2016

PILLAR 3

Sparebanken HEDMARK

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1 Introduction

This document provides a description of Sparebanken Hedmark's risk and capital management and should satisfy the requirements for the public disclosure of financial information as stipulated in the Part IX of the Capital Requirements Directive.

This document is updated annually. If, however, there are significant changes that have an impact on the assessment of the Group's financial standing, then this document will be updated with new information. Periodic information on capital adequacy and the minimum primary capital requirements is available in the Bank's quarterly reports.

Beyond the information available in this document, please see About Us on Sparebanken Hedmark's website: **www.sparebanken-hedmark.no.**

Sparebanken Hedmark will merge with the Bank's 100 per cent owned subsidiary Bank 1 Oslo Akershus AS on 1 April 2017. Unless otherwise is explicitly stated, this document covers the financial group, including Bank 1 Oslo Akershus AS.

A separate Pillar 3 document has been prepared for Bank 1 Oslo Akershus. This is available on: **www.sparebank1.no/oslo-akershus.**

2 Capital adequacy

2.1 Capital adequacy regulations

The rules and regulations are based on a standard for calculating capital adequacy where the purpose is to reinforce the stability of the financial system through:

- More risk sensetive capital requirements
- Improved risk management and control
- Closer supervision
- Disclosure of more information to the market

The regulations are intended to ensure there is Alignment between how the authorities stipulate capital adequacy requirements for financial institutions and the approaches the institutions use to calculate their capital requirements.

The capital adequacy regulations are based on three pillars:
Pillar 1: Minimum capital requirements
Pillar 2: Internal Capital Adequacy Accessment Process (ICAAP)
Pillar 3: Public disclosure of information

2.1.1 Pillar 1 – Minimum capital requirements

Pillar 1 concerns the minimum capital requirements for credit risk, operational risk and market risk, for which the minimum capital adequacy requirement has been set at 8 per cent. In addition to this comes a total buffer requirement of 7 per cent as at 31 December 2016.

Sparebanken Hedmark has not been defined as a nationally systemically important institution.

Capital adequacy is defined as the relationship between the institutions total eligible capital and its risk-weighted assets:

Figure 1: Capital adequacy ratio

$$\frac{\text{Common equity Tier 1 capital + Additional Tier 1 capital + Tier 2 capital}}{\text{Credit risk + market risk + operational risk}} >= \text{Minimum requirement + buffer requirement}$$

The capital adequacy regulations contain various approaches for calculating capital requirements. The different approaches are illustrated in the figure below.

Figure 2: Approaches for calculating capital requirements

Credit risk	Market risk	Operational risk
Standard approach	Standard approach	Basic approach
Foundation IRB Approach *)	Internal measurement approach *)	Standardised approach
Advanced IRB Approach *)		AMA approach *)

**) The approaches require the approval of the Financial Supervisory Authority of Norway*

For banks that have permission to use an internal measurement approach (IRB – Internal Rating Based Approach) to calculate credit risk, the statutory minimum capital adequacy requirement for credit risk will be based on the banks' risk models. This will make the minimum capital adequacy requirement more risk sensitive and means that capital requirements will vary more with the risk inherent in the underlying portfolios than with the standard approach.

2.1.2 Pillar 2 - Internal Capital Adequacy Accessment Process (ICAAP)

Pillar 2 stipulates requirements for the banks' capital adequacy assessment process (ICAAP), the purpose of which is to ensure a structured and documented assessment process for the Group's risk profile in order to make sure the Group has adequate capital to cover the risk associated with its operations. In addition, banks must have a strategy for maintaining an adequate level of capital.

In autumn 2016, the Financial Supervisory Authority of Norway published circular 12/2016 "The Financial Supervisory Authority of Norway's practices for assessing risk and capital requirements". The Group has adapted its ICAAP process to comply with the circular.

Based on the above-mentioned circular, the Bank calculates its Pillar 2 supplement in a process involving the Parent Bank, important subsidiaries, and the stakes in associated companies/joint ventures. The process is based on an assessment of exposure and management quality and control, where the capital requirements are mainly based on the approach described in the aforementioned circular.

The Financial Supervisory Authority of Norway is required to monitor and evaluate banks' internal assessments of their capital requirements and associated strategies, as well as their ability to ensure compliance with the authorities' capital requirements. The Financial Supervisory Authority of Norway has the authority to implement suitable supervisory measures if they are not satisfied with the results of this process.

2.1.3 Pillar 3 - Public disclosure of information

The purpose of Pillar 3 is to supplement the minimum requirements in Pillar 1 and the supervisory follow-up in Pillar 2. Pillar 3 should contribute to greater market discipline through requirements for the public disclosure of information that makes it possible for the market to evaluate the institution's risk profile and capitalisation, as well as its management and control.

The information requirements mean that all institutions must publish information on their organisational structure, risk management system, reporting channels, and how their risk management is built up and organised. In addition, detailed requirements are stipulated for the publication of the level of capital and structure, as well as the risk exposure, and the latter depends on what calculation approaches are used in Pillar 1

The purpose of this document, together with the Bank's annual and quarterly reports, is to fulfil the requirements for the public disclosure of information in accordance with the current regulations.

2.2 The Group's capital adequacy targets

The Group's overarching strategic targets are set on the basis that they should underpin a moderate to low risk profile, where the Bank should be among Norway's financially strongest and most profitable banks.

The Group's financial strength is expressed through its regulatory capital adequacy. The following must be taken into account when setting the level of capital:

- Need for freedom of action.
- Level of ambition in the strategic targets.
- Commercial framework conditions.
- Autorities' capital adequacy requirements.
- Desired risk profile.

The level of capital set should ensure that the Group has adequate capital to satisfy regulatory requirements in relation to capital adequacy.

The Group has the following capital targets:

- A common equity Tier 1 ratio of at least 16 per cent.
- Capital adequacy at least on a par with the current minimum requirement, inclusive of the Pillar 2 supplement, currently 16.7 per cent.

The Board reviews the capital targets at least once a year in connection with its consideration of the business strategy, overarching risk strategy, and/or capital plan.

2.3 Adapting to the Capital Requirements Regulation

As at 31 December 2016, the Parent Bank, Sparebanken Hedmark, and its subsidiary, Bank 1 Oslo Akershus, use the Advanced IRB approach for calculating minimum capital requirement for credit risk in the loans portfolio. The Figure below provides an overview of the approaches the Group uses for calculating capital requirements.

Figure 3: Approaches for calculating capital requirements in the Group

Area	Parent Bank	Bank 1 Oslo Akershus	SpareBank 1 Finans Østlandet
Credit risk			
- Central governments	Standard approach	Standard approach	Standard approach
- Institutions	Standard approach	Standard approach	Standard approach
- Corporates	Advanced IRB approach	Advanced IRB approach	Standard approach
- Retail	Advanced IRB approach	Advanced IRB approach	Standard approach
- Equity	Standard approach	IRB - Simple risk-weighted approach	N/A
- Derivatives	Market value approach, and standard approach for CVA risk	Market value approach, and standard approach for CVA risk	N/A
Market risk	Standard approach (duration approach)	Standard approach (duration approach)	N/A
Operational risk	Basic approach	Basic approach	Basic approach

3 Consolidation

The Group attaches importance to maintaining adequate capitalisation at all times for all the companies within the Group. No governing bodies have imposed any restrictions on the Board's ability to transfer capital between the Parent Bank and its subsidiaries, and between subsidiaries with the exception of regulatory and other statutory limitations. In addition, there are no provisions in the Articles of Association that impose any such restrictions.

For the same reason, the Bank and its subsidiaries do not enter into agreements that impose restrictions on the Board's right to transfer capital as described above. This applies to both funding loan agreements and agreements with suppliers and customers.

Moreover, transfer of capital between the companies is regulated by the ordinary regulatory legislation for these companies and the financial group. This does not impose any restrictions on the capital allocation principles stated above.

As with investments in subsidiaries, the Group has a strategic interest in supporting the business operations of SpareBank 1 Gruppen AS, SpareBank 1 Banksamarbeidet DA, SpareBank 1 Boligkreditt AS, SpareBank 1 Næringskreditt AS, SpareBank 1 Kredittkort AS, SpareBank 1 Mobilbetaling AS, and other smaller joint ventures in SpareBank 1. In connection with this, the Group ensues that no agreements are entered into or decisions or similar made that involve restricting the owner's ability to transfer capital to these companies should this become necessary to attain satisfactory capital adequacy or financial strength. The Group is not aware of the existence of any such restrictions beyond what follows from the framework legislation. The Group assumes that it will not be practical to transfer capital to the owner's beyond the distribution of ordinary dividends. As far as the Group is aware, there are no private law impediments that restrict dividend distributions from the aforementioned companies.

The following table illustrates the difference in the basis for consolidation for consolidation in accordance with the accounting rules and consolidation for capital adequacy purposes.

Table 1: Basis for consolidation

Wholly consolidated companies

					Consolidation approach	
2016	**Business office**	**Number of shares**	**Voting capital**	**Book value**	**Accounting purposes**	**Capital adequacy purposes**
Sparebanken Hedmark	Hamar				Fullconsolidation	Fullconsolidation
Bank 1 Oslo Akershus AS	Oslo	4 573 339	100,00 %	2 925	Fullconsolidation	Fullconsolidation
EiendomsMegler 1 Hedmark Eiendom AS	Hamar	12 400	100,00 %	20	Fullconsolidation	Fullconsolidation
SpareBank 1 Finans Østlandet AS	Hamar	807 500	95,00 %	808	Fullconsolidation	Fullconsolidation
SpareBank 1 Regnskapshuset Østlandet AS	Hamar	1 250 000	100,00 %	81	Fullconsolidation	Fullconsolidation
Vato AS	Hamar	352	100,00 %	9	Fullconsolidation	Fullconsolidation
Total				**3 842**		

Proportionally consolidated companies

					Consolidation approach	
2016	**Business office**	**Number of shares**	**Voting capital**	**Book value**	**Accounting purposes**	**Capital adequacy purposes**
KOMM-IN AS	Raufoss	7 500 000	23,10 %	6	Equity approach	Proportional consolidation.
Torggt 22 AS	Hamar	8 000	50,00 %	9	Equity approach	Proportional consolidation.
SpareBank 1 Boligkreditt AS	Stavanger	13 107 545	20,25 %	2 019	Equity approach	Proportional consolidation.
Total				**2 034**		

Companies in which subordinated capital is deducted

					Consolidation approach	
2016	**Business office**	**Number of shares**	**Voting capital**	**Book value**	**Accounting purposes**	**Capital adequacy purposes**
SpareBank 1 Næringskreditt AS	Stavanger	1 348 460	9,24 %	176	Equity approach	Not consolidated
SpareBank 1 Kredittkort AS	Trondheim	544 830	18,87 %	214	Equity approach	Not consolidated
SpareBank 1 Gruppen AS	Tromsø	215 204	11,00 %	945	Equity approach	Not consolidated
SpareBank 1 Mobilbetaling AS		1 760	21,20 %	20	Equity approach	Not consolidated
Total				**1 335**		

Companies that are not consolidated and where no subordinated capital has been contributed that has been deducted from subordinated capital in the institution

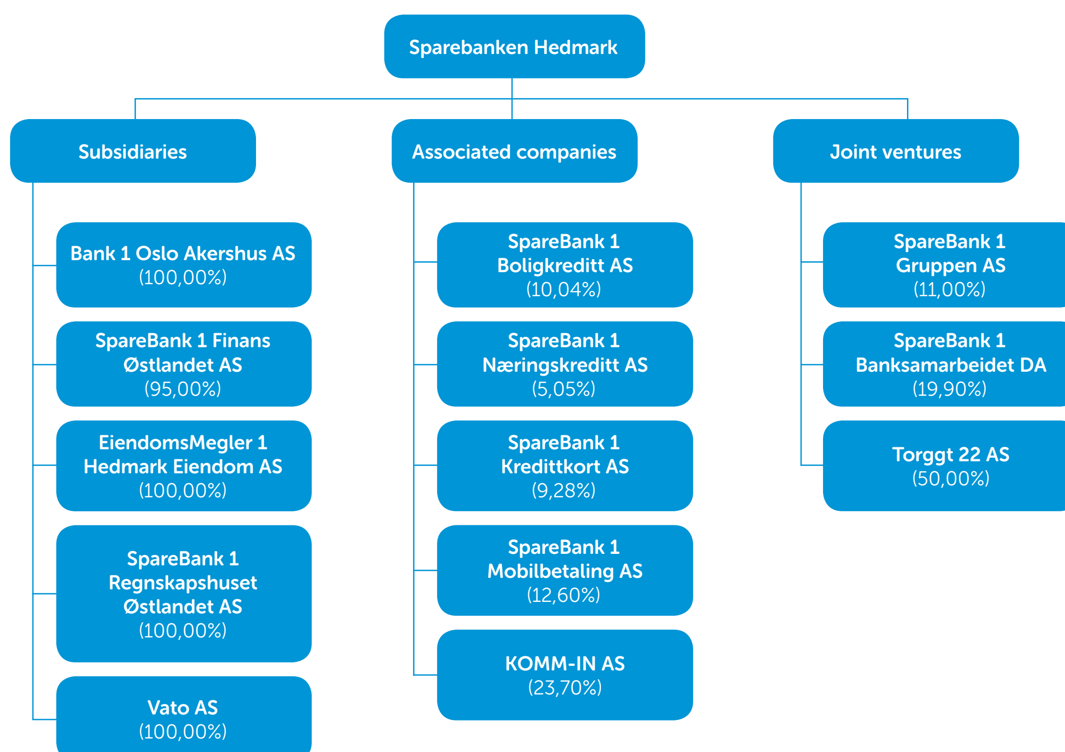
					Consolidation approach	
2016	**Business office**	**Number of shares**	**Voting capital**	**Book value**	**Accounting purposes**	**Capital adequacy purposes**
SpareBank 1 Banksamarbeidet DA	Oslo		19,90 %	21	Equity approach	Not consolidated
Total				**21**		

4 Risk and capital management

4.1 Group structure

The following companies are included in the Sparebanken Hedmark Group:

Figure 4: Summary of the Sparebanken Hedmark Group



Bank 1 Oslo Akershus AS is a bank in the Oslo and Akershus market area. The Parent Bank Sparebanken Hedmark acquired 100 percent of the shares in Bank 1 Oslo Akershus in 2016. The banks will merge with effect from 1 April 2017.

