

# Pillar 3 – risk and capital 2021

Eika Boligkreditt AS



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## 1 INTRODUCTION

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The main purpose of Eika Boligkreditt (**EBK**) is to ensure access for the local banks in the Eika Alliance (the owner banks) to long-term and competitive funding by issuing covered bonds. An important part of the company's business concept is to increase the competitiveness of the owner banks by improving their access to external funding in the Norwegian and international financial markets with regard to the length of loans, their terms and the depth of access. The object of the company's business is to reduce risk for the owner banks. At 31 December 2021, the owner banks had secured a total of NOK 91.4 billion in financing through EBK and had thereby reduced their need to obtain market financing on their own account by a corresponding amount.

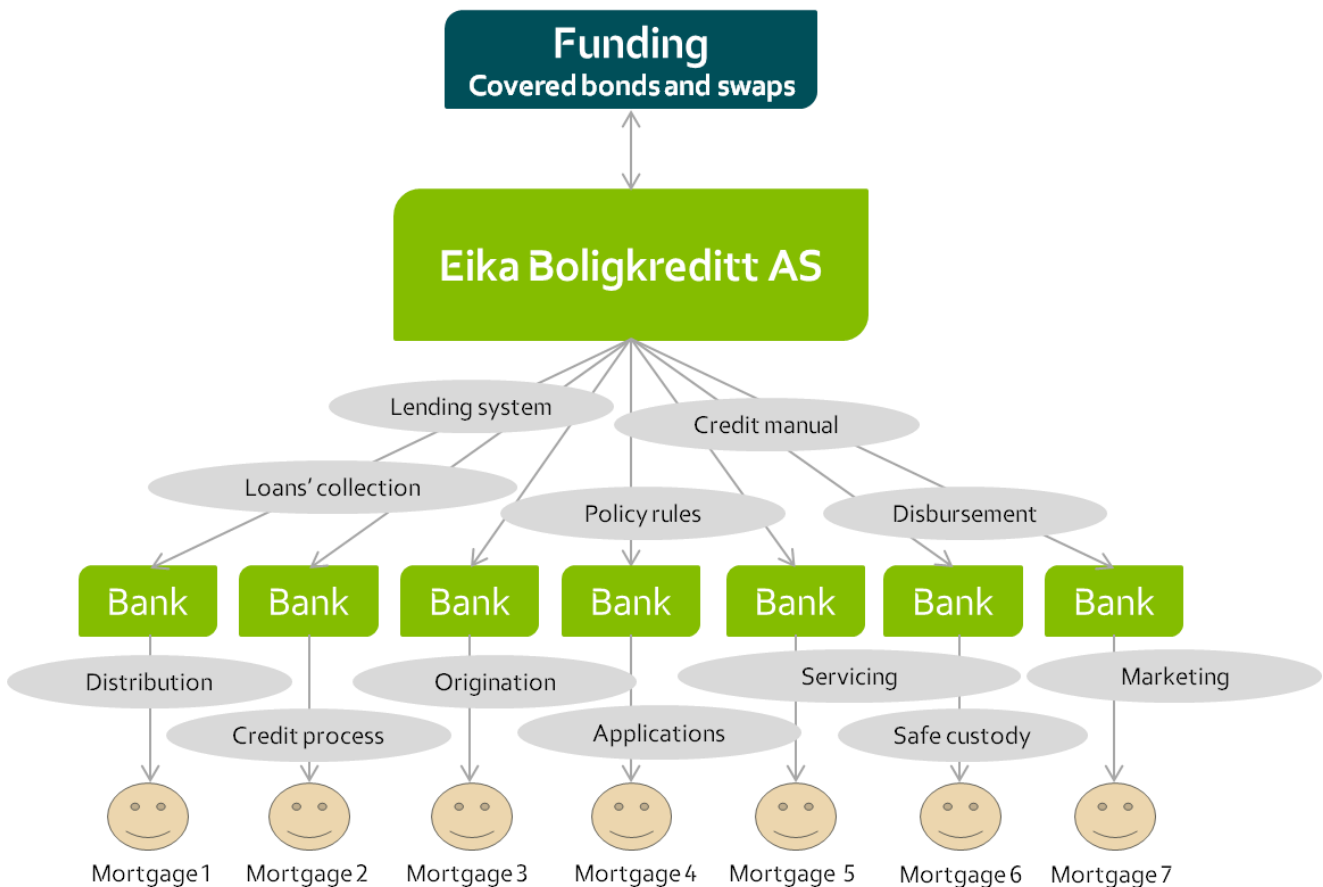
EBK is licensed as a credit institution and entitled to raise loans in the market through the issuance of covered bonds. Norwegian regulations for covered bonds were adopted in 2007, and this type of bond has become an important source of financing for the lending activities of banks and credit institutions. Concentrating funding activities relating to covered bonds in EBK has secured the owner banks a player in the bond market which possess the necessary qualifications to achieve competitive terms for borrowing both in Norway and internationally.

## 2 COMPANY STRUCTURE AND OPERATIONS

Mechanisms for providing the company with support from the owner banks have been established. These comprise the obligations resting on the owner banks to provide the company with liquidity and capital as and when required. The owner banks exercise a dynamic ownership of EBK. This will ensure an annual adjustment of the shareholding of the individual bank and OBOS so that it corresponds to the owner bank's share of the residential mortgage portfolio in EBK.

For EBK to be active as an issuer in both Norwegian and international financial markets, its covered bonds must have an international rating. An international rating from Moody's Investors Service (**Moody's**) gives EBK the opportunity to diversify its financing and to obtain funding at the best terms available in the market. The owner banks are prevented from issuing covered bonds directly but, through EBK, they can nevertheless access very favourable financing and maintain their competitiveness in relation to large Norwegian and international banks.

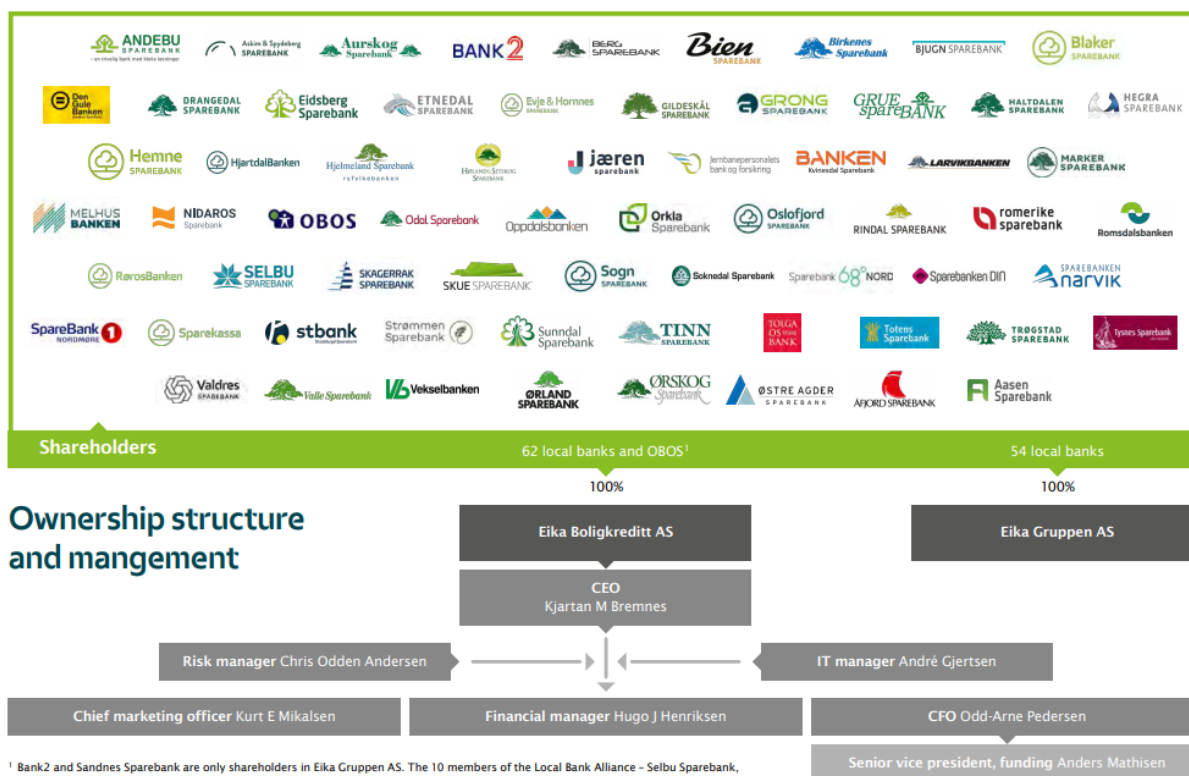
Figure 1 The company's area of operation



The owner banks are EBK's local representatives as distributors. They make all the arrangements related to providing residential mortgages. That includes processing mortgage applications, establishing the loan, amending existing mortgages and borrowing, and so forth. As a result, a residential mortgage transferred to EBK will be wholly perceived by the mortgagee as one taken out with the owner bank, because it will always be the mortgagee's point of contact for the mortgage. EBK is responsible in the mortgage process for operating the IT system, credit policy and disbursements.



Figure 2 Ownership structure in the Eika Alliance



EBK is organised in five departments:

- lending
- funding and investment
- marketing
- accounting and back office
- risk management and compliance.

