Bank of Åland Plc

Capital and risk management report 2019

ÅLANDSBANKEN

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Report concerning risk management and capital adequacy

The Bank of Åland (Ålandsbanken) was founded in 1919 and has been listed on the Helsinki Stock Exchange (now the Nasdaq Helsinki Oy) since 1942. The Bank's registered office is in Mariehamn, Åland. In addition to its banking operations in the Åland Islands, the Bank also carries out operations on the Finnish mainland (5 offices) and in Sweden (3 offices). Two subsidiaries, Ålandsbanken Fondbolag Ab and Crosskey Banking Solutions Ab, whose operations are connected in various ways to banking operations, belong to the Bank of Åland Group.

1. Introduction

In the Bank's report concerning risk management and capital adequacy (Pillar 3 report), the Bank of Åland reports on the disclosure requirements laid down in Part Eight of the Capital Requirements Regulation (EU) No 575/2013 (CRR). The information that is provided covers the entire Group. Aside from the Bank of Åland Plc (LEI code: 7437006WYM821IJ3MN73), the consolidated situation also relates to the subsidiaries Crosskey Banking Solutions Ab Ltd and Ålandsbanken Fondbolag Ab. Ålandsbanken Fondbolag Ab is required to prepare capital requirement reporting at the solo level in compliance with the CRR. All figures that are presented in the Bank's Pillar 3 report refer to the situation on December 31, 2019, unless otherwise stated. Comparative figures refer to the preceding year-end.

The Bank of Åland follows the guidelines of the European Banking Authority (EBA) on the disclosure requirements in Part Eight of CRR to the extent that they apply to a bank that is not a global or otherwise systemically important institution. The Bank presents its comprehensive disclosures in compliance with Section 8.7 of the Regulation and Guidelines 2/2016 of the Finnish Financial Supervisory Authority (FIN-FSA).

Information provided below on the Group's risks is presented in accordance with Article 435 of the CRR, and the Group thus explains the central principles it applies in managing the various risks. In compliance with Article 432, the Group may omit such disclosures that the Board regards as non-material, proprietary or confidential information.

2. The Board's risk management statement and a brief risk declaration

In accordance with Article 431.3 of the CRR, the Bank's Board of Directors has adopted a formal policy document to comply with the disclosure requirements of the regulation. By annually adopting the policy and the Bank's Pillar 3 information, the Bank's Board ensures that the information provided in this report is satisfactory and gives market participants a comprehensive picture of the Bank's risk profile.

The Bank publishes a Corporate Governance Statement in conjunction with the Report of the Directors for 2019 in the Annual Report. In the Corporate Governance Statement, the Bank presents its compensation system and thereby fulfils the disclosure requirements in accordance with Article 450 of the CRR.

3. Risks in the Bank's operations

3.1 RISK PROFILE AND RISK APPETITE

Exposure to risk is a natural element of a bank's operations. The Bank of Åland has a low risk profile, with a conservative attitude towards risk and with the aim that all risk shall derive from its normal business operations. Consequently its main risks consist of business risk, credit risk, liquidity risk, market risk and operational risk. The size of these risks is adapted to the risk-bearing ability of the Bank. This means that the Bank shall be able to cover losses related to these risks with its own funds and earnings. The Bank of Åland carries out no trading operations. The Bank's low risk profile is reflected in its low losses related to financial and operational risks that have arisen over the years.

3.1.1 Business risk

Business risk arises naturally in all business operations and is unavoidable. The Bank of Åland shall focus its operations on markets and products with which it has worked previously and is familiar with. New markets and products may be introduced on a limited scale and then, if so desired, may be gradually expanded.

3.1.2 Credit risk

The Bank of Åland's lending is primarily aimed at customers in the Bank's prioritised target group, that is, private individuals in Åland, on the Finnish mainland and in Sweden with solid finances, often entrepreneurs and business owners, who value personal relationships. On the Finnish mainland and in Sweden, the range of customers is geographically limited to the major urban areas where the Bank is established. As a rule, loans are not provided as a stand-alone product, but are part of a long-term customer relationship, often to support the Bank's financial investment business. In Åland, there is an additional Corporate Services business, which is part of the Bank's somewhat different strategic direction in which it serves as a bank for all Åland residents and contributes actively to the Åland community.

Because of the target group it has selected, the Bank of Åland's credit exposure to individual customer entities can be relatively large. In order to limit its concentration risks, the Bank prefers that only in exceptional cases should credit exposures to individual customer entities be larger than EUR 10 M. Cash flows that ensure the customer's repayment capacity are a fundamental requirement for all lending. The customer shall also provide the necessary collateral for the loan. Residential real estate and securities are the most common forms of collateral. Loans with collateral that has a high risk of change in value and is less liquid, for example vessels and commercial real estate, have been limited.

The ambition is that over time, the Bank of Åland's loan loss level shall be among the lowest for Nordic banks. Of the Bank's geographic home markets, due to the corporate services business the loan portfolio in Åland has a somewhat higher credit risk than the loan portfolios on the Finnish mainland and in Sweden.

As part of its liquidity management, the Bank of Åland only does business with well-known counterparties and/or those with investment grade credit ratings in the Nordic region and in economically stable countries.

3.1.3 Liquidity risk

In order to ensure access to liquidity even during periods without external borrowing opportunities, the Bank shall have a liquidity reserve plus a well-diversified instrument and maturity structure in its borrowing.

The Bank of Åland endeavours not to be dependent on sources of funding for its lending other than customer deposits and covered bonds. Non-covered capital market funding may be used when the price situation in the market makes it appropriate.

Risk profile by risk category

Risk type	Risk profile	Risk management
Business risk	The Bank's business risk is generally low. Costs due to changes in regulations and shifts in technology may affect the profitability of the Bank of Åland to a greater extent than that of other banks, since the Bank is a small market player.	The Board and Executive Team as well as their respective committees work continuously to identify and find suitable measures to manage business risk. Among other things, the Bank has entered into various partnerships in order to diversify its sources of income and achieve cost allocation.
Credit risk	The Bank of Åland's prioritised customer category is private individuals in Åland, on the Finnish mainland and in Sweden with solid finances and, except in Åland, geographically limited to major urban areas. In Åland there is also a Corporate Services unit.	Based on good knowledge of customers, their repayment capacity and the collateral they provide. For corporate loan portfolio exposures, the Bank also carries out a yearly presentation analysing the customer. Credit risk is also managed through the use of limits established by the Board. For example, maximum exposure to certain economic sectors and counterparties is limited.
Liquidity risk	Liquidity risk is a dynamic risk that may change rapidly. Since the Bank of Åland is a small market player, these changes may greatly affect its access to liquidity.	Liquidity risk is managed primarily by means of a well-diversified borrowing structure and a liquidity reserve. Liquidity risk is also managed through the use of limits established by the Board.
Market risk	Interest rate risk in the banking book is structural in nature and small in size. Foreign exchange risk is primarily of a structural nature and mainly occurs in Swedish kronor via the Bank's Swedish branch.	Interest rate risks are limited through the use of derivatives. Foreign exchange risks are limited primarily by matching. Interest rate risk is managed by using limits for net interest income risk and net present value risk. Exchange rate risk is also managed through a limit.
Operational risk	The Bank's operational risks shall relate to its business operations, and risks shall be avoided and limited to what is financially justified. The Bank's risk appetite for business-critical products, services and IT solutions is low. No operational risk shall pose a threat to operations that are subject to permits or threaten consumer protection for Bank of Åland customers.	Operational risks are managed through yearly self-evaluations, updated continuity plans, continuity drills, incident reporting, maintenance of internal regulations and internal training courses.

3.1.4 Market risk
Structural risks related to interest rate risk (net interest income risk and foreign exchange risk) arise as part of banking operations. The Bank of Åland tries to take advantage of the positive earnings opportunities that exist, while its ambition is to sharply limit the existing downside risks. The Group has a structural foreign exchange risk in Swedish kronor due to its Swedish operations. Equity risk refers to the risk of decrease in value due to price changes in the stock market. The Bank of Åland does no trading for its own account.

3.1.5 Operational risk
Operational risks occur in all operations. It is thus neither possible nor optimal to eliminate them entirely. The Bank of Åland endeavours to minimise operational risks through yearly self-evaluations, updated continuity plans, continuity drills, incident reporting, maintenance of internal regulations and internal training courses.

3.2 RISK ORGANISATION

Board of Directors

Managing Director

FIRST LINE OF DEFENCE
Owns and manages risks
- Business operations
- Support units

SECOND LINE OF DEFENCE
Independent measurement, control and reporting
- Risk Control
- Operational Risks and Security
- Compliance

THIRD LINE OF DEFENCE
Oversight and evaluation
- Internal Audit

3.2.1 Board of Directors
The Board of Directors has overall responsibility for risk management and control. The Board defines risk appetite and adopts yearly policy documents that specify the overall principles for risk management as well as restrictions in the form of limits that operations shall stay within. The Board also approves essential methods and models that are used to measure the Bank's risks.

The Audit Committee of the Board of Directors assists the Board in its oversight of risk management, methods and models for risk measurement, risk reporting and internal controls.

3.2.2 Managing Director
The Managing Director shall ensure that risk management complies with the principles and risk tolerances that the Board has approved. The Managing Director does this by setting guidelines based on the policy documents adopted by the Board. The Managing Director shall also ensure that business operations are adapted to the Bank's expertise and resources and that the Bank has sufficient resources and systems for oversight and monitoring.

ALCO – the Asset and Liability Committee – is a decisionmaking body reporting to the Managing Director that deals with issues concerning financial risks, liquidity, funding and capitalisation.

3.2.3 The three lines of defence
In order to create a strong risk culture that permeates the entire organisation, the risk organisation at the Bank of Åland is based on the three lines of defence, which have a clear allocation of responsibility between risk-takers and oversight units:

First line of defence

The first line of defence consists of the Bank's business areas, subsidiaries and Treasury department plus related support units. They are each responsible for the risk that arises in their own operations, which means that risk-taking occurs within established limits and that there are measurement and oversight processes.

Second line of defence

The second line of defence consists of the independent Risk Control, Operational Risks and Security and Compliance departments, which all report to the Bank's Chief Risk Officer (CRO).

Risk Control is responsible for continuously identifying, measuring, analysing, overseeing and reporting the Bank's financial risks. This includes regular oversight to ensure that the Bank's operations remain within the established risk tolerances and regular reporting of the Bank's financial risks to the Executive Team and the Board.

Risk Control also includes the Credit Risk Modelling team, which is responsible for the Bank's internal credit classification system. This responsibility also includes modelling of loan loss provisions in compliance with the IFRS 9 regulation as well as periodic follow-up of developments in the loan loss provisions for the Bank's credit risk loss exposures.

Operational Risks and Security is the unit within the Bank that is responsible for analysing and reporting the Group's operational risks. This includes analysing and reporting risks such as information management, data protection and physical security, as well as maintaining internal regulations concerning the unit's area of responsibility and providing back-up and setting standards for operating units in their management of operational risks.

The Compliance department is responsible for overseeing, controlling and ensuring that the Group maintains good regulatory compliance. The department identifies risks related to deficiencies in compliance, among other things by means of yearly risk analyses in the fields of customer protection, market behaviour, combating money laundering and the financing of terrorism, as well as permit and regulatory issues.

The second line of defence is also responsible for promoting a sound risk culture by providing back-up to business operations in their introduction of processes for maintaining risk management that follows the principles adopted by the Board of Directors and the Managing Director.

Third line of defence

The third line of defence consists of the Internal Audit department, which is directly subordinate to the Board of Directors. Internal Audit is entrusted with evaluating the Group's risk management through independent reviews of processes and systems. The department reports its observations to the Board.

3.3 RISK MANAGEMENT MODEL

The purpose of the Bank's risk management model is to identify, measure, control and report risks in the Group. The model is designed to meet external regulatory requirements as well as internal requirements and needs, while living up to sound market practices.

The model consists of

- Internal regulations, approved by the Board and the Managing Director, that establish allocation of responsibilities as well as principles and guidelines for management, measurement, control and reporting of the Group's risks
- Clear, documented descriptions of processes
- Systems for measuring, monitoring and controlling risks, adapted to the complexity and scale of operations
- Resources and expertise adapted to operations
- Regular reporting to the Board and the Executive Team
- Incident reporting.

The Bank's Asset and Liability Management (ALM) process is aimed at balancing the risks and the returns that arise in the Bank's operations in financial markets. A high risk may jeopardise future income, create a liquidity shortage and threaten the survival of the Bank. It is thus important that the Bank's risk exposure matches its risk appetite, as well as its capacity for managing unexpected losses due to interest rate changes or other external events that are detrimental to the Bank.

The ALM process includes analysis of the structure of interest rate repricing periods and maturities related to assets and liabilities, risk hedging strategies, capital planning, funding needs and stress tests. The process consists of both static and dynamic scenarios, predefined as well as specific to separate business decisions.

4. Capital management

4.1 THE CONSOLIDATED SITUATION

Table 4.1.1 (page 7) shows subsidiaries and associated companies that are included, or not included, in the consolidated situation in the capital adequacy analysis.

4.2 CAPITAL ADEQUACY AND CAPITAL REQUIREMENTS

The size of the Bank's capital requirement is stipulated in the Capital Requirements Regulation (CRR) and in the Capital Requirements Directive (CRD). The capital needs of banks are formulated in the regulations as capital requirements stating how much capital the banks need to maintain in relation to the risks found in their operations. These capital requirements are divided into Pillar 1 requirements, which are the same for all institutions, and Pillar 2 requirements, which are set individually for each institution by a regulatory authority.

According to the Pillar 1 requirements in Article 92 of the CRR, institutions must have own funds that always fulfil the following requirements in relation to the risk exposure amount (REA):

- A common equity Tier 1 capital ratio of at least 4.5 per cent
- A Tier 1 capital ratio of at least 6 per cent
- A total capital ratio of at least 8 per cent

The Pillar 2 capital requirements are calculated by evaluating other risks that are not covered by Pillar 1 regulations. The Bank assesses the capital requirements for these risks yearly by means of the "internal capital adequacy assessment process" (ICAAP). The requirements are then established or adjusted by the Finnish Financial Supervisory Authority (FSA) through a supervisory review and evaluation process (SREP). Through SREP, national authorities may impose extra capital requirements on banks for these other risks. In the internal assessment based on its situation in 2018, the Bank of Åland estimated its Pillar 2 capital requirement at EUR 7.2 M, which at that time amounted to 0.5 per cent of REA. In its latest evaluation of the Bank's internal capital assessment related to the situation at the end of 2016, the FSA decided on additional capital requirements totalling 1.5 per cent of REA, of which 1.0 per cent of REA is for credit concentration risks and 0.5 per cent is for interest rate risk in the banking book. This is the Bank's Pillar 2 requirement and went into effect starting at the end of the third quarter of 2018. The requirement is valid until FIN-FSA communicates a diverging requirement for the Bank.

In addition to these requirements, institutions must also maintain capital in the form of combined buffer requirements against economic downturns. These combined buffer requirements are established in the Capital Requirements Directive (CRD).

At the Bank of Åland, these capital buffers consist of a capital conservation buffer amounting to 2.5 per cent of REA plus a countercyclical capital buffer that amounts to 1.2 per cent of REA and

Table 4.1.1

The consolidated situation

Companies included in the consolidated situation	Legal entity identifier	Share-holding, %	Consolidation method for financial reporting	Consolidation method for capital adequacy	Company description
Ålandsbanken Abp (Bank of Åland Plc)	7437006WYM821IJ3MN73	Parent Company	–	–	Credit institution
Ålandsbanken Fondbolag Ab	743700YOXKOQ7F6FS364	100	Full consolidation	Full consolidation	Mutual fund company
Crosskey Banking Solutions Ab Ltd	FI19066720	100	Full consolidation	Full consolidation	IT company
Model IT Oy	743700W7IZ63L5BSRA98	100	Full consolidation	Full consolidation	IT company
Promodus Oy	FI21039676	100	Full consolidation	Full consolidation	Holding company
Puiretti Oy	FI24996754	100	Full consolidation	Full consolidation	Holding company
S-Crosskey Ab	FI20085355	60	Full consolidation	Full consolidation	IT company
Ålandsbanken Fonder Ab	FI29025068	100	Full consolidation	Full consolidation	Mutual fund company
Ålandsbanken Fonder II Ab	FI29536474	100	Full consolidation	Full consolidation	Mutual fund company

Companies not included in the consolidated situation	Legal entity identifier	Share-holding, %	Consolidation method for financial reporting	Consolidation method for capital adequacy	Company description
Mäklarhuset Åland Ab	FI25870117	29	Equity method	No consolidation	Estate agents
IISÅ Holdco AB	SE5592179203	25	Equity method	No consolidation	Holding company
Åland Index Solutions AB	SE5592179203	50	Equity method	No consolidation	IT company
FAB Godby Center	FI02004232	11	Equity method	No consolidation	Real estate company
FAB Horsklint	FI07710726	20	Equity method	No consolidation	Real estate company
FAB Nymars	FI4273161	30	Equity method	No consolidation	Real estate company
FAB Västernäs City	FI5248208	50	Equity method	No consolidation	Real estate company

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a systemic risk buffer amounting to 1 per cent of REA. The capital conservation buffer is the same for all institutions. It may vary between 0 and 2.5 per cent of REA. This buffer is a “macroprudential” tool and is determined by the supervisory authority in each country and applied to the relevant lending exposures that are located within this market. The Swedish FSA has imposed a 2.5 per cent countercyclical buffer requirement, which applies to the portion of the Bank’s relevant credit risk exposures that occur in Sweden. So far, FIN-FSA has not decided to activate the countercyclical buffer in Finland as well. Since the third quarter of 2019 Finland has applied institution-specific systemic risk buffers for banks, based on the size of the institution. According to CRD, the systemic risk buffer must amount to at least 1 per cent.

The combined buffer requirement must be fulfilled in its entirety by common equity Tier 1 capital. Failure to maintain the combined buffer will result in restrictions on the Bank’s ability to distribute dividends from equity capital, in compliance with the dividend distribution restrictions in Article 141 of the CRD. Unlike larger institutions, the Bank is not included in any buffer requirements for systemically important institutions.

Starting on January 1, 2018, a risk weight floor of 15 per cent for Finnish mortgage loans was introduced, managed according to the IRB approach and as part of the Pillar 1 requirement. The risk weight floor increases the Bank’s capital requirement and thereby lowers its capital adequacy ratio, which should be compared to the above-described minimum requirements. The equivalent requirement for IRB banks in Sweden, which do not include the Bank of Åland, amounts to 25 per cent.

Table 4.2.1

Countercyclical capital buffer

EUR M	Exposure value, standardised approach (General credit exposures)	Exposure value, IRB approach (General credit exposures)	Incl. general credit exposures (General credit exposures)	Total (General credit exposures)	Own funds requirement weights, % (Own funds requirement)	Countercyclical capital buffer, % (Own funds requirement)
Finland	183.6	2,716.7	48.6	48.6	52	0.0
Sweden	1,501.0	0.0	46.0	46.0	47	2.5
Norway	107.9	0.0	0.9	0.9	1	2.5
Denmark	29.7	0.0	0.3	0.3	0	1.0
Canada	43.2		0.3	0.3	0	0.0
Total	**1,865.6**	**2,716.7**	**96.2**	**96.2**	**100**	**1.2**

Table 4.2.2

Combined buffer requirements

EUR M	
Total risk exposure amount (incl. risk floor, Finnish mortgages)	1,583.1
Institution-specific countercyclical capital buffer (1.21%)	19.1
Capital conservation buffer (2.5%)	39.6
Systemic risk buffer (1%)	15.8
Total combined buffer requirement	**74.5**

Table 4.2.3

Regulatory capital requirements

per cent (%)	Minimum capital requirement according to Pillar 1	Capital requirement according to Pillar 2	Of which: Systemic risk buffer	Of which: Interest rate risk, in the banking book	Of which: Credit concentration risk	Total. combined capital buffers	Of which: Capital conservation buffert	Of which: Counter-cyclical capital buffer	Total capital requirement	Capital position
Common equity Tier 1 capital	4.5	1.5	0.5	1.0	4.7	2.5	1.2	1.0	10.7	13.4
Tier 1 capital	6.0	1.5	0.5	1.0	4.7	2.5	1.2	1.0	12.2	13.4
Total capital	8.0	1.5	0.5	1.0	4.7	2.5	1.2	1.0	14.2	15.8
EUR M										
Common equity Tier 1 capital	71.2	23.7	7.9	15.8	74.5	39.6	19.1	15.8	169.5	211.5
Tier 1 capital	95.0	23.7	7.9	15.8	74.5	39.6	19.1	15.8	193.2	211.5
Total capital	126.6	23.7	7.9	15.8	74.5	39.6	19.1	15.8	224.9	249.4

Table 4.2.4

Long-term return target and regulatory capital adequacy requirements

	Long-term return target	Regulatory capital adequacy requirements	Outcome	Difference compared to target or requirement
Return on equity after taxes (ROE), %	10.0		10.7	0.7
Common equity Tier 1 capital ratio, %		10.7	13.4	2.7
Tier 1 capital ratio, %		12.2	13.4	1.2
Total capital ratio, %		14.2	15.8	1.6

Table 4.2.1 above presents the counter-cyclical capital buffer requirements for all countries where the Bank has relevant credit risk exposures. Table 4.2.2 shows the Bank's total combined buffer requirements.

