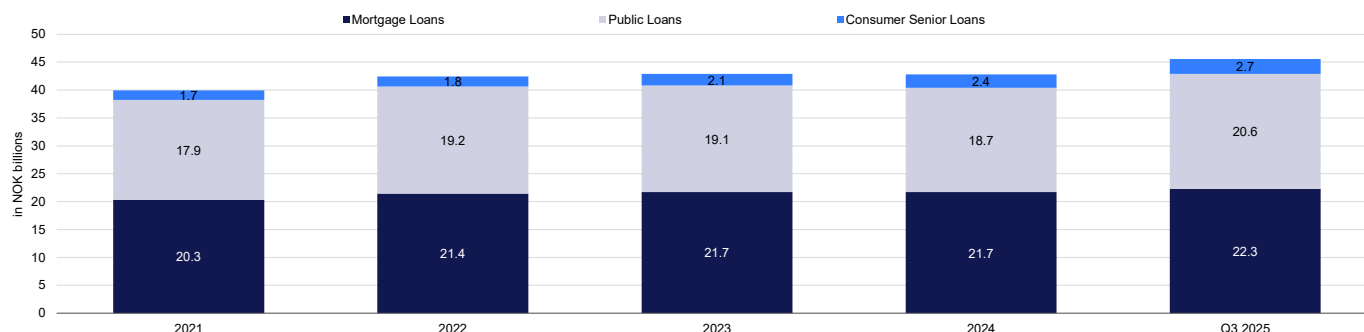
The Norwegian public sector's credit risk is very low because regional and local governments receive budget transfers, and the equalisation principle ensures that RLGs have the financial means to deliver services mandated by the central government. RLGs are placed under central government oversight if they record, or project that they will record, a budget imbalance. RLGs cannot declare insolvency, but can only defer payment including any accrued interest. Therefore, KLP Banken has never incurred a loss in this segment.

Comparatively, residential mortgages in Norway represent higher risk than the RLG segment, but lower than other countries. Despite the long-term risks of increasing household debt levels in the high inflation and interest rate environment, we expect that Norwegian households will continue to service their debt. The average loan-to-value ratio of KLP Banken's mortgage book was a relatively low 53% as of year-end 2024, while most of the bank's mortgage customers were public-sector employees and members of KLP, with high job security.

Mortgage loans account for about half of KLP Banken's loan portfolio and public-sector loans accounted for most of the remainder (Exhibit 3). The bank anticipates substantial growth in its mortgage portfolio through its partnership with Norwegian Nurses Organization, which will take effect in 2026. The bank also manages KLP's loan portfolio, which amounted to NOK86 billion as of end-September 2025, funded by directly by KLP from its own balance sheet.

In public sector lending, KLP Banken faces competition from state-owned Kommunalbanken AS (KBN, Aaa stable, a1), which has not-for-profit mandate and benefits from low funding costs and direct access to the market for the larger municipalities. Consequently, KLP Banken's growth in the public lending sector was historically modest; however, loan balances in the segment rose by 15% in the twelve months ended September 2025.

Exhibit 3

Loan portfolio predominantly comprises retail mortgages and public-sector loans

In addition to mortgages, loans to RLGs and senior loans to consumers, KLP Banken also has a small credit card portfolio, as well as unsecured consumer loans and overdrafts, which in aggregate amounted to less than 1% of its loan portfolio.