SpareBank 1 Finans Østlandet AS sells leasing products and secured financing, with all of Eastern Norway as its primary market area. The Parent Bank, some SpareBank 1 banks, and capital goods suppliers are, in addition to the Internet, the company's most important distribution channels.

SpareBank 1 Regnskapshuset Østlandet AS is part of SpareBank 1 Regnskapshuset's endeavour to become one of Norway's leading actors in the accounting industry. The SpareBank 1 banks intend, in line with the Alliance's strong traditions, to build up a national accounting operation based on regional ownership and proximity to the market.

EiendomsMelger 1 Hedmark Eiendom AS is Hedmark's leading real estate agent and it is represented in the most central locations in the county.

Vato AS owns one of the Bank's office buildings.

SpareBank 1 Boligkreditt AS is the alliance banks' covered bond company for the retail segment.

SpareBank 1 Næringskreditt AS is the alliance banks' covered bond company for the corporate segment.

SpareBank 1 Kredittkort AS is the alliance banks' joint credit card company.

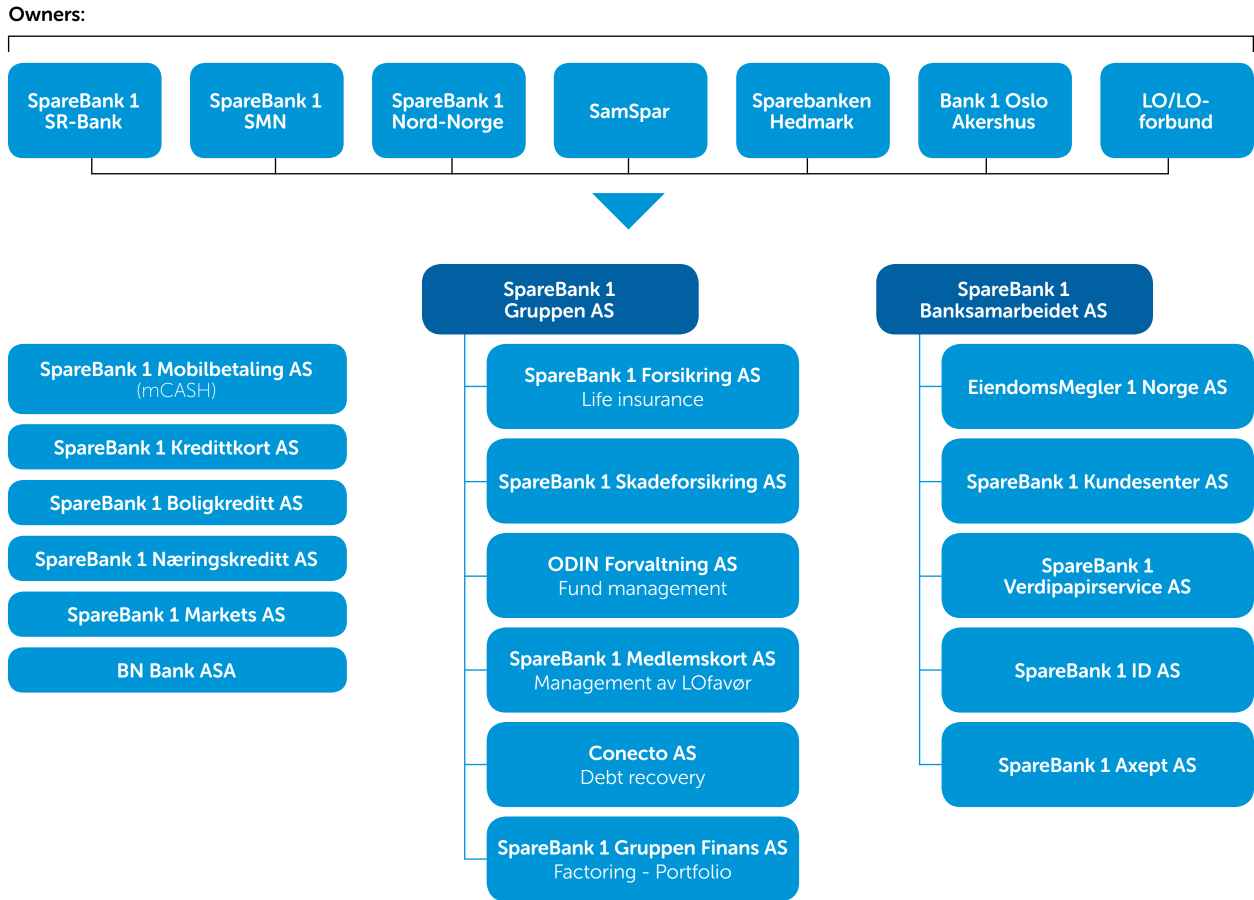
SpareBank 1 Mobilbetaling AS is the alliance banks' joint mobile phone payment company, which operates and develops mCash.

SpareBank 1 Gruppen og SpareBank 1 Alliance
The purpose of the Alliance is to acquire and deliver competitive financial products and services, taking advantage of economies of scale in the form of lower costs and/or higher quality. The Alliance contributes accordingly to private individuals and corporate customers experiencing local roots, competence and an easier way of having their various requirements met. In addition, the Alliance shall contribute to ensuring the creation of value by the Bank for the benefit of our own region.

The SpareBank 1 banks run the Alliance, as well as develop and manage products via SpareBank 1 Utvikling DA and SpareBank 1 Gruppen AS. While SpareBank 1 Gruppen is a product provider primarily within insurance, SpareBank 1 Banksamarbeidet DA is responsible for the cooperation processes in the SpareBank 1 Alliance, where technology, brand names, competence, joint processes/best practices, and purchasing are all key factors.

The SpareBank 1 banks work together extensively on development.

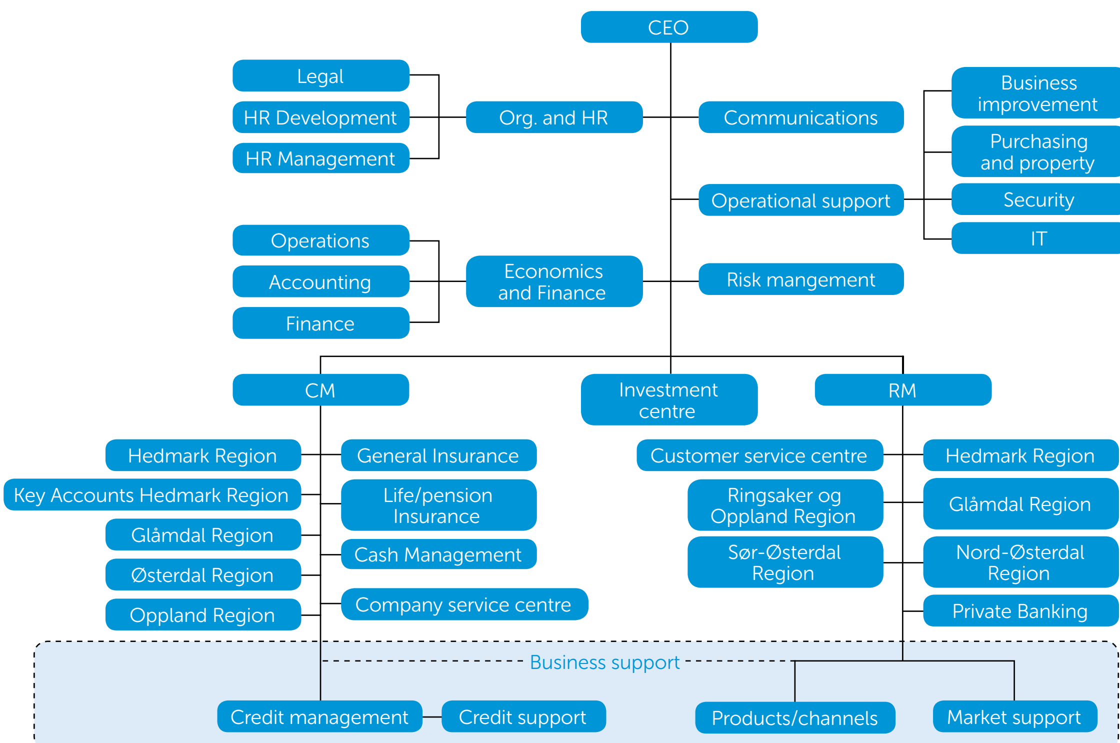
Figure 5: SpareBank 1-alliance



4.2 Organisasjonskart

As at 31 December 2016, Sparebanken Hedmark was organised as shown in the organisation chart below.

Figure 6: Organisation chart



4.3 Risk and capital management

4.3.1 Objective

Risk and capital management in the Group should support the Group's strategic targets, while contributing to financial stability and sound asset management. This should be achieved by:

- A clear corporate culture characterised by a high awareness of risk management.
- A good understanding of the risks driving earnings.
- Striving towards a effecive use of capital within the adopted business strategy.
- Preventing unexpected events from damaging the Group's financial position to a serious extent.

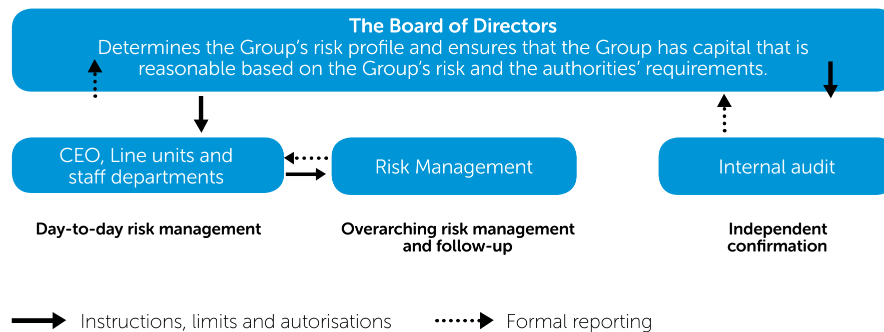
The Group aims for a moderate to low risk profile.

4.3.2 Control and management structure – roles and responsibilities

In achiving good, uniform risk management, corporate culture is the foundation that the other elements build on. Corporate culture encompasses the people in the organisation (their individual characteristics and integrity, core values and ethics), management philosophy/style and management principles. It can be difficult to compensate for a poor corporate culture by other control and management measures. The Group has therefore established clearly defined core values and code of conduct, which have been clearly communicated and presented throughout the organisation.

The Group emphasises independence in risk management. Responsibility for risk management has, therefore, been divided between different groups in accordance with the Figure below.

Figure 7: Responsibilities and roles in the risk management process



The Board is responsible for ensuring that the Group has adequate capital based on the adopted risk profile and regulatory requirements. The Board stipulates the overall objectives with respect to the risk profile and return. The Board also stipulates the overall limits, authorisations and guidelines for risk management in the Group, as well as the code of conduct that should contribute to a high ethical standard.

The Board's tasks are set out in an annual plan, which is revised annually. This ensures the Board has adequate time to focus on its key duties each year.

The Board has established a Risk Committee, an Audit Committee, and a Remuneration Committee. The Risk Committee is a preparatory body for the Board in cases involving the Bank's risk management and internal control, while the Audit Committee prepares cases that involve financial information and internal control associated with this. The committees consist of the same three members of the Board, although the committees do not have the same chair. The Remuneration Committee shall correspondingly assist the Board with matters concerning Sparebanken Hedmark's CEO's terms of employment, as well as matters concerning the general principles and strategy for the remuneration of the senior executive personnel in the Group. The committee consists of three members of the Board.

