

## CREDIT OPINION

21 November 2025

### Update



Send Your Feedback

### RATINGS

#### SpareBank 1 Ostlandet

Domicile	Hamar, Norway
Long Term CRR	Aa3
Type	LT Counterparty Risk Rating - Fgn Curr
Outlook	Not Assigned
Long Term Debt	Aa3
Type	Senior Unsecured - Fgn Curr
Outlook	Stable
Long Term Deposit	Aa3
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

Juliana Cerenkova +46.8.5179.1254  
Sr Ratings Associate  
juliana.cerenkova@moody.com

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

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

Paula Jouandet- +46.8.5179.1280  
Dahlen  
VP-Senior Analyst  
paula.jouandetdahlen@moody.com

### CLIENT SERVICES

## SpareBank 1 Ostlandet

Update to credit analysis following the affirmation of ratings

### Summary

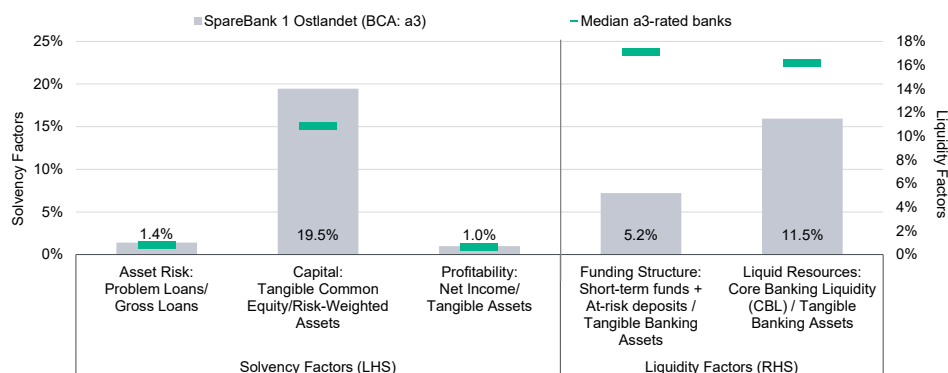
[SpareBank 1 Ostlandet's](#) (Ostlandet) long-term deposit, issuer and senior unsecured debt ratings of Aa3 reflect the bank's Baseline Credit Assessment (BCA) of a3 and our forward-looking Loss Given Failure (LGF) analysis which leads to three notches of rating uplift from the BCA. Ostlandet's ratings do not benefit from any government support.

Ostlandet's BCA of a3 reflects our view of the bank's strong capitalisation, sound profitability and resilient asset quality underpinned by its low-risk retail portfolio, representing about 70% of its loan book, combined with a well-laddered debt maturity profile.

These strengths are balanced against the bank's relatively high geographical concentration in the Inland region in eastern Norway and the Oslo-Akershus area, which could make the bank's credit profile vulnerable to a severe shock in these regions.

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 or the latest annual 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

- » Strong capital levels provide a good loss absorbing buffer
- » Solid asset quality underpinned by a relatively low-risk retail mortgage portfolio
- » Robust profitability on the back of recurring earnings

## Credit challenges

- » Moderate credit concentration in commercial real estate (CRE)
- » Limited geographic diversification

## Outlook

The stable outlook on the bank's long-term deposit, issuer and senior unsecured debt ratings reflect our expectation that Ostlandet's financial performance will remain robust and consistent with current levels in the next 12 to 18 months. The stable outlook on the long-term issuer and senior unsecured debt ratings also reflects our expectation that the bank will issue sufficient volumes of junior senior unsecured debt to support the current rating uplift from the BCA according to our Advanced LGF analysis.

## Factors that could lead to an upgrade

Ostlandet's BCA and long-term ratings could be upgraded if the bank materially increases its regional and sector diversification, displayed stronger earnings generation, while maintaining strong asset quality, capital and liquidity levels.