Table 4.2.3 summarises the regulatory capital requirements in force at the Bank of Åland and the Bank's capital position at year-end in the form of reported capital adequacy ratios.

Table 4.2.4 shows the Bank's long-term return target as well as minimum capital adequacy requirements according to the CRR. The table shows all outcomes and the gap between targets and regulatory requirements for capital adequacy.

Taking into account the Pillar 1 capital requirement, the latest estimated Pillar 2 capital requirement and the above combined buffer requirement, the Bank of Åland's common equity Tier 1 capital ratio on December 31, 2019 must amount to 10.7 per cent in order to avoid restrictions on dividends. The corresponding minimums for Tier 1 capital and total capital levels were 12.2 and 14.2 per cent, respectively. At the end of 2019, the Bank's common equity Tier 1 capital ratio amounted to 13.4 (13.0) per cent, which means that the Bank had a common equity Tier 1 capital buffer of 2.7 per cent, or (expressed as common equity Tier 1 capital) EUR 43.0 M. Compared to the preceding year, the Bank's minimum capital requirement increased by a total of 1.2 percentage points. The increase is due to the systemic risk buffer requirement that went into effect in Finland during 2019 as well as increased countercyclical buffer requirements in Sweden and Norway.

4.3 OWN FUNDS

Own funds are divided into two types: Tier 1 capital (T1) and supplementary capital (T2). Since the Bank has not issued any instruments in the "Other Tier 1 capital" category so far, its entire Tier 1 capital consists of common equity Tier 1 capital (CET1). Common equity Tier 1 capital comprises the most permanent form of capital and, put simply, is equivalent to equity capital according to the balance sheet after certain statutory adjustments.

Common equity Tier 1 capital specifically consists of share capital in the form of capital instruments as well as related premium reserves that meet the conditions in Article 28 of the CRR. CET1 also included retained earnings, other accumulated comprehensive income and other reserves. According to Article 26, point 2 of the CRR, retained earnings may only be included with prior permission from the FSA. The specific financial instruments included in the Bank of Åland's year-end CET1 consist of the Bank's Series A and Series B shares. Details concerning these instruments are presented in an appendix on page 44.

Deductions from CET1 are made for items that have poorer capacity to absorb losses. Examples of such deductions are the unamortised cost of intangible assets, positive net pension assets, deferred tax assets that are dependent on future profitability and deficits in the form of expected losses exceeding specific credit risk adjustments in the IRB-approved portfolio.

Compared to the preceding year, the Bank's CET1 increased by a total of EUR 7.1 M or 1 per cent, including an increased foreseeable dividend of 44 per cent. During 2019, equity capital changed in the amount of profit for the period, EUR 26.3 M; other comprehensive income, EUR 0.0 M; the issuance of new shares as part of the incentive programme, EUR 0.4 M; EUR 0.2 M related to the share savings programme; and payment to shareholders of a dividend totalling EUR –10.9 M. On December 31, 2019, equity capital amounted to EUR 258.4 M.

Unlike Tier 1 capital, supplementary capital is not as available for covering losses according to the regulations. The Group's supplementary capital consists of Tier 2 instruments issued to the public, which are specified in the appendix on page 44. Aside from capital instruments plus related premium reserves that meet the requirements of Article 63 of the CRR, supplementary capital includes general credit risk adjustments up to 1.25 per cent of the risk exposure amount calculated according to the standardised approach. Supplementary capital may also include the portion of specific credit risk adjustments that exceed expected losses for the IRB-approved portfolio up to 0.6 per cent of the risk exposure amount calculated according to the IRB approach. The appendix to this risk management section provides a presentation of the instruments that comprise the supplementary capital items of own funds and their most important characteristics. Tier 2 instruments that the Bank has issued accounted for EUR 36.2 M of supplementary capital. Also included was EUR 1.7 M in the form of expected losses according to IRB in addition to credit risk adjustments. Overall supplementary capital amounted to EUR 37.9 M, which was unchanged compared to year-end 2018. No new Tier 2 instruments were issued during 2019.

4.4 CAPITAL REQUIREMENTS

During 2019 no changes were made in central approaches for the Bank's capital requirement calculations. The Bank of Åland's capital requirement for credit risks is calculated according to the IRB approach in the Finnish retail lending portfolio. For the corporate exposure class, the Bank applies the foundation method (FIRB). IRB has been applied to retail exposures since the first quarter of 2012 and to corporate exposures since the second quarter of 2016. In Sweden and other countries, the capital requirement is calculated entirely using the standardised approach. For all other exposure categories, including equity exposures, the Bank uses the standardised approach to calculate the capital requirement for credit risk.

The Bank has only a small trading book, which mostly consists of equity-related instruments. These positions always arise as a result of trading on behalf of customers, and the Bank carries out no trading for its own account. The Bank applies the small trading book exemption according to Article 94 of the CRR. It thus estimates no capital requirement for position risks according to the market risk regulations. Instead it applies the credit risk rules to these items. For counterparty risks on derivatives, the Bank uses the mark-to-market method without regard to netting agreements to calculate the exposure amount. The capital requirement for credit value adjustment risk is calculated according to the standardised approach and applies to all derivatives exposures to institutions that are not cleared by a central counterparty.

Since the second quarter of 2013, the Bank has used the standardised approach in calculating the capital requirement for operational risk. According to the standardised approach, the capital requirement for operational risk is calculated on the basis of disclosures in the financial statements adopted for the latest three financial years. The income indicator is calculated for eight different business lines specified in the regulations. Table 4.4.1 below shows how the Bank's total capital requirement for operational risk is calculated and divided among various business lines.

The total of the items that are taken into account when calculating the income indicator is multiplied by the above-mentioned percentage for the respective business area. The income indicator for the financial year is obtained by adding up the percentage-weighted income statement items. The capital requirement is obtained by adding up the income indicators for the three latest years and then dividing by three. The capital requirement for operational risk concerning IT-related operations in the Bank's subsidiary Crosskey Banking Solutions is included on the "Payment and settlement" line in Table 4.4.1. The capital requirement for operational risk was EUR 17.6 M, compared to EUR 17.1 M one year earlier. The increase mainly occurred in the retail banking segment during 2019.

Table 4.4.1

Capital requirement for operational risk		2019	2018
EUR M	Percentage		
Corporate financing	18		
Trading and financial management	18		
Brokerage operations. individual customers	12		
Banking. large customers	15	2.0	2.1
Banking. retail	12	11.0	10.3
Payment and settlement	18	3.5	3.6
Administrative assignments	15		
Asset management	12	1.1	1.1
Total capital requirement. operational risk	**13**	**17.6**	**17.1**

Table 4.4.2

Overview of risk-weighted exposure amounts	2019	2018	2019
EUR M	Risk-weighted exposure amounts	Risk-weighted exposure amounts	Minimum capital requirements
Credit risk	**1,257**	**1,267**	**101**
of which standardised approach	748	737	59
of which foundation IRB approach	270	299	24
of which advanced IRB approach	239	231	18
of which the equity related IRB approach as part of the simple risk-weighted approach or the IRB model			
Counterparty credit risk	**5**	**4**	**0**
of which mark-to-market	5	4	0
of which original exposure			
of which standardised approach			
of which IRB approach			
of which risk exposure amount for contribution to a central counterparty's default fund			
of which credit value adjustments	0	0	0
Settlement risk	**0**	**0**	**0**
Securitisation exposures outside trading book (after ceiling)	**0**	**0**	**0**
of which IRB approach			
of which formula-based IRB approach			
of which internal assessment approach (IAA)			
of which standardised approach			
Market risk	**0**	**0**	**0**
of which standardised approach			
of which IRB approach			
Large exposures	**0**	**0**	**0**
Operational risk	**220**	**213**	**17**
of which basic indicator approach			
of which standardised approach	220	213	17
of which advanced measurement approach			
Amounts below thresholds for deductions (subject to 250 per cent risk weighting)			
Floor adjustment			
Risk weight floor for Finnish mortgages (CRR, Article 458, point 2 vi)	100	94	8
Total	**1,583**	**1,578**	**127**

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Table 4.4.2 above provides an overview of the total risk-weighted exposure amount – according to the available calculation approaches – that comprises the denominator in the risk-based capital requirements that are calculated according to Article 92 of the CRR.

During the year, the Bank of Åland's risk-weighted exposure amount increased from EUR 1,578 M to EUR 1,583 M or by 0.3 per cent. The capital requirement, expressed as 8 per cent of the risk exposure amount, totalled EUR 127 M, compared to EUR 126 M at the end of 2018.

Table 4.4.3 (page 11) summarises the Group's capital adequacy calculation under Pillar 1, with a comparison to the situation at the end of 2018. The Appendix on page 44 provides a capital adequacy analysis compiled at a detailed level in accordance with Article 4 of Commission Implementing Regulation (EU)1423/2013.

During 2019, the Bank's common equity Tier 1 capital ratio changed from 13.0 to 13.4 per cent. The total capital ratio improved from 15.4 to 15.8 per cent. The improvement in the ratio occurred because the Bank's common equity Tier 1 capital increased by EUR 7.1 M, or by 3 per cent including a foreseeable dividend of EUR 15.6 M. Total own funds increased by EUR 7 M or by 3 per cent to EUR 249 M.

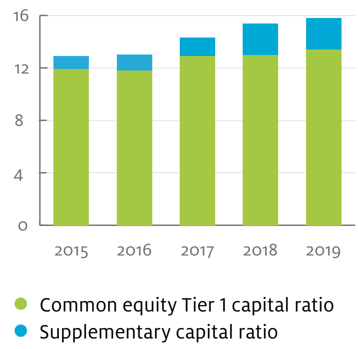
The Bank of Åland is applying the transitional rules in Article 473a of the CRR for IFRS 9. As a result, the Bank adds back part of its reserve for expected credit losses to common equity Tier 1 capital by a factor that gradually decreases over five years. During 2019 a factor of 0.85 was used, and during 2020 the factor falls to 0.7. In practice, the expected credit losses that are added back are related to exposures handled according to the standardised approach. At year-end the add-back totalled EUR 0.6 M. The appendix to this risk section provides specific disclosures of the effects of the transitional rule on the Bank's capital position and leverage ratio.

Table 4.4.3

Capital adequacy	2019	2018
EUR M		
Equity capital according to balance sheet	258.4	242.4
Foreseeable dividend	−15.6	−10.8
Common equity Tier 1 capital before deductions	**242.8**	**231.6**
Intangible assets	−25.0	−21.0
Deduction for surplus value in pension assets	0.0	0.0
Non-controlling interests	0.0	0.0
Cash flow hedging	0.0	0.0
Other items, net	0.0	0.0
Additional adjustments in value	−0.6	−0.6
Expected losses according to IRB approach beyond recognised losses (deficit)	−6.2	−6.1
Adjustments due to transitional rules	0.6	0.6
Common equity Tier 1 capital	**211.5**	**204.4**
Supplementary capital instruments	36.2	37.5
Expected lossess according to IRB approach beyond recognised losses (surpluses)	1.7	0.4
Supplementary capital	**37.9**	**37.9**
Total own funds	**249.4**	**242.4**
Capital requirements for credit risks according to IRB approach	40.8	42.4
Additional stricter regulatory requirements based on Article 458	8.0	7.5
Capital requirements for credit risks according to standardised approach	60.2	59.3
Capital requirement for credit value adjustment risk	0.0	0.0
Capital requirement for operational risk	17.6	17.1
Capital requirement	**126.6**	**126.2**
Risk exposure amount	1,583.1	1,577.6
of which % comprising credit risk	86.1	86.5
of which % comprising credit-worthiness adjustment risk	0.0	0.0
of which % comprising market risk		
of which % comprising operational risk	13.9	13.5
Capital ratios		
Common equity Tier 1 capital ratio, %	13.4	13.0
Tier 1 capital ratio, %	13.4	13.0
Total capital ratio, %	15.8	15.4

Capital ratios by year

Per cent



5. Leverage ratio

Leverage is a measure of bank solvency aimed at avoiding excessive debt. The leverage ratio is calculated as the ratio of Tier 1 capital to a specially defined exposure metric according to the CRR. Unlike the capital adequacy calculation, the exposures are not risk-weighted when calculating the ratio. The Bank of Åland reports its ratio quarterly to the FIN-FSA as part of the European Banking Authority's Common Reporting Framework (COREP) and also reports the ratio in note disclosures in its interim reports.

Table 5.1.1 shows the Bank's leverage ratio on December 31, 2019. More detailed information about this ratio is presented in the appendix.

Tier 1 capital includes profit for the period and add-back of expected credit loss amounts according to the transitional rules for IFRS 9. On December 31, 2019, the Bank of Åland's leverage ratio was 3.7 per cent, compared to 3.6 per cent at the end of 2018.

6. Internal capital adequacy and liquidity assessment 2019

The purpose of the internal capital adequacy assessment process (ICAAP) is to ensure that the Group is sufficiently capitalised to cover all its risks, enabling it to conduct and develop its operations, both under normal and sharply worsened business conditions. In this process, the Bank assesses whether Pillar 1 capital requirements are sufficient and also assesses the capital needed for the risks not covered under Pillar 1. Examples of such risks are concentration risk, pension liability risk and interest rate risk in the banking book.

The 2019 ICAAP, which was related to the situation on December 31, 2018, evaluated the effects of a prolonged negative scenario, based on the preceding year's EBA adverse scenario with certain adjustments. The negative scenario that was tested assumed that the Finnish and Swedish export industry is very adversely affected, leading to sharply higher unemployment, plummeting real estate and share prices and continued extremely low market interest rates. Capital planning for a recession – that is, the stress test that was conducted – did not show any additional capital need in order to cover operating losses that arise. Nor did the Bank's capital ratios fall below the thresholds for dividend distribution restrictions during the planning period, which was three years.

The identified capital requirement according to ICAAP 2019 amounted to EUR 14.2 M, of which the largest risk areas were interest rate risk in the banking book at EUR 3.4 M, concentration risks in the loan portfolio at EUR 4.5 M and pension debt risk at EUR 2.8 M.
The Bank subtracted EUR 7.0 M from its capital requirement, based on IRB approaches used for testing inherent risk in Swedish operations, which showed significant surpluses compared to the capital requirement using the standardised approach.

But the Bank's regulatory capital requirement for risks not covered by Pillar 1 consist of the above-described Pillar 2 requirement announced by the FIN-FSA, which partly cover the risk categories the Bank itself assesses in ICAAP.

The significant risks and capital requirement that have been identified in the Group according to the ICAAP conducted on the basis of the situation on December 31, 2018, which was thus valid during 2019, can be seen in Table 6.1.1 below. The common equity Tier 1 capital buffer on December 31, 2018 taking into account Pillar 1 capital requirements was EUR 71.0 M, compared to EUR 58.7 M one year earlier.

Table 5.1.1

Leverage ratio	2019	2018
EUR M		
Tier 1 capital defined including transitional rules	211.5	204.4
Total exposure metric	5,663.4	5,642.0
of which balance sheet items	5,581.4	5,545.0
of which off-balance sheet items	82.0	97.0
Leverage ratio, %	3.7	3.6

The leverage ratio is calculated as the arithmetic average of monthly leverage ratios during a quarter. Tier 1 capital includes profit for the period.

Table 6.1.1

Estimated risks. internal capital adequacy assessment	2018	2017	Change
EUR M			
Internal capital requirement according to ICAAP			
Credit risk in addition to Pillar 1	2.5	2.1	0.4
Credit concentration risk	4.5	4.8	−0.3
Interest rate risk in the banking book	3.4	7.5	−4.1
Exchange rate risk	0.1	0.1	0.0
Equity risk	0.9	0.2	0.7
Operational risks in addition to Pillar 1	0.0	0.0	0.0
Pension liability risk	2.8	2.8	0.0
Business risk	0.0	0.0	0.0
Liquidity risk	0.0	0.0	0.0
Total internal capital requirement	**14.2**	**17.5**	**−3.3**
Adjustment for internal use of IRB in Swedish operations	**−7.0**	**−6.9**	**−0.1**
Total internal capital requirement after adjustment	**7.2**	**10.6**	**−3.4**
Total internal capital requirement and Pillar 1 capital requirement	**133.4**	**138.9**	**−5.5**
Total common equity Tier 1 capital buffer	**71.0**	**58.7**	**12.3**

The purpose of the internal liquidity adequacy assessment process (ILAAP) is to ensure that the existing liquidity buffers are sufficient to secure disruption-free operations, even during periods of stress. This is achieved by using stress tests, featuring scenarios that have varying degrees of stress aimed at assessing what effects these will have on the Bank's liquidity supply and borrowing needs.

At regular intervals, at least once a year, the Bank carries out a review of the scenarios it will use in identifying, measuring and managing liquidity risks.

This is based on liquidity-related risk factors that the Bank has identified. "Risk factor" refers to a factor expected to have major impact on the Bank's liquidity risk. Examples of such factors are deposits, the collateral pool for covered bonds and liquid assets.

The 2019 ILAAP, which was related to the situation on December 31, 2018, evaluated the effects of the following scenarios, among others:

- Access to new funding from usually accessible funding sources is limited or completely closed
- Falling prices in the real estate market
- Lowered credit rating
- Lowered collateral value on debt instruments eligible for refinancing
- Sharp outflow of deposits.

The stress tests that were carried out show that the Bank has good, well-balanced liquidity management that is based on low liquidity risk, a diversified funding structure and a high-quality liquidity reserve.

7. Coming changes in capital adequacy regulations

In June 2019 the final contents of the Banking Package were published in the Official Journal of the EU after more than two years of negotiations. It will now be implemented stepwise in the EU member countries. The Banking Package represents a number of updates to the Capital Requirements Regulation 575/2013/EU (CRR) and Directive 2013/36/EU (CRD IV), which both regulate the capital requirements of banks.

The proposed update includes a binding 3 per cent minimum requirement for the leverage ratio under Pillar 1, a binding requirement for the net stable funding ratio (NSFR) and levels for loss-absorbing capacity and minimum requirement of eligible liabilities (TLAC/MREL) for systemically important institutions. The proposed new regulations also include changes to the definition of a trading book, calculation of capital requirements for market risk and counterparty risk, as well as stricter rules for large exposures. To further stimulate lending to small and medium-sized enterprises (SMEs), the supporting factor for these exposures is being extended and expanded to also cover exposures exceeding EUR 1.5 M, with a capital requirement-reducing factor of 15 per cent on the excess portion. The updates in the Regulation and the Directive will divide the Pillar 2 requirements for banks into two parts: requirements and guidance. In terms of their significance to banks, the requirements will be on an equal footing with Pillar 1 requirements and be based on a bank's specific risks at micro level, while guidance will be based on the bank's stress test results.

The Banking Package also includes updates to the EU's Bank Recovery & Resolution Directive 2014/59 (BRRD), which prescribes rules for crisis management at banks as well as updates in Single Resolution Mechanism Regulation 806/2014 (SRMR).

For some time, the Basel Committee has been conducting a far-reaching review of current capital adequacy regulations. In December 2017, an extensive update of the capital adequacy regulations was published, entitled "Basel III: Finalising post-crisis reforms". According to plans, it will be phased in from 2022 onward. The new regulations are expected to be fully phased in by 2027. The Basel Committee's rules will not be automatically binding in the EU, but must first be implemented by means of EU regulations and with new national legislation in member countries by means of directives, according to the same process that preceded the above-mentioned Banking Package. Among other things, the new regulations will change the calculation of capital requirements for credit risk according to the standardised approach, with the changes related to credit risks being the most far-reaching. They will also change the conditions for certain types of exposures calculated according to the IRB approach. For example, floors will be introduced for the risk parameters PD, LGD and EAD. The biggest impact on capital requirements will come from the new Output Floor for exposures whose capital requirements are calculated according to internal models. The level of this new floor has a major effect on how much a bank benefits from using its internal models in calculating capital requirements. The new regulations phase in the Output Floor during a 5-year period from 50 per cent up to 72.5 per cent of the capital requirement calculated according to standardised approaches for all risk categories.

Parallel with the work of the Basel Committee, the European Banking Authority (EBA) has pursued a project to harmonise banks' calculation of risk according to internal models, which has resulted in a number of publications of guidelines for credit risk management according to internal models. This project specifically addresses the definition of default according to CRR, Article 178, Point 1, PD and LGD estimations and calibration related to long-term default frequencies and loan losses with respect to a poorer economic climate. During 2019 a new EU regulation went into effect as part of the European Commission's efforts to reduce non-performing exposures at banks. The new regulation "as regards minimum loss coverage for non-performing exposures" addresses how much banks should set aside for non-performing exposures after they have been in default for one year. On the same theme, new disclosure requirements for non-performing exposures went into effect during the year.

8. Business risk

Business risk refers to the risk of lower earnings due to deterioration in business conditions. Business risk encompasses competition risk, strategic risk and reputational risk.

Competition risk means a risk of lower income due to increased competition, which may lead to lower volume and/or narrower margins.

Strategic risk refers to the strategy chosen by the Board of Directors and the Managing Director in relation to changes in market conditions for the Bank of Åland's operations, for example in the form of changes in regulations or technological shifts in the financial sector that may affect the ability of the Bank, as a small market player, to carry out profitable banking business. The financial sector is rapidly changing, with new technology enabling new market players to distribute financial services in new, cost-effective ways, thereby eroding the profitability of traditional banks.