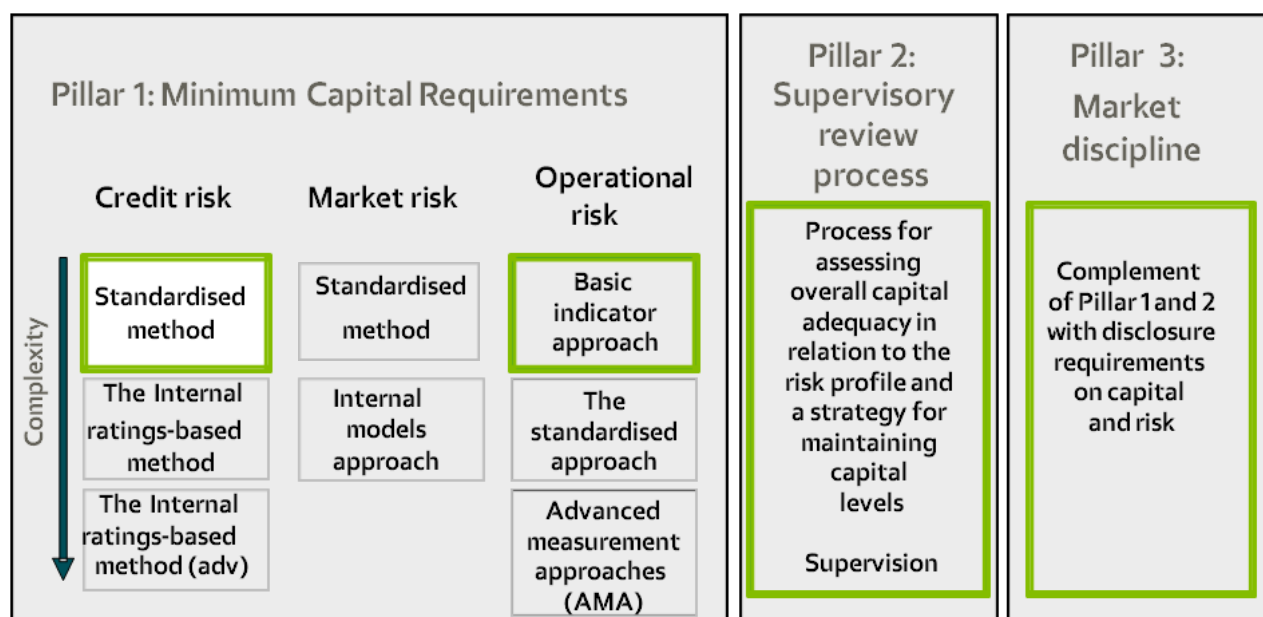
Company staffing at 31 December 2021 was 19 full-time equivalents. In addition, services are provided by Eika Gruppen in such areas as human resources, payroll, legal affairs, accounting and marketing. EBK's IT platform is also supplied by Eika Gruppen.

### 3 CAPITAL ADEQUACY STANDARDS

Regulations for capital adequacy build on standards for calculating capital adequacy established by the Bank for International Settlements (BIS). The purpose of the capital requirement regulations (CRR) is to strengthen the stability of the financial system through

- more risk-sensitive capital requirements
- better risk management and control
- closer supervision
- more information to the market.

Figure 3 Basel II pillars



When calculating capital requirements, the company utilises the standardised method for credit risk and the basic indicator method with regard to operational risk. This means that the calculation of capital requirements for these risks accords with the categories and risk weighting rules in the CRR.

#### PILLAR 1

Pillar 1 addresses minimum capital adequacy requirements related to credit, market and operational risk. It also covers capital adequacy related to the creditworthiness of counterparties to derivatives – ie, the risk of credit valuation adjustment (CVA risk).

#### PILLAR 2

Pillar 2 addresses a process for assessing EBK’s total capital requirements in relation to its risk profile, including the capital requirement for risks not covered by Pillar 1. This capital requirement is assessed on the basis of two main elements – intrinsic risks based on the risk level viewed in a 12-month perspective, and the capital requirement viewed in a forward-looking perspective as the basis for the company’s capital targets. The Financial Supervisory Authority of Norway (FSA) issued a decision on EBK’s Pillar 2 requirement on 4 September 2017.<sup>1</sup> An extract from and summary of the content in this decision is presented below.

*Eika Boligkreditt must have assets over and above the minimum and buffer requirements corresponding to at least 0.5 per cent of the calculation basis (Pillar 2 requirement) for risks which the enterprise is exposed to and which are not, or only partly, covered by Pillar 1. The Pillar 2 requirement must be covered by core tier 1 capital.*

The Pillar 2 requirement is enterprise-specific and will vary between banks and credit institutions in accordance with the risk in each enterprise.

<sup>1</sup> The FCA’s decision can be found here (in Norwegian only): <https://www.finanstilsynet.no/offentliggjoring-av-finanstilsynets-vedtak-om-pilar-2-krav-for-enkeltbanker/vedtak-om-kapitalbehov-i-eika-boligkreditt-as/>

## PILLAR 3

Pillar 3 is intended to supplement the minimum requirements in Pillar 1 and the regulatory follow-up specified in Pillar 2. It will help to enhance market discipline through requirements for the publication of information which make it possible for the market, including analysts and investors, to assess the enterprise's risk profile and capitalisation as well as its management and control. The publication requirements are particularly important when players can make greater use of their own systems and methods for calculating their capital requirement.

The capital requirement and targets are assessed on the basis of the international Basel II and Basel III regulations on capital adequacy as specified in the Act on Financial Institutions and the CRR. Pursuant to section 13, sub-section 6 of the Act on Financial Institutions, a financial institution must at all times have a primary capital (tier 2 capital) which is acceptable in relation to the risk and scope of the institution's business. This must be assessed for both the immediate future and the long term. Capital adequacy must accordingly be higher than the minimum requirement of eight per cent in total and applicable buffer requirements, as specified in detail in chapter 14 of the Act on Financial Institutions. The FSA will evaluate both EBK's capital target and the documentation of the assessments on which the board's conclusions are based.

## RECOVERY PLAN WITH CAPITAL MEASURES

The company has established contingency and recovery measures for capital adequacy in its recovery plan, which is intended to help ensure that good processes are in place for capital management. EBK's owner banks are all subject to capital requirements and all have good solvency. The owner banks are committed by agreements to participate in issues to strengthen the company's capital. Each owner bank's capitalisation commitment is restricted primarily to its pro rata share of capital issues, which is calculated on the basis of each owner bank's share of the company's bank financing.

## 4 OVERALL RISK AND CAPITAL MANAGEMENT

### RISK MANAGEMENT IN EBK

Responsibility for conducting the company's overall management and control is organised as follows.

Figure 4 Governance and control



► Instructions, conditions and power of attorney      ◀ Formal reports

EBK has established a framework for management and control through risk policies determined by the board of directors, with quarterly reporting of status and developments. Overall professional responsibility for risk management in the company lies with the chief executive. The company's attention will be focused on maintaining sufficient resources to pursue risk management and compliance, and will assess available expertise and capacity on a continuous basis.

Quarterly risk and compliance reporting is conducted to provide an overview of exposure in relation to established parameters in the company, allowing the executive management and the board to verify that risk exposure falls within the defined willingness to accept risk. This reporting quantifies and assesses all main risks relevant to the company, including strategic, credit, counterparty, market, liquidity and refinancing, and operational risk.

A good internal control regime depends on entrenchment in the whole organisation, from the individual employees to the executive management and the board. PricewaterhouseCoopers is the company's internal auditor.

## ICAAP

The business is required pursuant to section 13, sub-section 6 of the Act on Financial Institutions to conduct an internal capital adequacy assessment process (ICAAP). This process involves assessing capital requirements in relation to the company's goals, policies, current and anticipated risk exposures, and applicable risk parameters and regulatory provisions. The FSA's modules for risk-based supervision, together with methods and stress tests which follow from the FSA's circular 12/2016 with appendices, provide the assumptions to the extent that they are suitable. Furthermore, the ICAAP is intended to help provide a shared understanding of the risk picture in the company and provide opportunities for evaluating risk in relation to the quality of management and control. That provides a basis for determining the capital targets. The company's internal liquidity adequacy assessment process (ILAAP), which covers liquidity and financing risk, is conducted as part of ICAAP and reported on in the same document.

Estimated budgets and forecasts for three years ahead are prepared by the management. On the basis of budgets and forecasts of anticipated developments in the company, the risk management and compliance department calculates capital needs for the coming three years.

The department analyses capital requirements in a forward-looking perspective by conducting stress tests with what would be a reasonable but serious crisis scenario with an economic setback, and analyses uncertainty related to expected financial developments affecting the capital requirement in the short term. These scenarios are intended to reflect a worst-case condition for EBK.

The preliminary ICAAP report is important for the board's assessment that the Company has adequate level of capital and liquidity, pursuant to section 3, sub-section 4 of the Act on Private Limited Liability Companies and possible opportunities to pay dividend, requirements for additional capital and so forth. The board process involves reviewing and discussing important assumptions in the ICAAP analysis, including

- significant assumptions in the budget and the three-year forecast
- an assessment of whether the stress tests are sufficiently conservative to cover a worst-case scenario
- an assessment of the capital adequacy – in other words, how much capital the company ought to have, including how large a buffer the board finds prudent/desirable.

Contributions from the initial ICAAP process, with assessments from the final board meeting for the year, and the final annual financial statements, form the basis for updating the ICAAP calculations. A report is prepared to summarise the company's ICAAP and ILAAP work. The final ICAAP is approved by the board and submitted to the FSA on request and every third year at a minimum.

## 5 RISK APPETITE AND CAPITAL POLICY

Risk appetite determines the level of risk the board is willing to accept, and represents an acceptable balance for the board between growth, risk and return.

The board assesses the business and sees to it that the company has a primary capital which is proportionate to the risk in the business being conducted. The level of the board's risk appetite is determined in relation to the size of the possible loss of primary capital for the company in the stress scenario. The company operates with low, moderate and high levels of risk. Its clear starting point is to be a low-risk company.

**Table 1 The company's risk appetite**

Risk type	Risk appetite
Strategic risk	Low
Credit risk on lending	Low
Counterparty risk	Low
Market risk	Moderate
Financing and liquidity risk	Moderate
Operational risk	Low

Requirements for good management and control are set in all risk areas, and management is required to see to it that risk management helps to keep overall risk in line with the company's risk appetite. Given the company's overall risk profile, it expects capital requirements to be low over and above the minimum level required.

### CAPITAL AND BUFFER REQUIREMENTS

The company has updated its capital targets to ensure that they are adequate to meet the regulatory minimum requirements, the enterprise-specific Pillar 2 requirement and applicable buffer requirements for capital. An assessment conducted on the basis of the company's ICAAP result has found that the company's Pillar 2 requirement is adequate to meet the capital requirement for risks not covered by Pillar 1. The company has resolved to meet capital targets in line with the table below.

**Table 2 Capital targets\* for Eika Boligkreditt in the ICAAP period**

Capital targets	31 Dec. 2021	30 June 2022	31 Dec. 2022	30 June 2023
Core tier 1 capital ratio	12.0%	12.5%	14.5%	15.0%
Tier 1 capital ratio	13.5%	14.0%	16.0%	16.5%
Tier 2 capital ratio	15.5%	16.0%	18.0%	18.5%

\*Including EBK's Pillar 2 capital requirement and management buffer.

Should the need for capital change, the shareholder agreement with the owner banks provides considerable predictability over the provision of capital from the owner banks. The company's capital targets are to be adjusted from 31 December 2022, since the systemic risk buffer is being increased from three to 4.5 per cent. Account has also been taken of two increases of 0.5 per cent in the countercyclical capital buffer from 30 June 2022 and 31 December 2022 respectively, plus a further potential 0.5 per cent increase in the countercyclical capital buffer from 30 June 2023.



Combined buffer requirements which exceed the company's minimum requirements must be met with core tier 1 capital, and comprise system-risk, capital-conservation and countercyclical buffers. A common denominator for the buffer requirements is the restrictions imposed on opportunities to make dividend and bonus payments in circumstances where the company fails to satisfy the requirements.