## Factors that could lead to a downgrade

The BCA and long-term ratings could be downgraded if the bank's problem loan ratio increases significantly above its similarly-rated peers, if the profitability weakened materially, and if financing conditions became more difficult, impairing its ability to raise low-cost market funding. The issuer and senior unsecured debt ratings could also be downgraded should the bank issue significantly lower-than-expected volumes of bail-in-able debt.

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

## Key indicators

Exhibit 2

### SpareBank 1 Ostlandet (Consolidated Financials) [1]

	09-25 <sup>2</sup>	12-24 <sup>2</sup>	12-23 <sup>2</sup>	12-22 <sup>2</sup>	12-21 <sup>2</sup>	CAGR/Avg. <sup>3</sup>
Total Assets (NOK Billion)	291.8	282.4	241.3	228.3	207.9	9.5 <sup>4</sup>
Tangible Common Equity (NOK Billion)	23.1	22.2	18.5	17.7	16.7	8.9 <sup>4</sup>
Problem Loans / Gross Loans (%)	1.4	1.1	1.0	0.4	0.4	0.8 <sup>5</sup>
Tangible Common Equity / Risk Weighted Assets (%)	19.5	18.7	18.5	19.4	19.7	19.1 <sup>6</sup>
Problem Loans / (Tangible Common Equity + Loan Loss Reserve) (%)	13.2	10.9	10.1	4.0	3.8	8.4 <sup>5</sup>
Net Interest Margin (%)	1.8	1.8	1.7	1.4	1.3	1.6 <sup>5</sup>
PPI / Average RWA (%)	3.3	3.4	3.2	2.5	2.4	3.0 <sup>6</sup>
Net Income / Tangible Assets (%)	1.2	1.0	0.9	0.8	1.0	1.0 <sup>5</sup>
Cost / Income Ratio (%)	43.5	42.1	41.8	48.2	49.6	45.0 <sup>5</sup>
Gross Loans / Due to Customers (%)	167.7	180.2	186.5	191.0	188.4	182.8 <sup>5</sup>
Core Banking Liquidity (HQLA) / Tangible Banking Assets (%)	--	11.5	--	--	--	11.5 <sup>5</sup>
Less-stable Funds (LCR) / Tangible Banking Assets (%)	0.5	5.2	--	--	--	2.9 <sup>5</sup>

[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

SpareBank 1 Ostlandet (Ostlandet) is a leading Norwegian regional savings bank that provides retail and corporate financial products and services, from loans and deposit facilities to insurance, pension, payment, leasing, real estate brokerage and accounting services. As of 30 September 2025, it had consolidated assets (including loans transferred to covered bond companies) of NOK292 billion (or around €25.0 billion).

Ostlandet is the fourth-largest savings bank in Norway, with presence in the Inland region in eastern Norway, as well as in the most important and economically developed region of Oslo-Akershus. The bank is part of the SpareBank 1 Alliance.

## Recent developments

On 1 November 2024, SpareBank 1 Ostlandet completed the merger with Totens Sparebank. The aim of the merger is to contribute to an increased focus on the Inland region of Norway, with strengthened local presence, proximity to customers and growth capacity.

## Detailed credit considerations

### SpareBank 1 Ostlandet's credit profile is constrained by high geographic concentration

The bank's credit profile is constrained by concentration risks arising from its relatively high geographically concentrated customer base, resulting in lower asset diversification compared with some larger peers. That said, the bank benefits from a strong retail and business banking franchise, which reduces dependence on any single product. These factors are reflected in one negative Business and Geographic Diversification adjustment, positioning its a3 BCA one notch below the a2 Financial Profile.

Like other Norwegian savings banks, SpareBank 1 Ostlandet's operations are focussed on its local region, the municipality of Hamar, Innlandet county in eastern part of Norway. As of December 2024, 64% of loans and 67% of deposits originated from customers in this region. In 2024, Ostlandet opened a new branch office in Drammen, located close to the Norwegian capital region in order to capitalise on the higher-than-average economic growth dynamics in this area. Its entrenched position, supported by a long history and the savings bank model, underpins strong market shares and robust profitability. However, this focus makes the bank highly exposed to changes in local economic conditions, which could affect credit quality and deposit volumes if a significant regional shock occurs.