Reputational risk refers to a loss of respect and trust among customers, employees and public authorities, for example due to a lack of business ethics or failure to comply with regulations.

Much of the work of the Board and Executive Team and their committees aims at identifying business risks and determining appropriate actions to manage the opportunities and threats that arise in a changeable environment.

9. Credit risk

Credit risk is the risk of losses due to the inability of a customer to fulfil obligations towards the Group and the risk that the collateral provided will not cover the Group's receivables from the customer. The Bank divides up credit risk into two main categories: credit risk in lending operations and credit risk in Treasury operations. Credit risk in lending operations is the biggest risk in the Bank's operations and is defined as the risk of loss because a customer or counterparty is unable to pay interest and/or principal repayments on loans and other commitments to the Bank. Credit risk in Treasury operations mostly consists of the risk of default by issuers of bond holdings in the Bank's portfolio management and is described in more detail below in section 12, "Credit risk in Treasury operations". Also attributable to this risk category are counterparty risks, which specifically refer to trading in derivatives as part of portfolio management. Also attributable to credit risk are credit concentration risks and country risks, which may arise within both main categories of credit risk.

9.1 RISK MANAGEMENT

Overall credit strategy is regulated in a credit policy document adopted by the Board of Directors. The level of acceptable credit risk is also established in a separate financial risk policy and in the individual business strategies of Group companies. Credit risk management is mainly based on formal credit or limit decisions. For credit risk in Treasury operations and counterparty risk, specific counterparty limits are established and are applicable for a maximum of one year.

Credit risk management assumes that lending decisions will be based on comprehensive knowledge about the customer. This means that the Bank primarily does business with customers active in the regions where the Bank has offices. In the case of corporate loans, the customer should generally have a contact person at the Bank who is familiar with the customer's business and economic sector as well as the risks and collateral related to the loan commitment. Large corporate loans must always be presented to credit committees by a credit analyst who is independent of business operations before a loan is granted. This presentation is valid for a maximum of one year before being renewed through the yearly review process.

A credit committee makes decisions on credit matters that fall outside the limit of an individual officer or unit manager. The Credit Committee of the Executive Team includes the Managing Director, the Chief Risk Officer (CRO) and the credit managers, who all have veto rights. The Credit Committee of the Executive Team makes decisions on credit matters up to and including EUR 10 M and the Bank's Board of Directors makes decisions on credit matters larger than this. Credit matters presented to the Credit Committee of the Executive Team are analysed and endorsed by customer advisors in the business unit responsible for the risk and for ensuring that the risk is managed according to the Bank's internal rules. A Credit Scoring Department that is independent of business operations checks that the analysis has been performed appropriately and according to regulations, ensuring that credit matters presented to a credit committee include a comprehensive and correct picture of the customer's financial situation and future repayment ability and the value of the collateral offered. The Bank of Åland has separately identified lending to "Shipping" and "Other real estate operations" as segments of its loan portfolio that involve heightened credit risk, and the Bank's Board of Directors has therefore set specific limits on lending to these segments.

Credit risks are monitored and analysed by the Group's Risk Control Department, which reports directly to the Managing Director and the Executive Team on a monthly basis and to the Board of Directors on a quarterly basis in conjunction with the Group's risk report. The risk report is submitted monthly to the Financial Supervisory Authority (FSA).

At the Bank of Åland, credit risk monitoring and analysis of exposures to private individuals and businesses are based mainly on internal statistical methods, developed in compliance with the capital adequacy rules for internal ratings based (IRB) credit risk classification, as well as the provisions of the IFRS 9 regulation. Exposures in the Bank's lending operations are followed up according to the same methods, even though IRB permission has not yet been formally granted for some portfolios.

9.2 RISK CLASSIFICATION SYSTEM FOR CALCULATING CREDIT RISK IN LENDING OPERATIONS

At the Bank of Åland, today there are two internal risk classification systems for credit risk in lending operations. One system is used for calculating unexpected losses (capital requirements) and expected losses (EL) according to the principles of IRB regulations. The other system is used for calculating provisions for future expected credit losses (ECL) in compliance with the IFRS 9 regulation. The estimation of risk parameters for both these purposes is largely similar.

Both risk classification systems are based on statistics derived from the Bank's own internal data for estimating the probability of default (PD) and the loss given default (LGD) for the Bank's loan customers.

The internal risk classification system is the most important cornerstone of the credit approval process and for pricing credit risks when granting new loans. The Bank also relies on the internal system for monthly risk monitoring, internal capital management, the calculation of risk-adjusted returns and reporting of credit risk to the Executive Team. The general risk management principles applied for managing risks that have a bearing on both ECL and capital requirements are the same in the Bank. Both ECL and regulatory capital requirements are included in the Bank's reporting to the Executive Team and the Board of Directors and have a strong connection to risk control in the Bank's risk management system. The Bank's operating units also monitor their credit risk based on these key figures on a monthly basis.

The Bank's risk classification system estimates the probability that a customer will default within 12 months (PD) as well as how much the Bank will lose if the customer defaults, that is, its share of loss given default (LGD). For retail exposures, the Bank makes its own LGD estimates, while for corporate exposures it uses LGD values stated by regulators (FIRB). The Bank's models for estimating LGD on its exposures are based on statistical analysis data that the Bank has stored concerning the repayment history of its customers.

The Risk Office unit carries out a large-scale annual evaluation of the system, and the findings of this evaluation are reported to the Board of Directors. This oversight includes a yearly validation and possibly a follow-up calibration of the risk measurements and models that are applied in risk classification. There is also regular monitoring to ensure that risk is being measured in a reliable, consistent way. The Internal Auditing department performs independent monitoring of the risk classification system and its use in operations. The Bank may not make changes in its internal models that have a significant impact on the capital requirement without FSA approval. For large corporate customers included in the corporate exposure category, the Bank must perform a qualitative assessment of the customer, to be reported yearly and be presented to the Bank's Credit Committee. This qualitative assessment is an important complement to statistical scoring of a corporate customer.

For calculating regulatory capital requirements, an exposure is placed in the Bank's seven-point PD scale for non-defaulted loans, where an established PD class value is used in calculating the capital requirement. There is an additional category for loans that have defaulted. In its model for credit risk among corporate customers, the Bank also uses external scoring data based on key financial ratios of companies and other factors.

The Bank's model for calculating capital requirements and EL has elements of both Point in Time (LGD) and "through the cycle" approaches (PD) and, to summarise, is based on a full economic cycle including a recession. Since EL is assumed to be known there must also be a deduction for it from the Bank's own funds, to the extent this is not covered by reported loan loss provisions. Reported loan loss provisions that are calculated are all in the nature of specific credit risk adjustments in compliance with the CRR.

9.3 COLLATERAL MANAGEMENT AND CREDIT RISK MITIGATION

Collateral eliminates or reduces the Bank's loss if the borrower cannot fulfil his or her payment obligations and the Bank terminates its loan to the customer. As a main rule, loans to private individuals and companies are thus made against collateral. This applies, for example, to home mortgage financing to private individuals, loans to real estate companies, loans to private individuals and companies for the purchase of securities as well as various other types of financing. Unsecured loans are primarily granted in the case of small loans to private individuals and only in exceptional cases to companies. In the latter case, as a rule special loan conditions are established that give the Bank greater rights of renegotiation or loan termination.

Under "lending to the public" (also called "receivables from the public"), a majority of all loans have been granted to private individuals and businesses with a home or other property as collateral. A large proportion of such lending also occurs in exchange for the pledging of financial collateral that are largely assigned a market value daily.

The Bank regularly monitors the market values of property and securities that serve as collateral for loans. A follow-up of the market value of residential property used as collateral is performed quarterly, and where a need is demonstrated the Bank engages an external appraiser for re-appraisals.

By applying conservative loan-to-value (LTV) ratios on collateral, the Bank makes allowances for a possible negative price trend for various forms of collateral, for example housing prices and market price changes for financial collateral. As a general rule, a loan may not exceed 70–85 per cent of the market value of residential property used as collateral. The LTV ratio on financial collateral is mainly determined on the basis of the liquidity and credit quality of the financial instrument. The estimated LGD value for an exposure goes hand in hand with the LTV ratio, since both are based on the available market value in the form of collateral pledged in relation to the exposure.

9.4 CREDIT RISK EXPOSURE

This section provides a general description of credit risks and their development during the year and presents specific disclosures about the loss provisions for credit risk exposures and the capital requirements resulting from the Bank's choice of approaches to calculating capital requirements. These specific disclosure requirements are stipulated in Part Eight of the CRR.

At the Bank of Åland, credit risk largely consists of receivables from private individuals and non-financial companies. These receivables consist mainly of loans, overdraft facilities and guarantees that have been issued. In normal banking operations and risk management, credit risk also arises as a result of trading in financial instruments within the Bank's Treasury operations. Through management of the Bank's risks, credit risk also arise due to derivatives trading, so-called counterparty risk. Exposure to country risk arises when lending in another country and consists mainly of lending in Sweden. Credit risk also exists outside the Bank's balance sheet in the form of unused portions of credit lines, still unutilised loan commitments and unredeemed guarantees. There is also credit risk in the form of the collateral requirements that the Bank imposes on customers that borrow financial securities from the Bank and engage in transactions with Nasdaq derivatives.

Table 9.4.1 shows the Group's overall credit risk exposure.

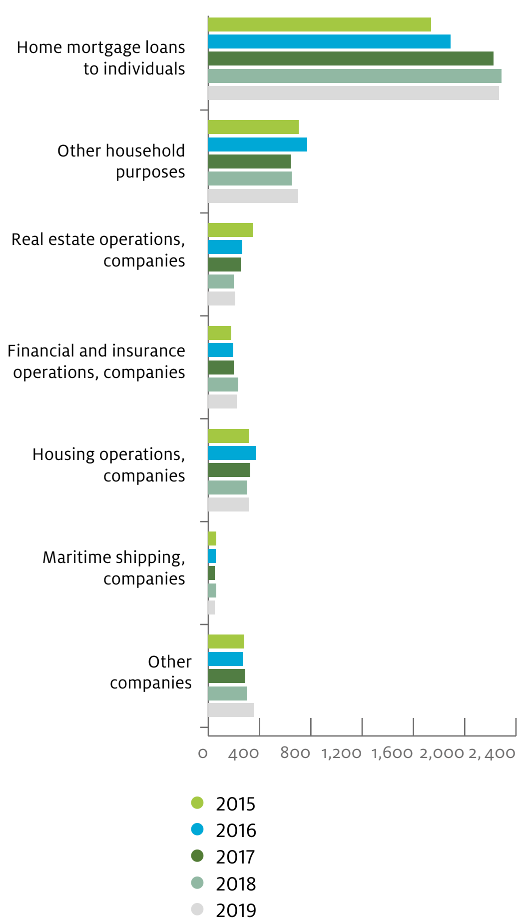
Table 9.4.1

Credit risk exposure	2019	2018
EUR M		
Balances with central banks	477	493
Receivables from the public	4,110	4,022
Receivables from credit institutions	66	80
Debt securities eligible for refinancing with central banks	789	815
Derivative instruments	21	15
Guarantees	9	43
Unutilised overdraft limits	241	228
Unutilised credit card limits	79	76
Lines of credit	92	131
Other commitments	23	14
Total	**5,908**	**5,919**

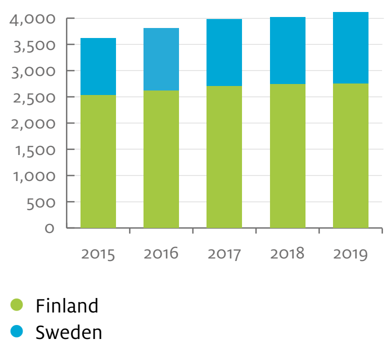
Table 9.4.2

Receivables from the public by economic sector and country	2019			2018		
EUR M	Finland	Sweden	Total	Finland	Sweden	Total
Home mortgage loans	1,579	687	2,266	1,565	722	2,287
Securities and other investments	285	40	325	270	38	309
Business operations	108	0	108	112	0	112
Other household purposes	153	114	267	149	80	229
Total private individuals	**2,125**	**841**	**2,966**	**2,096**	**841**	**2,937**
Shipping	50	0	50	59	0	59
Wholesale and retail trade	38	3	42	42	3	46
Housing operations	54	259	312	58	243	301
Other real estate operations	109	100	210	109	87	196
Financial and insurance operations	167	53	220	177	53	231
Hotel and restaurant operations	27	2	29	27	1	28
Other service operations	65	45	109	63	21	84
Agriculture. forestry and fishing	11	0	11	11	0	11
Construction	30	50	80	34	23	57
Other industry and crafts	34	3	36	34	3	37
Total companies	**584**	**516**	**1,100**	**614**	**436**	**1,050**
Public sector and non-profit organisations	**42**	**2**	**44**	**35**	**0**	**35**
Total lending	**2,751**	**1,359**	**4,110**	**2,745**	**1,276**	**4,022**

Receivables from the public by economic sector
EUR M



Receivables from the public by country
EUR M



During 2019, the overall credit risk exposure of the Group on and off the balance sheet decreased from EUR 5,919 M to EUR 5,908 M, as the above table shows. Receivables from the public rose from EUR 4,022 M to EUR 4,110 M, or by 2 per cent, during the year. The increase mainly occurred in the “lending to the public” segment, where volume increased by EUR 88 M or by 2 per cent. Meanwhile exposures attributable to the Bank’s liquidity and portfolio management decreased during the year. For example, credit risk exposure in the form of debt securities eligible for refinancing decreased from EUR 815 M to EUR 789 M or by 3 per cent. A substantial share of bond holdings issued by financial institutions consisted of Nordic covered bonds with very good credit quality (as a rule, AAA-rated). During the year, the Bank’s holdings of covered bonds increased from EUR 492 M to EUR 503 M. As for off-balance sheet items, mainly guarantees and lines of credit, these decreased by EUR 49 M compared to the end of 2018.

Table 9.4.2 (page 16) shows a breakdown of receivables from the public by various business segments and countries where the Bank has operations within its lending to the public.

During 2019 receivables from the public in Sweden increased by a total of EUR 83 M or by 6 per cent. In Finland, receivables from the public meanwhile increased by EUR 6 M (0 per cent).

Overall corporate lending rose by EUR 59 M during the year or by about 5 per cent. Meanwhile lending to private individuals increased by EUR 29 M or by 1 per cent.

9.5 GENERAL QUANTITATIVE DISCLOSURES ABOUT CREDIT RISK

Table 9.5.1 below shows net values on and off the balance sheet for exposures, divided by CRR exposure class according to the template established by the EBA for reporting of year-end credit risk exposures, as well as quarterly averages during 2019. For balance sheet items, net amounts refer to the recognised gross value of the exposure minus provisions/impairments. For off-balance sheet items, the net value is the recognised gross value of the exposure minus provisions. The category "not SMEs" refers to private individuals and sole traders.

Table 9.5.2 (page 18) shows a breakdown of net exposures by geographic regions. The table shows that 60 per cent of credit risk exposure is allocated to Finland, 35 per cent is allocated to Sweden. The rest of the Nordic region and the rest of the world each account for about 3 per cent of the net exposure amount.

Table 9.5.3 (page 19) shows a breakdown of overall credit risk exposure by the Bank’s internal strategic allocation of exposures.

Table 9.5.1

Total and average net amount of credit risk exposures

EUR M	Net exposure amount at end of period	Average net exposures over the period
Corporate exposures	497.5	509.2
of which specialised lending	5.3	5.3
of which SMEs	348.3	333.8
Retail exposures	2,315.3	2,297.0
Secured by real estate	1,935.0	1,926.8
SMEs	118.3	116.0
of which not SMEs	1,816.7	1,810.8
Other retail exposures	380.3	370.2
SMEs	35.4	36.6
of which not SMEs	344.9	333.6
Total exposure with IRB approach	**2,812.8**	**2,806.2**
Governments and central banks	516.6	515.3
Regional or local governments or agencies	45.2	43.9
Public sector entities	0.0	17.1
Multilateral development banks	28.7	42.4
International organisations	4.0	10.2
Institutions	325.5	326.7
Corporates	479.8	457.9
Retail	255.0	247.8
Secured by real estate	993.3	956.9
In default	2.3	2.9
Associated with particularly highrisks	0.0	0.0
Covered bonds	503.3	505.5
Collective investment undertakings (funds)	0.0	0.2
Equity exposures	9.7	4.7
Other exposures	85.8	83.3
Total exposure with standardised approach	**3,249.4**	**3,214.9**
Total	**6,062.1**	**6,021.2**

EU CRB-B

Table 9.5.2

Geographic breakdown of exposures

	Net value										
EUR M	Finland	Sweden	Norway	Denmark	France	Netherlands	Luxembourg	United Kingdom	Canada	Other geographic areas	Total
Corporate exposures	497.5										497.5
Retail exposures	2,315.3										2,315.3
Total exposures with IRB approach	**2,812.8**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**2,812.8**
Governments and central banks	443.0	63.5	0.0	0.0	10.2	0.0	0.0	0.0	0.0	0.0	516.6
Regional or local governments or agencies	4.5	40.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.2
Public sector entities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Multilateral development banks	3.8	0.0	0.0	0.0	0.0	0.0	24.9	0.0	0.0	0.0	28.7
International organisations	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	4.0
Institutions	107.3	114.7	0.0	20.4	3.5	57.5	0.0	22.0	0.0	0.0	325.5
Corporates	14.5	465.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	479.8
Retail	110.2	144.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	255.0
Secured by real estate	10.6	982.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	993.3
In default	1.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
Associated with particularly high risk	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Covered bonds	67.3	255.2	107.9	29.7	0.0	0.0	0.0	0.0	43.2	0.0	503.3
Collective investment undertakings (funds)											0.0
Equity exposures	0.7	8.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7
Other exposures	59.7	26.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	85.8
Total exposure with standardised approach	**822.6**	**2,103.5**	**107.9**	**50.1**	**13.7**	**57.5**	**29.0**	**22.0**	**43.2**	**0.0**	**3,249.4**
Total	**3,635.3**	**2,103.5**	**107.9**	**50.1**	**13.7**	**57.5**	**29.0**	**22.0**	**43.2**	**0.0**	**6,062.1**

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Table 9.5.3

Concentration of exposures by industry or counterparty types

	Private individuals			Companies										
EUR M	Home loans	Securities and other investments	Other household purposes	Shipping	Finance and insurance operations	Trade and other service operations	Housing operations	Other real estate operations	Agriculture, fishing and other industries	Hotel and restaurant operations	Con-struction	Public sector	Others	Total
Corporate exposures				65.9	147.5	68.7	23.9	91.1	32.6	21.0	23.2	23.5		497.5
Retail exposures	1,602.6	296.7	249.0	0.8	28.6	47.9	25.2	23.4	11.8	11.8	13.5	8.2		2,319.3
Total exposure with IRB approach	**1,602.6**	**296.7**	**249.0**	**66.7**	**176.1**	**116.6**	**49.1**	**114.5**	**44.3**	**32.7**	**36.7**	**31.7**	**0.0**	**2,816.8**
Governments and central banks												516.6		516.6
Regional or local governments or agencies												49.7		49.7
Public sector entities												0.0		0.0
Multilateral development banks					28.7									28.7
International organisations												4.0		4.0
Institutions					363.8									363.8
Corporates	5.4	29.3	76.9		113.0	46.2	30.2	67.7	6.9	1.4	62.6	5.3	22.2	467.1
Retail	11.0	48.3	130.3	0.3	7.3	7.5	3.9	4.1	0.3	0.6		8.3		221.9
Secured by real estate	671.5	7.2	8.5		5.4	14.6	239.2	39.4	2.8	0.6	1.5	2.6		993.3
In default	0.4		0.1				0.8							1.3
Associated with particularly high risk														0.0
Covered bonds					503.3									503.3
Collective investment undertakings (funds)														0.0
Equity exposures					9.7									9.7
Other exposures													85.8	85.8
Total exposure with standardised approach	**688.3**	**84.8**	**215.8**	**0.3**	**1,031.2**	**68.3**	**274.1**	**111.2**	**10.0**	**2.6**	**64.1**	**586.6**	**108.0**	**3,245.3**
Total	**2,290.9**	**381.5**	**464.8**	**67.0**	**1,207.3**	**184.9**	**323.2**	**225.7**	**54.3**	**35.3**	**100.8**	**618.3**	**108.0**	**6,062.1**

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9.6 BREAKDOWN OF EXPOSURES BY EXPOSURE CLASS AND OWN FUNDS REQUIREMENT

Table 9.6.1 below summarises the Group's overall credit risk exposures and risk exposure amounts by exposure class. Exposure value refers to net exposure after taking into account credit conversion factor (CF) for off-balance sheet items.

During 2019, the total risk exposure amount for the Bank's credit risk exposures decreased by EUR 9 M (1 per cent), or expressed in capital requirements by EUR 0.7 M. The risk exposure amount of IRB-approved exposures decreased during the year by EUR 21 M (4 per cent) or by EUR 1.6 M expressed in capital requirements.