Source: Issuer financials

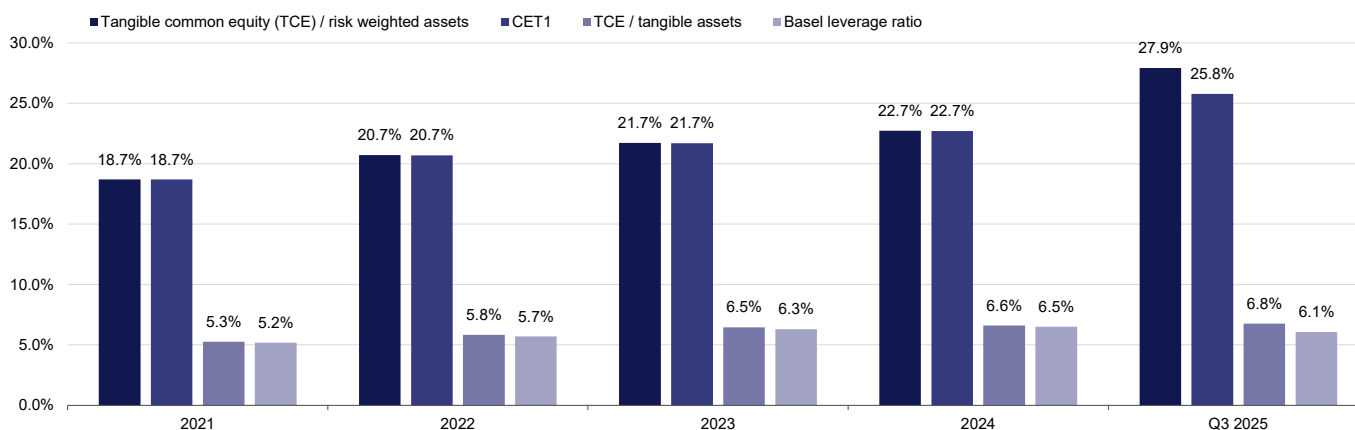
Strong capitalisation, further supported by the parent

The assigned score of aa2, one-notch below the initial score, reflects KLP Banken's strong capitalisation, well above its regulatory requirements, as well as the bank's access to capital from its large and cash-rich parent KLP. The bank has received regular capital injections from KLP, which has helped it maintain capital levels despite lending growth, offsetting its limited ability to grow capital organically. The assigned score also reflects our expectation that the bank's capital levels will moderate from presently very strong levels with the loan growth, particularly given its plan to increase mortgage originations through the partnership with the Norwegian Nurses Organization.

Following the implementation of the updated EU Capital Requirements Regulation (CRR3) in April 2025, which reduced the risk weights on low loan to value (LTV) mortgages for smaller banks using the standardised capital model, KLP Banken's CET1 ratio increased to 25.8% by the end of September 2025 from 22.7% at year-end 2024 (Exhibit 4). The bank's current capital levels are well above its regulatory requirements, with the CET1 minimum requirement of 15.05%, which includes a 1.05% Pillar 2 requirement that is specific to KLP Banken. The bank's own target is to maintain a buffer of at least 1.0% above the regulatory requirements.

KLP Banken's Basel 3 leverage ratio was 6.1% as of September 2025, far exceeding its 3% regulatory requirement.

Exhibit 4

KLP Banken's capital metrics

Source: Issuer financials

Relatively modest but historically stable profitability

The assigned score of ba1, two notches below the initial score, reflects KLP Banken's modest yet historically stable profitability supported by the low credit risk of its loan portfolio, but also its high dependence on net interest income. While KLP Banken's earnings improved in the high interest rate environment, the assigned score reflects our expectation that its profitability will moderate as interest rates decline.

KLP Banken derives most of its net revenues from net interest income, which accounted for 83% of revenues in the first nine months of 2025. The remainder of the bank's net revenues primarily comprises management fees it earns for administering mortgage and public-sector loan portfolios on behalf of its parent, KLP.

In the first nine months of 2025, KLP Banken's return on tangible assets improved to 0.65% from 0.63% in the same period last year, supported by higher loan balances (8% year-over-year growth), while its net interest margin remained flat, at 1.03%. Higher net interest income and gains on financial instruments offset the increase in operating expenses mainly driven by higher IT costs.

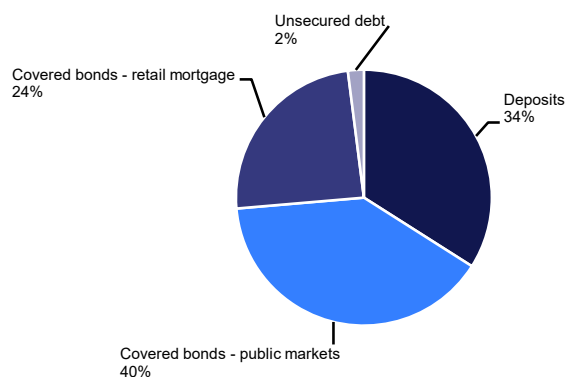
Limited reliance on short-term less stable funding

The assigned a2 funding structure score, four notches below the initial score, reflects the bank's limited reliance on short-term less-stable funding and its granular, mostly retail, deposit base. The assigned score also incorporates the bank's narrower diversification of wholesale funding sources compared with larger peers and its upcoming debt maturities not captured in the aa1 initial score.