Concentration risks are partly mitigated by Norway's coordinated policy framework and large sovereign wealth fund, which supports a regionally dispersed economy through excellent infrastructure and public services, while providing a potential buffer in times of stress. In addition, the bank operates across the entire Innlandet county, a well-populated region with several productive industries (e.g. agriculture, forestry, tourism), unlike some savings banks whose activities are concentrated in smaller parts of a single region.

### Solid asset quality underpinned by a relatively low-risk retail mortgage portfolio

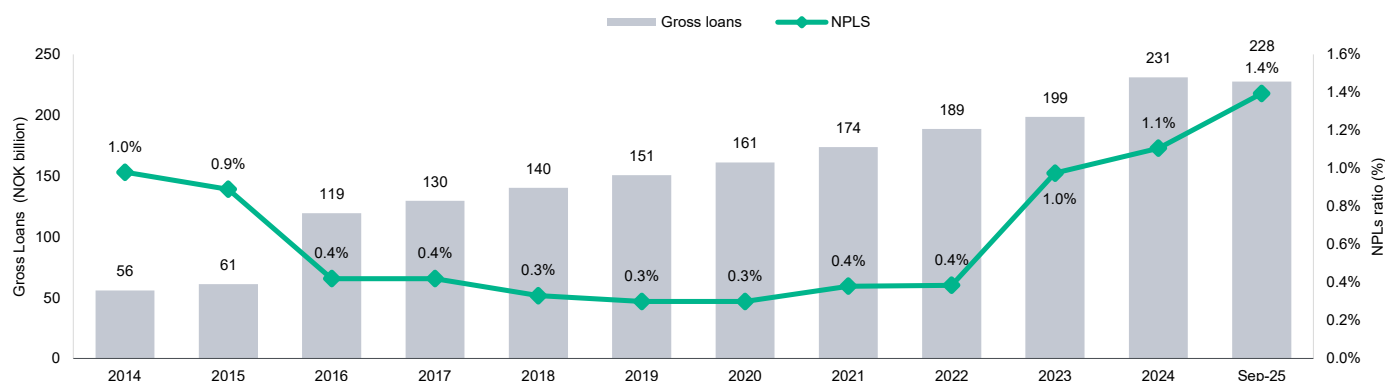
Our assigned Asset Risk score of a1 reflects moderate sector concentration. The CRE sector accounts for around 14% of gross loans (including transferred loans), and around 1% of gross loans were concentrated in the building and construction sector as of 30 September 2025.

Ostlandet's asset quality is strong, with problem loans accounting for 1.4% of gross loans as of September 2025. The ratio increased slightly from 1.1% at year-end 2024, but is broadly in line with the median problem loans ratio of similarly rated peers. Historically, the ratio has been even stronger, at about 0.3% to 0.4%, but deteriorated over the past two years as a result of a small number of larger exposure defaults. We expect asset quality to stabilise as expected interest rate cuts will support recovery of the most rate sensitive sectors, including commercial real estate and construction.

The bank's total loan book is geared towards retail borrowers, mostly residential mortgages, accounting for around 71% of gross loans, including loans transferred to the covered bond companies, with no exposure to the oil sector as of 30 September 2025. This supports the bank's asset quality, limiting the risks from credit impairments, given the traditionally very low loss rates for residential mortgages in Norway. Around 95% of its book has an LTV below 70%, compared with 90% maximum LTV allowed by the mortgage regulation and 75% LTV legal requirement for a covered bond pool.