Table 9.6.2 (page 21) shows the subtraction of regulatory expected loss and the calculation of the additional capital requirement for the risk weight floor for Finnish mortgage loans. Expected loss affects capital adequacy assessment, since the shortfall of expected losses decreases common equity Tier 1 capital in own funds. The estimated expected loss amount is based on the same risk parameters as the capital requirement, which means that improved credit quality decreased the subtraction from own funds. Since common equity Tier 1 capital has already been reduced due to the impact of the recognised impairment loss on equity capital, these are reduced from the amount to be subtracted. Write-downs of defaulted exposures may not cover expected losses on non-defaulted exposures in the calculation. To the extent that estimated expected loss on defaulted exposures exceeds recognised write-downs, these are added to Tier 2 capital in own funds.

The table shows that the amount of the shortfall against individual impairment losses on December 31, 2019 was EUR 6.2 M. The total amount of estimated expected losses amounted to EUR 15.6 M, compared to EUR 15.2 M at the end of 2018.

Table 9.6.1

Exposure amounts and risk exposure amounts by exposure class

EUR M	Original exposure	(–) Value adjustments	Inflows via credit risk protection	(–) Outflows via credit risk protection	Exposure amount	Average risk weight, (%)	Risk-weighted exposure amount	Capital requirement
Credit risk, IRB approach								
Using own estimates of LGD								
Retail – Real estate as collateral, SMEs	118.5	–0.2	0.0	–0.8	117.8	23	27.5	2.2
Retail – Real estate as collateral, private individuals	1,817.4	–0.7	0.0	–13.7	1,806.4	10	175.3	14.0
Retail – Other SMEs	35.6	–0.2	0.0	–0.6	35.1	21	7.2	0.6
Other retail exposures	350.6	–5.7	0.0	–43.9	308.0	9	29.0	2.3
Without own estimates of LGD								
Corporate – Other large companies	143.9	0.0	0.0	–1.0	130.5	57	75.0	6.0
Corporate – SMEs	352.6	–4.2	0.0	–7.4	313.6	60	189.6	15.2
Corporate – Specialised lending	5.3	0.0	0.0	0.0	5.3	112	5.9	0.5
Total exposures, IRB approach	**2,823.8**	**–11.1**	**0.0**	**–67.3**	**2,716.7**	**19**	**509.4**	**40.8**
Credit risk, standardised approach								
Governments and central banks	516.6	0.0	110.7	0.0	608.5	0	0.0	0.0
Regional or local governments or agencies	45.2	0.0	29.4	0.0	69.9	0	0.0	0.0
Public sector entities	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
Multilateral development banks	28.8	0.0	3.1	0.0	31.9	0	0.0	0.0
International organisations	4.0	0.0	0.0	0.0	4.0	0	0.0	0.0
Institutions	325.7	–0.2	0.5	0.0	276.6	22	60.4	4.8
Corporates	479.7	0.0	0.0	–74.8	184.0	99	182.2	14.6
Retail	249.7	–0.5	0.0	–1.6	88.6	73	64.7	5.2
Secured by real estate	993.5	–0.1	0.0	0.0	991.9	33	322.7	25.8
In default	3.0	–0.7	0.0	0.0	2.3	124	2.8	0.2
Associated with particularly highrisks	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Covered bonds	503.4	–0.1	0.0	0.0	503.3	10	52.1	4.2
Collective investment undertakings (funds)	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Equity exposures	9.7	0.0	0.0	0.0	9.7	100	9.7	0.8
Other exposures	85.8	0.0	0.0	0.0	85.8	68	58.4	4.7
Total exposures, standardised approach	**3,245.1**	**–1.7**	**143.7**	**–76.4**	**2,856.5**	**26**	**752.9**	**60.2**
Total risk exposure amount	**6,068.9**	**–12.8**	**143.7**	**–143.7**	**5,573.1**	**23**	**1,262.3**	**101.0**

Table 9.6.2

Special IRB-related disclosures	2019
EUR M	
Non-defaulted exposures	
Specific credit risk adjustments attributable to IRB-approved portfolios	0.8
Estimated expected loss (EL) according to IRB models	7.0
EL surplus against credit risk adjustments for non-defaulted exposures	6.2
Defaulted exposures	
Specific credit risk adjustments attributable to IRB-approved portfolios	10.3
Estimated expected loss (EL) according to IRB models	8.6
EL surplus against credit risk adjustments for non-defaulted exposures	–1.7
Shortfall subtracted from own funds in capital adequacy analysis (net EL)	**6.2**
Capital requirement for credit risk with reference to IRB without limits	101.0
Additional capital requirement for risk weight floor for Finnish mortgage loans	8.0
Fully adjusted capital requirement for credit risk	**109.0**

Tables 9.6.3 to 9.6.5 below show the Bank's exposures in the IRB-approved retail portfolio, divided into PD classes that are used in calculating the capital requirement. For each PD class, the Bank calculates a class value that is equivalent to the combined annual risk of default for exposures in each risk class. The exposure value in the IRB-approved retail portfolio changed only insignificantly during the year. Defaulted exposures according to exposure value increased from EUR 14.4 M to EUR 21.5 M or by 50 per cent. Meanwhile there was also an increase in exposure value in the best risk classes, 1 to 5.

The capital requirement for the risk weight floor for Finnish mortgage loans, which the Bank sets aside in addition to the capital requirement according to CRR Article 458 amounted to EUR 8.0 M on December 31, 2019. The equivalent capital requirement on December 31, 2018 amounted to EUR 7.5 M.

Table 9.6.3

Retail exposures with property as collateral – Private individuals

	2019					2018				
Risk class	PD by class value	Risk weight, %	EAD, EUR M	EAD, %	Acc % of total EAD	PD by class value	Risk weight, %	EAD, EUR M	EAD, %	Acc % of total EAD
1	0.04	1	92.3	5.1	5.1	0.04	1	90.5	5.0	4.6
2	0.11	2	235.7	13.1	18.2	0.11	2	221.3	12.3	17.0
3	0.14	3	310.6	17.2	35.4	0.14	3	304.7	17.0	34.4
4	0.21	5	624.3	34.6	69.9	0.21	5	609.4	34.0	67.8
5	0.75	12	434.4	24.0	94.0	0.75	12	447.3	25.0	92.8
6	7.31	51	83.1	4.6	98.6	7.31	51	102.1	5.7	98.6
7	28.75	85	11.8	0.7	99.2	28.75	85	10.8	0.6	99.4
Defaulted	100.00	147	14.2	0.8	100.0	100.00	147	6.6	0.4	100.0
Total			**1,806.4**	**100.0**				**1,792.7**	**100.0**	
Risk classes 1–5			**1,697.3**					**1,673.2**		
Risk classes 1–5			**94.0%**					**93.3%**		

Table 9.6.4

Retail exposures – Small and medium-sized companies*

	2019					2018				
Risk class	PD by class value	Risk weight, %	EAD, EUR M	EAD, %	Acc % of total EAD	PD by class value	Risk weight, %	EAD, EUR M	EAD, %	Acc % of total EAD
1	0.15	6	4.2	2.7	2.7	0.15	5	3.6	2.4	2.4
2	0.22	13	11.9	7.8	10.5	0.22	5	10.5	7.2	9.6
3	0.79	9	34.7	22.7	33.2	0.79	11	34.3	23.4	33.0
4	2.61	14	61.8	40.4	73.6	2.61	21	60.8	41.4	74.4
5	7.80	44	30.2	19.7	93.3	7.80	38	27.0	18.4	92.8
6	13.31	65	8.3	5.4	98.7	13.31	49	6.5	4.4	97.2
7	53.00	190	1.0	0.7	99.4	53.00	70	3.2	2.2	99.4
Defaulted	100.00	263	0.9	0.6	100.0	100.00	77	0.9	0.6	100.0
Total			**152.9**	**100.0**				**146.8**	**100.0**	
Risk classes 1–5			**142.7**					**136.2**		
Risk classes 1–5			**93.3%**					**92.8%**		

Table 9.6.5

Retail exposures – Other retail exposures

	2019					2018				
Risk class	PD by class value	Risk weight, %	EAD, EUR M	EAD, %	Acc % of total EAD	PD by class value	Risk weight, %	EAD, EUR M	EAD, %	Acc % of total EAD
1	0.04	2	8.1	2.6	2.6	0.04	2	7.4	2.4	2.4
2	0.11	3	40.1	13.0	15.7	0.11	3	30.6	10.1	12.6
3	0.14	4	41.7	13.5	29.2	0.14	4	51.4	17.0	29.5
4	0.21	5	102.7	33.4	62.6	0.21	6	83.9	27.7	57.3
5	0.75	13	90.8	29.5	92.1	0.75	13	106.9	35.3	92.6
6	7.31	30	15.3	5.0	97.0	7.31	31	13.4	4.4	97.0
7	28.75	64	2.8	0.9	97.9	28.75	65	2.3	0.8	97.7
Defaulted	100.00	31	6.4	2.1	100.0	100.00	36	6.8	2.3	100.0
Totalt			**308.0**	**100.0**				**302.7**	**100.0**	
Risk classes 1–5			**283.5**					**280.2**		
Risk classes 1–5			**92.1%**					**92.6%**		

In a similar way, tables 9.6.6 to 9.6.8 show the Bank's exposures in the IRB-approved corporate portfolio. During 2019 the exposure amount decreased by EUR 36 M or by 8 per cent. The defaulted exposure amount increased from EUR 1.1 M to EUR 4.8 M, but this increase was attributable to a few large commitments. The exposure amount in the best risk classes, 1 to 5, decreased by EUR 44 M or 10 per cent during the year.

Table 9.6.8 shows the portion of the IRB-approved corporate portfolio that consisted of specialised lending in accordance with CRR, Article 153.5. Specialised lending is estimated as a whole by means of a qualitative assessment and is characterised by a strong correlation between a financed project or an object and the future cash flows from these that will repay the loan.

Table 9.6.6

Corporate exposures – Large companies

	2019					2018				
Risk class	PD by class value	Risk weight, %	EAD, EUR M	EAD, %	Acc % of total EAD	PD by class value	Risk weight, %	EAD, EUR M	EAD, %	Acc % of total EAD
1	0.50	56	21.9	17.4	17.4	0.50	62	27.1	17.5	17.5
2	1.06	27	59.3	45.1	62.5	1.06	41	89.2	57.6	75.1
3	1.44	81	26.8	20.4	82.9	1.44	69	17.2	11.1	86.2
4	1.80	77	11.4	8.7	91.6	1.80	63	16.9	10.9	97.1
5	5.25	87	0.6	0.5	92.0	5.25	75	4.5	2.9	100.0
6	21.47	147	8.3	6.3	98.3					
7										
Defaulted	100.00	0	0.2	0.1	98.5	0.00		0.0	0.0	100.0
Unclassified	8.53	150	2.0	1.5	100.0	0.00		0.0	0.0	100.0
Totalt			**130.5**	**100.0**				**155.0**	**100.0**	
Risk classes 1–5			**120.0**					**155.0**		
Risk classes 1–5			**92.0%**					**100.0%**		

Table 9.6.7

Corporate exposures – Small and medium-sized companies

	2019					2018				
Risk class	PD by class value	Risk weight, %	EAD, EUR M	EAD, %	Acc % of total EAD	PD by class value	Risk weight, %	EAD, EUR M	EAD, %	Acc % of total EAD
1	0.50	48	30.0	9.6	9.6	0.50	52	47.1	14.5	14.5
2	1.06	46	60.2	19.2	28.8	1.06	49	66.1	20.3	34.8
3	1.44	50	109.1	34.8	63.6	1.44	59	112.6	34.6	69.4
4	1.80	71	64.9	20.7	84.3	1.80	65	53.3	16.4	85.8
5	5.25	97	26.5	8.5	92.8	5.25	86	21.2	6.5	92.3
6	21.47	169	8.8	2.8	95.6	21.47	182	16.1	5.0	97.3
7	63.83		5.7	0.0	95.6	63.83	114	0.6	0.2	97.4
Defaulted	100.00	0	5.7	1.8	97.4	100.00	0	1.1	0.4	97.8
Unclassified	8.53	78	8.2	2.6	100.0	8.53	115	7.2	2.2	100.0
Total			**313.6**	**100.0**				**325.4**	**100.0**	
Risk classes 1–5			**290.9**					**300.3**		
Risk classes 1–5			**92.8%**					**92.3%**		

Table 9.6.8

IRB – Specialised lending

Legal categories	Remaining maturity	Balance sheet amount	Off-balance sheet amount	Risk weight	Exposure amount	Risk-weighted exposure amount	Expected losses
Category 1	Less than 2.5 years			50			
	2.5 years or more	0.3		70	0.3	0.2	0.0
Category 2	Less than 2.5 years			70			
	2.5 years or more			90			
Category 3	Less than 2.5 years			115			
	2.5 years or more	5.0	0.0	115	5.0	5.7	0.1
Category 4	Less than 2.5 years			250			
	2.5 years or more			250			
Category 5	Less than 2.5 years			–			
	2.5 years or more			–			
Total	**Less than 2.5 years**	**0.0**	**0.0**		**0.0**	**0.0**	**0.0**
	2.5 years or more	**5.3**	**0.0**		**5.3**	**5.9**	**0.1**

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Table 9.6.10 summarises central key figures for the Bank's IRB portfolios.

Table 9.6.9 below shows a cash flow statement of risk-weighted amounts and capital requirements related to credit risk exposures managed according to the IRB approach. During 2019, the risk exposure amount decreased from EUR 530 M to EUR 509 M.

When reading the table, one should bear in mind the relatively large increase in defaulted exposures in the corporate portfolio during the year, which according to the regulations, have no capital requirements. These exposures instead burden own funds in the form of a higher expected loss deduction.

Table 9.6.9

Exposure class, amounts

EUR M	Original gross exposures in balance sheet	Original off-balance sheet exposures before CF	Average credit conversion factor, %	Defaulting exposures after CRM and CF
Using own estimates of LGD				
Retail, property as collateral, small and medium-sized companies	107.9	10.5	100	0.6
Retail, property as collateral, private individuals	1,782.6	34.8	100	14.2
Retail, other small and medium-sized companies	28.1	7.5	100	0.3
Other retail exposures	332.0	18.6	100	6.4
Without own estimates of LGD				
Corporate, other large companies	130.3	13.6	7	0.2
Corporate, small and medium-sized companies	318.0	34.6	5	5.7
Corporate, special lending	5.3	0.0	0	0.0

Exposure class, risk parameters

EUR M	Average PD, (incl. defaulted) %	Number of debtors	Average LGD, %	Average maturity (days)	Risk-weighted exposure amount	Density of risk-weighted exposure amount: Expected loss, %	Value adjustments and provisions
Using own estimates of LGD							
Retail, property as collateral, small and medium-sized companies	4.58	1,080	10.95	2,352	27.5	23	−0.2
Retail, property as collateral, private individuals	1.60	20,471	10.21	4,348	175.3	10	−0.7
Retail, other small and medium-sized companies	4.05	718	21.55	1,270	7.2	21	−0.2
Other retail exposures	3.02	10,191	13.50	1,557	29.0	9	−5.7
Without own estimates of LGD							
Corporate, other large companies	2.69	73	28.31	1,292	75.0	57	0.0
Corporate, small and medium-sized companies	4.23	326	33.00	2,288	189.6	60	−4.2
Corporate, special lending		2		5,584	5.9	112	0.0

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Table 9.6.10

Cash flow statement for capital requirement according to IRB approach

EUR M	Risk exposure amount	Capital requirement
Risk exposure amount at end of preceding period	530.0	42.4
Asset size	13.6	1.1
Asset quality	−34.2	−2.7
Updates to models		0.0
Methods and guidelines		0.0
Acquisitions and divestments		0.0
Exchange rate lovements		0.0
Other		0.0
Risk exposure amount at end of reporting period	**509.4**	**40.8**

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9.7 IRB – ESTIMATED VALUES AND OBSERVED OUTCOMES

The exposure-weighted PD estimate according to class value – including adjustment for economic cycles and safety margins – for all non-defaulted retail exposures that were used in the calculation of capital requirements on December 31, 2019 was 1.05 per cent. For retail exposures with property as collateral, the weighted PD estimate amounted to 0.82 per cent, for small and medium-sized companies and for other retail exposures 3.89 and 0.97 per cent, respectively.

At the end of 2018, the exposure-weighted PD estimate according to class value – including adjustments for economic cycles and safety margins – for all non-defaulting retail exposures was 1.13 per cent. For retail exposures with property as collateral, the weighted PD estimate amounted to 0.89 per cent, for small and medium-sized companies and for other retail exposures 4.48 and 0.92 per cent, respectively.

The exposure-weighted PD estimate for non-defaulted corporate exposures on December 31, 2019 was 2.47 per cent and on December 31, 2018 it was 2.25 per cent.

Table 9.7.1 below shows observed default outcomes during 2019. Note that these actual outcomes were observed during a period when the macroeconomic situation was better than the average situation to which the cyclical adjustment in the PD models is made. For corporate exposures and exposures to companies in the retail portfolio, the difference between estimated PD values and observed default frequencies is larger than for exposures to private individuals, due to greater statistical uncertainty in the estimates because of less data material, which makes it necessary to use larger add-ons to ensure that the estimates are conservative.

Table 9.7.2 presents EAD-weighted average LGD levels on December 31, 2019 in per cent for the respective exposure class where the Bank was granted permission to apply the IRB approach. Estimated levels include safety margins plus a cyclical adjustment of LGD to a recession situation.

The estimated exposure-weighted LGD value for all non-defaulting retail exposures on December 31, 2018 was 10.9 per cent. For non-defaulting retail exposures with residential property as collateral, LGD totalled 10.2 per cent, for non-defaulting small and medium-sized companies 14.0 per cent and for other non-defaulting retail exposures 13.5 per cent. The estimated levels did not change significantly between December 31, 2017 and December 31, 2018.

Table 9.7.1

Default frequency in 2019

Exposure class	Actual outcome[1], %	Estimated value[2], %
Retail, secured by real estate	0.41	0.78
Small and medium-sized companies classified as retail exposure	1.18	4.27
Other retail exposures	1.10	1.97
Total retail exposures	**0.67**	**1.34**
Corporate exposures	**0.48**	**2.76**

[1] Arithmetic median values

[2] Estimated on December 31, 2017. Includes cyclical adjustment and safety margins.

Table 9.7.2

Estimated LGD levels		December 2019	
Exposure class	Non-defaulting, %	Defaulted, %	Total, %
Retail exposures with real estate as collateral[1]	10.1	18.3	10.2
Small and medium-sized companies classified as retail exposures	13.3	34.7	13.4
Other retail exposures	13.0	36.8	13.5
Total retail exposures	**10.7**	**24.5**	**10.9**
Corporate exposures – Small and medium-sized companies[2]	28.3	35.0	28.3
Corporate exposures – Large companies[2]	32.8	44.4	33.0
Total corporate exposures[2]	**31.5**	**44.1**	**31.6**

[1] According to capital requirements regulations, the average LGD value for exposures with residential property as collateral and without government guarantees may not be lower than 10 per cent.

[2] Method for calculating LGD determined by authorities.

Estimated and observed LGD levels for the exposures that defaulted during 2018 are presented in Table 9.7.3. The estimated level is an exposure-weighted average for the defaulted exposures on the reference date, December 31, 2017. When calculating observed LGD, only recoveries from residential property and financial collateral until December 31, 2019 have been taken into account. Observed defaults with unclear recovery status are treated as unrecovered with an observed LGD of 100 per cent, which is a conservative estimate. Because of these factors, the observed LGD level is conservative and will fall over time, since on December 31, 2019 there was remaining unsold collateral for defaults in 2018 and some of the defaults that have unclear recovery status will probably recover.

Table 9.7.3

	December 2019			
Exposure class	Estimated LGD, %	Observed LGD , %	Number of defaulted loans	EAD, EUR 000
Retail with real estate as collateral, private individuals	13.9	10.5	98	11,497
Small and medium-sized companies classified as retail exposures	24.4	16.6	36	1,472
Other retail exposures	31.1	45.6	110	2,303
Small and medium-sized companies classified as corporate exposures	45.2	14.0	19	3,765
Corporate exposures, large companies	35.5	4.7	4	1,052

9.8 STANDARDISED APPROACH FOR CALCULATION OF CAPITAL REQUIREMENT

In the standardised approach, exposures are divided into various exposure classes depending on the counterparty, collateral or type of receivable. The exposure figures for the receivables are calculated according to the regulation and are then multiplied by the risk weight specified in the CRR for the respective exposure class. Exposures to sovereigns (national governments) in the European Economic Area (EEA) and their respective central banks shall always, provided that they are expressed in the national currency, be assigned a risk weight of 0 per cent and exposures fully or partially covered by collateral in residential property shall be assigned a risk weight of 35 per cent. In compliance with the CRR, the Bank bases its risk weight for institutions, covered bonds and companies on external credit rating agencies. For those exposures in the "institutions" class and the covered bond class that have no external rating, the risk weight is based on the rating of the national government (sovereign method). During 2019 no changes occurred in this approach that have affected the Bank's risk exposure amount.

Table 9.8.1 (page 27) shows how exposure amounts calculated according to the standardised approach are allocated among exposure classes and risk weights applied in the standardised method. The amounts are reported after specific credit risk adjustments, credit conversion factors and credit risk mitigation techniques.