**Table 3 Capital buffer requirements at 31 December 2021 (amounts in NOK thousand)**

Buffertypes	Core tier 1 requirements	
Capital conservation buf	2.5%	932 398
Systemical risk buffer	3.0%	1 118 877
Countercyclical buffer	1.0%	372 959
<b>Combined buffer requirements</b>		<b>2 424 234</b>

The company had a combined buffer requirement of about NOK 2.4 billion at 31 December 2021, which is covered by core tier 1 capital.

## 6 CAPITAL

The company applies the standardised method for calculating capital requirements for credit and market risk, and the basic indicator method for calculating operational risk. In addition, capital requirements are calculated for risk related to weakened creditworthiness at counterparties to derivatives (CVA risk) in pillar 1. The standardised method for credit risk is used in calculating capital requirements for investments in liquid securities (hereafter termed market risk).

Pursuant to the CRR, the following weighting rules are significant for credit risk in the company:

Credit risk: commitments	Risk weighting	Assessment of capital in relation to risk
Residential mortgages secured on the property with an LTV of at least 80 per cent, including mortgages held by residential cooperatives	35%	Credit risk
Mortgage loan approvals and partly disbursed loans with an LTV of at least 75 per cent. Conversion factors of 20 and 50 per cent	35%	Credit risk
Bank deposits without fixed terms	20%	Counterparty risk
Derivatives, depending on rating	20%/50%	Counterparty risk
Repurchase agreements	20%	Counterparty risk
Local and regional government, including local authorities and county councils	20%	Market risk
Covered bonds	10%	Market risk
Government securities, multilateral development banks, foreign regional authorities and international organisations	0%	Market risk

Capitalised assets and other credit risk are basically weighted at 100 per cent unless special rules have been specified.

Calculating the capital requirement for operational risk using the basic indicator method means that the capital requirement is determined in relation to the company's net interest income and other

revenues. Assessment of the operational risk is based on incidents experienced, events in the rest of the banking industry, and intrinsic risks.

Calculating the capital requirement for counterparty risk, including the risk of a reduction in the counterparty's creditworthiness (CVA risk) is calculated in accordance with the standardised method for CVA risk pursuant to the CRR. Calculated on the basis of the counterparty's creditworthiness, this supplementary requirement is known as the credit valuation adjustment (CVA).

On the basis of an overall integrated risk profile, including exposure and the company's management control systems, the most significant risk types for the company are calculated and assessed in the following table.

**Table 4 Capital adequacy status at 31 Dec 2021 (amounts in NOK thousand)**

<b>Capital status</b>	<b>31 Dec. 2021</b>
Share capital	1 225 497
Share premium	3 384 886
Other paid-in equity	477 728
Other equity	573
<b>Total equity capital</b>	<b>5 088 684</b>
Fund for unrealised gains	47 895
Intangible assets	(1 852)
Prudent valuation	(25 584)
<b>Total core tier 1 capital</b>	<b>5 109 143</b>
Hybrid capital	575 000
<b>Total tier 1 capital</b>	<b>5 684 143</b>
Subordinated loan capital	724 342
<b>Total tier 2 capital</b>	<b>6 408 485</b>
<b>Risk-weighted assets and capital adequacy ratio</b>	
Credit risk	35 069 086
CVA risk	1 991 205
Operational risk	235 614
<b>Total risk-weighted assets</b>	<b>37 295 905</b>
Capital requirement corresponding to 8% of risk-weighted assets	2 983 672
Surplus equity and subordinated capital	3 424 813
<b>Core tier 1 capital ratio</b>	<b>13.7 %</b>
<b>Tier 1 capital ratio</b>	<b>15.2 %</b>
<b>Tier 2 capital ratio</b>	<b>17.2 %</b>

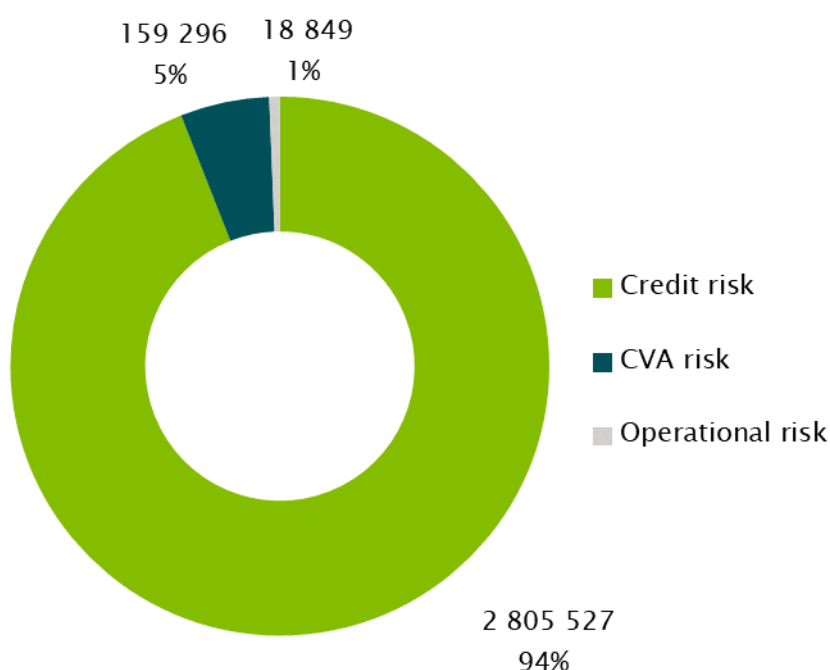
The company's capital adequacy status at 31 December 2021 comprised a core tier 1 capital adequacy of 13.7 per cent, a tier 1 capital ratio of 15.2 per cent and a tier 2 capital ratio of 17.2 per cent.

## SUMMARY OF MINIMUM CAPITAL REQUIREMENT

Table 5 Capital adequacy by risk type (amounts in NOK thousand)

Capital status	31 Dec. 2021
Core tier 1 capital ratio	13.7%
Tier 1 capital ratio	15.2%
Capital ratio	17.2%
Credit risk	2 805 527
CVA risk	159 296
Operational risk	18 849
<b>Sum Pillar 1</b>	<b>2 983 672</b>

Figure 5 Capital requirements on Pillar 1 (amounts in NOK thousands)



## LEVERAGE RATIO

The Ministry of Finance has set the requirement for the leverage ratio which applies to credit institutions, and thereby to EBK, at three per cent from 30 June 2017 (the CRR/CRD IV regulations). The leverage ratio must be calculated using the following formula and expressed in per cent:

$$\text{Leverage ratio} = \frac{\text{Capital measure}}{\text{Exposure measure}}$$

The capital measure comprises tier 1 capital in accordance with article 429 of the CRR. The leverage ratio requirement supplements the capital adequacy requirement calculated on the risk-weighted balance sheet and is intended to act as a safeguard against setting the calculation basis too low when calculating capital adequacy.

When calculating the leverage ratio, today's reporting standard does not permit collateral from derivative counterparties to be taken into account when calculating derivative exposure. In addition, the amount must be calculated using the current exposure method. That has unfortunate effects for EBK, and means that the indicator fails to provide a good picture of the actual risk associated with an irresponsible increase in debt. It is actually the case that the calculation method punishes financial institutions with agreements on receiving collateral for the increased market value of derivatives. EBK has therefore also carried out calculations of the leverage ratio which show net derivative exposure calculated in accordance with the standardised method pursuant to the CRR.

**Table 6 Leverage ratio at 31 December 2021**

<b>Leverage ratio</b>	<b>31 Dec. 2021</b>
Balance-sheet items (excluding derivatives)	109 465 092
Change in value of financial instruments at fair value	(27 436)
Derivative exposure (current exposure method)	8 589 532
Derivative exposure (standardised method)	3 866 191
Loan commitments to customers	122 485
Total on- and off-balance sheet exposures (c.e. method)	118 149 672
Total on- and off-balance sheet exposures (std. method)	113 426 332
Tier 1 capital	5 684 143
<b>Leverage ratio - tier 1 (current exposure method)</b>	<b>4.81 %</b>
Leverage ratio - tier 1 (standardised method)	5.01 %

EBK has estimated its future leverage ratio on the basis of the FSA's calculation method, and fulfils the specified requirement of three per cent with a good margin.

## **7 STRATEGIC AND BUSINESS RISK**

*Definition: Strategic and business risk are defined as the risk of weakened profitability owing to changes in competitive terms, operating parameters and external factors, and also includes political and regulatory risk. This includes the risk of a lack of correlation between revenue and expenses over time. It is considered appropriate to assess business risk in relation to strategic risk. Strategic and business risk also cover rating, reputational, owner, and reward and incentive risk.*

### **RISK APPETITE AND EXPOSURE**

Strategic and business risk in the company must be low and is not included in the calculation of the Pillar 1 capital requirement. EBK has established a good business strategy and comprehensive risk policies for managing strategic risk. Goals have been set in the business strategy, and other policies have overarching parameters related to risk appetite. The company's business concept is to improve the competitiveness of the banks and reduce their risk by issuing covered bonds in the Norwegian and international financial markets. Through professional cultivation of the financial markets, good international ratings and high-quality collateral, EBK will thereby secure long-term and competitive funding for the owner banks. Achieving this strategy is based on the following priority areas:

- optimal use of covered-bond financing
- good international ratings
- profitability and cost-effectiveness
- prudent risk
- quality at every level.

EBK's reputational risk relates most significantly to the company as a source of funding. It has rated covered bonds, and a reduction in rating would be damaging. The Moody's rating agency assesses the owner banks as a single category as well as the quality of the company's cover pool. The assessment of the owner banks is particularly vulnerable, since this depends on how far the Norwegian government would be willing to rescue them in a crisis. Should a downturn occur, fewer investors would invest in the company's covered bonds and would require a compensation in the credit spread if they opt to invest.

The company is exposed to reputational risk related to Eika as a brand. Adverse developments in one of the Eika companies or the banks could give rise to detrimental rumours and consequences which EBK must deal with. In addition, the company is exposed to the effects of political changes. A significant proportion of market-based issues by Norwegian bond issuers are conducted in currencies other than the Norwegian krone. Possible political developments in Norway have an impact on the international reputation of Norwegian issuers. That also relates to the willingness of the Norwegian authorities to support Norwegian banks in crises. Decisions taken by the Norwegian government have historically had a direct effect on the financing opportunities for Norwegian issuers and on credit spreads. Nevertheless, the risk associated with these considerations is greatest internationally and for state-owned issuers, and such political/reputational risk is particularly high in periods when the company needs to refinance maturing bonds with an order of magnitude which cannot be accommodated by the Norwegian market.