KLP Banken mainly funds itself with longer-dated covered bonds, comprising public sector covered bonds issued by KLP Kommunekreditt and retail mortgage covered bonds issued by KLP Boligkreditt. Mitigating the bank's refinancing risk related to these obligations is its strong market access because of the demonstrated appetite for public-sector covered bonds by market participants, given the high quality of the collateral. We also expect the association with the KLP brand to support investor confidence in the bank in times of market stress, further mitigating the refinancing risk.

Exhibit 5

KLP Banken's funding mix As of 30 September 2025



Source: Issuer financials, Moody's Ratings

Sound liquidity buffers

We assign a baa3 liquid resources score, in-line with the initial score, reflecting the bank's solid levels of liquid assets, primarily consisting of covered bonds and bonds issued by Norwegian municipalities. While covered bonds are of lower quality than government bonds, there is a limited supply of sovereign debt because of the low debt of the Norwegian state.

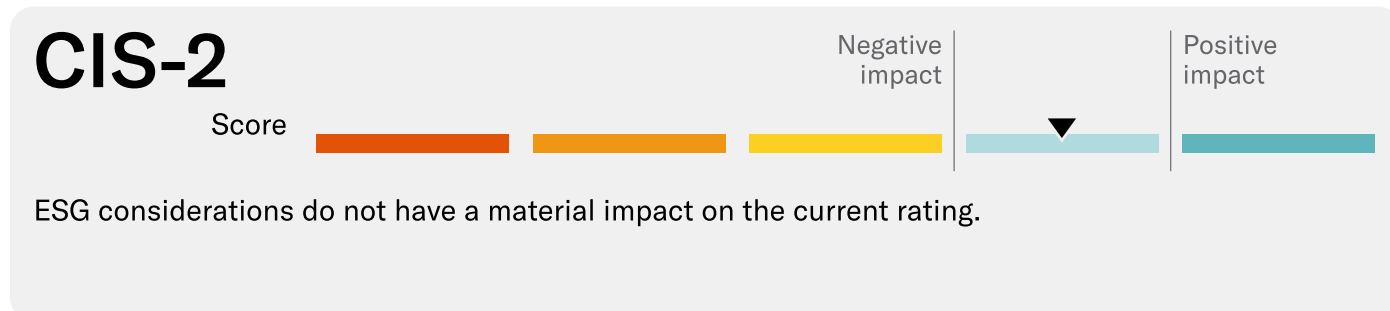
KLP Banken's high quality assets represented 7.5% of its tangible banking assets as of year-end 2024. The bank's liquid asset holdings are ample in relation to its funding needs, as demonstrated by its liquidity coverage ratio (LCR) of 356% as of end-September 2025, significantly above the regulatory requirement of 100%.

ESG considerations

KLP Banken AS' ESG credit impact score is CIS-2

Exhibit 6

ESG credit impact score

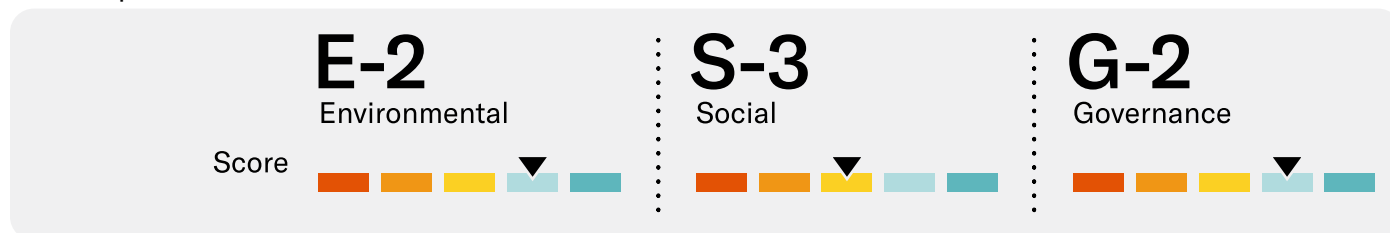


Source: Moody's Ratings

KLP Banken's **CIS-2** indicates that ESG considerations do not have a material impact to the rating to date.