Table 9.8.1

Exposure amounts managed according to the standardised approach, by exposure class and risk weight

Exposure class EUR M	0%	2%	4%	10%	20%	35%	50%	70%	75%	100%	150%	250%	370%	1250%	Total
Governments or central banks	608.5														608.5
Regional or local governments or agencies	69.9														69.9
Public sector entities	0.0														0.0
Multilateral investment banks	31.9														31.9
International organisations	4.0														4.0
Institutions	6.8	13.1			227.4		29.3								276.6
Corporates										184.0					184.0
Retail									88.6						88.6
Secured by real estate						991.9									991.9
Defaulted										1.2	1.1				2.3
Associated with particularly high risk															0.0
Covered bonds				485.9	17.4										503.3
Receivables from institutions and companies with short-term credit valuations															0.0
Receivables in the form of funds															0.0
Equity exposures										9.7					9.7
Other exposures	27.4								0.0	58.3					85.8
Total exposures	**748.6**	**13.1**	**0.0**	**485.9**	**244.8**	**991.9**	**29.3**	**0.0**	**88.6**	**253.2**	**1.1**	**0.0**	**0.0**	**0.0**	**2,856.5**

EU CR5

9.9 CREDIT RISK MITIGATION TECHNIQUES

Credit risk mitigation (CRM) in the calculation of capital requirements refers to measures by which the Bank takes into account approved collateral that lowers the capital requirement for credit risk. The collateral that the Bank of Åland takes into account in calculating the capital requirement consists of residential properties, guarantees issued by sovereigns, local authorities and institutions, deposit accounts in the Bank itself and other banks as well as financial collateral.

The Bank uses the comprehensive method for financial collateral. Approved financial collateral according to capital adequacy regulations is adjusted for volatility using "haircuts" (capital charges) specified by authorities and affects the LGD parameter for the exposure classes where IRB is applied. For loans where the standardised approach is used to calculate capital requirements, the exposure amount for the exposures is instead mitigated before these are risk-weighted. The largest category of this form of credit risk mitigation method consists of equities listed on the Helsinki and Stockholm stock exchanges. The second-largest category consists of fixed income securities issued or intermediated mainly by Nordic credit institutions.

The residential property used as collateral in credit risk mitigation must meet special requirements set by capital adequacy regulations to be eligible. This includes requiring regular independent appraisals and requiring that the collateral must exceed the receivables by a substantial amount (loan-to-value or LTV ratio). According to the CRR, an exposure or part of an exposure that does not exceed 80 per cent of the market value of a property is regarded as fully collateralised. By using guarantees issued by governments and others, the Bank may substitute all or part of an exposure to a counterparty with better credit quality when calculating capital requirements for credit risk. The foremost providers of these forms of credit protection are the Finnish government and the Åland provincial government. In the Bank's Swedish operations, guarantees by the National Board of Housing, Building and Planning serve as collateral in some financing solutions in the form of building loans. The Bank was also granted permission to use guarantees issued by the European Investment Fund for a limited portfolio.

Table 9.9.1 below shows how the Bank's exposure and risk exposure amounts look when allocated between exposure categories in the standardised approach before and after taking into account CRM and CF for the exposures.

In the corporate exposure class, the exposure amount is mitigated mainly by taking financial collateral into account in the calculation, while in the retail exposure class the exposure is largely mitigated by taking CF into account. In practice, this refers to unutilised portions of credit card limits and the unutilised portion of securities lending in Swedish operations, which can be terminated unconditionally by the Bank.

Table 9.9.1

Standardised approach – credit risk mitigation and its effects

	Exposures before CF and credit risk mitigation		Exposures after CF and credit risk mitigation		Risk-weighted exposure amount and its density	
EUR M	Balance sheet amount	Off-balance sheet amount	Balance sheet amount	Off-balance sheet amount	Risk-weighted exposure amount	Density of risk-weighted exposure amount, %
Central governments or central banks	516.6	0.0	603.8	4.7	0.0	0
Regional or local governments or agencies	41.1	4.1	69.1	0.8	0.0	0
Public sector entities	0.0	0.0	0.0	0.0	0.0	0
Multilateral development banks	28.8	0.0	31.9	0.0	0.0	0
International organisations	4.0	0.0	4.0	0.0	0.0	0
Institutions	287.3	38.3	276.6	0.0	60.4	22
Corporates	340.5	139.1	169.8	14.3	182.2	99
Retail	107.8	147.7	84.9	3.6	64.7	73
Secured by mortgages on immovable property	991.7	1.7	991.6	0.3	322.7	33
Exposures in default	3.0	0.0	2.3	0.0	2.8	124
Covered bonds	503.4	0.0	503.3	0.0	52.1	10
Equity exposures	9.7	0.0	9.7	0.0	9.7	100
Other exposures	85.8	0.0	85.8	0.0	58.4	68
Total exposure	**2,919.8**	**331.0**	**2,832.7**	**23.8**	**752.9**	**26**

EU CR4

9.10 NON-PERFORMING AND PAST-DUE EXPOSURES

Non-performing exposures are defined as receivables that fulfil the regulatory definition for default according to Article 178 of CRR or are written down according to accounting principles. According to the Bank's internal definition of default, an exposure is considered in default when a payment related to a significant amount is more than 90 days past due. Other situations where the Bank considers a credit exposure in default are when the Bank honours a bank guarantee, or the counterparty declares bankruptcy or applies for debt restructuring. In addition, the Bank assesses whether there are other reasons why a counterparty should be considered unlikely to pay, which always includes cases where the Bank expands its forbearance measures for a customer. The definition of default for accounting purposes is when receivables are recognised as being in Stage 3 according to the IFRS 9 regulation and are essentially the same as the regulatory definition of default.

Non-performing exposures, which have thus been recognised as in Stage 3 according to the IFRS 9 regulation, were at a higher level at the end of 2019 than at the beginning of the year. The recognised value of exposures reported in Stage 3 before factoring in provisions according to accounting principles amounted to EUR 33.5 M, of which EUR 0.6 M was related to unutilised credit lines and guarantees. Exposures in the balance sheet recognised in Stage 3 were EUR 19.7 M on December 31, 2018.

Past-due receivables consisted of receivables that are overdue but do not yet meet the criteria for the Bank's definition of default and are classified as performing exposures until default has occurred. Most of the receivables reported in Stage 2 consisted of receivables that are or have been overdue for more than 30 days, taking into account the waiting period. Stage 2 also includes those receivables that have been granted forbearance measures and are not in default, and are classified as forborne performing exposures.

Forbearance measures are applied by the Bank for loan commitments where customers have obvious financial problems and mean that an adjustment of the loan terms must be made in order to manage the customer's repayment ability. Formally, a forbearance measure is a concession to a customer that the Bank would not have made if the customer had not experienced or was not close to experiencing financial difficulties. Clear signs of obvious financial problems are that the customer does not follow his or her repayment plan, but is instead repeatedly late with payments. There may also be cases where the customer informs his or her advisor at the Bank of circumstances that imply that the loan terms need to be adjusted in order to correct a long-term weakening of repayment ability. Examples of such adjustments are that the Bank can consider lowering the margin, postponing a repayment and/or significantly extending the repayment period for the loan. In order for an exposure to be deemed no longer subject to forbearance measures, the loan must be performing in accordance with the requirements specified by external regulations. It is also necessary for the customer advisor to have conducted a financial analysis which confirms that there are no longer financial difficulties.

According to the Bank's guidelines, a receivable is finally written off if bankruptcy has been confirmed or indigence is regarded as probable. In this stage, the exposure is regarded by the Bank as an actual loan loss. Non-performing and weakened loan commitments, as well as trends in special credit risk indicators for lending, are reported monthly to the Managing Director and quarterly to the Board in conjunction with the Group's internal risk report.

Table 9.10.1 below shows recognised gross values of past-due exposures in the balance sheet by number of days overdue.

Table 9.10.2 presents information on the Bank's non-performing exposures and forborne exposures.

Table 9.10.1

Past-due exposures by number of days overdue

	Recognised gross amounts					
EUR M	≤30 days	>30 days ≤60 days	> 60 days ≤90 days	> 90 days ≤180 days	>180 days ≤1 year	>1 year
Loans	71.3	2.7	4.2	5.3	14.4	7.8
Interest-bearing securities						
Total	**71.3**	**2.7**	**4.2**	**5.3**	**14.4**	**7.8**

EU CR1-D

Table 9.10.2

Non-performing and forborne exposures

	Recognised gross amounts for performing and non-performing exposures							Accumulated write-downs and provisions plus negative adjustments for fair value due to credit risk			
				Of which non-performing				For performing exposures		For non-performing exposures	
EUR M		Of which performing but past-due for >30 days <=90 days	Of which performing and forborne		Of which defaulted	Of which with individual reserve	Of which forborne		For performing exposures		For non-performing exposures
Interest-bearing securities	792.4	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Loans and advances	4,438.4	5.6	23.1	33.6	29.5	33.6	2.1	1.4	0.1	11.0	0.1
Off-balance sheet exposures		0.0	0.6	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0

EU CR1-E

Table 9.10.4 below shows the change in defaulted exposures during 2019 according to the regulatory definition of default in CRR.

The appendix on page 44 presents additional disclosures about the Bank's non-performing exposures and forborne exposures according to the EBA's standardised disclosure templates.

Table 9.10.5 (page 31) shows the amounts of defaulted and non-defaulted exposures by exposure class and the related credit risk adjustment.

Table 9.10.3

Net exposure amounts for defaulted and non-defaulted exposures by industry and purpose

EUR M	Total	Of which defaulted exposures	Of which non-defaulted exposures	% of defaulted exposures
Home mortgage loans	2,266.0	8.8	2,257.2	0.4
Securities and other investments	325.1	3.6	321.5	1.1
Business operations	107.7	6.8	101.0	6.3
Other household purposes	267.2	2.6	264.6	1.0
Total private individuals	**2,966.0**	**21.8**	**2,944.2**	**0.7**
Shipping	50.4	4.0	46.4	7.9
Wholesale and retail trade	41.5	0.6	40.9	1.5
Housing operations	312.2	0.8	311.4	0.2
Other real estate operations	209.6	1.4	208.2	0.6
Financial and insurance operations	219.7	0.0	219.7	0.0
Hotel and restaurant operations	28.7	0.0	28.7	0.0
Other service operations	109.4	0.5	108.8	0.5
Agriculture, forestry and fishing	11.5	0.0	11.5	0.0
Construction	80.3	0.2	80.0	0.3
Other industry and crafts	36.5	0.0	36.5	0.0
Total companies	**1,099.7**	**7.5**	**1,092.1**	**0.7**
Public sector and non-profit organisations	**44.4**	**0.2**	**44.2**	**0.5**
Total net exposure amount	**4,110.0**	**29.5**	**4,080.5**	**0.7**

Table 9.10.4

Change in holdings of defaulted loans and interest-bearing securities

EUR M	Recognised gross amount of defaulted exposures
Starting balance	**18.6**
Loans and interest-bearing securities that have become defaulted since the last report period	10.9
Returned to non-defaulted status	1.4
Write-offs and other changes	−1.4
Closing balance	**29.5**

EU CR2-B

Table 9.10.5

Defaulted exposures and credit risk adjustments by exposure class and instrument

	Original exposure				
EUR M	Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustment	General credit risk adjustment	Net exposure
Credit risk according to IRB approach					
Using own LGD estimates					
Retail with property as collateral, SMEs	0.6	117.9	0.2	0.0	118.3
Retail with property as collateral, not SMEs	13.2	1,804.2	0.7	0.0	1,816.7
Retail other, SMEs	0.3	35.3	0.2	0.0	35.4
Retail, other	6.6	344.0	5.7	0.0	344.9
Without own LGD estimates					
Corporate, other large companies	0.2	141.1	0.0	0.0	141.4
Corporate, SMEs	5.6	352.6	4.2	0.0	354.0
Corporate, specialised lending					0.0
Total exposure according to IRB approach	**26.5**	**2,795.1**	**10.9**	**0.0**	**2,810.7**
Credit risk according to standardised approach					
Central governments and central banks	0.0	516.6	0.0	0.0	516.6
Regional or local governments or agencies	0.0	45.2	0.0	0.0	45.2
Public sector entities	0.0	0.0	0.0	0.0	0.0
Multilateral development banks	0.0	28.8	0.0	0.0	28.7
International organisations	0.0	4.0	0.0	0.0	4.0
Institutions	0.0	325.7	0.2	0.0	325.5
Corporates	0.0	479.7	0.0	0.0	479.6
Retail	1.3	249.7	0.5	0.0	250.5
Secured by mortgages on immovable property	1.6	993.5	0.1	0.0	994.9
Exposures in default	3.0	0.0	0.7	0.0	2.3
Items associated with particularly high risk	0.0	0.0	0.0	0.0	0.0
Covered bonds	0.0	503.4	0.1	0.0	503.3
Collective investment undertakings (funds)	0.0	0.0	0.0	0.0	0.0
Equity exposures	0.0	9.7	0.0	0.0	9.7
Other exposures	0.0	85.8	0.0	0.0	85.8
Adjustment for exposures in default	−3.0	0.0	−0.7	0.0	−2.3
Total exposure according to standardised approach	**3.0**	**3,242.1**	**1.0**	**0.0**	**3,244.0**
Total risk exposure amount	**29.5**	**6,037.1**	**12.0**	**0.0**	**6,054.7**
of which loans comprise	29.5	4,798.0	11.6	0.0	4,815.8
of which securities comprise	0.0	792.4	0.3	0.0	792.1
of which off-balance sheet items comprise	0.1	446.8	0.0	0.0	446.8

EU CR1-A

9.11 CREDIT CONCENTRATION RISK

Risk concentrations in lending to the public arise, for example, when the loan portfolio includes concentrations of lending to certain individual customers or customer entities, economic sectors, regions or countries. The Bank manages concentration risk in its loan portfolio by setting limits on individual counterparties and certain economic sectors. Banks are subject to legal limits on concentrations in relation to individual customers or customer entities. Large exposures are defined in capital adequacy regulations as customers and customer entities whose total exposure is 10 per cent or more of the Bank's acceptable capital. In calculating the exposure amount, all of a customer's commitments inside and outside the balance sheet must be included in their full amount. This exposure may not exceed 25 per cent of acceptable capital, after taking into account CRM-approved collateral. If the limit is exceeded, this must be reported immediately to the FIN-FSA. According to the lending strategy chosen by the Bank of Åland, larger individual concentrations may occur in relation to individual customers. In practice, the largest individual concentrations are related to the Swedish business area, where the largest customers' exposure amounts and exposure types are managed with internal limits and strict monitoring of the credit risk in question. All large lending commitments in each respective business area are reported to the Executive Team and also to the FSA.

9.12 CREDIT RISK IN TREASURY OPERATIONS

In the Group's Treasury operations, credit risk arise from holdings of financial instruments as part of regular portfolio management and risk management. These instruments mainly comprise bonds that the Bank holds in its liquidity portfolio and largely consist of covered bonds and sovereign bonds as well as securities issued by multilateral development banks. The Bank's limit regulations specify how large a part of these investments may consist of exposures to different sectors, for example central banks, public sector entities and institutions.

Counterparty risks also arise in the Bank's Treasury operations when the Bank enters into derivative contracts with various counterparties. This counterparty credit risk in the Bank's derivative operations is managed through netting agreements concluded with counterparties in accordance with the International Swaps and Derivatives Association (ISDA) standard. Receivables and liabilities covered under the same agreement are thus offset against each other. To further manage risk, the Bank enters into Credit Support Annex (CSA) agreements with counterparties, which regulate the posting and receiving of collateral.

The central banks, financial institutions and multilateral development banks that the Group collaborates with must have good creditworthiness to be able to support the Group's continued long-term development as well as to minimise credit risk. Exposure to various counterparties is limited by an internal set of regulations that is adopted by the Board of Directors. The limit is specifically set for the counterparty in question and restricts what type of agreement may be entered into after a decision by the Credit Committee. Before the limit is determined, the counterparty's key financial ratios and assumed credit risk in the credit market are analysed. The Group's aggregate exposure to these counterparties is reported monthly in its risk report. The Risk Control department regularly monitors limit utilisation in the Group's operations and reports divergences to the Managing Director and Internal Auditing.

Table 9.12.1 below shows the Group's exposures in its Treasury operations, allocated according to the credit quality steps in the Capital Requirements Regulation applicable to the exposure category for the instrument.

The above-mentioned table shows that most of the Group's exposures in its Treasury operations are attributable to holdings of government bonds and deposits with central banks. As for bonds issued by other entities, they consist mostly of covered bonds in the highest rating class. None of the Group's bond holdings consists of subordinated or securitised structures. Derivative exposures to other financial institutions occur exclusively within the framework of currency and interest rate risk management. At year-end, none of the Bank's bond holdings was classified as held for trading.

Table 9.12.2 below shows how overall credit risk exposure in Treasury operations was allocated by region at year-end. The table shows that portfolio and liquidity management investments are almost exclusively attributable to entities domiciled in the European Economic Area (EEA). In addition, the Nordic countries account for 70 per cent of total exposure in Table 9.12.2.

Table 9.12.3 (page 33) shows a breakdown of the Group's total derivative exposures by risk type and how collateral is used to reduce the amount of exposure. "Positive gross amount" refers to the sum of the contracts that have a positive market value from the Bank's

Table 9.12.1

Credit risk exposures in Treasury operations

EUR M	Exposures	% of total
Bonds issued by governments and government-guaranteed counterparties	111.8	9
Deposits with central banks	477.1	33
Covered bonds	504.0	39
Miscellaneous uncovered bonds	182.7	14
Cheque account	56.7	4
Derivatives[1]	5.9	0
Total	**1,338.3**	

[1] According to market values that are positive for the Bank after taking into account netting agreements and collateral.

Table 9.12.2

Breakdown by region

EUR M	Exposures	% of total
European Union	1,185.6	88
Nordic countries excluding EU	108.4	8
Rest of Europe	0.0	0
North America	44.3	3
Rest of world	0.0	0
Total	**1,338.3**	

standpoint. The exposure amount has then been calculated according to the mark-to-market method in CRR, Article 274, which also takes into account the nominal amount and thus makes allowances for an exposure that may be larger than today's market value in case of default.

In addition to the above capital requirement, there is also a capital requirement for credit value adjustment (CVA) risk related to non-standardised derivative contracts that are not cleared through a central counterparty. Each quarter, the Bank calculates accounting credit and debit value adjustment (CVA/DVA) risk for all derivatives contracts. To the extent CVA exceeds DVA, the Bank recognises a cost for credit value adjustment risk in the income statement. To the extent that DVA exceeds CVA, the previously recognised provision for CVA is reduced.

Table 9.12.4 below shows how exposure values for the Group's holdings of securities are allocated by credit quality steps in the "Institutional exposure" and "Covered bonds" exposure classes, where external credit ratings are used in calculating the capital requirement.

Table 9.12.3

Derivates exposures

EUR M	Nominal amount	Positive gross amount	Exposure amount (gross)	Collateral received[1]	Exposure amount (net)	Risk exposure amount	Capital requirement
Interest	473.4	3.4	8.2	1.9	6.3	3.0	0.2
Currency	2,000.2	29.3	38.8	11.4	27.3	3.7	0.3
Total	**2,473.6**	**32.8**	**46.9**	**13.3**	**33.6**	**6.7**	**0.5**

[1] Collateral received consists entirely of cash and cash equivalents deposited in an account at the Bank.

Table 9.12.4

Exposure values that have been risk-weighted on the basis of an external credit rating

EUR M Credit quality steps	Institutional exposures	Covered bonds
1	6.8	466.6
2	154.1	6.6
3	20.0	0.0
Sovereign method	8.5	30.2
Total	**189.4**	**503.4**

10. Liquidity risk

Liquidity risk consists of refinancing risk and market liquidity risk. Refinancing risk is the risk of not being able to fulfil payment obligations on the maturity date without a substantial increase in the cost of obtaining the means of payment. Market liquidity risk refers to the risk of not being able to sell positions at expected market prices, in situations where the market is not liquid enough or is not functioning due to disruptions.

10.1 Risk management

Based on the Bank's risk tolerance, the Board of Directors has established limits for the Bank's liquidity coverage ratio, survival horizon and how large the percentage of covered bonds issued may be in relation to the available collateral. In order to manage liquidity risks, the Bank has designed a framework consisting of a number of components:

- Limits that ensure compliance with the Bank's risk appetite and risk tolerance.
- Continuous follow-up and analysis of the Bank's future liquidity needs, both short- and long-term.
- A well-diversified funding structure, both from the standpoint of financial instruments and maturity perspectives.
- A portfolio of home mortgage loans whose quality is of such a nature as to maintain the Bank's borrowing by means of covered bonds even in a stressed scenario.
- A well-developed investor base.
- A liquidity reserve with high-quality assets that safeguard access to liquidity during a lengthy period of limited access to capital market borrowing.

Liquidity risks are monitored and analysed by the Group's Risk Control department, which reports directly to the Managing Director on a monthly basis and to the Board of Directors on a quarterly basis in conjunction with the Group's risk report. The risk report is submitted monthly to the Financial Supervisory Authority (FSA).