## MANAGEMENT AND CONTROL

Good policy processes are important for ensuring management and control of business and strategic risk. EBK has an annual cycle in which revision of business and risk policies plays a fixed role. Part of the management and control of business risk includes changes to the company's guarantee agreements with the shareholders.

Focusing attention on good risk management, compliance, business ethics, whistleblowing, managing conflicts of interests, and other policies, strategies and routines will help the company to handle processes in a positive way.

## CAPITAL REQUIREMENTS

An assessment of capital requirements for strategic and business risk is included in the assessment of Pillar 2 risk not covered by Pillar 1. No internal capital requirement related to strategic and commercial risk has been allocated.

## 8 CREDIT RISK

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*Definition: Credit risk is the risk of loss posed by customers or counterparties failing to meet their payment obligations. Credit risk affects all claims on customers/counterparties, lending, credits, guarantees, open trades, residential mortgage approvals to customers, and the counterparty risk arising through derivatives and foreign-exchange contracts. Credit risk depends in part on the size of the claim, the time to maturity, the probability of default and possibly the value of collateral. Credit losses can also be incurred as a result of operational errors.*



## **RISK APPETITE AND EXPOSURE**

The credit risk related to lending must be low. In its credit policy and lending activity, EBK will take account of the applicable regulations which govern credit institutions issuing covered bonds at any given time. See section 11, sub-section 5 of the Act on Financial Institutions. The company's policy for credit risk on lending is intended to minimise the risk of defaults and to keep credit risk below the level in comparable companies. This will ensure that the company's bonds are a preferred choice for investors.

The company's credit risk is strictly limited through credit guarantees from the distributor banks and the supplementary agreement for mortgages with a loan-to-value (LTV) ratio greater than 60 per cent, as well as the company's credit risk policy and credit manual. Maximum limits have been set for the proportion of fixed-interest mortgages in EBK, whereby the maximum allowable share of such mortgages for an individual bank is 17.5 per cent of the mortgages established/transferred to EBK. The limit for the overall mortgage portfolio is 15 per cent. In this context, a fixed-interest mortgage means one with a fixed rate of interest where the fixed-interest term has more than two years left to run. EBK's credit risk is primarily related to balance sheet items, but it is also exposed to off-balance sheet credit risk. EBK uses the standardised method to calculate capital requirements for credit risk. Credit risk accounted for 93 per cent of the company's capital requirement under Pillar 1 at 31 December 2021. This chapter deals with credit risk related to residential mortgages. Other credit risk is handled under counterparty and market risk.

The company reports pursuant to the International Financial Reporting Standards (IFRS), and measures mortgages at fair value. The market value of floating-rate mortgages is measured as equal to amortised cost. The fair value of fixed rate loans is correspondingly measured as equal to amortised cost adjusted for the difference between the loans' fixed rate of interest and the applicable fixed interest rate offered at the balance sheet day. The fair value of mortgages with a fixed interest rate is determined pursuant to the regulations on credit agreements. The fair value of each individual fixed-interest mortgage is determined on the basis of the discount or premium which the customer will receive or have to pay in the event of early redemption. This value is therefore contingent on interest-rate developments, and value fluctuations will affect the financial results. The company also provides mortgages for residential cooperatives.

## **GENERAL CONSIDERATIONS RELATED TO CREDIT RISK IN EBK**

EBK has never experienced defaults with instalments overdue by more than 90 days on its lending, or losses related to its mortgage business<sup>2</sup>. The European Banking Agency (EBA) published new recommendations in September 2016 on the definition of non-performing loans, which came into force on 1 January 2021. Previously, the general rule was that loans were regarded as non-performing if a claim had fallen due more than 90 days earlier and the amount was not insignificant. Pursuant to the new EBA recommendation, the company is obliged to conduct various additional assessments related to the likelihood of default. These assessments must take account of the customer's overall debt liabilities, possible cross-exposure from loans to the same debtor, the level of materiality limits and the quarantine period after discharge. The guarantee structure between EBK and its distributors reduces the company's credit risk, and it therefore also expects no bad debts in the future. Consequently, the company has never taken an impairment charge on mortgages.

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<sup>2</sup> Pursuant to article 178 (1) of the CRR, a loan is to be regarded as being in default on the part of a specific borrower if one of the borrower's significant credit commitments to the institution fell due more than 90 days earlier.

**Table 7 Credit risk: specification of risk-weighted volume and capital requirement (amounts in NOK thousand)**

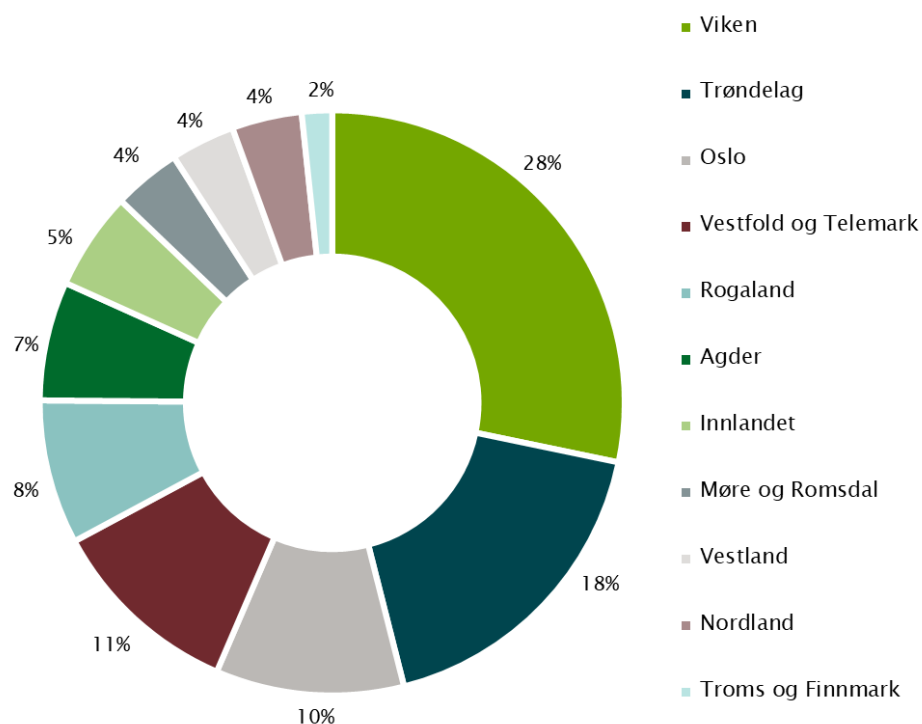
Credit risk	Article of the	CCF	Balance sheet	Off-balance sheet items	Risk Weight	Calculation basis	Capital requirement
Government bonds	114		499 008		0%	-	-
Public sector entities	116 (4)		1 241 050		0%	-	-
International local/regional government	115		2 630 427		0%	-	-
Local and regional government (Norwegian)	115		4 554 758		20%	910 952	72 876
Multilateral development banks	117		797 516		0%	-	-
International organisations	118		-		0%	-	-
Banks and institutions (deposits in other banks)	120		971 065	0	20%	194 213	15 537
Credit guarantees from the shareholders	120			1 376 770	20%	275 354	22 028
OTC derivatives AA-rating (standardised method*)	120			2 261 371	20%	452 274	36 182
OTC derivatives A-rating (standardised method*)	120			1 604 820	50%	802 410	64 193
Claims on corporates (unrated)	122		59 213		100%	59 213	4 737
Claims or contingent claims secured on real property	125		91 363 151	(1 376 770)	35%	31 495 233	2 519 619
Loan commitments to customers	125	0.5		16 773	35%	2 935	235
Loan commitments to customers (duration 30 days)	125	0.2		570 493	35%	39 934	3 195
Covered bonds	129		7 267 609		10%	726 761	58 141
Other assets	134		17 753		100%	17 753	1 420
Exposures in default (secured on real property)	127		44 534		100%	44 534	3 563
Other assets (deferred tax asset)	48 (4)		19 008		250%	47 520	3 802
<b>Total credit risk</b>			<b>109 465 092</b>	<b>4 453 456</b>		<b>35 069 086</b>	<b>2 805 527</b>

\*Pursuant to articles 276-282 of the CRR.

**Table 8 Credit risk by commitment category (amounts in NOK thousand)**

Claims	Capital requirement
Claims on regional and local government	72 876
Claims on institutions	137 940
Claims on corporates	4 737
Claims or contingent claims secured on real property	2 526 611
Covered bonds	58 141
Other items	5 222
<b>Total capital requirement credit risk</b>	<b>2 805 527</b>

**Figure 6 Residential mortgages by Norwegian region as % of total mortgage volume at 31 Dec 2021**



Having the owner banks as the distributor channel means that customers are well spread geographically. The company's customers are primarily private individuals, each of whom accounts for a relatively small proportion of the company's total portfolio.

**Table 9 Loans and investments by commitment type and residual time to maturity (amounts in NOK thousand)**

Expected maturities	31 Dec. 2021	0-1 months	1-3 months	3-6 months	6-12 months	1-3 years	3-5 years	5-10 years	Over 10 years
<b>Lending:</b>									
Residential	86 552 836	464	1 125	3 153	22 803	231 124	574 956	3 350 614	82 368 596
Residential cooperatives	4 826 197	-	11	-	516	8 630	33 241	171 769	4 612 030
<b>Investments:</b>									
Government bonds	499 008	-	249 768	249 240	-	-	-	-	-
Covered bonds	7 267 609	-	-	-	558 883	5 955 695	753 030	-	-
Local or regional authority (Norwegian)	4 554 758	2 088 788	1 155 450	-	260 243	1 050 276	-	-	-
Government guaranteed etc.	797 516	-	-	-	-	797 516	-	-	-
Public sector entities	1 241 050	62 280	-	-	60 616	818 955	299 200	-	-
Local or regional authority (foreign)	2 630 427	1 242 526	753 638	200 312	125 095	202 302	106 555	-	-
Bank deposits	970 742	970 742	-	-	-	-	-	-	-
<b>Total</b>	<b>109 340 143</b>	<b>4 364 799</b>	<b>2 159 992</b>	<b>452 705</b>	<b>1 028 157</b>	<b>9 064 499</b>	<b>1 766 982</b>	<b>3 522 383</b>	<b>86 980 626</b>

Table 9 shows that EBK has a good spread of maturities on its mortgages and other lending, which helps to reduce the company's credit risk.

EBK has a diversified mortgage portfolio in terms of geographical distribution and individual customers.