Exhibit 3

#### SpareBank 1 Ostlandet's asset-risk metrics



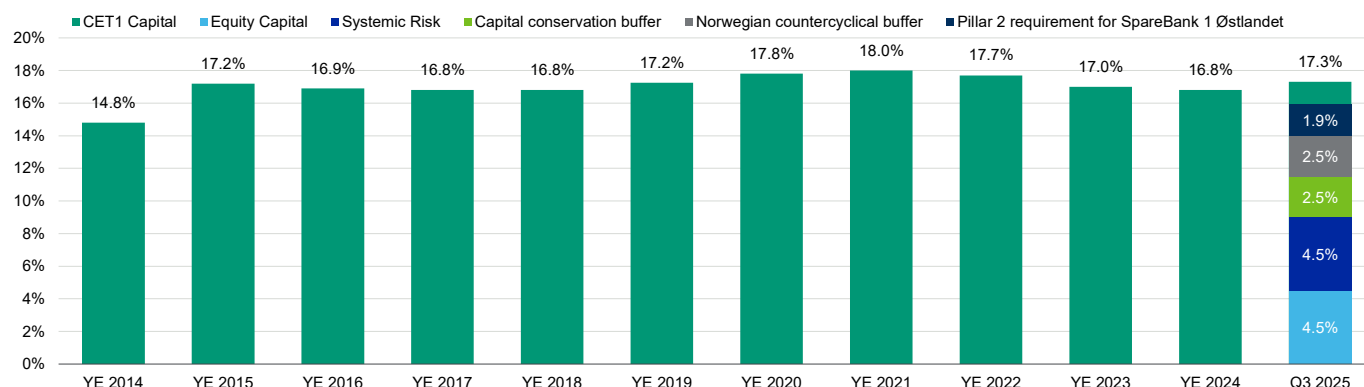
Gross loans include covered bond loans.

Sources: Company reports and Moody's Ratings

### Strong capital levels provide a good loss absorption buffer, although on a declining trend

The assigned Capital score of a1 reflects Ostlandet's strong capitalisation, with a tangible common equity (TCE) ratio of 19.5% and a reported Common Equity Tier 1 (CET1) ratio of 17.3% in September 2025, down from 18.3% in June 2025, mainly reflecting the Ministry of Finance's increase of the Internal Ratings Based (IRB) risk weight floor for residential mortgages to 25% from 20% effective 1 July 2025. That said, the bank maintains a comfortable buffer above its CET1 requirement of 15.1%, including a 2.5% countercyclical buffer and a 1.9% Pillar 2 requirement (see Exhibit 4). Ostlandet also reported a robust leverage ratio of 7.1% as of 30 September 2025, above the internal target of 6%.

Exhibit 4

**SpareBank 1 Østlandet's CET1 capital ratio evolution**

Source: Company reports and presentations

We expect the bank to maintain its solid capital position, supported by strong retained earnings and in line with the bank's target to maintain a management buffer of 100 basis points (bps) above the minimum regulatory CET1 requirement.

Sparebankstiftelsen Hedmark (savings bank foundation) is the largest stakeholder of the bank through a 44.5% ownership of the total equity capital certificates (ECC). Following the completion of the merger with Totens Sparebank, bank foundation Totens Sparebankstiftelse has an ownership stake of 8.6% in the combined entity. We make a negative adjustment to the bank's Capital score to reflect the bank's ECC structure as the bank may face challenges in raising new equity in case of need during difficult market conditions. This is in line with the adjustment we make for other Norwegian savings banks with a similar ownership structure.