10.2 Measuring liquidity risk

The balance sheet of the Bank and its maturity structure are an important parameter when calculating and analysing the Bank's liquidity risk. Based on the balance sheet, future cash flows are forecast. These are an important tool in managing and planning liquidity risks and borrowing requirements.

10.3 Survival horizon

One of the Bank of Åland's internal metrics for liquidity is the "survival horizon", defined as the period of positive accumulated cash flows. The survival horizon shows how long the Bank will remain viable during long periods of stress in capital markets, when access to new funding from ordinarily available funding sources would be limited or completely closed. In this calculation, non-maturity deposits are assumed to be a substantially stable source of funding.

10.3.1 Liquidity coverage ratio, net stable funding ratio and core funding ratio

As a supplement to the analysis of future cash flows, the Bank uses a number of financial ratios such as the liquidity coverage ratio (LCR), the net stable funding ratio (NSFR) and the core funding ratio (what percentage of receivables from the public is funded by customer deposits and covered bonds).

Table 10.2.1

Remaining maturity	2019								
	Undiscounted contractual cash flows								
EUR M	Repayable on demand	<3 mo	3–6 mo	6–12 mo	1–5 yrs	5–10 yrs	>10 yrs	Not classified by maturity	Total
Assets									
Cash and receivable from central banks	489.9								489.9
Debt securities eligible for refinancing with central banks		17.0	64.8	70.6	576.0	46.8		14.0	789.2
Receivables from credit institutions	66.1								66.1
Receivables from the public and public sector entities	214.3	158.5	128.6	273.2	1,517.3	627.1	1,171.7	19.2	4,110.0
Shares and participations								9.7	9.7
Derivative instruments		3.1	1.6		14.7	1.7			21.2
Intangible assets								25.3	25.3
Tangible assets								32.0	32.0
Other assets								64.0	64.0
Total	**770.3**	**178.6**	**195.0**	**343.8**	**2,108.1**	**675.7**	**1,171.7**	**164.3**	**5,607.5**
Liabilities									
Liabilities to credit institutions	54.7	14.7	20.8	1.5	118.4				210.0
Liabilities to the public	3,294.9	47.7	8.9	12.6	3.9				3,368.0
Debt securities issued		166.6	281.6	10.0	1,136.3			9.5	1,604.0
Derivative instruments		4.7	0.4		3.0	3.9			12.1
Other liabilities								119.0	119.0
Subordinated liabilities			8.6		8.4		19.1		36.1
Equity capital								258.4	258.4
Total	**3,349.6**	**233.7**	**320.2**	**24.1**	**1,270.0**	**3.9**	**19.1**	**386.8**	**5,607.5**

Table 10.3.1.1

Financial ratios, liquidity risk	
Financial ratio	Definition
Liquidity coverage ratio – LCR	Liquid assets /(Cash inflows–cash outflows)
Net stable funding ratio – NSFR	Available stable funding/Required stable funding
Core funding ratio	Receivables from the public/(deposits from the public, certificates of deposit, index bonds and subordinated debentures issued to the public plus covered bonds issued)
Loan/deposit ratio	Receivables from the public/Deposits from the public

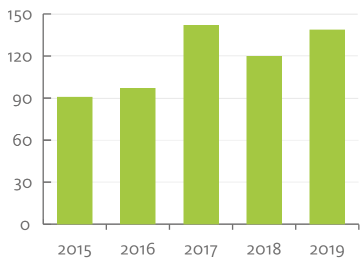
Table 10.3.1.2

Financial ratios, liquidity risk	2019	2018
Per cent		
LCR	139	120
NSFR	115	117
Core funding ratio	90	90
Loan/Deposit ratio	122	122

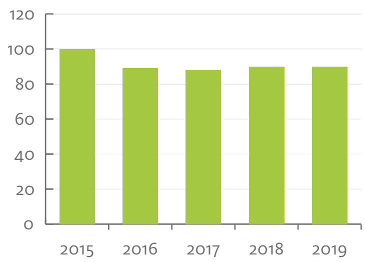
Table 10.3.1.3

Liquidity coverage ratio (LCR)	2019	2018
EUR M		
Liquid assets, level 1	920	942
Liquid assets, level 2	93	111
Total liquid assets	**1,013**	**1,053**
Deposits from the public	810	971
Market borrowing	9	29
Other cash outflows	34	23
Total cash outflows	**853**	**1,023**
Inflows from lending to non-financial customers falling due for payment	36	71
Other cash inflows	87	76
Total cash inflows	**123**	**147**
Net cash outflows	**730**	**876**
Liquidity coverage ratio (LCR), %	**139**	**120**
Liquidity coverage ratio (LCR), %, EUR	145	170
Liquidity coverage ratio (LCR), %, SEK	75	61

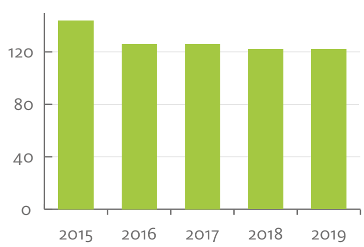
Liquidity coverage ratio
per cent



Core funding ratio
per cent



Loan/deposit ratio
per cent



10.4 LIQUIDITY RESERVE

The purpose of the liquidity reserve is to decrease the Bank's liquidity risk. At times of limited or non-existent opportunities to borrow money in the external capital market, the liquidity reserve shall serve as an alternative source of liquidity. This places demands on the quality of its assets. These assets must be cash invested in accounts with central banks or other well-reputed banks with a good credit rating or securities of such credit quality that they are eligible for refinancing with central banks. To safeguard the good quality of the Bank of Åland's liquidity reserve, these investments are regulated by the Board of Directors. The size of the liquidity reserve must be sufficient to maintain the targeted survival horizon as well as the liquidity coverage ratio.

10.5 CONTINGENCY PLAN FOR LIQUIDITY RISK

The Bank of Åland has a conservative view of liquidity risks. The Group has a contingency plan that includes a concrete action plan for management of liquidity risks and encompasses strategies for covering several different emergency situations.

10.6 FUNDING STRATEGY

The Bank of Åland endeavours to achieve a stable funding structure based on stable deposits from the public and covered bonds. The Bank's long-term target is for customer deposits (demand and time deposits) to account for more than 50 per cent of funding, excluding equity capital. Another long-term target is that the core funding ratio, defined as receivables from the public as a percentage of deposits from the public,

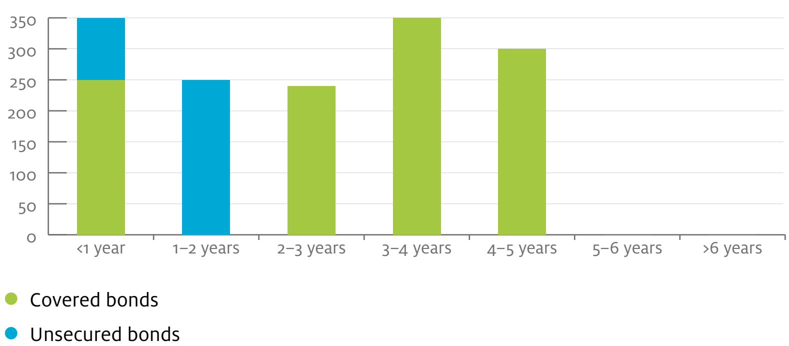
Table 10.4.1

Liquidity reserve	2019	2018
EUR M		
Cash and deposits with central banks	490	507
Debt securities issued by sovereigns and public authorities	83	158
Covered bonds (ratings of AA- or higher)	495	471
Accounts with other banks	20	36
Debt securities issued by financial companies	42	24
Total	**1,129**	**1,195**
of which LCR-qualified	1,014	1,053

Table 10.6.1
Covered/unsecured borrowings outstanding, by currency and average maturity.

Capital market borrowings outstanding			
EUR M	Nominal amount in local currency	Nominal amount in EUR	Average maturity, years
Covered bonds			
EUR	900,000,000	900,000,000	2.9
SEK	2,500,000,000	239,307,731	2.9
Unsecured bonds			
EUR	350,000,000	350,000,000	1.3
Certificates of deposit and deposit accounts			
EUR	79,950,000	79,950,000	0.3
SEK	890,000,000	85,193,552	0.2
Total short-term capital market borrowings		**165,143,552**	**0.2**
Total capital market borrowings		**1,654,451,283**	**2.3**

Maturity structure, debt instruments issued
EUR M



including certificates of deposit, index bonds and subordinated debentures issued to the public, plus covered bonds issued, shall not exceed 100 per cent. The Bank of Åland's lending must therefore not be dependent on unsecured capital market borrowing or short-term funding sources for its funding. Funding sources must be diversified and the Bank intends not to be dependent on individual depositors, investors, funding instruments or market segments.

10.6.1 Funding sources

Aside from equity capital, the Bank of Åland's funding sources consist mainly of deposits from the public, covered bonds and unsecured bonds, certificates of deposit and short- and long-term borrowing from credit institutions. Deposits and covered bonds dominate the funding structure and comprise about 85 per cent of it. Unsecured funding is used in order to control the percentage of total available collateral that may be utilised and to have a more diversified funding structure.

The Bank of Åland uses several different borrowing programmes, both in euros and in Swedish kronor. The most important ones are a Finnish debt programme with a framework amount of EUR 2 billion under which the Bank issues covered bonds and unsecured bonds and a commercial paper programme in Swedish kronor for issuing short-term debt instruments.

At year-end 2019, the nominal amount of covered bonds outstanding was EUR 1,139 M. During 2019, SEK 1,750 M in covered bonds in the Swedish collateral pool fell due for payment, as did EUR 100 M in covered bonds in the Finnish collateral pool. EUR 300 M in unsecured bonds were issued during the year. The nominal amount of unsecured bonds outstanding totalled EUR 350 M at the end of 2019.

At present, the Bank has a well-diversified maturity structure. On December 31, 2019, the average maturity for the Bank's external debt was 2.5 years. Total capital market borrowing outstanding at the end of 2019 can be seen in the table above.

10.6.2 Investor base

The Bank's Treasury department is responsible for building up a stable investor base that purchases bonds issued by the Bank. The investor base must be well-diversified, with investors from different geographic areas and different markets. To achieve this, the Bank has built up relationships with debt investors and banks in Finland, Sweden and Central Europe. Access to short-term funding has been secured through agreements and arrangements with a number of counterparties. This persistent work with investors has resulted in good demand for the Bank's bond issues, giving the Bank easier access to funding, smoother implementation of bond issues and lower funding costs.

Table 10.6.1.1

Collateral Pool Finland – Cover Pool FIN

Assets included	
EUR M	
Loans	1,201
Substitute collateral	121
Other	0
Total	**1,322**

Type of collateral		
EUR M	Loan volume	Loan volume, %
Single-family homes and flats	1,198	99.8,
Multi-family homes	3	0.2
Commercial properties		0
Agriculture and forestry		0
Public sector		0
Total	**1,201**	**100.0%**

Key figures	
Number of loans	14 087
Number of borrowers	8 744
Average loan volume, EUR K	87
Over-collateralisation, nominal, %	46,8
Weighted loan-to-value ratio, %	55,3
Foreign exchange risk[1]	0

[1] All foreign exchange risk is hedged against euros.

Loan-to-value ratio									
EUR M	–10%	10–20%	20–30%	30–40%	40–50%	50–60%	60–70%	70%–	Total
Loan volume	14	34	77	122	193	248	513	0	1,201
Loan volume, %	1.2	2.8	6.4	10.2	16.1	20.6	42.7	0	100

Seasoning						
EUR M	0–12,M	12–24,M	24–36,M	36–60,M	60,M–	Total
Loan volume	135	143	157	312	454	1,201
Loan volume, %	11.2	11.9	13.1	26.0	37.8	100

Issues outstanding, EUR					
EUR M	Total	Issue date (d/m/y)	Maturity date (d/m/y)	Coupon, %	Fixed/floating
ISIN					
XS0999478372	250	26.05.2015	26.05.2020	0.375	Fixed
XS1238023813	100	30.01.2013	30.01.2023	2.750	Fixed
XS0876678391	250	29.09.2016	29.09.2023	0.000	Fixed
XS1496878742	300	19.03.2019	19.03.2024	0.125	Fixed

Maturity, issues outstanding								
EUR M	2020	2021	2022	2023	2024	2025–2029	2030–	Total
Total	250	0	0	350	300	0	0	900
Total, %	27.8	0	0	38.9	33.3	0	0	100 %

Regional distribution		
EUR M	Loan volume	Loan volume, %
Helsinki region, southern Finland	547	46
Tampere region, central Finland	142	12
Turku region, western Finland	182	15
Åland islands, Finland	242	20
Other regions	88	7
Total	**1,201**	**100**

Credit quality, payment delays				
EUR M	31–60 D	61–90 D	90 D–	Total
Loan volume	0.8	0.2	0	1
Loan volume, %	0	0	0	0

Cover Pool FIN							
ISIN	Nominal amount	Settlement date	Maturity date	Coupon	Currency	Amount in EUR	Remaining maturity
XS1238023813	250,000,000	26.05.2015	26.05.2020	0.375	EUR	250,000,000	0.40
XS0876678391	100,000,000	30.01.2013	30.01.2023	2.75	EUR	100,000,000	3.08
XS1496878742	250,000,000	29.09.2016	29.09.2023	0.00	EUR	250,000,000	3.75
FI4000375241	300,000,000	19.03.2019	19.03.2024	0.125	EUR	300,000,000	4.22

Table 10.6.2.1

Collateral Pool Sweden – Cover Pool SWE

Assets included	
SEK M	
Loans	4,002
Substitute collateral	0
Other	0
Total	**4,002**

Type of collateral		
SEK M	Loan volume	Loan volume, %
Single-family homes and flats	4,002	100.0
Multi-family homes	0	0.0
Commercial properties	0	0.0
Agriculture and forestry	0	0.0
Public sector	0	0.0
Total	**4,002**	**100.0**

Key figures	
Number of loans	1,727
Number of borrowers	1,119
Average loan volume, EUR K	2,337
Over-collateralisation, nominal, %	60.1
Weighted loan-to-value ratio, %	53.7
Foreign exchange risk[1]	0

[1] All foreign exchange risk is hedged against euros.

Loan-to-value ratio									
SEK M	–10%	10–20%	20–30%	30–40%	40–50%	50–60%	60–70%	70%–	Total
Loan volume	13	94	162	434	866	995	1,438	0	4,002
Loan volume, %	0.3	2.3	4.0	10.8	21.6	24.9	35.9	0	100

Seasoning						
SEK M	0–12 M	12–24 M	24–36 M	36–60 M	60 M–	Total
Loan volume	68	146	1,254	1,602	932	4,002
Loan volume, %	1.7	3.6	31.3	40.0	23.3	100

Issues outstanding, SEK					
SEK M	Total	Issue date (d/m/y)	Maturity date (d/m/y)	Coupon, %	Fixed/floating
ISIN					
SE0010598474	2,500	22.11.2017	22.11.2022	0.830	Floating

Maturity, issues outstanding								
SEK M	2020	2021	2022	2023	2024	2025–2029	2030–	Total
Total	0	0	2,500	0	0	0	0	2,500
Total, %	0	0	100	0	0	0	0	100

Regional distribution		
SEK M	Loan volume	Loan volume, %
Stockholm County	2,902	73
Skåne County (Greater Malmö)	423	11
Västra Götaland County (Greater Gothenburg)	478	12
Other regions	199	5
Total	**4,002**	**100**

Credit quality, payment delays				
SEK M	31–60 D	61–90 D	90 D–	Total
Loan volume	0	8.5	0	9
Loan volume, %	0	0	0	0

Cover Pool SWE							
ISIN	Nominal amount	Settlement date	Maturity date	Coupon	Currency	Amount in EUR	Remaining maturity
SE0010598474	2,500,000,000	22.11.2017	22.11.2022	QUARTLY STIB + 53.0	SEK	239,307,731	2.90

10.7 MORTGAGE BANKING OPERATIONS

The Bank of Åland has two separate collateral pools, Cover Pool FIN consisting of Finnish home mortgage loans and Cover Pool SWE consisting of Swedish home mortgage loans.

The Finnish cover pool included a total of EUR 1,322 M in collateral at the end of 2019. Backed by collateral registered in Cover Pool FIN, the Bank issued a total of EUR 900 M in covered bonds. The Finnish collateral pool included over-collaterisation of 46.8 per cent on December 31, 2019.

The Swedish collateral pool included collateral totalling SEK 4,002 M. Backed by collateral registered in Cover Pool SWE, the Bank had issued a total of SEK 2,500 M in covered bonds by December 31, 2019. The Swedish collateral pool included over-collaterisation of 60.1 per cent at the end of 2019.

Appraisal of real estate occurs in compliance with the Act on Mortgage Credit Banks of July 16, 2010/688, Chapter 4, Section 14, in other words in compliance with sound real estate appraisal practices and, if required, using an impartial and independent real estate appraiser.

The Bank of Åland's mortgage banking operations are regulated by limits established by the Board of Directors on the percentage of total available collateral that may be utilised, the percentage of the funding structure that may consist of covered bonds and the percentage of the balance sheet total that may consist of funding via covered bonds. The structure of the Bank's two covered bond collateral pools on December 31 can be seen in the tables below.

10.8 CREDIT RATING

The Bank has a credit rating of BBB with a positive outlook for its long-term borrowing and a credit rating of A-2 with a positive outlook for its short-term borrowing. The starting point for Standard & Poor's credit rating of a Finnish or Swedish bank is A–. Five different areas may then raise or lower the credit rating.

1. Business position: lowers the Bank of Åland's rating by two steps, mainly because the Bank of Åland is a niche bank with concentration risk in Finland and Sweden.
2. Capital & Earnings: raises the rating by one step thanks to a strong equity/assets ratio and capital ratio.
3. Risk Position: lowers the rating by one step due to concentration risk in the loan portfolio, mainly geographic concentration in Finland and Sweden, but to some extent also other concentration risks.
4. Liquidity & Funding: neither raises nor lowers the rating, but the Bank of Åland comes out well in this regard due to its strong deposit base.
5. Support: Since the Bank of Åland is not deemed systemically important in Finland, the Bank's rating is not raised due to government or other support.

Standard & Poor's has assigned its highest possible credit rating, AAA with a stable outlook, to the Bank of Åland's covered bonds.

Table 10.8.1

Disclosures on encumbered assets	2019			2018		
EUR M	Encumbered assets, carrying amount	Unencumbered assets, carrying amount	Total assets, carrying amount	Encumbered assets, carrying amount	Unencumbered assets, carrying amount	Total assets, carrying amount
Interest-bearing securities	174	615	789	141	674	815
Receivables from the public	1,583	2,527	4,110	1,615	2,407	4,022
Other assets	17	571	587	26	561	587
Non-encumberable assets		121	121		134	134
Total	**1,774**	**3,834**	**5,607**	**1,782**	**3,776**	**5,558**
Per cent of total assets	**32**	**68**	**100**	**32**	**68**	**100**

10.9 ENCUMBERED ASSETS

Encumbered assets predominantly consist of home mortgage loans that are used as collateral for the Bank of Åland's covered bond issues outstanding.

The size of encumbered assets for covered bonds is based on the level of over-collateralisation that the credit rating agency Standard & Poor's requires of the Bank of Åland to ensure that the bonds are assigned a credit rating of AAA.

In addition to home mortgage loans, the Bank of Åland has provided collateral for its own liabilities, payment systems, brokerage operations and clearing in the form of government securities and bonds, mainly to central banks and credit institutions.

10.10 LIQUIDITY RISK REGULATIONS

Regulatory authorities have adopted rules for liquidity risk that cover both short-term and structural liquidity under stressed conditions. According to the liquidity coverage ratio (LCR) requirement, banks must have liquid assets of very high quality equivalent to at least the net cash outflow for 30 days under stressed conditions, that is, at least 100 per cent.

According to the net stable funding ratio (NSFR), which measures structural liquidity, banks must fund their illiquid assets with stable funding. The NSFR must also amount to 100 per cent.

The LCR metric was introduced gradually during 2015–2018, while the NSFR metric is expected to be introduced in 2021.

11. Market risk

Market risk is the risk of decreases in earnings, equity capital or value due to price changes and risk factors in financial markets. Market risk includes interest rate risk, foreign exchange risk and equity risk.

11.1 RISK MANAGEMENT

The Bank's Board of Directors decides on the Bank of Åland's risk appetite and establishes limits on interest rate risk, foreign exchange risk and equity risk. The Bank's market risks are low and primarily of a structural nature. They are managed by the Bank's Treasury Department. Positions are hedged when they enter the balance sheet and continuously in compliance with the principles established by the Bank's Board of Directors and the processes established by the Treasury department.

Market risks in the Group are monitored and analysed by the Risk Control Department, which reports directly to the Managing Director on a monthly basis and to the Board of Directors on a quarterly basis in conjunction with the Group's risk report. The risk report is sent to the FSA on a monthly basis.

11.2 INTEREST RATE RISK

Interest rate risk refers both to the risk of decreased net interest income (net interest income risk) and the risk of unfavourable changes in the value of the Bank's assets and liabilities when market interest rates change (net present value risk). Interest rate risks arise mainly due to differences in the interest rate repricing periods and repricing dates between interest-bearing assets and liabilities.

The Bank measures interest rate risk by means of sensitivity analyses of net interest income and the value of interest-bearing assets and liabilities in scenarios where the yield curve is stressed in various ways.