## CREDIT RISK – THE STANDARDISED METHOD

As an issuer of covered bonds, EBK must ensure that all loans and advances in its cover pool comply with credit quality step 1 or 2. When assessing ratings, credit rating agencies specified by Commission implementing regulation (EU) 2016/1799<sup>3</sup> and pursuant to FSA circular 18/2016<sup>4</sup> are used to determine the credit quality step. Where a counterparty has been rated by two or more of these agencies, the credit quality step will be determined by the second best rating pursuant to article 138 (f) of the CRR. If the counterparty is rated by only a single accredited agency, that rating will be used.

- States and central banks: long-term ratings by an accredited agency are used to assign the credit quality step.
- Multilateral development banks and international organisations: only counterparties awarded a zero per cent risk weighting pursuant to articles 117 and 118 of the CRR.
- Local and regional government: long-term rating is used for local authorities and county councils. Unrated local authorities are treated as AA-rated counterparties
- Institutions: long-term rating of institutions rated by approved rating agencies will be utilised to determine the credit quality step for financial institutions.
- Enterprises: long-term ratings from an accredited agency are used to assign the credit quality step, with a 100 per cent risk weighting applied to relevant claims if no approved rating exists.

<sup>3</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1479307277253&uri=CELEX:32016R1799>

<sup>4</sup> [https://www.finanstilsynet.no/contentassets/631324a179404e31a6dcc72c73da848f/rundskriv\\_18\\_2016.pdf](https://www.finanstilsynet.no/contentassets/631324a179404e31a6dcc72c73da848f/rundskriv_18_2016.pdf)

## GUARANTEES

Pursuant to the covered bond regulations, all residential mortgages transferred to EBK must have an LTV ratio of a maximum of 75 per cent at origination. A further requirement is that collateral must be secured in completed residential properties or holiday homes. EBK's collateral requirements satisfy the provision in the CRR calling for 35 per cent risk weighting of mortgages and advances with collateral in residential properties. Documentation of value must be an approved appraiser's valuation, an estate agent's valuation, a purchase contract or a valuation by Eiendomsverdi AS, which must not be more than six months old when the mortgage is approved.

Upon transfer to Eika Boligkreditt, the owner banks assume mandatory guarantees for the mortgages they have transferred. The main features of these guarantees are as follows.

1. *Case guarantee*, covering the entire amount of the mortgage over the period from the owner bank's request for payment until the mortgage's collateral has been perfected (legally registered) and the custody department of the owner bank has checked the documentation.
2. *Loss guarantee*, where the bank undertakes to cover 80 per cent of a loss recognised on a mortgage. The loss guarantee is limited to one per cent of the bank's mortgage portfolio in EBK, with a minimum of NOK 5 million, or the whole portfolio if it is smaller than NOK 5 million. The remainder not covered by the loss guarantee may be offset by EBK against its commission payments to all the owner banks, calculated pro rata on the basis of each bank's share of the mortgage portfolio at the point when the loss is recognised. The offsetting right applies for a period of 12 months.

Residential mortgages with an LTV ratio greater than 60 per cent of the original valuation are covered by a supplementary agreement. This gives the owner banks a deadline of 31 days for transferring mortgages which exceed an LTV ratio of 75 per cent or for documenting the updated collateral value of the relevant mortgaged residence if a not insignificant depreciation in value has occurred. To the extent that the relevant mortgage remains part of the cover pool after the deadline, the owner bank undertakes to provide EBK with a credit limit corresponding to the total of those parts of the mortgage which exceed a 75 per cent LTV ratio.

An overview was established at 31 December 2021 of the outstanding residential mortgage portfolio compared with the valuation of the mortgage collateral at origination. This shows that the company has mortgages within the following collateral bands.

**Table 10 Distribution of loan-to-value (LTV) at origination (amounts in NOK thousand)**

Loan to value (LTV)	Origination values			
	Residential	Residential cooperatives	Total	Share of total
0 <= 40	13 250 634	3 577 963	16 828 597	18%
40 < x <= 50	13 911 449	424 475	14 335 925	16%
50 < x <= 60	37 577 093	730 622	38 307 715	42%
60 < x <= 75	21 906 796	-	21 906 796	24%
<b>Total</b>	<b>86 645 972</b>	<b>4 733 060</b>	<b>91 379 032</b>	<b>100 %</b>
<b>Average LTV</b>	<b>53.8 %</b>	<b>25.6 %</b>	<b>52.3 %</b>	

The collateral for EBK's lending is regarded as very good and the risk is considered to be small given the guarantee structure, including the supplementary agreement for those mortgages given with an LTV ratio exceeding 60 per cent.

## CONTINUOUS VALUATION OF COLLATERAL

The portfolio is indexed on a quarterly basis against market values estimated by Eiendomsverdi AS, whose weighting model calculates a market value based on objects sold over time in the immediate vicinity, adjusted for price developments. It also takes account of the valuations registered by EBK on the mortgaged property at origination. Were residential property prices to fall, the company would have a good margin before possible repossessions might lead to loss. The table below presents indexed market values for EBK's mortgage portfolio.

**Table 11 Distribution of indexed loan-to-value (LTV) (amounts in NOK thousand)**

Loan to value (LTV)	Indexed values			
	Residential	Residential cooperatives	Total	Share of total
0 <= 40	23 136 737	3 752 267	26 889 004	31%
40 < x <= 50	21 390 269	419 572	21 809 841	26%
50 < x <= 60	21 119 803	395 219	21 515 022	24%
60 < x <= 75	19 515 769	127 376	19 643 145	19%
x > 75	1 483 393	38 627	1 522 020	1%
<b>Total</b>	<b>86 645 972</b>	<b>4 733 060</b>	<b>91 379 032</b>	<b>100 %</b>
<b>Average LTV</b>	<b>48.9 %</b>	<b>23.1 %</b>	<b>47.5 %</b>	

The indexed LTV at 31 December 2021 was 47.5 per cent, compared with an original LTV of 52.3 per cent. Indexing of residential cooperatives shows an indexed LTV of 23.1 per cent, compared with an original LTV of 25.6 per cent. This indicates that house prices have risen across the board since the mortgages were granted (combined with payment of instalments).

Some mortgages are indexed with a higher LTV than at origination, which might indicate a fall in house prices for objects related to these mortgages.

## RISK OF DEFAULT IN THE COVER POOL

EBK's covered bonds are rated by Moody's. Moody's Collateral Score informs investors about the agency's modelling of the risk of loss related to the credit quality of the cover pool in an Aaa scenario. Higher credit quality corresponds to a lower collateral score. This score determines the level of loss which Moody's estimates will affect investors in the company's covered bonds in the event of default on these, based on the credit quality of the cover pool. The collateral score presents Moody's analysis of the amount of risk-free assets which must be added to the cover pool in order to offset the negative effect of the stress test scenario as defined by the rating agency. For further information, see Moody's methodology for the definition of the collateral score and the way it is calculated. EBK's collateral score was estimated by Moody's to be 1.8 per cent at 30 June 2021,<sup>5</sup> which is a very low figure compared with other global issuers of covered bonds also rated by the agency.

<sup>5</sup> EBK reports an overview of the content of the cover pool to Moody's on a quarterly basis. Against that background, EBK's borrowing programme is analysed by comparison with other borrowing programmes in Europe and the results are published quarterly in Moody's performance overview.



## METHOD FOR CALCULATING WRITE-DOWNS

Pursuant to IFRS 9, provisions for loss are recognised on the basis of expected credit loss given relevant information available on the reporting date. The combination of the residential mortgage portfolio's LTV ratio and the credit guarantees provided by the owner banks means that the standard does not have significant effects for EBK's financial results or equity. On initial recognition in the balance sheet, a provision for loss corresponding to the 12-month expected loss must be made. The 12-month expected loss is the loss expected to be incurred over the life of the instrument but which can be related to events occurring in the first 12 months. If the credit risk for an asset or group of assets is considered to have increased significantly since initial recognition, a provision for loss must be made corresponding to the whole expected life of the asset. EBK has considered that an annual review of such a change is adequate, since EBK does not expect any accounting recognition of losses.

## STRESS TESTS FOR RESIDENTIAL PROPERTY PRICES

EBK conducts stress tests for falls in residential property prices in order to identify the company's mortgage credit risk. The CRR require residential mortgages to have an LTV of at least 80 per cent (60 per cent for holiday homes) before the mortgage can be assigned a risk weight of 35 per cent. If this is not the case, the company's capital requirement will be increased for that part of the mortgage portfolio which must be weighted at 75 per cent<sup>6</sup> rather than 35 per cent when calculating capital requirements. Calculations are carried out when residential property prices fall by 15, 25 and 35 per cent respectively. Before the worst-case scenario with a price fall of 35 per cent could occur, for example, EBK would already have taken a number of steps to improve the quality of its cover pool, including initiating contingency and recovery measures for strengthening overcollateralisation. If certain mortgages in the cover pool acquire an LTV greater than 75 per cent (60 per cent for holiday homes), this part of the mortgage can no longer be included when determining the overall value of the cover pool. That will be significant for the company's compliance with the requirement that covered bond liabilities must be covered by cover assets pursuant to section 11, sub-section 7 of the regulations for financial institutions, and for its obligations related to overcollateralisation.

The company has a solid buffer for the mortgages with an LTV ratio up to 60 per cent at origination (50 per cent for holiday homes) in addition to the supplementary agreement for mortgages with an LTV ratio greater than 60 per cent, and is accordingly well equipped in relation to the risk of a possible fall in residential property prices which breaches the 75 per cent limit pursuant to the covered bond regulations. Reactions to such a fall would generally be swift with the aid of the guarantee structure, the supplementary agreement on residential mortgages with an LTV ratio greater than 60 per cent and the need to comply with legislation on covered bonds. No increased Pillar 2 requirement has accordingly been incorporated for a worst-case scenario with house prices falling by 35 per cent, since the risk associated with a general fall in residential property prices is adequately covered by the company's guarantee structure, by the supplementary agreement on residential mortgages with an LTV ratio greater than 60 per cent and by maintaining requirements for overcollateralisation of the cover pool.

## RESPONSIBLE LENDING AND CLIMATE RISK

Climate changes and environmental challenges not only represent a growing risk, but also an opportunity for change and restructuring. Climate risk can be divided into the transition risk

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<sup>6</sup> The mortgages are assumed to satisfy the requirements for the retail exposures class and can accordingly be weighted at 75 per cent pursuant to the CRR.

associated with the conversion to lower emissions, and the physical risk arising from the actual effects of climate change. In the short term, the transition risk is greater than the physical risk. EBK is exposed to climate risk in its residential mortgage portfolio.