The CEO is responsible for overall risk management. This means that the CEO is responsible for the implementation of efficient risk management systems in the Group and the monitoring of the risk exposure. The CEO is also responsible for delegating authority and reporting to the Board.

The business divisions and staff units are responsible for risk management within their area of responsibility. This means that the managers should make sure that proper risk management is established and executed, and that it is performed in accordance with the risk strategies and policies, authorisations, routines and instructions.

The Risk Management and Compliance Department is organised independently of the line and staff units and reports directly to the CEO. The department is responsible for further development of the limits for risk management, including risk models and risk management systems. The department is also responsible for independent monitoring and reporting of the risk situation and for ensuring that the Group complies with the applicable laws and regulations.

The internal audit is the Board's instrument for ensuring that risk management is targeted, effective, and functioning as

assumed. The internal audit function is outsourced, which guarantees independence, expertise and capacity. The internal audit reports to the Board. The internal audit's reports and recommendations concerning improvements to the Group's risk management are continually reviewed and considered for implementation.

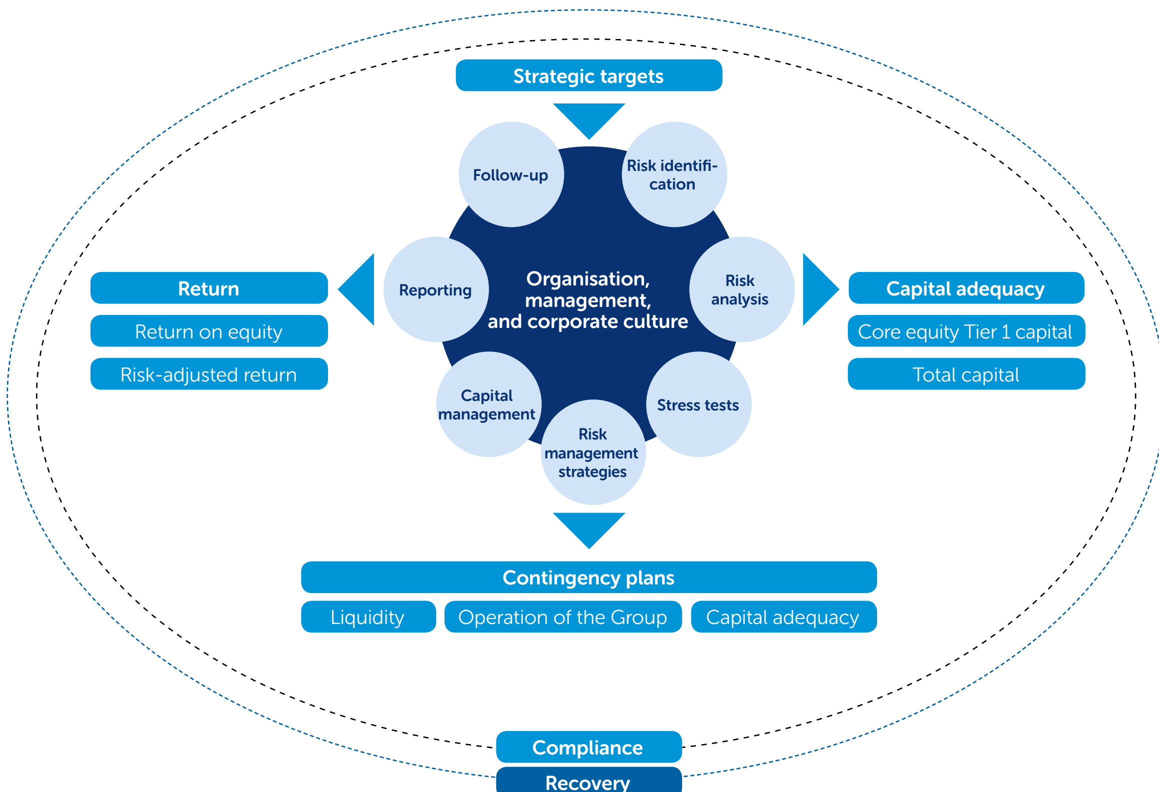
4.3.3 Elements of the risk and capital management

In order to ensure an efficient and appropriate process for risk and capital management, the established framework is based on a number of elements that reflect the way in which the Board and management control the Group:

- Strategic targets
- Organisation and corporate culture
- Risk identification
- Risk analysis
- Stress tests
- Risk strategies
- Capital management (including return and capital adequacy)
- Reporting
- Follow-up
- Contingency plans
- Compliance
- Recovery plans

The correlation between the individual elements can be summed up as in the Figure below.

Figure 8: Framework for risk and capital management



4.3.3.1 Strategic targets

Risk and capital management in the Group are based on the defined strategic targets as set out in the strategy plan.

4.3.3.2 Risk identification

Risk identification should be forward looking and an integral part of the strategy and planning process. The process should cover all the significant risks to which the Group is exposed and be carried out at least once a year.

4.3.3.3 Risk analysis

An analysis of the risks that have been identified should be conducted to understand the characteristics of the risks and causal mechanisms. Significant risks should be quantified, whenever possible, through the expected losses and need for risk-adjusted capital. This will apply primarily to credit risk.

The quantification should be based on recognised and reassuring methods and procedures for the measurement of risk. The risk analysis should also ensure that a qualified and structured assessment and documentation of the established control and management measures is made.

4.3.3.4 Stress tests and scenario analyses

Periodic stress tests and scenario analyses should be carried out to analyse how negative events affect the Group's results, balance sheet and capital adequacy. Such analyses should be conducted for the most critical risk areas, such as the credit, market and liquidity risks, and they should take into account a negative macroeconomic development over a period of at least three years.

4.3.3.5 Risk strategies
Based on the risk strategies, the Board must define the desired risk profile by establishing risk-based limits and targets for the various risk areas. The strategies must be revised annually.

4.3.3.6 Capital management
The Group's capital management must ensure:

- Effective capital acquisition and use of capital in relation to the Group's strategic targets and adopted business strategy.
- A satisfactory return on equity.
- A satisfactory common equity Tier 1 ratio in relation to the chosen risk profile the authorities' requirements.
- Competitive terms and good long-term access to funding in capital markets.
- Growth opportunities in the Group's defined market areas at any given time are taken advantage of.

On the basis of the strategic target, a capital plan is drawn up each year for the following three years to ensure long-term and targeted capital management. The capital plan shall take into account projections of the Group's financial development over the next three years. These projections are based on the expected developments in the period, as well as a situation with a serious economic downturn over a minimum of three years.

Based on the projections of the total capital requirements, the management team and Board must make an overall assessment of whether the Group's capital is sufficient and suitable for the Group's current and future risk profiles and strategic targets.

The Group's targets for common equity Tier 1 and total capital adequacy ratios must ensure sufficient capital to:

- Satisfy the authorities' requirements.
- Protect the Group's creditors.

4.3.3.7 Follow-up, reporting and monitoring
All managers are responsible for the day-to-day risk management in their own areas of responsibility, and they should ensure that the risk exposure is within the limits adopted by the Board or the CEO at all times.
The purpose of the Group's risk reporting is to ensure that the different levels of the organisation have access to adequate and reliable risk reporting. The overall monitoring of risk exposure and risk development is performed by the Risk Management Department and followed up through periodic reports to the Board and management team.

4.3.3.8 Contingency plans
The core business of banks entails the acceptance of risk. Over time this may inflict large unexpected losses on banks, in spite of good risk management systems and processes. Such a situation may entail serious pressure on capital adequacy, funding and operations. The Group must, therefore, have contingency plans for the aforementioned areas.

4.3.3.9 Compliance
There must be processes that ensure compliance with current Acts and Regulations. This must be achieved by:

- Clear core values and an ethical standard that is clearly communicated and understood
- A process that detects, communicates and implements amendments to Acts and Regulations
- A process that follows up and reports compliance with Acts and Regulations

4.3.3.10 Recovery plans
In addition to ordinary contingency plans, there must be a separate recovery plan that specifies concrete, practical measures for managing financial crisis situations. The recovery plan should not predict financial crises; rather it should identify and assess the Group's opportunities to restore its financial strength and viability in situations where the Group is under severe financial pressure.

5 Information per risk group

5.1 Key risk groups

The Group is exposed to various types of risk. The most important risk groups are:

Credit risk: The risk of losses resulting from a customer's or other counterparty's inability or unwillingness to fulfil its obligations.

Market risk: The risk of losses due to changes in observable market prices, such as interest rates, share prices or currency rates.

Operational risk: The risk of losses resulting from inadequate or failed internal processes or systems, human error or external events.

Liquidity risk: The risk of not being able to fulfil obligations or finance assets, including desired growth, without significant extra costs.

Ownership risk: The risk that the Group will suffer negative results from stakes in strategically owned companies and/or the need to inject fresh capital into these companies.

Ownership is defined as companies in which the Parent Bank Sparebanken Hedmark has a significant stake and influence.

Business risk: The risk associated with unexpected income and cost fluctuations due to factors other than credit risk, market risk, and operational risk.

Reputational risk: The risk of a failure in earnings and access to capital due to failing confidence in the market, i.e. customers, counterparties, stock market and authorities.

Strategic risk: The risk of losses resulting from unsuccessful strategic initiatives.

Compliance risk: The risk that the Group will incur public sanctions/penalties, financial losses or a weakened reputation as a result of a failure to comply with laws and regulations.

Risk of irresponsible debt build-up: The risk that the Group's financial strength will be disproportionately reduced due to a high proportion of external funding and excessive debt build-up.

5.2 Credit risk

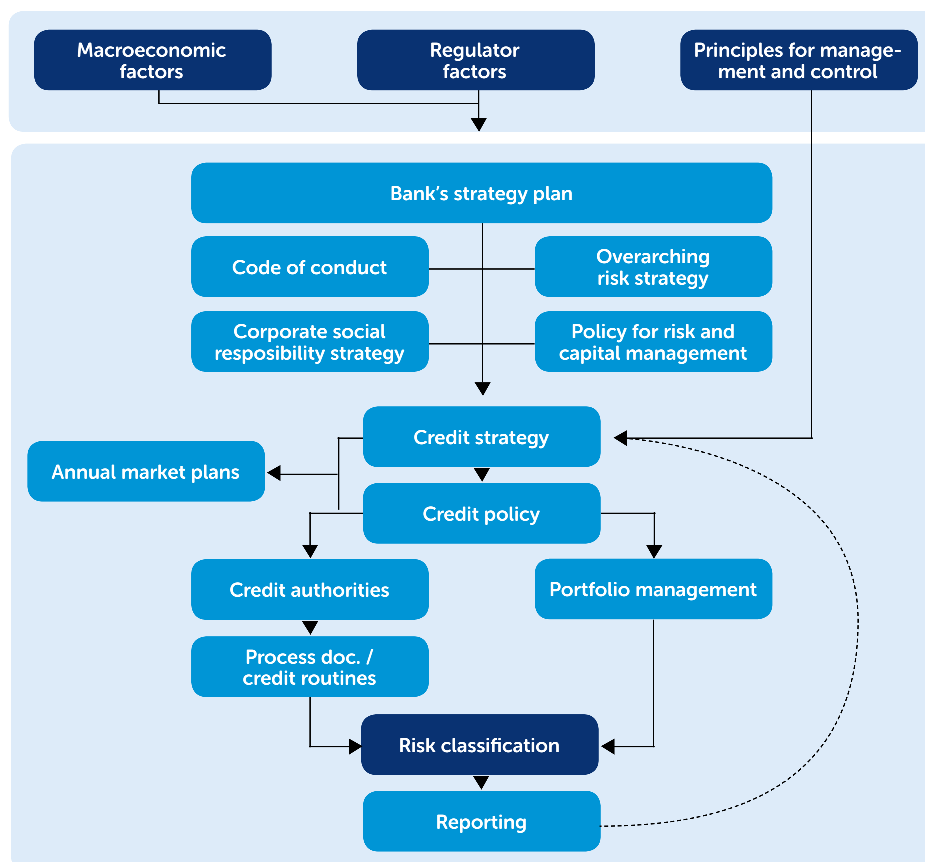
5.2.1 Management and control

Credit risk in the Group should be managed in accordance with the requirements and recommendations in the:

- Norwegian capital requirements regulations
- Financial Supervisory Authority of Norway's methodology for risk-based supervision

The Figure below illustrates what management and control of credit risk is based on.

Figure 9: Framework for managing credit risk



5.2.1.1 The Group's strategy plan

The strategy plan describes the market-related targets and defines the Bank's market area. The strategy document represents an important point of departure for other management and plan documents in the area.