Exhibit 7

ESG issuer profile scores



Source: Moody's Ratings

Environmental

KLP Banken faces low environmental risks, specifically in relation to carbon transition risk. This is because the structure of its loan book, predominantly retail mortgages and public sector lending, with a negligible exposure to corporates which typically carry higher carbon transition risk.

Social

KLP Banken faces moderate exposure to social risks, including and compliance risks in particular in the area of customer relations. A strong conduct track record demonstrates the bank's low risk tolerance and its role to serve the clients of its owner, Kommunal Landspensjonskasse the leading life insurance and pensions provider in Norway, rather than being seen as a profit center for the owners. A well-developed risk management framework also mitigates related risks. The bank is also adapting to changing customer preferences, supported by its owner.

Governance

KLP Banken has low governance risks, reflecting strong governance framework and management policies and procedures that are inline with industry best practices, as evidenced by its good asset quality. Because KLP Banken is fully owned and effectively controlled by the mutual insurance company KLP, we have aligned the subsidiary's board structure, policies and procedures score with that of its ultimate parent, given the bank's strategic importance and public affiliation with the group, the parent's oversight of its subsidiary board and the regulated nature of both entities.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click [here](#) to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

Support and structural considerations

Affiliate support

We assume a very high probability of support from the parent company KLP, in case of need. Our support considerations are driven by the 100% ownership by KLP; its importance to the group's strategy of providing a complete suite of financial services to its members, and the shared brand name and geographical footprint.

However, the bank's BCA of a2 does not benefit from any rating uplift to the parent's rating because we assume that any potential support from KLP will be subordinated to the claims of its own policyholders, resulting in an Adjusted BCA of a2.

Loss Given Failure analysis

Norway has transposed the EU Bank Resolution and Recovery Directive (BRRD) into local legislation effective from January 2019 and as such we consider the country an operational resolution regime. In accordance with our methodology, we therefore apply our Advanced LGF analysis, considering the risks faced by different debt and deposit classes across the liability structure should the bank enter resolution.

In our Advanced LGF analysis, we use our standard assumptions and assume residual TCE of 3% and post-failure losses of 8% of tangible banking assets. We also assume a 25% run-off of "junior" wholesale deposits and a 5% run-off in preferred deposits. Moreover, we assign a 25% probability to junior deposits being preferred to senior unsecured debt.

Under these assumptions, for KLP Banken's A2 deposits, our LGF analysis indicates a moderate loss given failure because of the limited volume of senior unsecured debt outstanding and no outstanding junior debt. This leads to no rating uplift for deposits from the bank's a2 Adjusted BCA.

Government support considerations

We do not incorporate any government support uplift on KLP Banken's ratings because the probability of government support, in case of need, is low.

Methodology and scorecard

About Moody's bank scorecard

Our scorecard is designed to capture, express and explain in summary form our Rating Committee's judgement. When read in conjunction with our research, a fulsome presentation of our judgement is expressed. As a result, the output of our Scorecard may materially differ from that suggested by raw data alone (though it has been calibrated to avoid the frequent need for strong divergence). The scorecard output and the individual scores are discussed in rating committees and may be adjusted up or down to reflect conditions specific to each rated entity.