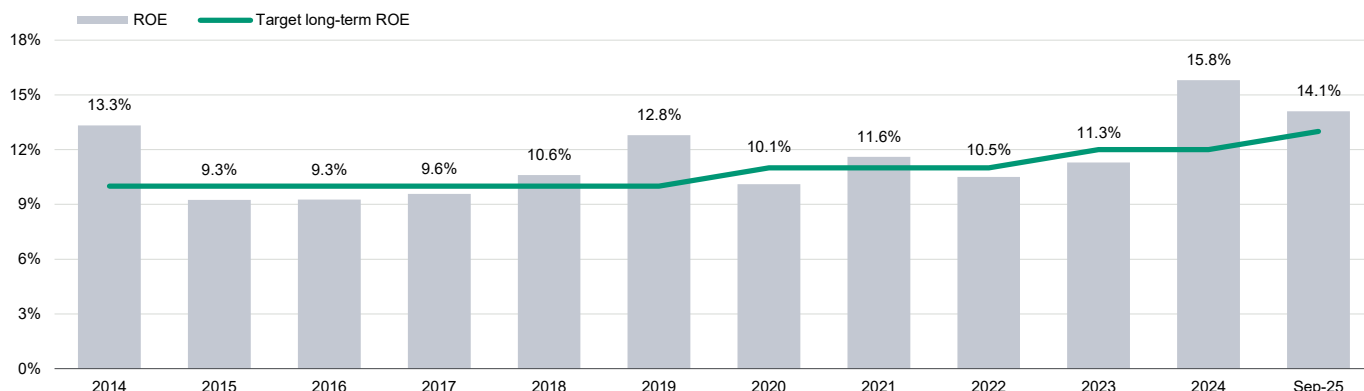
We believe that the bank has strong capital buffers relative to its peers, which allows it to grow its balance sheet and leverage opportunities in the Oslo-Akershus region where it is currently expanding. However, since the bank uses IRB models to calculate credit risk, we believe its risk weighted assets might be understated, and thus resulting in slightly higher capital ratios compared to a peer that uses the standardised models that generally have more conservative weights. We, therefore, add an additional negative notch to account for this difference.

### Robust profitability on the back of recurring earnings

Our assigned Profitability score of baa1 reflects Ostlandet's robust profitability. The bank reported profit after tax increased to NOK2660 million in the first nine months of 2025, with a Moody's-adjusted return on tangible assets of 1.2%, compared to NOK2655 million for the same period in 2024. The modest improvement was driven by a combination of stronger net interest and commission income following the strengthening in margins in the high interest rate environment, growth in lending and positive contributions from subsidiaries, partly offset by higher costs.

Ostlandet benefits from shared services provided through the SpareBank 1 Alliance, notably in IT, marketing and branding. Net interest income (NII) strengthened by 16% in first nine months of 2025 from the year-earlier period benefiting from higher interest rates. We expect the bank's NII to continue to be strong in 2025, but the benefits on profitability will be somewhat offset by higher operating costs as the bank still has to operate with duplicate core banking and other IT systems until the technical merger between Ostlandet and Totens is finalised, which is expected to take place in June 2026, as well as increased margin pressure following a normalisation of interest rates from current elevated levels.

Exhibit 5

**SpareBank 1 Ostlandet's return on equity (RoE)**

2017 and onwards are based on consolidated financials, including results from Bank 1 Oslo Akershus. From 2019, RoE is as reported by the bank, prior figures are Moody's-adjusted ratios.  
Sources: Company reports and Moody's Ratings

**Good funding profile with a granular deposit base and longer-dated wholesale funding**

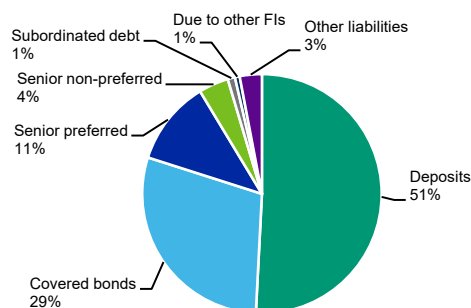
Our assigned Funding score of a1 reflects Ostlandet's solid funding profile, supported by a granular and stable deposit base and longer-dated wholesale instruments, although we view its access to wholesale markets as somewhat weaker than peers with larger and more frequent issuance activity. It also reflects upcoming debt maturities not captured in the aa2 initial score.