5.2.1.2 Code of conduct

The code of conduct functions as a guide for the Group's activities by defining the ethical requirements we make of ourselves and how we should deal with the surroundings.

5.2.1.3 Corporate social responsibility strategy

The corporate social responsibility strategy describes the Group's opportunities and challenges in relation to corporate social responsibility and how this issue is managed.

5.2.1.4 Overall risk strategy

The overall risk strategy is the Board's tool for defining and managing the Group's risk profile. The document is issued by the Board and revised as required, and at least once a year.

5.2.1.5 Policy for risk and capital management

The policy for risk and capital management is the Group's internal framework for management and control. This policy provides guidelines for the Group's overall attitudes and principles for risk management and should ensure that the Group establishes and maintains an effective and appropriate risk management process. In addition, the document should ensure that the framework satisfies the external requirements and expectations for good risk management. The document is issued by the Board and revised as required, and at least once a year.

5.2.1.6 Credit strategy

The credit strategy specifies the overall principles for granting credit. The desired credit profile is defined through volume and risk-based targets for portfolio, sub-portfolio and individual customers. This forms the basis for reporting and monitoring the ongoing risk exposure. The document is issued by the Board and revised as required, and at least once a year.

5.2.1.7 Credit policy

The credit policy describes the distribution of responsibilities and roles and determines more detailed criteria for the credit operations. The policy describes what is acceptable within the given credit appraisal areas. The purpose is to ensure that the Bank acts in a uniform manner and in accordance with the external regulatory framework (laws and regulations) and established internal risk level. The document is issued by the Board and revised as required, and at least once a year.

5.2.1.8 Annual market and activity plans

The annual market and activity plans describes activities for the individual year. These plans should help ensure that the market, earnings and risk related targets in accordance with the Bank's strategy plan and risk strategies are achieved. Annual market and activity plans are issued administratively.

5.2.1.9 Credit authority regulations

The Board delegates credit authority to the CEO and determines the Bank's rules and regulations for granting credit. The credit authorities are personal and should reflect the competence of the individual. Credit authorities are differentiated by volume and risk. The document are revised as required and at least once a year.

5.2.1.10 Process documentation/credit routines

The documentation regulates various matters related to the ongoing granting of credit and follow-up of commitments, including routines for following up defaulted commitments, evaluations of impairments, etc. The documentation is prepared by the credit manager in cooperation with the business divisions. The documents are revised on an ongoing basis. Significant changes to the framework must be presented to, and approved by, the CEO.

5.2.1.11 Risk pricing

The Group strives to achieve the right pricing of credit risk and has established price models based on the risk classification system.

5.2.1.12 Validation

The purpose of the validation process is to verify the credit risk models and the Group's IRB system to ensure that both the quality of the models and the compliance with and application of the IRB system are good over time.
The process and preparation of the necessary reports are carried out by the Risk Management Department. Validation reports are reviewed by the Risk and Balance Sheet Management Committee before the CEO makes decisions relating to matters addressed in the report. The Board is kept informed about the validation work and the decisions that are made.

5.2.1.13 Stress testing

Periodic stress tests are performed on the credit portfolio, in which the effect of the stress tests on the expected losses and risk-adjusted capital is analysed and assessed.

5.2.1.14 Follow-up of credit risk/risk reporting

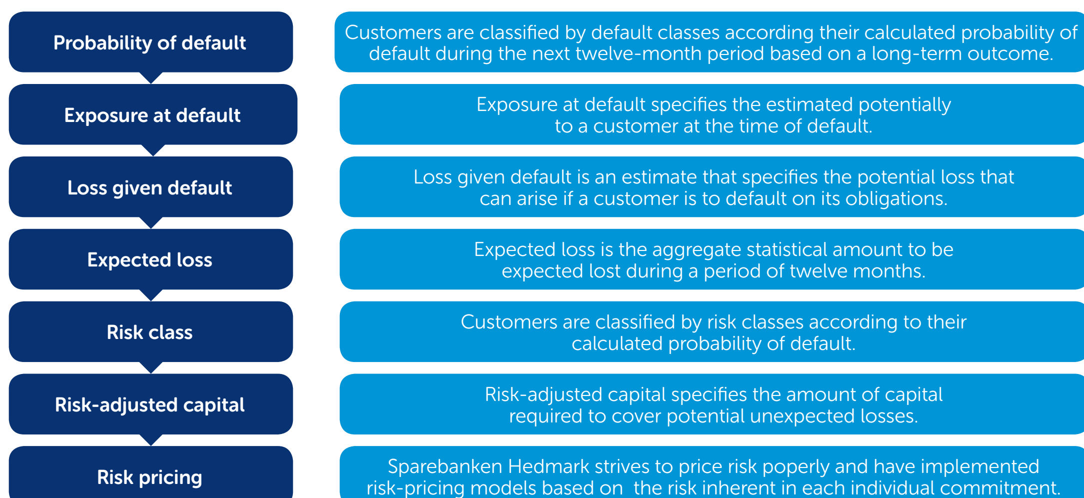
Risk exposure within the credit market is followed up by means of a portfolio management system that contains information that enables an appropriate follow-up of the portfolio's risk profile and its development. Importance is attached to following up the portfolio risk distribution and its development based on movements between the risk classes (migration), expected losses, capital needs, and risk-adjusted return.
The Risk Management Department follows up the risk in the credit portfolio and reports quarterly to the Board and the Bank's management team. In addition, the Risk Management Department prepares a monthly risk report to the Bank's management team based on selected risk parameters. The business divisions are responsible for following this up correspondingly within their own divisions.

5.2.2 Credit risk models

5.2.2.1 Credit models and risk classification systems

The Parent Bank Sparebanken Hedmark and Bank 1 Oslo Akershus use common models for calculating credit risk at the portfolio level and in the granting process together with the other banks in the SpareBank 1 Alliance. The models are based on statistical calculations, and are under continuous validation and development. The Parent Bank Sparebanken Hedmark and Bank 1 Oslo Akershus use the model both in internal reporting and in capital adequacy calculations based on the Advanced IRB approach.
The models are based primarily on three main components:

Figure 10: Risk classification system



5.2.2.2 Probability of Default (PD)

Commitments are classified by default classes according to the probability that the customers will default on their commitments during the next twelve-month period. The probability of default is calculated based on a long-term average, which is to represent the probability of default throughout an economic cycle. The probability of default is calculated, for example, on the basis of historical data series. In order to classify customers according to the probability of default, nine default classes (A–I) are used. In addition, deafult classes J and K are used for customers with commitments in default or commitments with impairments.

Figure 11: Risk classes

Risk class	Lower limit for probability of default	Upper limit for probability of default
A	-	0,10%
B	0,10%	0,25%
C	0,25%	0,50%
D	0,50%	0,75%
E	0,75%	1,25%
F	1,25%	2,50%
G	2,50%	5,00%
H	5,00%	10,00%
I	10,00%	99,99%
J	Defaults over 90 days	
K	Commitments with impairments	

A commitment is considered to be in default if:

- A claim has been due for more than 90 days and the amount is greater than NOK 1,000, or
- When the Bank considers it unlikely that the customer will meet their payment obligations.

5.2.2.3 Expected exposure at default (EAD)

EAD is an estimate that specifies the exposure to a customer at the time of default. The estimate is based on the overall exposure to the customer, including guarantees and unutilised credit limits.

5.2.2.4 Loss Given Default (LGD)

LGD is an estimate that specifies the potential loss that can arise if customers default on their obligations. Seven classes are used for classification of the commitments based on the collateral coverage:

Figure 12: Collateral classes

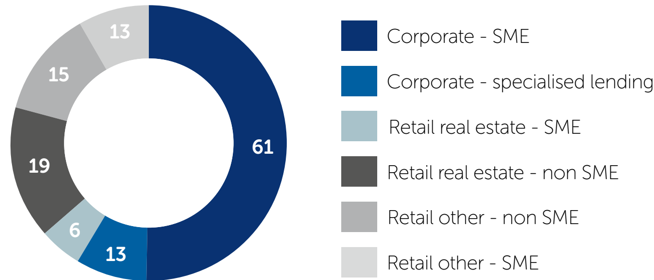
Collateral class	Collateral value (realisation value)
1	More than 120%
2	More than 100%
3	More than 80%
4	More than 60%
5	More than 40%
6	More than 20%
7	Up to 20%

5.2.3 Portfolio informastion

5.2.3.1 General information

Information about the Bank's credit risk comprises a description of the loan portfolio and doubtful or defaulted commitments, as well as other relevant information related to credit risk. The figure below shows impairments for losses in NOK millions for customer groups where the IRB approach is used.

Figure 13: Impairments for losses (balance sheet) where the IRB approach is used

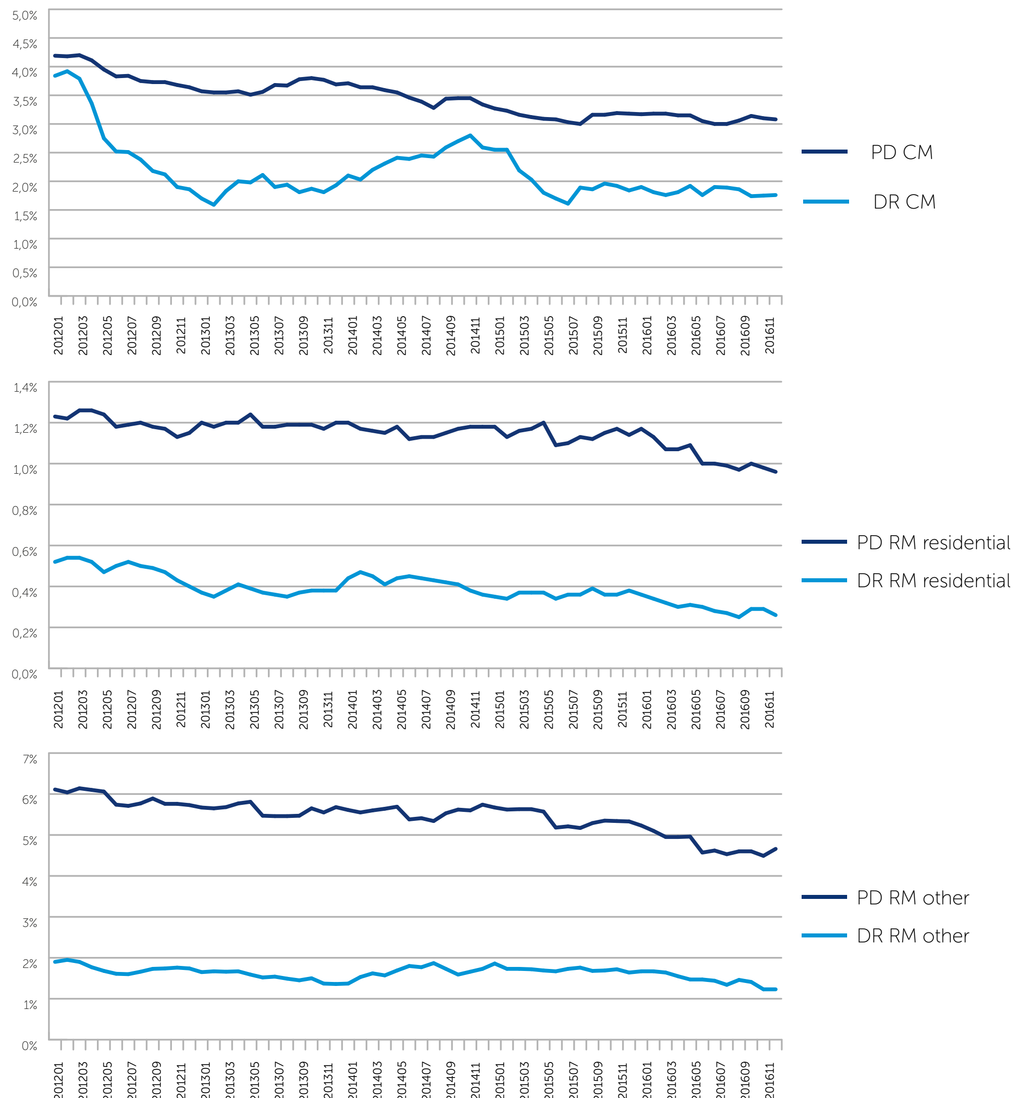


The figure below shows a comparison between probability of default (PD) and actual default rate (DR) twelve months later. The comparison is based on a scoring model and not regulatory categorisation. This means that, for example, self-employed people who are scored using the retail market model will not necessarily fall into the mass market category.

The differences between PD and the observed default rate (DR) are monitored via monthly reports for the last twelve-month period.

The figure shows data for the Parent Bank Sparebanken Hedmark. Please see Bank 1 Oslo Akershus's Pillar 3 document for the corresponding figures for Bank 1 Oslo Akershus.

Figure 14: Comparison of probability of default and default rate



The table below shows the distribution by risk class where the IRB approach is used.
All of the portfolios report using the Advanced IRB approach.