Where transition risk is concerned, it is natural to highlight the company's analysis of its cover pool. This defines three criteria for classifying a mortgage object as being among the 15 per cent most energy-efficient residential units in Norway. These criteria are based on building standards, energy certificates, and refurbishment which improves the energy efficiency of the residential units by at least 30 per cent. See the sustainability and corporate social responsibility (CSR) section of the company's website for further information.<sup>7</sup> The company has conducted this analysis primarily because establishing a status for the climate footprint of the assets financed by the residential mortgages represents a first step towards an ambition of reducing the climate footprint of residential units financed by the company over time. Results from the analysis will be used as input to processes under way in the Eika Alliance with the aim of incorporating climate risk and footprint in its credit processes. Furthermore, the analysis forms a key component in a green framework within which the company can issue green bonds. See further details in chapter 11.

With regard to physical risk, effects of climate change such as floods, landslides, extreme weather, increased precipitation and inundations may cause damage to properties which could in turn reduce the value of the mortgage object in the cover pool. The company is therefore working actively to identify the physical climate risk of the residential units in its cover pool. In the first instance, this work aims to map which residential units are vulnerable to damage from such natural hazards as flood, landslide and extreme weather. Hazard maps are prepared by the Norwegian Water Resources and Energy Directorate (NVE) for quick clay, flooding and landslides in steep terrain, and by the Norwegian Mapping Authority for storm surges (sea levels). Reference is made to the sustainability section of the annual report for an overview of the total loan value of the mortgage collateral in EBK's residential mortgage portfolio which falls within the various hazard-zone categories.

No Pillar 2 supplement has been calculated for climate risk in the residential mortgage portfolio. This is because the transition risk is assessed as low in the short term and because good insurance arrangements for natural perils are in place. In addition, the physical risk is assessed as limited because the climate effects are small in the short term. Efforts are being made to secure further information on the climate risk to residential units in order to increase the accuracy of future assessments.

## MANAGEMENT AND CONTROL

EBK's distribution channel runs through the owner banks. These banks are locally entrenched with a high proportion of loyal customers and good knowledge of their markets. Customer selection through the owner banks is regarded as helping to ensure that the company's customers are generally good and loyal.

The company has established policies for credit risk on mortgages, counterparty risk and capital management, which form the basis for management and control of credit and counterparty risk. The status of compliance with the company's credit policy is assessed continuously, and the position in relation to the approved level of risk acceptance is reported quarterly to the board in the risk and compliance report. Compliance with the credit handbook, including safe custody department

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<sup>7</sup> Links for further information concerning CSR and sustainability: [green bonds](#) and [corporate social responsibility](#)

checks, is monitored on a continuous basis. Overall management and control of risk is described in more detail in chapter 4 above.

## CAPITAL REQUIREMENTS

EBK applies the standardised method to calculate the capital requirement for credit risk. This was calculated to be NOK 2 806 million at 31 December 2021. The capital requirement calculated in accordance with Pillar 1 is considered to meet the potential risk of loss related to credit risk in the portfolio.

## 9 COUNTERPARTY RISK

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*Definition: Counterparty risk is the risk of loss because counterparties are unable to meet their payment commitments and accordingly represent a credit risk. It relates to all claims with counterparties, including guarantees, unsettled transactions and undrawn credits, and to the counterparty risk which arises from exposure to derivatives. Counterparty risk depends in part on the size of the claim, time to maturity, probability of default and value of possible collateral.*

### RISK APPETITE AND EXPOSURE

The company has established a policy for counterparty risk to ensure that overall requirements for management and control of such risk are met. This policy is intended to meet the company's need for control over large exposures, including the total exposure with a single counterparty. It will ensure that counterparty risk is manageable at all times by establishing parameters for such risk, ensuring the establishment of an international swaps and derivatives association (ISDA) with associated credit support annex (CSA) for counterparties to derivatives, and providing a clear division of responsibility and authority.

EBK has established the following risk parameters for counterparty risk:

- maximum limit for total exposure (regulations on large exposures)
- internal maximum limit for total exposure
- entering into derivative contracts and defining maximum exposure to a counterparty.

The company is exposed to counterparty risk through lending, investment of surplus liquidity and derivatives. Attention in this chapter is focused on counterparty risk related to derivatives, bank deposits and repurchase agreements (repo), since this does not belong naturally with the assessment of other risk factors. Counterparty risk is treated as part of credit risk when it relates to lending, and as part of market risk when it relates to investment of surplus liquidity.

- **Counterparty risk related to bank deposits and repo agreements in credit institutions**

EBK uses bank deposits and repurchase agreements when investing surplus liquidity, and is accordingly exposed to counterparty risk in relation to the various banks concerned. Classic repo is regulated under the global master repurchase agreement (GMRA) which, like the ISDA, is an internationally recognised template for regulating bilateral agreements. The company has so far entered into GMRAs with five banks – Nordea, DNB, Danske Bank, Banco Santander and BNP Paribas. In addition, it has entered into a global master securities lending agreement (GMSLA) with SEB in order to be able to enter into swap agreements for securities. Repos and bank deposits must be confined to banks with a low credit risk, and the underlying security must fall within the

requirements for inclusion in the cover pool (minimum credit quality step 2, rating A-/A3 for residual times to maturity of up to 100 days). Parameters for counterparty risk per bank are defined in the company's policy for capital management and in its investment mandate.

- **Counterparty risk related to derivatives**

Activities in EBK are subject to strict regulations for risk exposure, and the company is obligated to refrain from accepting greater interest-rate and foreign-exchange risk than is prudent at any given time.<sup>8</sup> This means that the company uses both interest-rate and foreign-exchange derivatives when borrowing in foreign currencies and/or fixed interest rates in order to keep risk at a minimum. The same applies to hedging interest-rate risk relative to lending at fixed interest rates.

Derivative contracts can only be entered into with counterparties which have a low credit risk, and must fall within the requirements for inclusion in the cover pool (minimum credit quality step 2, rating A-/A3).<sup>9</sup> EBK will only enter into derivative contracts within the framework established by the ISDA. ISDA master agreements with CSA are based on a standardised template utilised by most of the Norwegian covered-bond issuers who enter into derivative contracts. Counterparty risk related to derivatives is reduced through the existing set of agreements, which involves unilateral obligations for EBK's counterparties to provide collateral at specified thresholds, depending on rating and the agreed threshold for receipt of collateral. Where new derivative agreements entered into after March 2017 are concerned, the threshold for provision of collateral is zero. In other words, the counterparty provides collateral from the first krone if the fair value is positive in EBK's favour.

Pillar 1 specifies capital requirements related to counterparty risk through the standardised method for credit risk in the CRR. The company calculates counterparty risk in derivatives using the standardised method.<sup>10</sup> Account is taken of financial collateral in the form of cash and securities<sup>11</sup> when calculating capital requirements related to the counterparty risk in derivatives. At 31 December 2021, the company had the following counterparty exposure in derivatives by rating category.

**Table 12 Counterparty risk in derivatives pursuant to the standardised method (amounts in NOK thousand)**

Counterparty rating	EAD*	Risk classification	Risk weight	Risk weighted assets
AA	2 261 371	1	20 %	452 274
A	1 604 820	2	50 %	802 410
	<b>3 866 191</b>			<b>1 254 684</b>

\*Exposure at default, the company's exposure to derivatives, is calculated as the maximum of the derivatives' potential future exposure and market value less received collateral in cash or securities.

- **CVA risk**

The capital requirements directive (CRD) IV introduced a requirement intended to cover the risk related to changes in the fair value of bilateral derivative contracts which are not traded on a stock exchange.<sup>12</sup> This additional requirement is calculated on the basis of the counterparty's

<sup>8</sup> FOR-2016-12-09-1502. Sections 11-1 and 11-3 of the regulations for financial institutions.

<sup>9</sup> Should the derivatives be downgraded below credit quality step 2, they can still be included in the cover pool providing the counterparty provides satisfactory collateral.

<sup>10</sup> Articles 276-282, CRR.

<sup>11</sup> Articles 205-236, CRR.

<sup>12</sup> Bilateral derivative contracts are also called over-the-counter or OTC derivatives.

creditworthiness and is called the credit valuation adjustment (CVA).<sup>13</sup> The calculation basis amounted to NOK 2 billion at 31 December 2021.

**Table 13 Total calculation basis for counterparty risk related to derivatives, bank deposits and repo at 31 Dec 2021 (amounts in NOK thousand)**

Risk weighted assets	Amount
Bank deposits	194 213
Derivatives	1 254 684
Repurchase agreements (repo)	-
Credit valuation adjustment (CVA)	1 991 205
<b>Total</b>	<b>3 440 102</b>
<b>Pillar 1 capital requirement</b>	<b>8 % 275 208</b>

## MANAGEMENT AND CONTROL

EBK has established a policy and associated parameters for counterparty risk which forms the basis for management and control of this risk in EBK. The status of compliance with the company's policy for counterparty risk is assessed continuously, and the position in relation to the approved level of risk acceptance is reported quarterly to the board in the risk and compliance report.

## CAPITAL REQUIREMENTS

The capital requirement calculated in accordance with Pillar 1 is considered to cover the potential risk of loss related to counterparty risk in the portfolio.

## 10 MARKET RISK

*Definition: Market risk is the risk of loss on the market value of portfolios of financial instruments as a consequence of fluctuations in interest rates, credit spreads and exchange rates. It comprises interest-rate, credit-spread, currency and equities risk.*

*Interest-rate risk in the balance sheet (net interest income) arises from differences between interest terms for borrowing and/or lending, and from borrowing by the company in different markets than those it lends to, so that the borrowing interest rate may change without the company being able to adjust the lending rate equally quickly.*

Market risk in EBK will normally take the form of interest-rate risk in the bank portfolio (net interest income) which arises because of differences between fixed interest rates on assets and liabilities, in addition to the credit-spread risk which the company accepts when investing in securities (the securities portfolio). The company aims to maintain a low to moderate market risk. The company has borrowings in foreign currencies and all significant currency risk related to borrowing is hedged through derivatives. The securities portfolio must not accept unsecured equity or property risk.

## RISK APPETITE AND EXPOSURE

The total risk parameter for interest-rate and credit-spread risk in the balance sheet is five per cent of the company's core tier 1 capital. Overall interest-rate risk in the total balance sheet may not

<sup>13</sup> Article 384, CRR.



exceed 0.75 per cent of the company's core tier 1 capital. The individual investment must not have an interest rate fixed for longer than one year, and the maximum limit for the average duration of the whole liquidity portfolio is 0.3 years. The residual time to maturity for the individual security must be less than 3.5 years, and the average residual time to maturity must be less than two years. Interest-rate risk is stress-tested by looking at a parallel shock up/down of two percentage points in the interest-rate curve, in line with the FSA's methodology,<sup>14</sup> as well as a steepener/flattener shock (short rates down/up and long rates up/down) in the interest-rate curve where the difference between short- and long-term rates changes by two percentage points. Credit-spread risk is stress-tested on the basis of the FSA's method for spread risk<sup>15</sup>, which builds on the methodology in Solvency II for insurance undertakings.