The bank's funding position is underpinned by a substantial deposit base, which accounts for around 51% of total non-equity funding (including covered bonds issued through SpaBol and SpaCom), and 56% of the bank's deposits are from the retail sector. This high share of granular, stable deposits supports the bank's relatively low Less Stable Funds ratio. For its senior funding, the bank participates in the jointly owned SpareBank 1 Alliance's €10 billion Euro Medium-Term Note (EMTN) program with euro-denominated bond issues, contributing to a more diversified funding profile.

Exhibit 6

**SpareBank 1 Ostlandet's funding profile is dominated by deposits and long-dated covered bonds**

Funding composition (Q2 2025)



Source: Bank's disclosures and Moody's Ratings

Ostlandet also uses covered bond funding through specialised companies it jointly owns, together with the other members of SpareBank 1 Alliance, SpareBank 1 Boligkreditt (SpaBol) for residential mortgages and SpareBank 1 Næringskreditt (SpaCom) for commercial mortgages. As of 30 September 2025, Ostlandet had transferred retail mortgages worth NOK77.0 billion to SpaBol and NOK0.8 billion commercial mortgages to SpaCom (that is, equivalent to around 34% of total gross loans, including loans transferred to covered bond companies).

Sound liquidity, mainly in the form of highly-rated securities

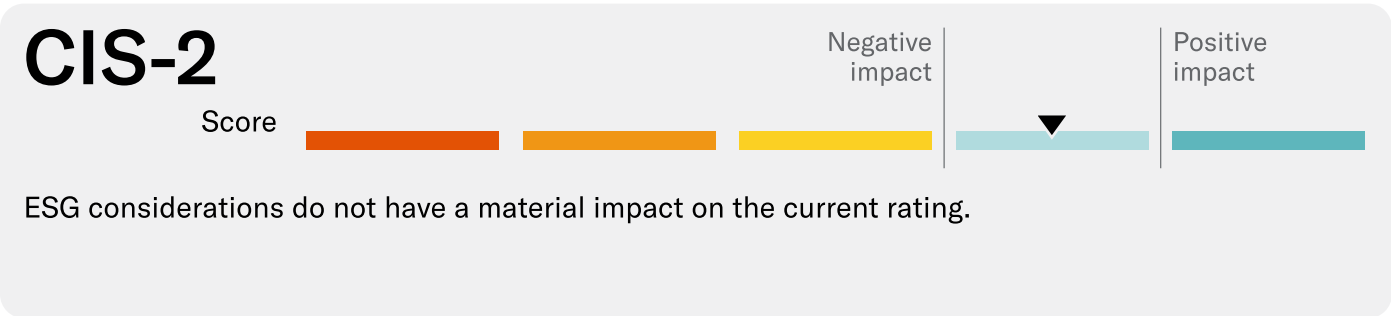
Our assigned Liquidity score of baa2 reflects Ostlandet's sound liquidity position, with liquid assets, measured as HQLAs, to total tangible banking assets at around 11.5%. Liquidity is further supported by liquid assets held by SpaBol and SpaCom.

The liquidity reserves consist of cash and deposits with the central bank, senior bonds, government guaranteed bonds, covered bonds (mostly rated Aaa) and limited equity investments. The holdings are mostly Norwegian securities, which could be a source of vulnerability from a concentration risk point of view, but are positive in terms of currency risk. In addition, the bank reported a high liquidity coverage ratio (LCR) of 151% as of 30 September 2025 compared with the 100% requirement.