Table 2: Distribution by risk class for commitments where the IRB approach is used

Corporate - SME	Risk class	Total EAD	EAD off-balance	CF	Average LGD	Average risk weighting
	A	0	0	0 %	0 %	0 %
	B	222	42	86 %	19 %	22 %
	C	955	232	62 %	22 %	32 %
	D	1 143	274	66 %	28 %	47 %
	E	1 117	176	59 %	24 %	46 %
	F	1 409	263	68 %	36 %	78 %
	G	784	138	73 %	36 %	93 %
	H	492	226	84 %	41 %	122 %
	I	254	31	67 %	38 %	174 %
	J	7	2	50 %	38 %	15 %
	K	125	9	62 %	0 %	115 %
Total		**6 508**	**1 393**	**68 %**	**29 %**	**68 %**

Corporate specialised ledning - real estate	Risk class	Total EAD	EAD off-balance	CF	Average LGD	Average risk weighting
	A	0	0	0 %	0 %	0 %
	B	174	7	82 %	13 %	14 %
	C	1 660	80	91 %	27 %	36 %
	D	2 810	139	90 %	30 %	58 %
	E	2 301	139	81 %	27 %	48 %
	F	4 340	103	71 %	31 %	72 %
	G	2 412	352	88 %	37 %	98 %
	H	1 110	74	95 %	31 %	97 %
	I	335	13	77 %	33 %	136 %
	J	0	0	50 %	112 %	0 %
	K	55	0		0 %	0 %
Total		**15 198**	**907**	**85 %**	**30 %**	**68 %**

Corporate other	Risk class	Total EAD	EAD off-balance	CF	Average LGD	Average risk weighting
	A	0	0	0 %	0 %	0 %
	B	0	0	0 %	0 %	0 %
	C	117	0	0 %	36 %	64 %
	D	566	96	60 %	21 %	46 %
	E	372	15	56 %	18 %	42 %
	F	277	48	58 %	42 %	101 %
	G	0	0	0 %	0 %	0 %
	H	0	0	0 %	0 %	0 %
	I	0	0	0 %	0 %	0 %
	J	0	0	0 %	0 %	0 %
	K	0	0	0 %	0 %	0 %
Total		**1 332**	**159**	**59 %**	**26 %**	**58 %**

Corporate specialised lending - object financing	Risk class	Total EAD	EAD off-balance	CF	Average LGD	Average risk weighting
	A	0	0	0 %	0 %	0 %
	B	53	12	82 %	18 %	22 %
	C	102	18	61 %	18 %	24 %
	D	33	4	56 %	26 %	43 %
	E	38	9	57 %	21 %	44 %
	F	65	7	60 %	22 %	67 %
	G	29	7	63 %	23 %	67 %
	H	13	1	62 %	28 %	119 %
	I	14	2	67 %	25 %	130 %
	J	1	0	50 %	29 %	217 %
	K	0	0	0 %	0 %	0 %
Total		**349**	**60**	**64 %**	**21 %**	**48 %**

Corporate specialised lending - project financing	Risk class	Total EAD	EAD off-balance	CF	Average LGD	Average risk weighting
	A	8	3	60 %	84 %	27 %
	B	0	0	0 %	0 %	0 %
	C	0	0	0 %	3 %	2 %
	D	0	0	0 %	0 %	0 %
	E	96	0	0 %	19 %	45 %
	F	51	0	75 %	22 %	56 %
	G	3	0	100 %	60 %	217 %
	H	0	0	0 %	0 %	0 %
	I	0	0	0 %	0 %	0 %
	J	0	0	0 %	0 %	0 %
	K	2	0	0 %	0 %	113 %
Total		**161**	**3**	**62 %**	**24 %**	**52 %**

Retail - real estate - non SME	Risk class	Total EAD	EAD off-balance	CF	Average LGD	Average risk weighting
	A	0	0	0 %	0 %	0 %
	B	10 724	2 578	100 %	16 %	7 %
	C	13 130	694	100 %	20 %	13 %
	D	10 474	119	100 %	22 %	21 %
	E	10 762	54	100 %	24 %	31 %
	F	4 280	16	100 %	25 %	44 %
	G	878	11	100 %	23 %	65 %
	H	612	2	100 %	22 %	90 %
	I	731	0	94 %	22 %	122 %
	J	128	0	100 %	18 %	28 %
	K	67	0	100 %	29 %	87 %
Total		**51 785**	**3 474**	**100 %**	**21 %**	**23 %**

Retail - real estate - SME	Risk class	Total EAD	EAD off-balance	CF	Average LGD	Average risk weighting
	A	0	0	0 %	0 %	0 %
	B	1 118	311	100 %	14 %	6 %
	C	1 090	131	99 %	17 %	11 %
	D	566	30	98 %	19 %	17 %
	E	561	9	99 %	20 %	26 %
	F	383	3	96 %	21 %	38 %
	G	130	1	89 %	24 %	65 %
	H	84	2	97 %	15 %	63 %
	I	154	1	92 %	22 %	130 %
	J	13	0	0 %	18 %	15 %
	K	21	0	100 %	27 %	144 %
Total		**4 120**	**488**	**99 %**	**18 %**	**23 %**

Retail other - SME	Risk class	Total EAD	EAD off-balance	CF	Average LGD	Average risk weighting
	A	0	0	0 %	0 %	0 %
	B	91	44	98 %	44 %	19 %
	C	63	28	99 %	43 %	28 %
	D	44	12	96 %	48 %	41 %
	E	46	10	94 %	46 %	49 %
	F	24	7	95 %	39 %	51 %
	G	20	2	90 %	47 %	70 %
	H	5	1	97 %	42 %	70 %
	I	10	1	92 %	44 %	104 %
	J	2	0	100 %	59 %	0 %
	K	16	0	100 %	79 %	18 %
Total		**319**	**102**	**97 %**	**46 %**	**37 %**

Retail other - non SME	Risk class	Total EAD	EAD off-balance	CF	Average LGD	Average risk weighting
	A	0	0	0 %	0 %	0 %
	B	376	170	100 %	65 %	29 %
	C	621	112	100 %	64 %	41 %
	D	582	52	99 %	63 %	54 %
	E	644	33	99 %	62 %	65 %
	F	330	11	97 %	64 %	82 %
	G	135	5	98 %	65 %	97 %
	H	90	3	97 %	65 %	106 %
	I	56	2	87 %	64 %	155 %
	J	21	0	100 %	57 %	0 %
	K	18	0	100 %	78 %	23 %
Total		**2 874**	**387**	**99 %**	**64 %**	**59 %**

The table below shows the Group's total commitments to customers and institutions before and after impairments.

Table 3: Commitments

Type of commitment	Commitment amount as at 31 December 2016	Average commitment amount
RM	57 269	41 807
CM	35 169	29 175
Gross commitment, customers	**92 438**	**70 982**
Individual impairments	145	139
Impairments on groups of loans	262	191
Impairments of guarantees	10	12
Net commitment, customers	**92 020**	**70 639**
Norges Bank	622	385
Financial institutions	1 735	1 299
Total commitment amount	**94 377**	**72 323**

The table below shows the Bank's total loans inside and outside Hedmark. Table 5 shows loans and total commitments by customer group, while table 6 shows the remaining term of loans, guarantees, and unutilised credit limits for customers and financial institutions.

Table 4: Commitments by geographic area (based on customer's address)

Type of commitment	Hedmark	Oslo	Oppland	Akershus	Others	Abroad	Total
Gross lending	30 248	25 982	4 980	16 867	4 709	159	82 945
Unutilised credit	2 057	3 026	339	1 608	1 157	125	8 312
Guarantees	340	500	56	226	57	0	1 179
Total	**32 645**	**29 508**	**5 374**	**18 701**	**5 924**	**284**	**92 436**

Table 5: Commitments by customer group

Type of commitment	Lending	Unutilised credit	Guarantees	Total
Wage earners (RM)	**53 421**	**2 372**	**8**	**55 801**
Public administration	193	227	30	**450**
Agrigulture/forestry	4 428	657	17	**5 101**
Wood processing industry	218	0	0	**218**
Other industries	801	234	199	**1 233**
Building and construction	1 684	1 210	526	**3 420**
Power and water supply	407	27	1	**435**
Wholesale and retail trade	1 332	287	33	**1 653**
Hotel and restaurant industry	476	146	6	**628**
Property management	14 157	527	193	**14 876**
Commercial services	4 356	807	75	**5 237**
Transport and communication	1 287	183	81	**1 551**
Other industries	187	1 637	9	**1 833**
CM	**29 524**	**5 941**	**1 171**	**36 636**
Total commitments to customers	**82 945**	**8 313**	**1 179**	**92 437**

Table 6: Remaining terms of commitments

	At call	Less than 3 months	3–12 months	1–5 years	Over 5 years	Total
Gross loans to customers incl. accrued interest	18 244	840	2 919	13 669	47 274	**82 946**
Unutilised credit limits	8 194	35	54	21	9	**8 313**
Guarantees	0	44	394	182	560	**1 179**
Total commitments	**26 438**	**919**	**3 366**	**13 872**	**47 842**	**92 437**

5.2.3.2 Impairments and losses on loans and guarantees

Individual impairments
Individual impairments for losses on individual commitments are made when there is objective evidence that triggers an impairment in value for the Group. Individual impairments represent the difference between the commitment's book value and the present value of the discounted cash flow based on the effective interest rate at the time of the initial calculation of the individual impairment. A impairment entails that a commitment is given the highest default class (K).

Individual impairments reduce the book value of the commitments on the balance sheet, and changes in the assessed value during the period are recognised in the income statement as losses on loans and guarantees.

The estimation of cash flows is complicated since events in the future are generally associated with uncertainty. Importance is attached to specific orientation and caution in the estimation of value as grounds for the realisation of collateral security. The cash flow is updated at least once a year based on materiality assessments.

Group impairments
Group impairments comprises of an assessment of a group of loans with approximately the same risk characteristics. Loans where individual impairments have been considered but where objective evidence has not been proven are included. All loans are consequently assessed with the exception of those that have been subject to individual impairments. The model for calculation of group impairments is based on changes in the expected losses as a result of loan portfolio migration, as well as any additions in the event of major changes in the macro conditions.

Group impairments reduce the book value of the commitments on the balance sheet, and changes in the assessed value during the period are recognised in the income statement as losses on loans and guarantees.

General
The Bank monitors the corporate market portfolio to identify credit risk and assess in this context whether individual impairments should be made. Large and particularly doubtful commitments are reviewed on a semi-annual basis. All the identified problem commitments in the corporate market that have been assessed in particular are subject to special intensified follow-up. The summary is maintained monthly.

The entire credit portfolio is subject to assessment upon more than 64 days in default as grounds for forwarding to debt collection with the a associated assessment of individual impairments.

Loans and other commitments in which there has been a default on the payment terms are classified as in default unless the situation is considered to be of a temporary nature. Classification as in default occurs at day 90 after the default has been established. Guarantees are in default when the guarantee creditor has pledged claim.

Table 7 illustrates changes in the impairment of loans and guarantees on the Group's balance sheet and the impairments distributed by customer group. Table 8 illustrates the corresponding data for group impairments. As at 31 December 2016, total impairments (tables 8 and 9) amounted to NOK 418 million.

Table 7: Individual impairments

Individual impairments	Retail market	Corporate market	Total
Individual impairments to cover losses on loans, guarantees, etc., as at 1 January.	39	107	**147**
Realised losses in the period on loans, guarantees, etc. previously impaired individually	15	24	**39**
Reversal of impairments from prior years	8	19	**27**
Increase in impairments on commitments previously impaired individually	3	6	**9**
Impairment of commitments not previously impaired individually	19	35	**54**
Change in outgoing balance due to acquisition of B1OA	6	7	**13**
Individual impairments to cover losses on loans and guarantees as at 31 December	**43**	**112**	**156**

Table 8: Group impairments

Group impairments	Retail market	Corporate market	Total
Group impairments to cover losses on loans and guarantees as at 1 January	34	86	**120**
Group impairments to cover losses on loans and guarantees for the period.	10	11	**22**
Change in outgoing balance due to acquisition of B1OA	36	84	**120**
Group impairments to cover losses on loans and guarantees as at 31 December	**80**	**181**	**262**

Table 9: Individual impairments

Individual impairments distributed by sector and industry	2016
Wage earners etc.	41
Agriculture/forestry	0
Primary industry	14
Wood processing industry	1
Other industries	27
Building and construction	11
Power and water supply	1
Wholesale and retail trade	23
Hotel and restaurant industry	0
Property management	15
Commercial services	20
Transport and communication	4
Total individual impairments on loans and guarantees as at 31 December	**156**

Impairments, defaults and recognised losses by customer group

Table 10 illustrates doubtful commitments and losses distributed by sectors. The first column shows commitments with impairment. Defined as the customer's total commitments in which individual impairments have been made. Overdue commitments, defined as commitments in default at the maturity date are shown in the second column. The third column shows individual and group impairments, while the last column shows recognised losses in 2016. Table 11 contains the same information as table 10, but sorted by geographic area. Table 12 shows the composition of the net recognised losses for 2016 distributed by the retail market and corporate market.