Table 11.2.1 shows interest-bearing assets and liabilities that fall due for a new interest rate repricing during each respective time interval, assuming that non-maturity deposits (NMD) fall due on Day 1.

11.2.1 Net interest income risk

Net interest income risk is measured as the sensitivity of net interest income during the next twelve months, assuming a constant balance sheet. In the model, the interest rate repricing period of non-maturity deposits is set at one day. For debenture loans, the exercise date is used. In the current model, the Bank has made business-related assumptions about how various items reacts in case of various shifts. Net interest income risk is measured by important currency, in compliance with EBA regulations. The Bank has an internal limit in case of a –50 basis point shift.

11.2.2 Interest rate risk in the banking book

Net present value risk is measured as the sensitivity of the estimated present value of all existing interest-bearing items. For net present value risk, the Bank uses two methods for the repricing periods of non-maturity deposits. For one model, non-maturity deposits are repriced in one day, while for the other model non-maturity deposits repricing periods are based on EBA and Basel Committee regulations. The latter model is used for the six new stress scenarios from the EBA directive, and they are examined using the new regulatory limit compared to the Bank's common equity Tier 1 capital. Debenture loans are treated here in the same way as for net interest rate risk. Net present value risk is measured by important currency in compliance with EBA regulations, and a positive net present value risk is weighted at 50 per cent. The Bank has an internal limit against the liquidity portfolio in case of a +100 basis point shift.

Table 11.2.2.1 shows the sensitivity of net interest income and the sensitivity of the present value of interest-bearing assets and liabilities in case of a parallel shift in the yield curve upward and downward by 1 percentage point per important currency. The net present value risk in the table refers to the present value of all interest-bearing assets and liabilities, with non-maturity deposits according to the Bank's regulation model.

Table 11.2.1

Interest rate repricing periods for assets and liabilities	2019					
EUR M	Up to 3 mo	3–6 mo	6–12 mo	1–5 yrs	Over 5 yrs	Total
Assets						
Total interest-bearing assets	**3,099**	**594**	**999**	**829**	**399**	**5,920**
Liabilities						
Total interest-bearing liabilities	**3,877**	**321**	**27**	**1,043**	**6**	**5,274**
Off-balance sheet items	−947	323	−1	668	−38	4
Difference between assets and liabilities	**–1,725**	**595**	**971**	**454**	**354**	**650**
Difference between assets and liabilities, 2018	−1,507	524	862	328	27	235

Table 11.2.2.1

Parallel shift in the yield curve	2019	
EUR M	Basis points	
	+100	–100
Net interest income risk	9.5	6.1
EUR	3.5	6.6
SEK	5.9	−0.4
Net present value risk	23.2	51.7
EUR	21.1	27.9
SEK	1.5	24.3

11.3 Foreign currency risk

Foreign exchange risk refers to the risk of unfavourable results due to changes in the exchange rates of currencies that the Bank is exposed to.

The Bank's operations occur mainly in its two base currencies, euros and Swedish kronor, but a limited proportion of its lending and deposits occurs in other currencies, creating a certain foreign exchange risk. This risk is primarily managed with matching, but in case a foreign exchange risk remains at the end of day, the Bank adjusts the foreign exchange risk. At year-end 2019, the Bank's foreign exchange exposure was EUR 0.8 M (2018: EUR 0.7 M).
The Bank also uses a statistical measure of risk in the Group's foreign exchange balance. A VaR analysis with a 95 per cent confidence interval and a one-month forecast horizon results in a sensitivity of about EUR –11 K, compared to the above EUR 0.8 M.

The Group's structural foreign exchange risk in Swedish kronor arises because its financial accounts are prepared in euros while the functional reporting currency of its Swedish branch is Swedish kronor. Structural exchange rate risk exposure consists of accrued profits/losses in the branch as well as the branch's endowment capital in Swedish kronor. Structural foreign exchange risk is no longer hedged by forward foreign exchange contracts.

11.4 Equity risk

Equity risk is the risk of decrease in value due to price changes in the stock market. Since the Bank does not carry out any trading in equities for its own account, equity risk is very limited.

The Bank is also exposed to equity risk through its strategic and other holdings. The Bank's strategic and other equity holdings are managed, in light of their purpose and nature, through separate Board decisions for strategic holdings and decisions by the Managing Director for other equity holdings. Table 11.4.1 shows the Bank's strategic and other holdings.

Table 11.4.1

Strategic holdings	2019	2018
EUR M		
Strategic partners	8.9	2.1
Total	**8.9**	**2.1**

Other holdings	2019	2018
EUR M		
Community support portfolio	0.3	0.3
Administrative securities accounts	0.4	0.3
Connection fees	0.2	0.1
Total	**0.8**	**0.7**

12. Operational risk

Operational risk refers to the risk of losses due to inappropriate or faulty internal processes, human errors, systemic errors or external events. Legal risks are included in operational risks.

Operational risks occur in all operations. The important thing is that risk-taking is deliberate and suitable actions are taken when the risks that are identified are too large. What risk level is considered optimal shall be established by the Board of Directors and constitutes the Bank's risk appetite.

12.1 Risk management

The objective of operational risk management is to ensure that significant operational risks are identified and managed at a sufficient level in relation to the nature and the scope of the operations. Adequate procedures for computer protection and information security must be in place and be further developed based on the threat situation. The probability of significant unforeseen losses or threats to the Group's reputation must be minimised and the Board of Directors and management must be informed regularly about the operational risks associated with Group operations. Adequate operational risk management is important to ensure trust in the Bank's operations, especially from a customer standpoint.

The Operational Risks & Security unit is responsible for "second line of defence" analyses of the Group's operational risks and for reporting these. The "third line of defence" also analyses the Group's risks, including operational risks. To obtain a completely current picture of the Group's risks, risks mapping and analyses from all three lines of defence must be coordinated.

Internal training courses are an important element of support for operational risk management. The process for approval of new products and services (NPAP) is a key risk management process, where the Operational Risks & Security unit provides back-up and sets standards. This work also includes updating of a large proportion of internal regulations related to operational risk management.

The Group has contingency plans for emergency conditions as well as continuity plans for all business units, in order to maintain operations and limit losses in the event of various kinds of operational disruptions.

At the Group level, insurance policies have been obtained to cover directors and officers, professional liability and crime. In addition to these insurance policies, Group companies have obtained company-specific insurance coverage.

12.2 Mapping of operational risks

Group operational risks are mapped yearly by first defence line operations through self-evaluation. There are also other risk mapping activities, such as information security risk assessment and the Compliance department's yearly compliance risk analysis. The most important risks are referred to the Executive Team and the Board. In addition, the Bank performs AML-CFT risk analyses at least once a year, which are likewise reported to the Executive Team and the Board.

Self-evaluations assess the probability and consequences of operational risks. Risks that are identified in the yearly self-evaluation and classified as risks at a high or unacceptable level must be dealt with by the Group's Executive Team to ensure that sufficient steps are taken in order not to exceed the Group's risk appetite.

The Operational Risks & Security and Compliance departments analyse the risks that emerge from the self-evaluations and risk mapping activities carried out in the organisation, then follow up and report the results to the Executive Team.

In project work, the Bank applies the NPAP process. One important part of this process is risk mapping aimed at ensuring that inadvertent risk-taking is avoided and that important changes in operations, products and services are secure and functional.

12.3 Important operational risks

Operational risk areas that have been identified and assessed as important and that may thus have a major effect on operations or may lead to major losses or damage are presented below.

12.3.1 Risks in the financial investment advisory process, its systems and systems implementation

The demands placed on the advisory process, among other things by external regulations, lead to an increased need for IT systems that support this complex process. From an operational risk standpoint, more complex processes with manual work stages mean increased risk. To decrease risks, systems development and sufficient oversight are important.

12.3.2 The risk of fraud and suspicious transactions

This risk area is about the external threat situations that are becoming increasingly prevalent in and around the financial services sector. A growing amount of criminal activity occurs on the internet and often hurts customers, but it may also be aimed directly at banks. For example, this includes payment card fraud, false invoicesor investment fraud. Enormous numbers of transactions flow through banks daily, and this also leads to a greater risk of suspicious transactions.

In order to manage this threat situation, various training activities take place in order to increase awareness in this area. There are also dedicated employees in the second line of defence who work to support the organisation with operational risk management. The first line of defence has established governance, risk management and compliance (GRC) services with a focus on anti-money laundering and countering financing of terrorism (AML-CFT).

12.3.3 Risk of heavy dependence on key individuals

Expertise and experience are important to all companies. In the financial services sector, which is becoming increasingly complex and regulated, there are many individuals with key competences. It is thus relevant to raise awareness of this operational risk. By maintaining a flexible culture, with freedom under responsibility as its motto, there is room for employees to feel challenged and to undergo professional development.

12.3.4 Risks related to development of new products and services

The Bank is a small player in the financial services sector, with a focus on development work. It is thus important to raise awareness of the risks related to development work and outsourcing. By following the Bank's project model, the above-mentioned risks decrease since this structure means there is oversight to ensure that decisions are made at the right level and are documented, and that risks are mapped and dealt with in accordance with the risk appetite level that has been chosen.

12.3.5 Compliance risks

Risks related to compliance are extremely important. There are numerous regulations that make far-reaching demands on banking operations, such as anti-money laundering and financing of terrorism (AML-CFT), the European Union's General Data Protection Regulation (GDPR) and the updated Markets in Financial Instruments Directive (MiFID2). Risk analyses as described above in section 7.3 also provide a basis for the actions taken by the Bank to deal with identified compliance risks.

12.4 Incident reporting

Incident reporting is a risk indicator and helps with mapping of current operational risks. Every employee who discovers a deviation must report it, after which the incident must be managed by those in charge of risk in the first line of defence. The Operational Risks & Security unit administers incident follow-up and provides backup as needed to the first line of defence in managing and compiling reports on the incident situation for the Executive Team and the Board of Directors.

Mapping of own funds to the balance sheet	2019	2018	
EUR M			Line reference in own funds
Assets			
Intangible assets	25.3	21.6	
of which: Goodwill and other intangible assets (net of related tax liabilities)	−25.0	−21.0	8
Deferred tax assets	5.1	5.4	
of which: reliant on future profitability except those that arise due to temporary differences	0.0	0.0	10
Defined benefit pension assets	0.0	0.0	
of which: defined benefit pension assets (in addition to related obligations, net of related tax liabilities)	0.0	0.0	15
Liabilities			
Deferred tax liabilities	34.1	27.9	
of which: reliant on future profitability except those that arise due to temporary differences			10
Defined benefit pension obligations	8.8	5.6	
of which: defined benefit pension assets (net of related tax liabilities)			15
Subordinated liabilities	36.1	46.9	
of which: Additional Tier 1 capital instruments and related share premium accounts			30
of which: Qualifying items referred to in Article 484 (4)			33 and 47
of which: Direct and indirect own holdings in the Bank's additional Tier 1 capital instruments			37
of which: Supplementary capital instruments and related share premium accounts	36.2	37.5	46
of which: Qualifying items referred to in Article 484 (5)			47
of which: Direct and indirect own holdings in the Bank's supplementary capital instruments	0.0	0.0	52
Equity capital			
Share capital	42.0	42.0	1
of which: Share capital (net of direct and indirect holdings of own shares)	42.0	42.0	1 and 16
Share premium account	32.7	32.7	
of which: Equity instruments and related share premium accounts	32.7	32.7	1
Other reserves	52.5	52.2	
of which: Statutory reserve	25.1	25.1	1
of which: Unrestricted equity reserve	27.4	27.1	1
Other reserves	1.7	−0.6	
of which: Other comprehensive income	1.7	−0.6	3
of which: Fair value reserves related to gains or losses on cash flow hedges	0.0	0.0	11
Retained earnings	129.3	116.0	
of which: Profit for the period	26.3	22.9	5 a
of which: Retained earnings	103.0	93.1	2

	Disclosures about own funds	2019	2018	
	EUR M			Regulation (EU) No 575/2013 Article reference
	Common equity Tier 1 capital: Instruments and reserves			
1	Capital instruments and related share premium accounts	127.3	126.9	26.1, 27, 28, 29
	of which: share capital	42.0	42.0	EBA list 26.3
	of which: share premium account	32.7	32.7	EBA list 26.3
	of which: other funds	52.5	52.2	EBA list 26.3
2	Retained earnings	103.0	93.1	26.1 c
3	Accumulated other comprehensive income (and other reserves)	1.7	−0.6	26.1
3a	Provisions for general risks in banking operations			26.1 f
4	Amount of qualifying items referred to in Article 484.3 and related share premium accounts subject to phase-out from common equity Tier 1 capital			486.2
5	Minority interests (amount allowed in consolidated common equity Tier 1 capital)	0.0	0.0	84
5a	Interim profit, net of foreseeable expenses and dividends that have been verified by persons who have an independent position	10.8	12.1	26.2
6	**Common equity Tier 1 capital before regulatory adjustments**	**242.8**	**231.5**	**Total of lines 1–5a**

		2019	2018	
	Common equity Tier 1 (CET1) capital: regulatory adjustments			
7	Additional value adjustments (negative amount)	−0.6	−0.6	24, 105
8	Intangible assets (net of related tax liabilities) (negative amount)	−25.0	−21.0	36.1 b, 37
9	Empty set in the EU			
10	Deferred tax assets that rely on future profitability, excluding those arising from temporary differences (net of related tax liability where the conditions in Article 38.3 are met) (negative amount)	0.0	0.0	36.1 c, 38
11	Fair value reserves related to gains or losses on cash flow hedges	0.0	0.0	33.1 a
12	Negative amounts resulting from calculation of expected loss amounts	−5.7	−5.5	36.1 d, 40, 159
13	Any increase in equity capital that result from securitised assets (negative amount)			32.1
14	Gains or losses on liabilities measured at fair value resulting from changes in the institution's own credit risk	0.0		33.1 b
15	Defined benefit pension fund assets	0.0	0.0	36.1 e, 41
16	An institution's direct and indirect holdings of own CET1 capital capital instruments	0.0	0.0	36.1 f, 42
17	Direct, indirect and synthetic holdings of CET1 capital instruments of financial sector entities with which the institution has cross-ownership designed to artificially inflate the institution's own funds (negative amount)			36.1 g, 44
18	The institution's direct, indirect and synthetic holdings of CET1 capital instruments of financial sector entities in which the institution does not have significant investment (amounts above the 10% threshold, net of eligible short positions) (negative amount)			36.1 h, 43, 45, 46, 49.2, 49.3, 79
19	The institution's direct, indirect and synthetic holdings of CET1 capital instruments in financial sector entities where the institution has a significant investment (amounts above the 10% threshold, net of eligible short positions) (negative amount)			36.1 I, 43, 45, 47, 48.1 b, 49.1–49.3, 79
20	Empty set in the EU			
20a	Exposure amount of the following items which qualify for a risk weight of 1,250% when the institutions opts for the deduction alternative			36.1 k
20b	*of which: qualifying holdings outside the financial sector (negative amount)*			36.1 k ii, 243.1 b, 244.1 b, 258
20c	*of which: securitisation positions (negative amount)*			36.1 k ii, 243.1 b, 244.1 b, 258
20d	*of which: free deliveries (negative amount)*			36.1 k iii, 379.3
21	Deferred tax assets arising from temporary differences (amounts above the 10% threshold, net of related tax liability when the conditions in Article 38.3 are met) (negative amount)			36.1 c, 38
22	Amount exceeding the 15% threshold) (negative amounts)			48.1
23	*of which: the institution's direct and indirect holdings in CET1 capital instruments of financial sector entities where the institution has a significant investment in these entities*			36.1 i, 48.1 b
24	Empty set in the EU			
25	*of which: deferred tax assets arising from temporary differences*			36.1 c, 38, 48.1 a
25a	Losses for the current financial year (negative amount)			36.1 a
25b	Foreseeable taxes related to common equity Tier 1 items (negative amount)			36.1 l
27	Qualifying additional CET1 deductions that exceed the institution's additional Tier 1 capital (negative amount)			36.1 j
28	**Total regulatory adjustments in CET1 capital**	**−31.3**	**−27.1**	**Total of lines 7–20a, 21. 22 and 25a–27**
29	**CET1 capital**	**211.5**	**204.4**	**Line 6 minus line 28**

		2019	2018	
	Additional Tier 1 capital: instruments			
30	Capital instruments and related share premium accounts			51, 52
31	*of which: classified as equity capital under applicable accounting standards*			
32	*of which: classified as liabilities under applicable accounting standards*			
33	Amount of qualifying items referred to in Article 484.4 and related share premium accounts subject to phase-out of additional Tier I capital			486.3
34	Qualifying Tier I capital included in consolidated additional core capital (including minority interests not included in line 5) issued by subsidiaries and held by third parties			85, 86
35	*of which: instruments issued by subsidiaries and subject to phase-out*			486.3
36	**Additional Tier I capital before regulatory adjustments**	**0.0**	**0.0**	**Total of lines 30, 33 and 34**
	Additional Tier I capital: regulatory adjustments			
37	An institution's direct and indirect holdings of own additional Tier 1 capital instruments (negative amount)			52.1 b, 56 a, 57
38	Direct, indirect and synthetic holdings of additional Tier 1 capital instruments of financial sector entities with which the institution has cross-ownership designed to artificially inflate the institution's own funds (negative amount)			56 b, 58
39	Direct, indirect and synthetic holdings of additional Tier I capital instruments of financial sector entities where the institution has no significant investment (amounts above 10% threshold net of eligible short positions) (negative amount)			56 c, 59, 60, 79
40	Direct, indirect and synthetic holdings of additional Tier I capital instruments in entities in the financial sector where the institution has a significant investment (amounts above 10% threshold net of eligible short positions) (negative amount)			56 d, 59, 79
41	Empty set in the EU			
42	Deductions from qualified supplementary capital that exceeds the institution's supplementary capital (negative amount)			56 e
43	**Total regulatory adjustments to additional Tier 1 capital**	**0.0**	**0.0**	**Total of lines 37–42**
44	**Additional Tier 1 capital before regulatory adjustments**	**0.0**	**0.0**	**Line 36 minus line 43**
45	**Tier 1 capital (Tier I capital = common equity Tier 1 capital + additional Tier I capital)**	**211.5**	**204.4**	**Total of lines 29 and 44**
	Tier 2 (supplementary) capital: Instruments and provisions			
46	Capital instruments and related share premium accounts	36.2	37.5	62, 63
47	Amount of qualifying items referred to in Article 484.5 and related share premium accounts subject to phase-out from supplementary capital			486.4
48	Qualifying Tier 1 capital included in consolidated supplementary capital (including minority interests and additional Tier I capital instruments not part of line 5 or 34) issued by subsidiaries and held by third parties			87, 88
49	*of which: instruments issued by subsidiaries subject to phase-out*			486.4
50	Credit risk adjustments	1.7	0.4	62 c and d
51	**Tier 2 capital before regulatory adjustments**	**37.9**	**37.9**	
	Tier 2 capital: regulatory adjustments			
52	An institution's direct and indirect holdings of own Tier 2 capital instruments and subordinated loans (negative amount)	0.0	0.0	63 b i, 66 a, 67
53	Holdings of supplementary capital instruments and subordinated loans of financial sector entities where the institution has no significant investment (amounts above 10% threshold, net of eligible short positions) (negative amount)			66 b, 68
54	Direct and indirect holdings of Tier 2 capital instruments and subordinated loans of financial sector entities where the institution has no significant investment (amounts above 10% threshold, net of eligible short positions (negative amount)			66 c, 69, 70, 79
55	An institution's direct and indirect holdings of supplementary capital instruments			66 d, 69, 79
56	Empty set in the EU			
57	**Total regulatory adjustments of Tier 2 capital**	**0.0**	**0.0**	**Total of lines 52–56**
58	**Tier 2 capital**	**37.9**	**37.9**	**Line 51 minus line 57**
59	**Total capital (Tier 1 capital + Tier 2 capital)**	**249.4**	**242.4**	**Total of lines 45 and 58**
60	**Total risk-weighted assets**	**1,583.1**	**1,577.6**	