### Assessment of interest-rate risk in the bank portfolio (net interest income)

Interest-rate risk in the bank portfolio will be limited by ensuring that lending on floating interest-rate terms is financed by borrowing or derivatives at floating interest rates, and that lending at fixed interest rates is hedged with derivatives at floating rates. The company will make active use of derivatives to reduce interest-rate risk. Interest-rate risk related to net interest income must be low.

The bulk of the residential mortgages in EBK's portfolio have a floating interest-rate. Pursuant to the Financial Contracts Act, interest rates on such mortgages can be adjusted at six weeks notice in line with the development of the company's borrowing costs. EBK is not subject to such notice in relation to the interest rates it charges to the owner banks. Interest-rate changes can therefore be implemented more quickly, which ensures efficient adjustment to changes in EBK's funding costs.

EBK permits the addition of fixed-rate mortgages to the cover pool, and this is regulated by separate agreements with the banks. EBK establishes the interest rate for fixed-interest mortgages, while the owner banks specify customer terms and interest rates based on borrowing costs and risk assessment for the advance. Fixed-rate mortgages are hedged with derivatives which convert them to floating interest rates. The company will use derivatives actively to reduce interest-rate risk.

EBK uses hedge accounting pursuant to the IFRS on borrowing at fixed interest rates, and an interest swap must be assessed as very effective when entered into. The company measures interest-rate risk on the balance sheet at least monthly, based on the duration of the various claims and commitments. Duration means the number of years until the next interest-rate adjustment.

**Table 14 Interest-rate risk in the balance sheet (amounts in NOK thousand)**

Interest-rate risk	Parallel UP 2%-points	Parallel DOWN 2%-points	Flattener shock	Steepener shock
Liquidity	(40 580)	40 580	(19 189)	19 189
Funding	279 768	(279 768)	132 890	(132 890)
Fixed-rate mortgages	(66 041)	66 041	(13 824)	13 824
Floating-rate mortgages	(98 762)	237 817	(46 912)	112 963
<b>Total interest rate risk</b>	<b>74 385</b>	<b>64 670</b>	<b>52 965</b>	<b>13 086</b>

Interest-rate risk in the bank portfolio is calculated as the minimum of the above-mentioned four scenarios. The stress test shows that the company, in conditions corresponding to any of the

<sup>14</sup> It follows from article 98 (5) of the CRD IV directive and the EBA's guidelines on interest-rate risk in the bank portfolio that interest-rate risk must be assessed on the basis of a stress factor level of a two-percentage-point parallel shock in the interest-rate curve.

<sup>15</sup> FSA circular of 12/2016 – appendix 3.

scenarios, will in reality secure a gain and that no risk of loss is calculated. The interest-rate risk on the balance sheet is, and must be, lower than the limit for interest-rate risk in the balance sheet, which comprises 0.75 per cent of the core tier 1 capital.

### Assessment of credit-spread risk in the securities portfolio

The company's business purpose is to obtain favourable funding by issuing covered bonds. This means that its surplus liquidity must satisfy legal and regulatory requirements concerning what may be included in the cover pool. The objective of the company's investment of surplus liquidity is to have liquidity available at all times to secure the financing of growth and maturation, and to secure the highest possible return within specified risk parameters. Surplus liquidity is held in bank deposits or fixed-income securities in Norwegian kroner. In addition, the company has received liquidity in NOK and EUR which reflects the receipt of cash collateral from counterparties to derivatives. Collateral received is held in bank deposits or low-risk securities in the currency of receipt to ensure that no currency risk arises for the company on its cash collateral. In connection with cash collateral received in EUR, the company nevertheless sets a limit for a shortfall in EUR because interest rates on alternative investments are lower than interest paid on cash collateral received. The shortfall is covered by purchasing EUR and has a limit of EUR 5 million.

EBK's securities portfolio totalled NOK 17 billion at 31 December 2021 and constituted about 15 per cent of the company's total assets. The company has invested in government bills, public enterprises (with central government guarantees), public-sector loans and so forth as well as in foreign local authorities which satisfy the requirement for zero risk weighting pursuant to the CRR. The company has calculated capital requirements for the securities portfolio on the basis of the standardised method for credit risk (Pillar 1) pursuant to the CRR.

**Table 15 Calculation basis and capital requirement for market risk at 31 December 2021 (amounts in NOK thousand)**

The securities portfolio	EUR	NOK	Total NOK	Risk weight	Risk weighted	Capital requirement
Government bonds	-	499 008	499 008	0%	-	-
Public sector entities	333 556	907 494	1 241 050	0%	-	-
Government guaranteed etc.	656 517	141 000	797 516	0%	-	-
Local and regional authority (foreign)	1 743 961	886 467	2 630 427	0%	-	-
Covered bonds	-	7 267 609	7 267 609	10%	726 761	58 141
Local and regional authority (Norwegian)	-	4 554 758	4 554 758	20%	910 952	72 876
<b>Total</b>	<b>2 734 034</b>	<b>14 256 335</b>	<b>16 990 369</b>		<b>1 637 713</b>	<b>131 017</b>

### MANAGEMENT AND CONTROL

The company has established a policy for asset liability management which forms the basis for total interest-rate risk in its balance sheet. In the event of an increase in financing costs or money market interest rates, a decision to adjust the interest-rates charged to the owner banks will be made by the CEO in consultation with the rest of the company's executive management and based on forecasts of anticipated interest-rate developments and planned new funding. Such forecasts are made by the finance and accounting department. Interest-rate risk is measured monthly as the change in value arising from a two-percentage-point adjustment to the level of interest rates, and the company has defined maximum exposure related to this. The exposure is reported quarterly in the risk and compliance report submitted to the board.

The basis for management and control of market risk in the portfolio of securities is provided by policies for asset liability and for investment management with an associated investment mandate.

The company's risk management and compliance function continuously assesses exposure in relation to approved risk acceptance and parameters in quarterly risk and compliance reports for the board. The board-approved parameter as a percentage of core tier 1 capital is meant to cover the interest-rate risk in the bank portfolio corresponding to the minimum of four scenarios with a stress-factor level set as a two-percentage-point parallel shock in the interest-rate curve as well as a steepener/flattener shock in the interest-rate curve where the difference between short- and long-term interest rates change by two percentage points, and increased credit-spread outcomes in the company's portfolio of securities. Market risk in the securities portfolio is managed on a daily basis by the funding department in line with its mandate and the company's risk policies.

## **CAPITAL REQUIREMENTS**

The capital requirement for credit risk in the securities portfolio is taken into account in the standardised method for credit risk, and totalled NOK 131 million at 31 December 2021, including risk-weighting of the various investments in securities. Assessments of capital requirements for market risk, including interest-rate risk in the bank portfolio and credit-spread risk in the securities portfolio, are included in the evaluation of Pillar 2. EBK's enterprise-specific Pillar 2 requirement of 0.5 per cent is considered to be adequate for meeting future Pillar 2 capital requirements related to market risk.

No provision has been made for any supplementary potential for loss related to a lack of risk spreading in the securities portfolio or for market liquidity.

## **11 FINANCING AND LIQUIDITY RISK**

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*Definition: The risk that the company will be unable to meet its commitments as and when they fall due without incurring substantial costs in the form of expensive refinancing or the need for premature realisation of assets. In the worst case, liquidity risk is the risk that the company will be unable to refinance itself sufficiently in order to meet commitments as and when they call due.*

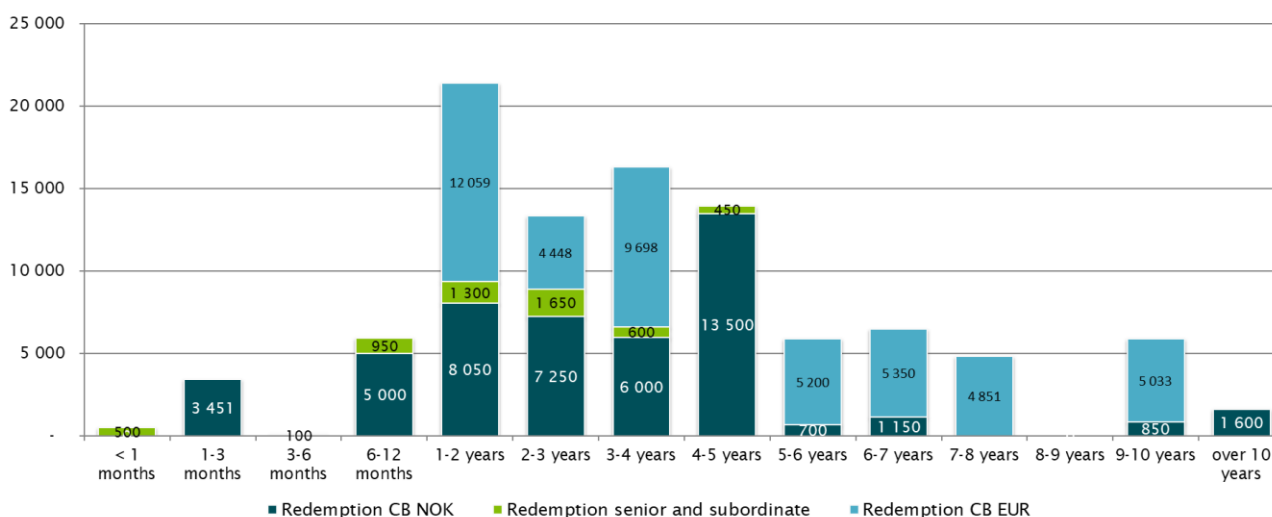
### **RISK APPETITE AND EXPOSURE**

The company's liquidity and refinancing risk must lie within a moderate risk level. EBK has a dedicated strategy for financing and liquidity risk, including defined risk parameters as well as contingency and recovery measures should a shortage of liquidity arise. EBK finances lending primarily through the issue of covered bonds. Through its opportunity to make such issues, the company achieves lower borrowing costs than its owner banks. The company will also raise ordinary senior unsecured bonds in order to cover overcollateralisation requirements, and tier 1 perpetual bonds and subordinated loans to cover requirements for other tier 1 and subordinated loan capital. EBK has established an international borrowing programme for issuing covered bonds. This Euro Medium Term Covered Note (EMTCN) programme was signed and approved by the UK Listing Authority for the first time on 10 August 2007. Bonds are issued under the EMTCN programme to both Norwegian and international investors. The programme is revised at least once a year and listed on Euronext in Dublin.

The company has established overarching goals and specified parameters for liquidity management to keep financing and liquidity risk satisfactorily low, and to comply with section 11, sub-section 12 of the Act on Financial Institutions, chapter 11 of the regulations for financial institutions issuing covered bonds, and the CRR/CRD IV regulations.