Table 10: Losses by sector

	Total commitment amount			
	Commitments with induvidual impairments	Overdue commitments	Value changes, induvidual and group impairments	Recognised changes in value in 2016
Wage earners (RM)	**49**	**144**	**41**	**20**
Public administration	0	0	0	0
Agriculture/forestry	11	24	14	9
Wood processing industry	4	0	1	0
Other industries	68	6	27	13
Building and construction	14	10	11	2
Power and water supply	3	0	1	0
Wholesale and retail trade	29	12	23	5
Hotel and restaurant industry	0	1	0	0
Property management	62	3	15	2
Commercial services	21	15	20	-2
Financial services	8	4	4	0
Transport and communication	3	13	0	4
CM	**223**	**88**	**115**	**33**
Group impairments CM	0	0	182	11
Group impairments RM	0	0	80	11
Losses on loans and guarantees to customers	**272**	**233**	**418**	**75**

Table 11: Credit and impairment risk by geographic area

	Total commitment amount			
Geographic areas	Commitments with induvidual impairments	Overdue commitments	Value changes, induvidual and group impairments	Recognised changes in value in 2016
Hedmark	152	116	92	19
Oppland	32	12	18	11
Akershus	15	46	10	6
Rest of the country	37	27	18	-4
Abroad	32	28	14	21
Total	4	4	3	0
Group impairments	272	233	155	53
Total	**0**	**0**	**262**	**22**
	272	**232**	**417**	**75**

Table 12: Reconciliation of recognised changes in value (losses) for the period

Net recognised losses in 2016	RM	CM	Total
Change in individual impairments for the period	-1	8	**7**
+ Change in group impairments for the period	10	11	**22**
+ Write-offs on commitments previously impaired	18	22	**40**
+ Write-off of commitments not previously impaired	26	12	**38**
– Recoveries on loans, guarantees, etc., previously impaired	-28	-5	**-33**
Total losses on loans, guarantees, etc.	**27**	**48**	**75**

5.2.3.3 Credit risk and commitment categories

Guarantors

The Group has granted loans to publicly owned companies with guarantees from a municipality or county authority. Public guarantors such as municipalities and county authorities are regarded as having a very low risk of default.

Commitments and the use of rating agencies

Official ratings from Standard & Poor's, Moody's and Fitch are used for the relevant commitment categories. The transfer and allocation of rating assessments takes place in accordance with the rules that follow from sections 7-3 and 7-5 of the Capital Requirements regulations.

Collateral

In determining a reasonable value, the market value of the collateral is used after a deduction for a specific reduction factor. The main types of collateral are generally in real estate, receivables, chattels, chattels within agriculture, operating credit for farming, inventories, machinery and plant, and bank deposits. In the case of guarantor, the main categories are consumer guarantee (private individuals), companies, banks and the public sector.

Table 13: Collateral

Commitment category		Commitment	Of which secured by mortgage on real estate	Of which secured total
Mass market	Retail real estate - non SME	51 785	92 %	96 %
	Retail real estate - SME	4 120	100 %	100 %
	Retail other - SME	319	6 %	10 %
	Retail other - non SME	2 874	4 %	41 %
Total		**59 098**	**92 %**	**93 %**

Commitment category		Commitment	Of which secured by mortgage on real estate	Of which secured total
Corporate	Corporate other	1 332	19 %	83 %
	Corporate specialised ledning - real estate	15 198	74 %	77 %
	Corporate specialised lending - object financing	349	71 %	100 %
	Corporate specialises lending - project financing	161	86 %	87 %
	Corporate SME	6 508	55 %	80 %
Total		**23 548**	**66 %**	**79 %**

Counterparty risk for derivatives

Derivatives are traded with counterparties based on credit assessments and defined limits in accordance with the finance strategy. Derivatives are recognised at fair value through profit and loss.

Table 14: Derivative contracts

Derivatives	Nominal value	Gross fair value	Commitment amount in accordance with section 21 of the CRD
Currency-related contracts	3 767	25	92
Interest-related contracts	21 036	554	689
Equity capital related contracts	0	0	0
Gross value before set-off	**24 804**	**579**	**781**
Set-off		242	287
Total	**24 804**	**337**	**493**

5.3 Market risk

Market risk is defined as the risk of losses attributed to changes in interest rates, share/security prices or foreign exchange rates. The Group's market risk arises mainly from the investments in bonds, certificates and shares, and as a result of activities that are performed to support the banking operations – such as funding and interest rate and foreign exchange trading. In addition, changes in value in the Group's portfolio of real estate are managed as market risk. No capital requirements are calculated for market risk in accordance with Pillar 1.

Shares, units and other equity interests are classified in compliance with IAS 39 as either financial assets held for trading or financial assets available for sale. Equity interests classified as available for sale are assessed at fair value on the basis of listed prices or using different valuation approaches. Unrealised gains and losses on equity interests available for sale are included in other comprehensive income in compliance with IAS 1. Realised gains and losses, dividends, and impairments are recognised in the income statement as income from other financial investments.

Purchased certificates and bonds are measured at fair value through profit or loss pursuant to IAS 39. Changes in value after the opening balance are recognised as income from other financial investments.

Financial derivatives are classified at fair value through profit and loss in compliance with IAS 39. Gains or losses arising from a change in the derivative's fair value are recognised in the income statement as income from other financial investments. Contracts with unrealised gains are presented on the balance sheet as an asset, and contracts with unrealised losses are presented as a liability.

Also see the notes in the Bank's annual financial statements for 2016 for a more detailed description of how financial instruments are accounted for.

5.3.1 Management and control

The market risk is managed, measured and monitored on an ongoing basis based on the limits adopted by the Board through the finance strategy in which the limits for exposure to interest-bearing instruments, equities and foreign currency are stated. The finance strategy is revised annually.

5.3.1.1 Interest rate risk

Interest rate risk arises as a result of interest-bearing assets and liabilities having different remaining fixed-rate periods. Interest rate risk is steered towards the desired level by means of interest rate commitments for investments and funding loans and through the use of interest rate derivatives. The total interest rate risk can be divided into four elements:

- Basis risk
- Yield curve risk
- Administrative interest rate risk
- Spread risk

Basis risk is the change in the value of the Group's assets and liabilities that takes place when the entire yield curve shifts in parallel.

Yield curve risk is the risk that the yield curve shifts differently within the various term bands when the interest rates change.

Administrative interest rate risk arises because of the time it takes from when an interest rate change occurs in the market until the Group has adjusted the terms for deposits and loans with adjustable interest rates. The Financial Contracts Act requires in general a notice period of at least six weeks for interest rate increases on loans to customers and eight weeks for interest rate reductions on deposits.

Spread risk is the risk that the market's pricing of individual issuers does not change consistent with the underlying benchmark interest rates.

The purpose of the Group's management of interest rate risk is to ensure that the Group has a known interest rate risk exposure and that this concurs with the Group's risk profile and current limits for the area. Management of the interest rate risk should take all the elements of the interest rate risk into account. The interest rate risk is reported to the management team each month and the Board each quarter.

5.3.1.2 Equity price risk

Equity price risk is measured in relation to the exposure to shares, equity certificates or equity funds. The management and follow-up of the risk area is based on the adopted limit for exposure to short-term shareholdings, in addition to the guidelines prescribed in laws and regulations concerning the permitted total exposure to all types of equity items, whether short-term shareholdings, long-term shareholdings or shares in companies that are regarded as strategic positions.

5.3.1.3 Currency risk

Currency risk arises when differences exist between the Group's assets and liabilities in the individual currency. The currency risk is measured based on the combined net currency position and the net position in the various currencies.

5.3.1.4 Derivatives

In the Bank's treasury activities, derivative contracts are entered into in practice exclusively in connection with the trading of underlying loans or bond investments due to hedging or risk management considerations. Contracts are only entered into with credit-approved counterparties. Treasury does not have any trading portfolio of derivatives. The Bank's derivatives consist primarily of interest rate swaps, currency swaps or cross-currency swaps related to the hedging of borrowings in another currency.

The Bank's investment centre, which is responsible for customer-oriented trading in equities and currency, takes on limited risk in foreign exchange and interest rate derivatives, including currency forward contracts etc. in connection with ongoing customer service within the limits defined in the finance strategy.

The market risk for derivatives is managed, monitored and controlled as an integral part of the portfolios' market risk..

5.3.2 Limits, monitoring and reporting

Investments in interest-bearing securities are managed using limits for risk-adjusted capital and limits for exposure by sector and by issuer.

The Finance Department is responsible for the ongoing control of limits, The risk manager for market and liquidity risk is responsible for monitoring and monthly reporting of positions according to limits adopted in the finance strategy. If the limits are exceeded, the risk manager for market and liquidity risk must immediately report upwards in the organisation.

The Risk Management Department submits independent reports to the management team every month and the Board every quarter.

5.3.3 Portfolio information

The Group's positions in equity positions are shown in the table below

Table 15: Positions in equity securities

		2016
Shares and units (NOK millions)		
Designated fair value through profit or loss (FVO)		**356**
	Listed	0
	Unlisted	356
Available for sale (AFS)		**391**
	listed	188
	Unlisted	203
Total		**746**

Changes in the fair value of assets classified as AFS are recognised directly in equity. In the event of a prolonged, major decrease in fair value of an AFS asset, the cumulative loss recognised directly in equity is removed and recognised in profit and loss. What is to be interpreted as a significant or long-term impairment in value is a question of judgement. In deciding this question, Sparebanken Hedmark follows the IFRIC guidelines, recommendations from the auditing profession and professional standards. This assessment is made at the instrument level and has been operationalised to apply to an impairment in value that values the asset to less than 80 per cent of the cost price on the date of the balance sheet or if a market price lower than the cost price lasts for more than twelve months. Further reductions in value on previously written-down AFS assets are subsequently recognised continuously in profit and loss each time the financial statements are published. Fair value is consistently presented inclusive of accrued interest (dirty price)

Table 16: Overview of fair value, gains and losses

Investment type	Fair value	Realised gains or losses as at 31 December 2016	Unrealised gains or losses as at 31 December 2016	Amount deducted in core equity Tier 1 capital
Financial investments	27	0	6	0
Strategic investments	267	13	158	0
Associated companies and joint ventures	3 618	0	0	-452
Total	**3 912**	**13**	**164**	**-452**

The Group's investments in bonds and certificates are shown in the table below.

Table 17: Bonds and certificates

Certificates and bonds by sub-sector		2016
Goverment		
	Nominal value	50
	Fair value	57
Other public issuers		
	Nominal value	2 347
	Fair value	2 356
Financial enterprises		
	Nominal value	7 198
	Fair value	7 246
Non-financial enterprises		
	Nominal value	117
	Fair value	118
Total fixed income securities, nominal value		**9 713**
Total fixed income securities, fair value through profit or loss		**9 776**

The interest rate risk for all interest rate positions can be expressed by looking at the change in the interest rate instruments' values in the event of a parallel 1 per cent change in interest rates. The table below shows the effect of such a change in interest rates for various currencies, basis risk and yield curve risk. Account is not taken here of administrative interest rate risk or spread risk.

Table 18: Interest rate risk

Currency	Interest rate risk, 1% change 2016
NOK	12
USD	0
JPY	0
EUR	0
CHF	0
Other	0
Total interest rate risk, effect on profit after tax and equity	**11**

Basis risk	Interest rate risk, 1% change 2016
Bonds and certificates	-44
Fixed-rate loans to customers	-115
Fixed-rate deposits to customers	18
Short-term debt instruments	0
Bond issue	293
Other fixed-rate funding and investments	3
Derivatives	-145
Total interest rate risk, effect on profit after tax and equity	**11**

Yield curve risk	Interest rate risk, 1% change 2016
0 - 1 month	1
1 - 3 months	9
3 - 6 months	0
6 - 12 months	8
1 – 3 years	0
3 – 5 years	-3
5 – 10 years	-4
Total interest rate risk, effect on profit after tax and equity	**11**

The table below provides an overview of the Group's financial derivatives by currency and interest rate instrument. The Bank uses derivatives to hedge against volatility in fixed income securities and exchange rates to which the Bank has underlying exposure.