ESG considerations

SpareBank 1 Ostlandet's ESG credit impact score is CIS-2

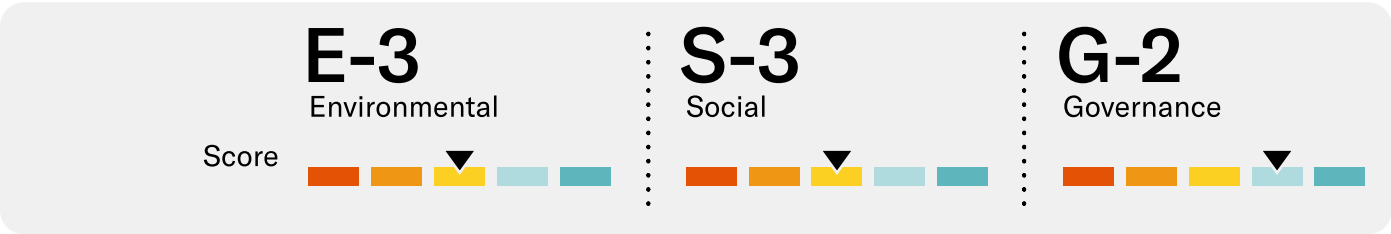
Exhibit 7  
ESG credit impact score



Source: Moody's Ratings

SpareBank 1 Ostlandet's **CIS-2** indicates that ESG considerations do not have a material impact on current ratings. This reflects the limited credit impact of environmental and social risk factors on the ratings to date, and the low governance risks.

Exhibit 8  
ESG issuer profile scores



Source: Moody's Ratings

Environmental

SpareBank 1 Ostlandet faces moderate environmental risks primarily because of its portfolio exposure to carbon transition. These risks are primarily related to its corporate portfolio through the commercial real estate sector. In line with its peers, the bank is facing mounting business risks and stakeholder pressure to meet broader carbon transition goals. In response, the bank is developing its climate risk and portfolio management capabilities.

Social

SpareBank 1 Ostlandet faces moderate social risks related to regulatory and litigation risks, requiring high compliance standards. The exposure to customer relation risks is lower than its international peers, given the bank's untarnished customer conduct track record supported by the social mandate of the Savings Bank's model. SpareBank 1 Ostlandet is a digitally advanced bank in Norway, with a robust IT infrastructure and strong capabilities to mitigate cyber and personal data risks, supported by its cooperation within the SpareBank 1 Alliance.

## Governance

SpareBank 1 Ostlandet's governance risks are low. Despite sectoral and geographical concentrations, due to its limited reach, the bank benefits from strong underwriting standards which mitigate some of these concerns. The bank has a track record of sound capital and liquidity management and earnings stability while losses have been low, even at times of market turbulence. Being a regional savings bank, 27% of the equity base is owned by the bank in the form of primary capital, and 73% of the equity capital is owned by equity certificate (EC) holders. The foundation Sparebankstiftelsen Hedmark is the largest shareholder with 44.5% of the ECs and the foundation Totens Sparebankstiftelse has a 8.6% stake. Other owners are private investors which hold listed equity certificates, with the Norwegian confederation of trade unions being the largest. The bank's Supervisory Board comprises of representatives of EC holders, the foundation, and employees. Related governance risks are mitigated by Norway's developed institutional framework.

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

### Loss Given Failure (LGF) analysis and additional notching

Norway implemented the EU's Bank Recovery and Resolution Directive (BRRD) on 1 January 2019, and BRRD2 was incorporated into Norwegian law on 1 June 2022, which results in lower subordination requirements for non-preferred senior volumes. For our resolution analysis, we apply our advanced Loss Given Failure (LGF) analysis, using our standard assumptions for a bank operating in an operational resolution regime (ORR) country. We assume residual TCE of 3% and losses post-failure of 8% of tangible banking assets, a 25% run-off in "junior" wholesale deposits, a 5% run-off in preferred deposits, and assign a 25% probability to deposits being preferred to senior unsecured debt.

The ratings take into account our forward-looking LGF analysis of the bank's volume of deposits and senior unsecured debt, as well as the volume of securities subordinated to them. This assumption leads to three notches of rating uplift for the bank's senior debt ratings, which is the same uplift afforded for the bank's deposit ratings.

### Government support considerations

Following the implementation of the BRRD law in Norway on 1 January 2019, we assume a low probability of government support for the bank's senior debt and deposits, resulting in no rating uplift.