Rating methodology and scorecard factors

Exhibit 8

Rating Factors

Macro Factors							
Weighted Macro Profile		Very Strong -	100%				
Factor	Historic Ratio	Initial Score	Expected Trend	Assigned Score	Key driver #1	Key driver #2	
Solvency							
Asset Risk							
Problem Loans / Gross Loans	0.1%	aa1	↔	aa3	Operational risk		
Capital							
Tangible Common Equity / Risk Weighted Assets (Basel III - transitional phase-in)	27.9%	aa1	↓↓	aa2	Expected trend		
Profitability							
Net Income / Tangible Assets	0.5%	baa2	↔	ba1	Expected Trend		
Combined Solvency Score		aa3		a1			
Liquidity							
Funding Structure							
Less-stable Funds / Tangible Banking Assets	3.5%	aa1	↓↓	a2	Funding diversification		
Liquid Resources							
Core Banking Liquidity / Tangible Banking Assets	7.5%	baa3	↔	baa3			
Combined Liquidity Score		a1		baa1			
Financial Profile		aa3		a2			
Qualitative Adjustments				Adjustment			
Business and Geographic Diversification				0			
Complexity and Opacity				0			
Strategy, Risk Appetite and Governance				0			
Total Qualitative Adjustments				0			
Sovereign or Affiliate constraint				Aaa			
BCA Scorecard-indicated Outcome - Range				a1 - a3			
Assigned BCA				a2			
Affiliate Support notching				-			
Adjusted BCA				a2			
Balance Sheet		in-scope (NOK Million)		% in-scope	at-failure (NOK Million)		% at-failure
Other liabilities		34,072		63.6%	35,796		66.8%
Deposits		16,899		31.5%	15,176		28.3%
Preferred deposits		12,506		23.3%	11,880		22.2%
Junior deposits		4,394		8.2%	3,295		6.2%
Senior unsecured bank debt		1,000		1.9%	1,000		1.9%
Equity		1,607		3.0%	1,607		3.0%
Total Tangible Banking Assets		53,579		100.0%	53,579		100.0%

Debt Class	De Jure waterfall		De Facto waterfall		Notching		LGF	Assigned	Additional	Preliminary
	Instrument volume + subordination	Sub-ordination	Instrument volume + subordination	Sub-ordination	De Jure	De Facto	Notching Guidance vs. Adjusted BCA	LGF notching	Notching	Rating Assessment
Counterparty Risk Rating	11.0%	11.0%	11.0%	11.0%	2	2	2	2	0	aa3
Counterparty Risk Assessment	11.0%	11.0%	11.0%	11.0%	3	3	3	3	0	aa2 (cr)
Deposits	11.0%	3.0%	11.0%	4.9%	0	1	0	0	0	a2
Senior unsecured bank debt	11.0%	3.0%	4.9%	3.0%	0	-1	0	0	0	a2

Instrument Class	Loss Given Failure notching	Additional notching	Preliminary Rating Assessment	Government Support notching	Local Currency Rating	Foreign Currency Rating
Counterparty Risk Rating	2	0	aa3	0	Aa3	Aa3
Counterparty Risk Assessment	3	0	aa2 (cr)	0	Aa2(cr)	
Deposits	0	0	a2	0	A2	A2
Senior unsecured bank debt	0	0	a2	0	A2	A2

[1] Where dashes are shown for a particular factor (or sub-factor), the score is based on non-public information.

Source: Moody's Ratings

Ratings

Exhibit 9

Category	Moody's Rating
KLP BANKEN AS	
Outlook	Stable
Counterparty Risk Rating	Aa3/P-1
Bank Deposits	A2/P-1
Baseline Credit Assessment	a2
Adjusted Baseline Credit Assessment	a2
Counterparty Risk Assessment	Aa2(cr)/P-1(cr)
Issuer Rating	A2
PARENT: KOMMUNAL LANDSPENSJONSKASSE	
Outlook	Stable
Insurance Financial Strength	A2
Subordinate	Baa1

Source: Moody's Ratings

© 2025 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 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 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 Moody's Investors Service, Inc. for credit ratings opinions and services rendered by it. MCO and all MCO entities that issue ratings under the "Moody's Ratings" brand name ("Moody's Ratings"), also maintain policies and procedures to address the independence of Moody's Ratings' 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 Investors Service, Inc. and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at ir.moody.com under the heading "Investor Relations — Corporate Governance — Charter and Governance 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 Clasificadora 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 61 003 399 657 AFSL 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 and Net Zero Assessments (as defined in Moody's Ratings Rating Symbols and Definitions): Please note that neither a Second Party Opinion ("SPO") nor a Net Zero Assessment ("NZA") is a "credit rating". The issuance of SPOs and NZAs is not a regulated activity in many jurisdictions, including Singapore. JAPAN: In Japan, development and provision of SPOs and NZAs 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 purpose 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.

CLIENT SERVICES

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