Table 19: Financial derivatives

At fair value through profit or loss		**2016**	
		Liabilities	
Currency instruments	**Contract amount**	**Assets**	**Liabilities**
Currency forward contract	805	7	10
Currency swaps	2 076	19	7
Total currency instruments	2 881	26	18
Interest rate instruments			
Interest rate swaps (including currency-cross swaps)	21 853	783	331
Other interest rate contracts	50		
Total interest rate instruments	21 903	783	331
Other derivatives			
Guarantee liability to Eksportfinans AS	20	2	0
Total currency and interest rate instruments			
Total currency instruments	2 881	26	18
Total interest rate instruments	21 903	783	331
Total other derivatives	20	2	0
Total	**24 804**	**810**	**349**

The table below provides an overview of the Group's net currency exposure. The currency risk is quantified and monitored continuously. The Group was exposed to limited currency risk both during the year and at year end.

Table 20: Currency exposure

Net currency exposure NOK	2016
GBP	2
USD	0
DKK	1
JPY	0
PLN	0
SEK	5
EUR	5
CHF	5
Other	3
Total	**22**

5.4 Operational risk

Operational risk is the risk of losses due to weak or inadequate internal processes or systems, human errors or external incidents. Operational risk also includes legal risk, which is a risk that arises due to challenges with documentation and the interpretation of contracts, as well as varying legal practices where the Group operates.

5.4.1 Management and control

While banks deliberately accept market and credit risk, operational risk is a type of risk that banks would like to avoid to the greatest possible extent. The operational risk in the Group should be characterised by few and minor operational incidents.

The practical management of operational risk in the Group is based on the following main activities:

5.4.1.1 Manager confirmation

All managers of business and support functions are responsible for day-to-day risk management, and for ensuring that good internal control exists within their area of responsibility. All managers must report on status and development in annual manager confirmations, as well as assess the risk culture as an element in analyses and reports for their areas.

The manager confirmations are intended to provide the CEO and Board with information about whether risk management is being properly addressed, including whether routines, guidelines, acts and regulations are being followed. Manager confirmations are an important part of the Group's systematic quality work. The manager confirmation is administrated by the Risk Management Department.

5.4.1.2 Losses and incidents, and customer complaints

The Group must be focused, and capable of, identifying and understanding risks and at the same time learning from adverse incidents. Operational losses and incidents are registered in the incident database and followed up in accordance with the routine for registering and following up adverse incidents. Improvement measures are registered in the improvement database. Losses and incidents are reviewed periodically to identify significant or systematic errors, weaknesses and areas requiring improvement.

All employees in the Group have a responsibility to report incidents and customer complaints. Risk Management is responsible for ensuring these are registered in the incidents database in accordance with established routines.

5.4.1.3 Continous improvement

The Risk Management Department are to register and follow up all material suggestions for improvement based on reports from the internal audit, input from manager confirmations, measures from the Financial Supervisory Authority of Norway, or recommendations from other relevant bodies. All managers with a responsibility to follow up measures are to register regular updates on progress and relevant activities that have been started in the improvements database.

5.4.1.4 Risk analyses

The Risk Management Department are to facilitate risk analyses based on a defined annual plan. The annual plan is reviewed annually, based on the department's assessment of inherent risk

The Risk Management Department is also responsible for enabling the front-line to carry out its own risk analyses, and providing assistance with methodology and tools.

5.4.2 Minimum primary capital requirements

The Group uses the basic approach to calculate the primary capital required to cover operational risk. Minimum requirements are calculated as a percentage of average income for each business area in the last three years using the following percentages: own account and procurement, 18 per cent; brokerage for mass market customers, 12 per cent; banking services for mass market customers, 12 per cent; banking services for corporate customers, 15 per cent; payment and settlement services, 18 per cent; associated services, 15 per cent; and capital management, 12 per cent. Income items that are included in the assessment basis follow section 42-1(3) of the Capital Requirements Directive.

Table 21: Minimum primary capital requirement for operational risk

	Consolidated	Sparebanken Hedmark	Bank 1 Oslo Akershus AS	SpareBank 1 Finans Østlandet AS
Risk-weighted assets	3 702	**2 253**	1 873	291
Minimum capital requirement 8 %	**296**	**180**	**150**	**23**

5.5 Compliance risk

Compliance risk is the risk that the Group will incur public sanctions/penalties, financial losses or a damaged reputation as a result of a failure to comply with laws and regulations.

5.5.1 Management and control

The Risk Management Department has the overall responsibility for the coordination of compliance work. The Group has a separate person responsible for compliance of the securities firm, who is responsible for checking that the activities related to the provision of investment services are carried out in accordance with the regulations for securities trading.

The Group's management is responsible for implementation and compliance with laws and regulations, while each individual employee is responsible for day-to-day, ongoing compliance.

Incidents and violations in the compliance area will be registered in the same manner as operational risk is registered and followed up via the Group's incident database.

5.6 Liquidity risk

Liquidity risk is the risk that the Group is not able to fulfil its obligations when due or finance assets, including desired growth, without significant extra costs.

5.6.1 Management and control

The management of liquidity risk is based on risk-based governing documents within the area of liquidity. These set limits for the liquidity risk through limits for the net liquidity requirements at different time intervals, requirements for long-term funding, the size of the liquidity reserve and the length of the time period the Group should be independent of any new external financing from the money or capital markets. The governing documents are adopted by the Board and revised as required and at least once a year. In connection with the governing documents, a separate contingency plan has been established for management of the liquidity situation during periods when the financial markets are turbulent. Stress tests that analyse the Group's liquidity-related vulnerability during periods without access to external funding are used (see below). Treasury is responsible for managing liquidity, while the Risk Management Department is responsible for monitoring and reporting in accordance with the limits of the finance strategy.

5.6.2 Portfolio information

5.6.2.1 Diversification and maturity information

Liquidity risk is reduced by the diversification of funding over different markets, funding sources, instruments, terms, and currencies. Total funding (excl. customer deposits and equity) was NOK 60.5 billion at year-end 2016, of which 60 per cent was loans sold to SpareBank 1 Boligkreditt and SpareBank 1 Næringskreditt, while the remaining 40 per cent was own borrowing. Of the Group's total funding volume of NOK 60.5 billion, NOK 2.5 billion will be refinanced in 2017. The average term for the Group's funding was 3.1 years at year-end 2016. The figure below shows the Group's sources of funding at year-end 2016.

Figure 15: The Group's sources of funding

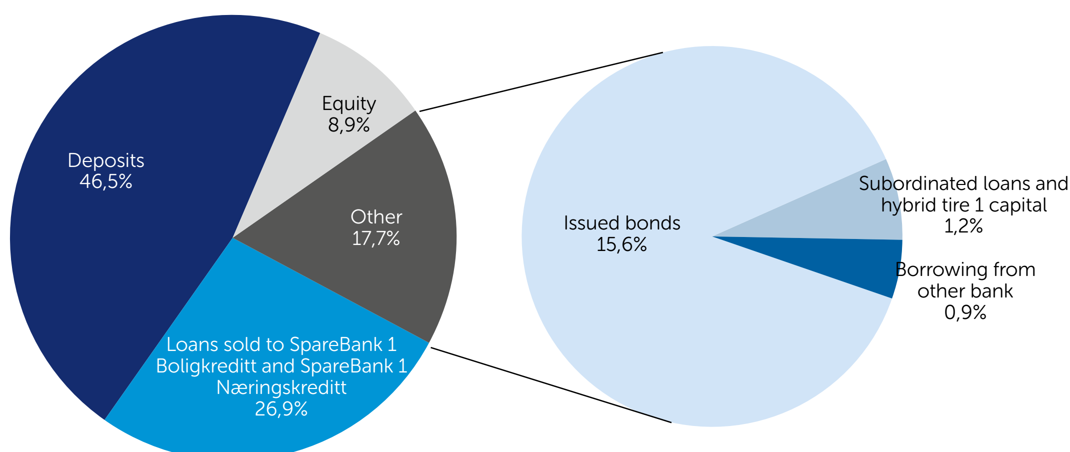
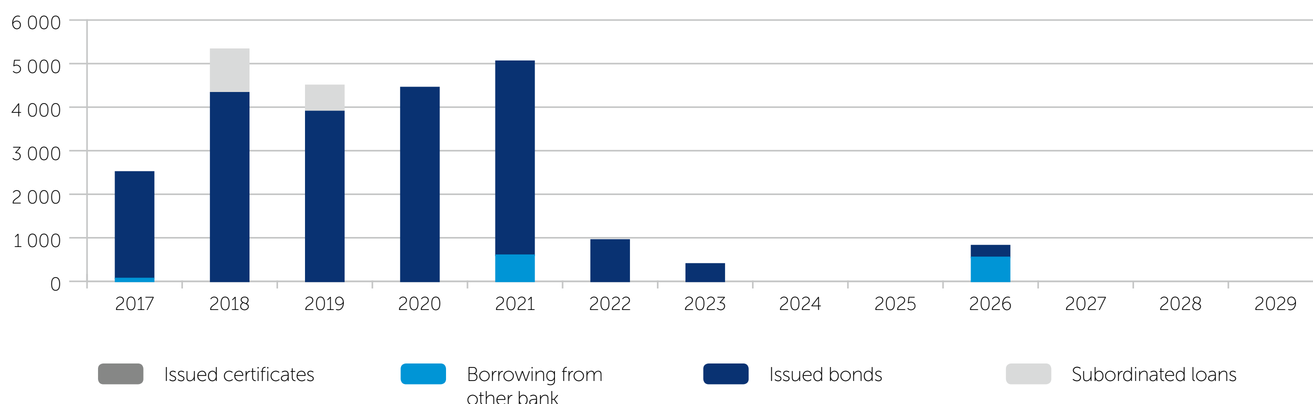


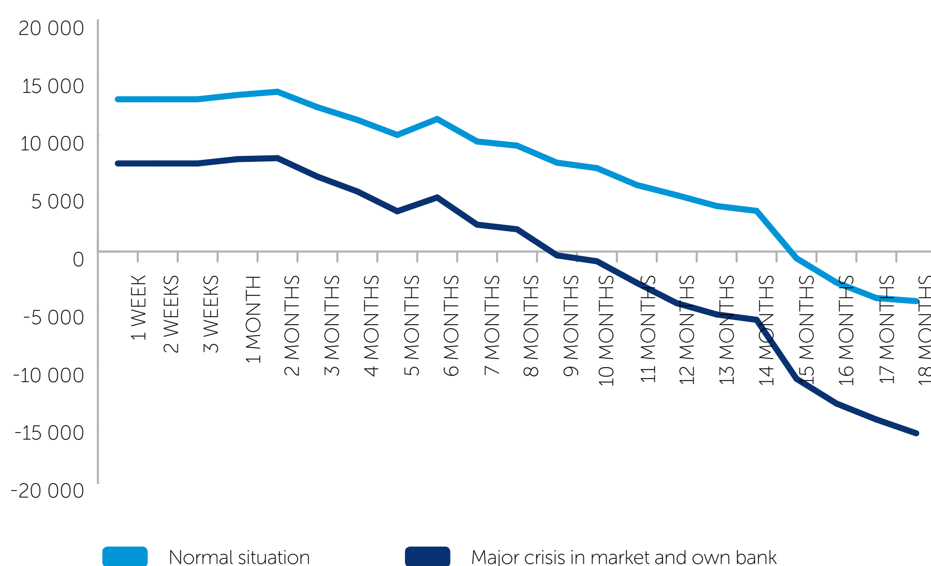
Figure 16: Borrowing portfolio's maturity structure



5.6.2.2 Liquidity development and stress tests

The liquidity reserve at the start of the year contained cash, access to loans from Norges Bank, bonds, loans prepared for sale to SpareBank 1 Boligkreditt, and bonds and listed equities totalling NOK 14.6 billion.

Figure 17: Results from stress tests



The finance strategy requires that the Group should be able to maintain ordinary operations for 12 months without a supply of external funding through ordinary operations. As at 31 December 2016 the Group could continue its operations for more than fourteen months of ordinary operations. The strategy also indicates that the Group should be able to maintain operations for three months in a scenario defined as a major crisis in the market and its own bank. As at 31 December 2016, the Group had sufficient liquid assets to continue its operations for eight months in this scenario.

5.6.2.3 Liquidity indicators and LCR

The development in the last few quarters of the Group's consolidated liquidity indicators in accordance with the Financial Supervisory Authority of Norway's definitions, as well as LCR, is shown in the table below.

Table 22: Liquidity indicators

Indicator	31.12.2015	31.03.2016	30.06.2016	30.09.2016	31.12.2016
Liquidity indicator I	115 %	114 %	113 %	112 %	112 %
Liquidity indicator II	123 %	122 %	119 %	120 %	118 %
LCR	121 %	139 %	137 %	113 %	117 %

5.7 Ownership risk

Ownership risk is the risk that the Group will incur negative earnings from ownership interests in strategically owned companies, or that the Bank must provide new equity in strategically owned companies, whether it is due to strong growth or to ensure continued operations as a result of large losses.