EBK had a good liquidity position at 31 December 2021, with total liquid assets of about NOK 14.7 billion exclusive of collateral received. The company issued bonds and certificates amounting to NOK 19.5 billion in bonds during 2021, comprising NOK 17 billion in covered bonds, NOK 2.3 billion in tier 1 perpetual bonds and NOK 150 million in subordinated loans. About 74 per cent of the issues during 2021 were in NOK and 26 per cent in EUR. Financing terms were very good during 2021 in terms both of price and the depth experienced. The company has complied with all risk exposure parameters for funding and liquidity management.

**Figure 7 Redemption profile of the company's debt financing at 31 December 2021 (amounts in NOK million)**



Investor interest in subscribing to the company's covered bonds was high in 2021, and the company also achieved good terms for its borrowing during the year. In addition to contingency facilities, the company has a 12-month soft bullet structure on its covered bonds, which confers the right to postpone maturity by up to one year residual time.

As mentioned above, the financing position in 2021 was characterised by good markets. Credit spreads were low in a historical context. Plans call for the company to raise just under NOK 20 billion in 2022, of which NOK 2 million has already been secured. Despite the noise around inflation and geopolitical unrest, the availability of financing is currently good and credit spreads remain at low levels. The company also has a good liquidity position, where the aim is to have liquidity available to cover bonds maturing over the next 12 months.

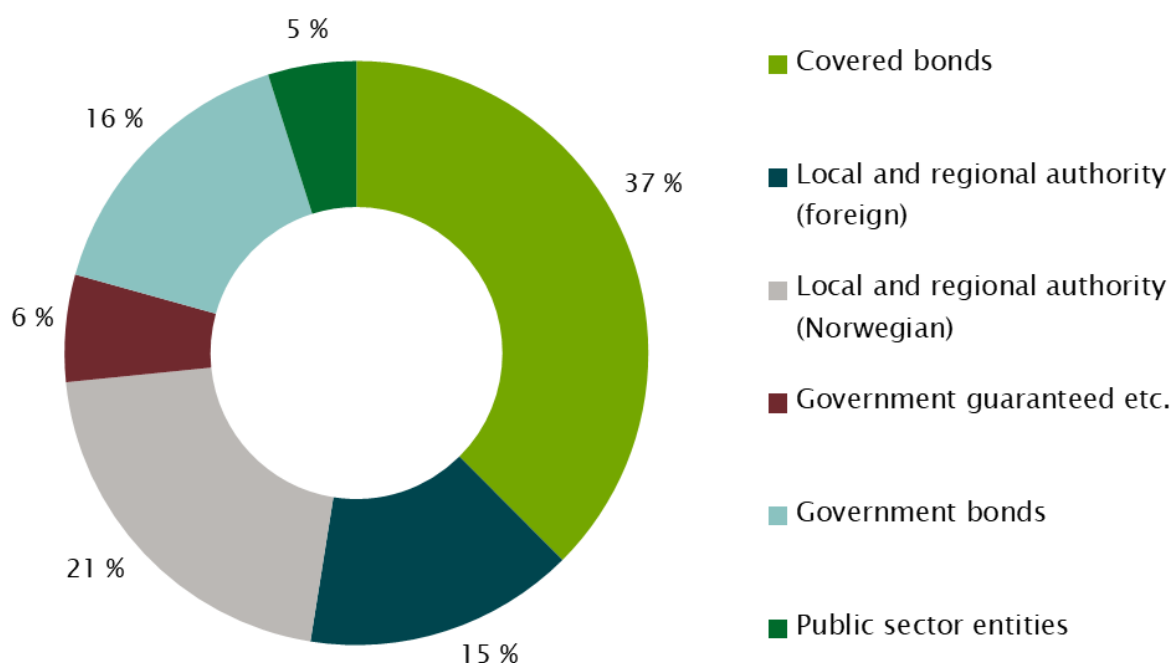
The company's borrowing department constantly monitors the financial markets, and is focusing its attention on the remaining funding requirement for 2022. Given its strategies and recovery plan, the company can adopt a number of possible measures if proves impossible to secure the planned financing as specified in the funding plan. The company considers itself to be well equipped to deal with a future crisis. See the company's recovery plan for a detailed description of all the liquidity measures which could be relevant in a crisis.

In a world where global investors are setting ever more stringent requirements that the investments they make will be in sustainable institutions, an express strategic goal for the Eika Alliance and EBK has been to make provision for green financing. In order to achieve this, EBK launched a green bond framework on 4 February 2021 and issued its first green bond in euros the following June. The purpose of the framework is to finance the most energy-efficient mortgage objects in the cover pool

through the issue of green bonds. These objects are identified using three criteria which allow them to be classified among the 15 per cent most energy-efficient residential units in Norway. These criteria are based on building standards, energy certificates, and refurbishment which improves the energy efficiency of the residential units by at least 30 per cent.

The company has identified NOK 18.8 billion in residential mortgages for 8 444 mortgage objects which met these criteria at the end of 2021 and which can be financed through the issue of green bonds. EUR 500 million (about NOK 13.8 billion) has been raised in green financing, which corresponds to an available capacity for NOK 13.8 billion in green bond issues. Issuing green bonds gives the company the opportunity to reach a broader investor base beyond the one targeted by traditional bonds, and to secure financing from existing investors who increasingly emphasise sustainability. That reduces the refinancing risk.

**Figure 8 Composition of the liquidity buffer**



EBK is subject to the quantitative requirements for the liquidity coverage ratio (LCR). These rules derive from the CRR/CRD IV regulations. The company must satisfy the LCR applicable at any given time.<sup>16</sup> The company will monitor the development of the LCR closely, and uses forecasts in order to be prepared for the need to adapt liquid assets which can be included in the indicator at short notice. At 31 December 2021, the company's total LCR indicator was 103 per cent, its EUR indicator was 100 per cent and its NOK indicator was 113 per cent.

Article 413 of the CRR requires companies to have stable and long-term financing, but the final definition and level requirements have yet to come into force. Requirements for the net stable funding ratio (NSFR) are included in CRR2, where the proposed minimum requirement for the NSFR is 100 per cent. Weighting in the NSFR for mortgages in a cover pool is to be reduced to 85 per cent (originally 100 per cent). The regulations came into effect for the EU in mid-2021, but it remains

<sup>16</sup> FOR-2014-08-22-1097 CRR/CRD IV regulation.

unclear when they will be incorporated in the European Economic Area (EEA) agreement and come into force in Norway. Until the final definition of the NSFR has been formally adopted, the FSA's calculation of the NSFR will be based on the Basel committee's final recommendations of October 2014. The company has reported the NSFR to the FSA on a quarterly basis since 30 September 2014. Its NSFR indicator was 99 per cent at 31 December 2021.

## **MANAGEMENT AND CONTROL**

EBK has established a risk policy for financing risk, including defined risk appetite, risk parameters, and contingency and recovery measures in the event of insufficient liquidity. These are incorporated in the company's recovery plan, which forms the basis for liquidity management.

Financing and liquidity risk is managed through parameters for financing structure, requirements for diversification of instruments, markets and residual times to maturity, and the establishment of contingency facilities. An agreement has also been entered into between the shareholders and EBK to ensure that the company can access liquidity in a crisis. The agreement commits the owner banks, under given circumstances, to purchase the company's covered bonds limited to the maturity of the company's covered bonds issued under the EMTCN programme and the associated swap agreements over the coming 12 months. EBK's own liquidity is deducted when calculating the liquidity obligation. The owner banks can deposit these covered bonds as collateral with the Central Bank of Norway in exchange for a haircut. EBK is not permitted to make such deposits in the Central Bank of Norway.

The company has a separate funding department headed by the CFO, who is responsible for operational liquidity management and reports to the CEO. The funding department utilises liquidity forecasts, which are updated at least monthly and more frequently as and when required. The future liquidity holding, refinancing indicators and the average time to maturity of funding are then simulated. Each board meeting receives detailed information on the financing and liquidity position in the company.

EBK's risk and compliance function measures exposure linked to financing and liquidity risk in relation to approved parameters on a continuous basis, and reports quarterly on the actual exposure in the risk and compliance report to the board. The same reporting contains stress tests which simulate the effect of possible liquidity crises, including market-specific, company-specific and combined market/company crises. These reports provide a basis for the executive management and the board to assess the exposure status in relation to established parameters and targets.

## **CAPITAL REQUIREMENTS**

Financing and liquidity risk are not included in the capital assessment pursuant to Pillar 1. The assessment of capital requirements for financing and liquidity risk is included in the assessment under ICAAP/ILAAP in the company, where the company's capital targets are considered to be adequate for handling future capital and liquidity needs over and above the minimum regulatory requirements.



## 12 OPERATIONAL RISK

*Definition: Operational risk is the risk of loss as a result of inadequate or deficient internal processes or systems, human error, or external events. Operational risk also comprises compliance, legal, default, data protection, money-laundering and terrorism funding risk.*

### RISK APPETITE AND EXPOSURE

EBK has a simple and transparent organisation, and has therefore adopted the basic indicator method for calculating the capital requirement for operational risk. With this approach, the calculation basis for the minimum primary capital requirement is 15 per cent of average income over the past three years multiplied by 12.5. See the CRR.

**Table 16 Calculation basis and capital requirement for operational risk (amounts in NOK thousand)**

Operational risk	2019	2020	2021
Net income	128 896	181 424	66 663
Average income			125 661
Basis of calculation			235 614
<b>Capital requirement</b>			<b>18 849</b>

The company will have a low-risk profile for operational risk. Operational risk which could expose EBK to loss consists virtually entirely of a failure to establish adequate collateral, deficient internal control or failure of IT systems.

### MANAGEMENT AND CONTROL

EBK has established a policy for operational risk which forms the basis for its management and control. A number of guidelines and routines have been implemented for all significant processes in the company. These are intended to help identify that operational risk is being handled in a way which ensures an acceptable level of residual risk. The company will have an updated business continuity plan at all times, which ensures that it can maintain its operations, while functions will have adequate back-up. Relevant contingency plans have also been drawn up to deal with crises.

The company monitors operational risk through reporting and registering of operational events, pursuing compliance activities, internal auditing and so forth. The company's risk and compliance department prepares a quarterly risk and compliance report which presents the status of and trend for operational risk based on the above-mentioned conditions. This reporting provides the executive management and the board with the basis for assessing the status of exposure in relation to established parameters and targets.

### CAPITAL REQUIREMENTS

EBK applies the basic indicator method to calculate the capital requirement for operational risk as prescribed in Pillar 1. The capital requirement was calculated to be NOK 18.8 million at 31 December 2021 and is considered to make sufficient allowance for loss in the worst case.