### 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 9

### 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	1.4%	aa2	↔	a1	Asset Composition	Sector concentration	
Capital							
Tangible Common Equity / Risk Weighted Assets (Basel III - transitional phase-in)	19.5%	aa2	↔	a1	Recognition of risk-weighted assets	Access to capital	
Profitability							
Net Income / Tangible Assets	1.0%	baa1	↔	baa1			
Combined Solvency Score		aa3		a2			
Liquidity							
Funding Structure							
Less-stable Funds / Tangible Banking Assets	5.2%	aa2	↓	a1	Term structure	Expected Trend	
Liquid Resources							
Core Banking Liquidity / Tangible Banking Assets	11.5%	baa2	↔	baa2			
Combined Liquidity Score		a2		a3			
Financial Profile		a1		a2			
Qualitative Adjustments				Adjustment			
Business and Geographic Diversification				-1			
Complexity and Opacity				0			
Strategy, Risk Appetite and Governance				0			
Total Qualitative Adjustments				-1			
Sovereign or Affiliate constraint				Aaa			
BCA Scorecard-indicated Outcome - Range				a2 - baa1			
Assigned BCA				a3			
Affiliate Support notching				0			
Adjusted BCA				a3			
Balance Sheet		in-scope (NOK Million)	% in-scope	at-failure (NOK Million)	% at-failure		
Other liabilities		100 225	34.5%	114 064	39.3%		
Deposits		135 683	46.7%	121 843	42.0%		
Preferred deposits		100 405	34.6%	95 385	32.8%		
Junior deposits		35 278	12.1%	26 458	9.1%		
Senior unsecured bank debt		30 551	10.5%	30 551	10.5%		
Junior senior unsecured bank debt		10 768	3.7%	10 768	3.7%		
Dated subordinated bank debt		2 628	0.9%	2 628	0.9%		
Preference shares (bank)		1 871	0.6%	1 871	0.6%		
Equity		8 713	3.0%	8 713	3.0%		
Total Tangible Banking Assets		290 439	100.0%	290 439	100.0%		

Debt Class	De Jure waterfall		De Facto waterfall		Notching		LGF	Assigned	Additional Preliminary	
	Instrument	Sub-	Instrument	Sub-	De Jure	De Facto	Notching	LGF	Notching	Rating
	volume +	ordination	volume +	ordination			Guidance	notching		Assessment
	subordination		subordination				vs. Adjusted BCA			
Counterparty Risk Rating	27.9%	27.9%	27.9%	27.9%	3	3	3	3	0	aa3
Counterparty Risk Assessment	27.9%	27.9%	27.9%	27.9%	3	3	3	3	0	aa3 (cr)
Deposits	27.9%	8.3%	27.9%	18.8%	3	3	3	3	0	aa3
Senior unsecured bank debt	27.9%	8.3%	18.8%	8.3%	3	3	3	3	0	aa3
Dated subordinated bank debt	4.5%	3.6%	4.5%	3.6%	-1	-1	-1	-1	0	baa1

Instrument Class	Loss Given Failure notching	Additional notching	Preliminary Rating Assessment	Government Support notching	Local Currency Rating	Foreign Currency Rating
Counterparty Risk Rating	3	0	aa3	0	Aa3	Aa3
Counterparty Risk Assessment	3	0	aa3 (cr)	0	Aa3(cr)	
Deposits	3	0	aa3	0	Aa3	Aa3
Senior unsecured bank debt	3	0	aa3	0	Aa3	Aa3
Dated subordinated bank debt	-1	0	baa1	0		(P)Baa1

[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 10

Category	Moody's Rating
<b>SPAREBANK 1 OSTLANDET</b>	
Outlook	Stable
Counterparty Risk Rating	Aa3/P-1
Bank Deposits	Aa3/P-1
Baseline Credit Assessment	a3
Adjusted Baseline Credit Assessment	a3
Counterparty Risk Assessment	Aa3(cr)/P-1(cr)
Issuer Rating	Aa3
Senior Unsecured	Aa3
Subordinate MTN	(P)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](http://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