At the end of 2016, the Parent Bank Sparebanken Hedmark was exposed to ownership risk through the following ownership interests:

- SpareBank 1 Gruppen AS (ownership interest 11.00 per cent)
- SpareBank 1 Boligkreditt AS (ownership interest 10.04 per cent)
- SpareBank 1 Næringskreditt AS (ownership interest 5.05 per cent)
- SpareBank 1 Kredittkort AS (ownership interest 9.28 per cent)
- SpareBank 1 Mobilbetaling AS (ownership interest 12.60 per cent)

5.7.1 Management and control

The SpareBank 1 banks conduct their alliance work through the jointly owned holding company SpareBank 1 Gruppen AS. SpareBank 1 Gruppen is owned by the Parent Bank Sparebanken Hedmark, SpareBank 1 SR-Bank, SpareBank 1 Nord-Norge, SpareBank 1 SMN, Bank 1 Oslo Akershus AS, Samarbeidende Sparebanker AS, and the Norwegian Confederation of Trade Unions (LO) and trade unions associated with LO. SpareBank 1 Boligkreditt, SpareBank 1 Næringskreditt, SpareBank 1 Kredittkort, SpareBank 1 Markets and SpareBank 1 Mobilbetaling AS are owned by all the banks in the SpareBank 1 Alliance, with the exception of SpareBank 1 Markets which SpareBank 1 SR-Bank does not participate in.

The CEOs from the owning banks, Sparebanken Hedmark, SpareBank 1 SR-Bank, SpareBank 1 Nord-Norge, SpareBank 1 SMN and Samarbeidende Sparebanker AS, as well as the Norwegian Confederation of Trade Unions (LO), as owners of the company, sit on the board of SpareBank 1 Gruppen. Sparebanken Hedmark's CFO represents it in the same way in meetings in SpareBank 1 Boligkreditt, SpareBank 1 Næringskreditt and SpareBank 1 Markets. Sparebanken Hedmark is similarly represented on the boards of SpareBank 1 Kredittkort and SpareBank 1 Mobilbetaling.

6 Regulatory capital

At year-end 2016, the Group is subject to a Common equity Tier 1 capital ratio requirement of 11.5 per cent and a minimum primary capital requirement of 15 per cent in Pillar 1. In addition to this comes the Pillar 2 supplement of 1.7 per cent, set by the Financial Supervisory Authority of Norway. The purpose of the Pillar 2 supplement is to cover capital requirements associated with risks that are not, or are only partially, covered by the capital requirements in Pillar 1.

6.1 Regulatory capital adequacy

Table 23: Calculation of capital adequacy

Risk-weighted assets, primary capital and capital adequacy as at 31 December 2016

Basel III 31.12.2016				Basel III 31.12.2016
SpareBank 1 Finans Østlandet AS	**Bank 1 Oslo Akershus**	**Sparebanken Hedmark**		**Konsern**
0	0	5 310	Equity share capital	5 310
0	653	520	Share premium reserve	520
0	0	974	Dividend equalisation fund	974
0	0	3 313	Primary capital	3 313
0	0	33	Endowment Fund	33
0	0	134	Fund for unrealised gains	134
0	0	0	Hybrid capital	400
0	0	148	Dividends	148
850	457	0	Paid-up share capital	0
88	1 906	0	Other equity	1 228
0	0	0	Minority interests	47
938	**3 016**	**10 430**	**Total equity**	**12 106**

Table continues to the right >>

>> Table 23 continuation:

Risk-weighted assets, primary capital and capital adequacy as at 31 December 2016

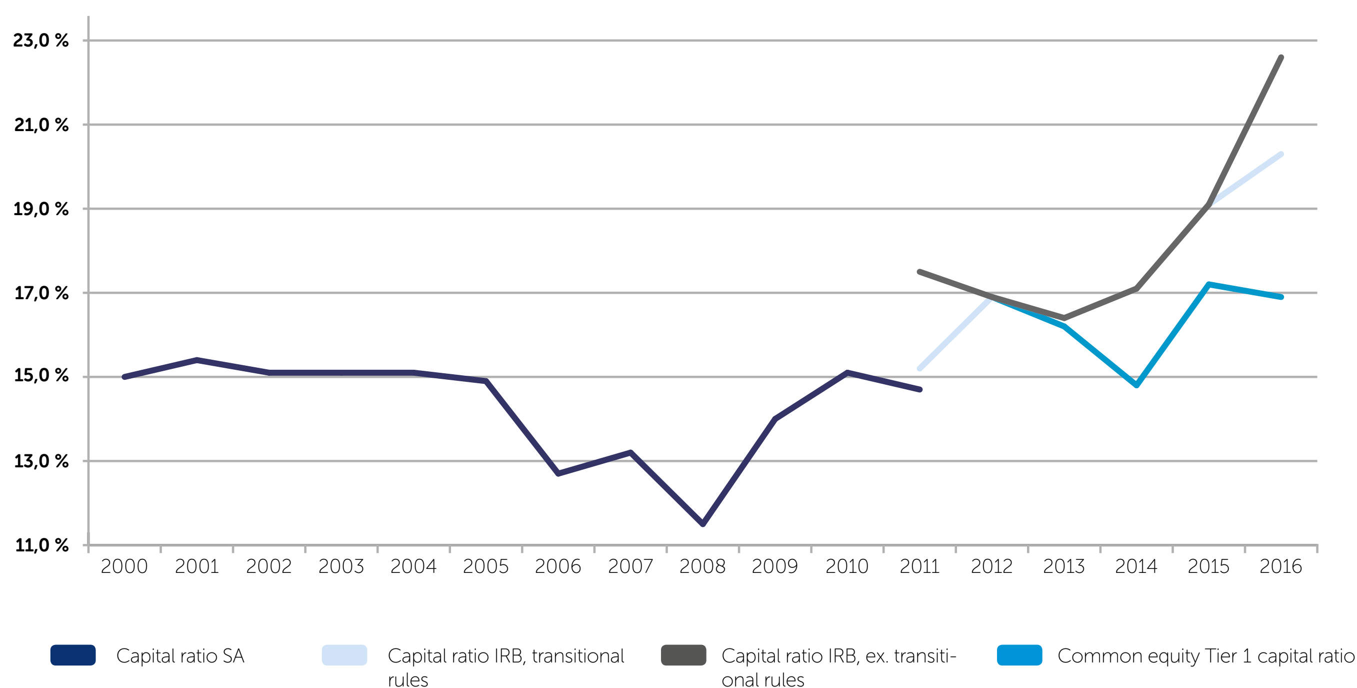
Basel III 31.12.2016 SpareBank 1 Finans Østlandet AS	Basel III 31.12.2016 Bank 1 Oslo Akershus	Basel III 31.12.2016 Sparebanken Hedmark		Basel III 31.12.2016 Konsern
			Tier 1 capital	
0	0	-160	Other equity not included in core capital	-604
0	334	0	Profit for the year less expected tax and dividends (auditor confirmed)	0
0	0	0	Minority interests that can be included in core equity Tier 1 capital	36
0	0	43	Unrealised change in value as a result of the reduced/increased value of liabilities	43
-10	-38	-90	Goodwill and other intangible assets	-371
0	-26	-117	Positive value of adjusted expected losses according to IRB approach	-205
0	-691	0	Deduction for non-material investments in core equity Tier 1 capital in other financial institutions	0
0	-21	0	Deduction for material investments in core equity Tier 1 capital in other financial institutions	-452
0	0	0	Adjustments to core equity Tier 1 capital linked to regulatory filters	10
0	-8	-10	Value adjustments due to requirements concerning proper valuation (AVA)	-33
0	0	0	Excess deductions in other core capital made in core equity Tier 1 capital	0
0	8	0	Transitional rules for non-material investments in core equity Tier 1 capital in other financial institutions	0
929	**2 575**	**10 095**	**Total common equity Tier 1 capital**	**10 530**
			Additional Tier 1 capital instruments	
0	400	0	Hybrid capital	619
0	-4	0	Deduction for non-material investments in other core capital in other financial institutions	0
0	-22	0	Deduction for material investments in other core capital in other financial institutions	0
0	0	0	Excess deductions in supplementary capital made in core equity Tier 1 capital	0
0	0	0	Excess deductions in other core capital made in core equity Tier 1 capital	0
0	**374**	**0**	**Total additional Tier 1 capital instruments**	**619**
			Tier 2 capital	
0	700	500	Non-perpetual subordinated capital	1 524
0	-5	0	Deduction for non-material investments in supplementary capital in other financial institutions	0
0	-145	0	Deduction for material investments in supplementary capital in other financial institutions	-17
0	0	0	Excess deductions in supplementary capital made in core equity Tier 1 capital	0
0	**551**	**500**	**Total Tier 2 capital**	**1 507**
929	**3 500**	**10 595**	**Total eligible capital**	**12 656**
0	922	3 624	Commitments with enterprises SME	4 546
0	3 838	6 791	Commitments with specialised enterprises	10 628
0	235	532	Commitments with other enterprises	768
0	101	847	Commitments with mass market SME	1 104
0	6 036	5 997	Commitments with mass market private individuals	18 393
0	409	1 392	Commitments with other mass market	1 834
0	1 752	0	Equity positions	0
0	**13 292**	**19 183**	**Total credit risk, IRB-approach**	**37 273**
5 499	1 473	10 505	Commitments calculated using standard approach	14 575
0	754	0	Equity positions calculated using standard approach	0
0	0	0	Market risk	0
0	12	162	Risk of weaker creditworthiness at counterparty (CVA risk)	452
0	1 873	2 253	Operational risk	3 702
0	533	0	Basel I floor	6 263
5 499	**17 937**	**32 104**	**Total risk-weighted assets**	**62 265**
440	**1 435**	**2 568**	**Capital requirement (8%)**	**4 981**
			Buffer requirement	
137	448	803	Capital conservation buffer (2.5%)	1 557
82	269	482	Countercyclical capital buffer (1.5% in 2016 and 1% in 2015)	934
165	538	963	Systemic risk buffer (3%)	1 868
385	**1 256**	**2 247**	**Total buffer requirements for common equity Tier 1 capital (7% in 2016, 6,5% in 2015)**	**4 359**
296	**512**	**6 403**	**Available common equity Tier 1 capital (in excess of capital requirements 11.5% in 2016, 11% in 2015)**	**3 370**
			Capital adequacy	
16,9 %	**14,4 %**	**31,4 %**	Common equity Tier 1 ratio	**16,9 %**
16,9 %	**16,4 %**	**31,4 %**	Tier 1 capital ratio	**17,9 %**
16,9 %	**19,5 %**	**33,0 %**	Capital ratio	**20,3 %**

*SpareBank 1 Finans Østlandet AS reports in accordance with the standard approach.

Table 24: Minimum total eligible capital requirements

	SpareBank 1 Finans Østlandet AS	Bank 1 Oslo Akershus AS	Sparebanken Hedmark	Consolidated
Commitment categories IRB				
Commitments with corporate – SME	0	74	290	364
Commitments with corporate – specialised lending	0	307	543	850
Commitments with other corporate	0	19	43	61
Commitments with retail – SME	0	8	68	88
Commitments with retail – non SME	0	483	480	1 471
Commitments with retail other	0	33	111	147
Equity positions	0	140	0	0
Total capital requirement IRB	0	**1 063**	**1 535**	**2 982**
Commitment categories standard approach				
Central governments	0	0	0	0
Local and regional authorities	0	10	8	10
Institutions	0	23	167	85
Publicly owned corporates	2	0	0	3
Corporates	97	23	27	136
Retail commitments	308	0	0	283
Commitments with real estate as collateral	0	2	1	2
Overdue commitments	4	0	0	5
Covered bonds	0	22	24	34
Units in securities funds	0	6	0	0
Equity positions	0	60	564	190
Other commitments	6	32	49	70
Total capital requirement standard approach	**417**	**178**	**840**	**818**
Capital requirement for operational risk	23	150	180	296
Capital requirement CVA	0	1	13	36
Total capital requirements	**440**	**329**	**2 568**	**3 014**

Figure 18: Development of capital adequacy



6.2 Leverage Ratio

The leverage ratio is calculated as the Bank's Tier 1 capital as a percentage of the Bank's exposure measure. The exposure measure is defined as the sum of the capitalised assets plus the off-balance drawing rights, guarantees and unutilised credit limits.

There are no requirements concerning this ratio at present, but it has been proposed that the Tier 1 capital should amount to a certain percentage of the institutions' exposure measure. Pursuant to the Basel Committee's recommendation and EU rules, the plan is to introduce a quantitative leverage ratio requirement from and including 1 January 2018.

Table 25: Leverage ratio

Sparebanken Hedmark Group	31.12.2016
Tier 1 capital	11 149
Tier 1 capital according to transitional rules	11 149
Exposure measure	150 204
Exposure measure according to transitional rules	150 204
Leverage ratio	7,42 %
Leverage ratio according to transitional rules	7,42 %

Sparebanken HEDMARK