		2019	2018	
	Capital ratios and buffers			
61	Common equity 1 capital (as a percentage of total risk-weighted exposure amount), %	13.4	13.0	92.2 a
62	Tier I capital (as a percentage of total risk-weighted exposure amount), %	13.4	13.0	92.2 b
63	Total capital (as a percentage of total risk-weighted exposure amount), %	15.8	15.4	92.2 c
64	Institution-specific buffer requirements (requirements for Tier I capital according to Article 92.1 a) plus capital conservation buffer, countercyclical buffer and systemic risk buffer requirements, plus systemically important institution buffer, expressed as a percentage of the total risk-weighted exposure amount), %	10.7	8.0	Capital Requirements Regulation 128, 129, 130, 131, 133
65	*of which: capital conservation buffer requirement, %*	2.5	2.5	
66	*of which: countercyclical buffer requirement, %*	1.2	1.0	
67a	*of which: global systemically important institution or other systemically important institution buffer, %*	1.0		
68	Common equity Tier 1 capital available to meet buffers (as percentage of risk-weighted exposure amount), %	8.9	8.5	Capital Requirements Regulation 128
	Amounts below thresholds for deduction (before risk weighing)			
72	Direct and indirect holdings of financial sector entities in which the institution has no significant investment (amounts below 10% threshold net of eligible short positions)			36.1 h, 46, 45, 56 c, 59, 60, 66 c, 69, 70
73	The institution's direct and indirect holdings of financial sector entities in which the institution has a significant investment (amounts below 10% threshold net of eligible short positions)			36.1 i, 45, 48
74	Empty set in the EU			
75	Deferred tax assets arising from temporary differences (amounts below 10% threshold, net of related tax liability where the conditions in Article 38.3 are met)			36.1 c, 38, 48
	Applicable caps on inclusion of provisions in supplementary capital			
76	Credit risk adjustments included in Tier 2 capital in respect of exposures covered by the standardised approach (before application of the cap)		0.0	62
77	Cap on inclusion of credit risk adjustments in Tier 2 capital under the standardised approach		9.3	62
78	Credit risk adjustments included in Tier 2 capital in respect of exposures covered by the IRB approach (before application of the cap)	1.7	0.4	62
79	Cap for inclusion of credit risk adjustments in Tier 2 capital according to the IRB approach	3.1	3.2	62
	Capital instruments subject to phase-out arrangements (only applicable between January 1, 2014 and January 1, 2022)			
80	Current cap on Tier I capital instruments subject to phase-out arrangements			484.3, 486.2 and 486.5
81	Amount excluded from CET1 capital due to cap (excess over cap after redemptions and maturities)			484.3, 486.2 and 486.5
82	Current cap on additional CET1 capital instruments subject to phase-out arrangements			484.4, 486.3 and 486.5
83	Amount excluded from additional Tier I capital due to cap (excess over cap after redemptions and maturities)			484.4, 486.3 and 486.5
84	Current cap on Tier 2 capital market instruments subject to phase-out arrangements			484.5, 486.4 and 486.5
85	Amount excluded from Tier 2 capital due to cap (excess over cap after redemptions and maturities)			484.5, 486.4 and 486.5

Main features of capital instruments – Common equity Tier 1 capital instruments			
1	Issuer	Bank of Åland Plc	Bank of Åland Plc
2	Unique identifier code	FI0009001127	FI0009000103
3	Governing laws of the instrument	Finnish law	Finnish law
	Regulatory treatment		
4	Transitional rules according to Capital Requirement Regulation (CRR)	CET1 capital	CET1 capital
5	Post-transitional CRR rules	CET1 capital	CET1 capital
6	Eligible at solo/(sub-)consolidated)/solo and (sub-)consolidated level	Solo and consolidated	Solo and consolidated
7	Type of instrument	Share capital according to CRR 575/2013 Art. 28	Share capital according to CRR 575/2013 Art. 28
8	Amount recognised in regulatory capital	EUR 28.9 M	EUR 13.1 M
9	Nominal amount of instrument	EUR 28.9 M	EUR 13.1 M
9a	Issue price	N/A	N/A
9b	Redemption price	N/A	N/A
10	Accounting classification	Equity capital	Equity capital
11	Original issuance date	N/A	N/A
12	Perpetual or dated	Perpetual	Perpetual
13	Original maturity date	No maturity date	No maturity date
14	Issuer call subject to prior supervisory approval	No	No
15	Optional call date, conditional call dates and redemption amount	N/A	N/A
16	Subsequent call date, if applicable	N/A	N/A
	Coupons/dividends		
17	Fixed or floating dividend/coupon	N/A	N/A
18	Coupon rate and any related index	N/A	N/A
19	Existence of a dividend stopper	N/A	N/A
20a	Fully discretionary, partially discretionary or mandatory (in terms of date)	Fully discretionary	Fully discretionary
20b	Fully discretionary, partially discretionary or obligatory (in terms of amount)	Fully discretionary	Fully discretionary
21	Existence of step up or other incentive to redeem	N/A	N/A
22	Non-cumulative or cumulative	N/A	N/A
23	Convertible or non-convertible	N/A	N/A
24	If convertible, conversion trigger(s)	N/A	N/A
25	If convertible, fully or partially	N/A	N/A
26	If convertible, conversion rate	N/A	N/A
27	If convertible, mandatory or optional conversion	N/A	N/A
28	If convertible, type of instrument to which conversion is made	N/A	N/A
29	If convertible, issuer of the instrument to which conversion is made	N/A	N/A
30	Write-down features	N/A	N/A
31	If write-down, write-down trigger(s)	N/A	N/A
32	If write-down, full or partial	N/A	N/A
33	If write-down, permanent or temporary	N/A	N/A
34	If write-down is temporary, write-up mechanism	N/A	N/A
35	Position in prioritisation hierarchy for liquidation, instrument next in line	Tier 2 (supplementary) capital instruments	Tier 2 (supplementary) capital instruments
36	Non-compliant transition features	No	No
37	If Yes, specify non-compliant features	N/A	N/A

N/A = The question is not applicable to the instrument

Main features of capital instruments – Supplementary capital instruments					
1	Issuer	Bank of Åland Plc.	Bank of Åland Plc.	Bank of Åland Plc.	Bank of Åland Plc.
2	Unique identifier code	FI4000153747	FI4000210299	FI4000266580	SE0011116037
3	Governing laws of the instrument	Finnish law	Finnish law	Finnish law	Finnish law
	Regulatory treatment				
4	Transitional rules according to Capital Requirement Regulation (CRR)	Tier 2 capital instrument	Tier 2 capital instrument	Tier 2 capital instrument	Tier 2 capital instrument
5	Post-transitional CRR rules	Tier 2 capital instrument	Tier 2 capital instrument	Tier 2 capital instrument	Tier 2 capital instrument
6	Eligible at solo/(sub-)consolidated)/solo and (sub-)consolidated level	Solo and consolidated	Solo and consolidated	Solo and consolidated	Solo and consolidated
7	Type of instrument	Tier 2 capital instruments according to CRR 575/2013 Art. 484	Tier 2 capital instruments according to CRR 575/2013 Art. 63	Tier 2 capital instruments according to CRR 575/2013 Art. 63	Tier 2 capital instruments according to CRR 575/2013 Art. 63
8	Amount recognised in regulatory capital	EUR 8.6 M	EUR 6.2 M	EUR 2.3 M	EUR 19.5 M
9	Nominal amount of instrument	EUR 8.6 M	EUR 6.2 M	EUR 2.3 M	SEK 200 M/ EUR 19.5 M
9a	Issue price	100%	100%	100%	100%
9b	Redemption price	100% of nominal amount	100% of nominal amount	100% of nominal amount	100% of nominal amount
10	Accounting classification	Debt – amortised cost	Debt – amortised cost	Debt – amortised cost	Debt – amortised cost
11	Original issuance date	25.5.2015	13.6.2016	19.6.2017	15.5.2018
12	Perpetual or dated	Dated	Dated	Dated	Dated
13	Original maturity date	25.5.2035	12.8.2036	18.8.2037	15.5.2038
14	Issuer call subject to prior supervisory approval	Yes	Yes	Yes	Yes
15	Optional call date, conditional call dates and redemption amount	44008	12.8.2021	18.8.2022	15.5.2023
16	Subsequent call date, if applicable	Yearly on interest payment date after first redemption date	Yearly on interest payment date after first redemption date	Yearly on interest payment date after first redemption date	Yearly on interest payment date after first redemption date
	Coupons/dividends				
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed	Floating
18	Coupon rate and any related index	3.75%	3.75%	3.75%	3-mo Stibor +2.40%
19	Existence of a dividend stopper	N/A	N/A	N/A	N/A
20a	Fully discretionary, partially discretionary or mandatory (in terms of date)	Mandatory	Mandatory	Mandatory	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory	Mandatory	Mandatory	Mandatory
21	Existence of step up or other incentive to redeem	No	No	No	No
22	Non-cumulative or cumulative	N/A	N/A	N/A	N/A
23	Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible
24	If convertible, conversion trigger(s)	N/A	N/A	N/A	N/A
25	If convertible, fully or partially	N/A	N/A	N/A	N/A
26	If convertible, conversion rate	N/A	N/A	N/A	N/A
27	If convertible, mandatory or optional conversion	N/A	N/A	N/A	N/A
28	If convertible, type of instrument to which conversion is made	N/A	N/A	N/A	N/A
29	If convertible, issuer of the instrument to which conversion is made	N/A	N/A	N/A	N/A
30	Write-down features	Yes	Yes	Yes	Yes
31	If write-down, write-down trigger(s)	If the common equity Tier 1 capital of the Bank of Åland Plc or the Group falls below 7 per cent	If the common equity Tier 1 capital of the Bank of Åland Plc or the Group falls below 7 per cent	If the common equity Tier 1 capital of the Bank of Åland Plc or the Group falls below 7 per cent	If the common equity Tier 1 capital of the Bank of Åland Plc or the Group falls below 7 per cent
32	If write-down, full or partial	25%	50%	50%	50%
33	If write-down, permanent or temporary	Permanent	Permanent	Permanent	Permanent
34	If write-down is temporary, write-up mechanism	N/A	N/A	N/A	N/A
35	Position in prioritisation hierarchy for liquidation, instrument next in line	Senior debts	Senior debts	Senior debts	Senior debts
36	Non-compliant transition features	No	No	No	No
37	If Yes, specify non-compliant features	N/A	N/A	N/A	N/A

N/A = The question is not applicable to the instrument

Leverage ratio		2019	2018
EUR M			
	Summary reconciliation of accounting assets and leverage ratio exposures		
1	Total assets as per published financial statements	5,607.3	5,556.4
2	Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation		
3	(Adjustment for fiduciary assets recognised on the balance sheet pursuant to the applicable accounting framework but excluded from the leverage ratio exposure measure in accordance with Article 429.13 of Regulation (EU) No 575/2013)		
4	Adjustments for derivative instruments	2.2	9.0
5	Adjustments for securities financing transactions (SFTs)		
6	Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures)	82.0	97.0
EU–6a	(Adjustment for intragroup exposures excluded from the leverage ratio exposure measure in accordance with Article 429.7 of Regulation (EU) No 575/2013)		
EU–6b	(Adjustment for exposures excluded from the leverage ratio exposure measure in accordance with Article 429.14 of Regulation (EU) No 575/2013)		
7	Other adjustments	–28.1	–26.5
8	**Total leverage ratio exposure**	**5,663.4**	**5,635.9**
	Leverage ratio common disclosure		
	On-balance sheet exposures (excluding derivatives and SFTs)		
1	On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	5,585.9	5,541.0
2	(Asset amounts deducted in determining Tier 1 capital)	–28.1	–26.5
3	**Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets)**	**5,557.8**	**5,514.6**
	Derivative exposures		
4	Replacement cost associated with all derivatives transactions (i.e. net of eligible cash variation margin)	21.2	15.3
5	Add-on amounts for PFE associated with all derivatives transactions (mark-to-market method)	13.4	9.8
EU–5a	Exposure determined under original exposure method		
6	Gross-up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the applicable accounting framework		
7	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	–11.1	–0.8
8	(Exempted CCP leg of client-cleared trade exposures)		
9	Adjusted effective notional amount of written credit derivatives		
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)		
11	**Total derivative exposures (sum of lines 4 to 10)**	**23.6**	**24.4**
	Securities financing transaction (SFT) exposures		
12	Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions		
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)		
14	Counterparty credit risk exposure for SFT assets		
EU–14a	Derogation (exemption) for SFTs: Counterparty credit risk exposure in accordance with Article 429b.4 and 222 of Regulation (EU) No 575/2013		
15	Agent transaction exposures		
EU–15a	(Exempted CCP leg of client-cleared SFT exposure)		
16	**Total securities financing transaction exposures (sum of lines 12 to 15a)**	**0.0**	**0.0**

		2019	2018
	Other off-balance sheet exposures		
17	Off-balance sheet exposures at gross notional amount	443.8	493.2
18	(Adjustments for conversion to credit equivalent amounts)	−361.8	−396.2
19	Other off-balance sheet exposures (sum of lines 17 to 18)	82.0	97.0
	Exempted exposures in accordance with CRR Article 429.7 and 14 (on and off balance sheet)		
EU–19a	(Exemption of intragroup exposures (solo basis) in accordance with Article 429.7 of Regulation (EU) No 575/2013 (on and off balance sheet))		
EU–19b	(Exposures exempted in accordance with Article 429.14 of Regulation (EU) No 575/2013 (on and off balance sheet))		
	Capital and total exposures		
20	Tier 1 capital	211.5	204.4
21	**Total leverage ratio exposures (sum of lines 3, 11, 16, 19, EU–19a and EU–19b)**	**5,663.4**	**5,635.9**
22	**Leverage ratio**	**3.7**	**3.6**

Disclosures about the transitional rule for IFRS 9 in compliance with CRR, Article 473a		2019
EUR M		
	Available capital (amount)	
1	Common equity Tier 1 (CET1) capital	211.5
2	CET1 capital if transitional regulations for IFRS 9 or analogous expected risk losses had not been applied	210.9
3	Tier 1 capital	211.5
4	Tier 1 capital if transitional regulations for IFRS 9 or analogous expected risk losses had not been applied	210.9
5	Total capital	249.4
6	Total capital if transitional regulations for IFRS 9 or analogous expected loan losses had not been applied	248.8
	Risk-weighted assets (amount)	
7	Total risk-weighted assets	1,583.1
8	Total risk-weighted assets if transitional regulations for IFRS 9 or analogous expected loan losses had not been applied	1,583.2
	Capital ratios	
9	CET1 capital (as a percentage of risk exposure amount)	13.4
10	CET1 capital (as a percentage of risk exposure amount) if transitional regulations for IFRS 9 or analogous expected loan losses had not been applied	13.3
11	Tier 1 capital (as a percentage of risk exposure amount)	13.4
12	Tier 1 capital (as a percentage of risk exposure amount) if transitional regulations for IFRS 9 or analogous expected loan losses had not been applied	13.3
13	Total capital (as a percentage of risk exposure amount)	15.8
14	Total capital (as a percentage of risk exposure amount) if transitional regulations for IFRS 9 or analogous expected loan losses had not been applied	15.7
	Leverage ratio	
15	Total exposure measure for leverage ratio	5,663.4
16	Leverage ratio, %	3.7
17	Leverage ratio if transitional regulations for IFRS 9 or analogous expected loan losses had not been applied, %	3.7

Credit quality of forborne exposures

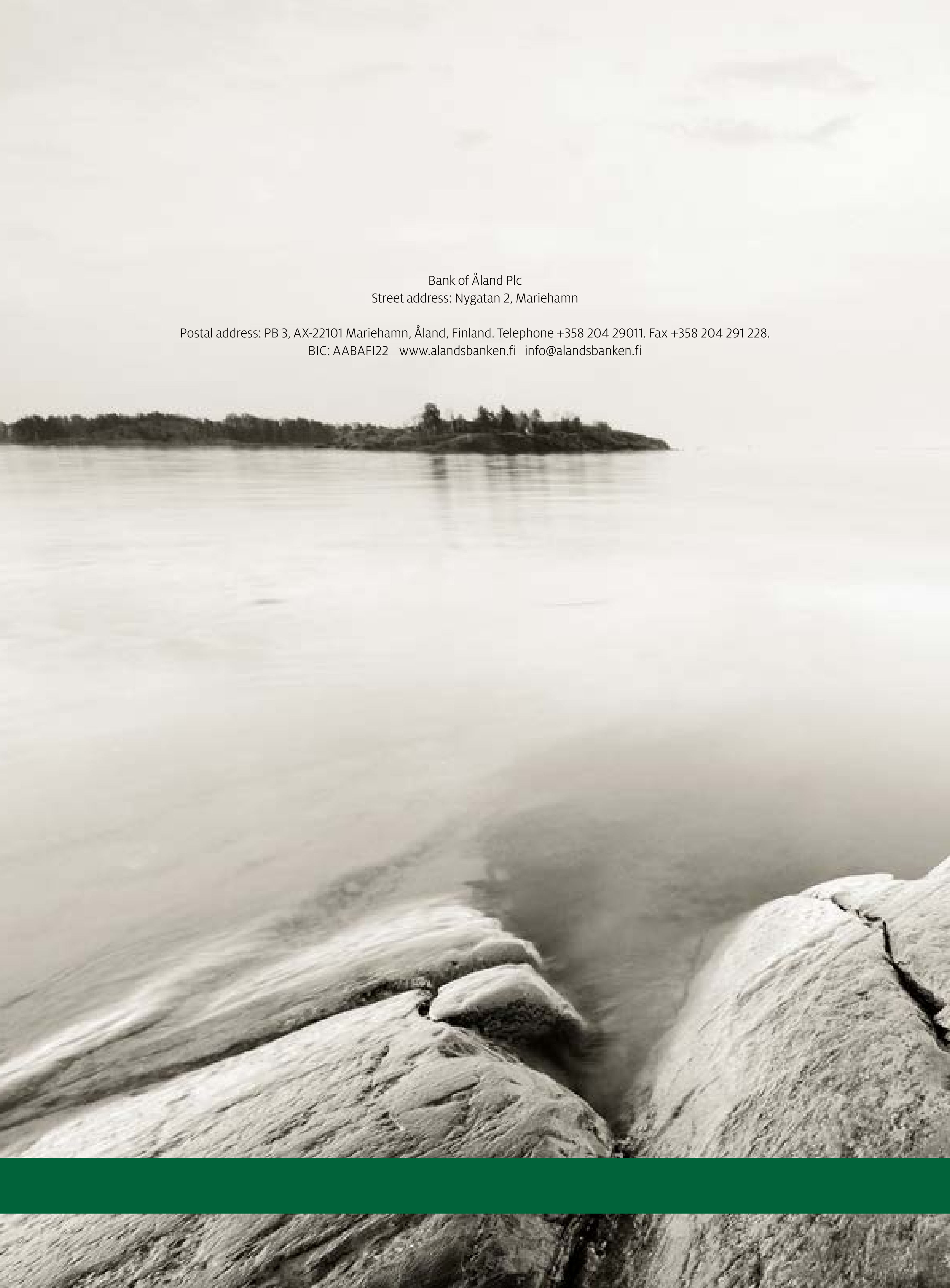
EUR K	Gross/nominal amount of forborne exposures				Accumulated write-downs, accumulated negative changes in fair value due to credit risk and provisions		Collateral and financial guarantees received for forborne exposures	
		Non-performing, with forbearance measures						
	Performing, with forbearance measures		Of which in default	Of which uncertain	For performing forborne exposures	For non-performing forborne exposures		Of which collateral and financial guarantees received for non-performing exposures with forbearance measures
Loans and advances	23,069	2,118	1,061	2,118	–79	–141	1,871	9
Central banks	0	0	0	0	0	0	0	0
Public sector entities	0	0	0	0	0	0	0	0
Credit institutions	0	0	0	0	0	0	0	0
Other financial sector companies	18,628	0	0	0	–58	0	0	0
Non-financial companies	4,441	2,118	1,061	2,118	–21	–141	0	0
Households	0	0	0	0	0	0	1,871	9
Interest-bearing securities	0	0	0	0	0	0	0	0
Loan commitments given	302	0			0	0		
Total	**23,371**	**2,118**	**1,061**	**2,118**	**–79**	**–141**	**1,871**	**9**

Credit quality of performing and non-performing exposures by number of days past due

EUR K	Gross/nominal amount											
	Performing exposures			Non-performing exposures								
		Not past due or past due ≤30 days	Past due >30 days ≤90 days		Presumably will not be paid, but not past due or past due ≤90 days	Past due >90 days ≤180 days	Past due >180 days ≤1 year	Past due >1 year ≤2 years	Past due >2 years ≤5 years	Past due >5 years ≤7 years	Past due >7 years	Of which defaulted
Loans and advances	4,404,885	4,398,444	6,441	2,118	1,059	970	0	0	89	0	0	1,061
Central banks	237,089	237,089	0	0	0	0	0	0	0	0	0	0
Public sector entities	375	375	0	0	0	0	0	0	0	0	0	0
Credit institutions	64,281	64,281	0	0	0	0	0	0	0	0	0	0
Other financial sector companies	7,426	7,420	5	0	0	0	0	0	0	0	0	0
Non-financial companies	1,117,795	1,117,647	148	0	0	0	0	0	0	0	0	0
of which small and medium-sized companies	418,431	418,369	62	0	0	0	0	0	0	0	0	0
Households	2,977,920	2,971,632	6,288	2,118	1,059	970	0	0	89	0	0	1,061
Interest-bearing securities	792,373	792,373	0	0	0	0	0	0	0	0	0	0
Central banks	0	0										
Public sector entities	70,783	70,783										
Credit institutions	441,783	441,783										
Other financial sector companies	279,808	279,808										
Non-financial companies	0	0										
Off-balance sheet exposures	443,735			0	0	0	0	0	0			0
Central banks	0			0	0	0	0	0	0			0
Public sector entities	4,091			0	0	0	0	0	0			0
Credit institutions	11			0	0	0	0	0	0			0
Other financial sector companies	60,774			0	0	0	0	0	0			0
Non-financial companies	172,369			0	0	0	0	0	0			0
Households	206,490			0	0	0	0	0	0			0
Total	**5,640,994**	**5,190,818**	**6,441**	**2,118**	**1,059**	**970**	**0**	**0**	**89**	**0**	**0**	**1,061**

Performing and non-performing exposures and related provisions

EUR K	Gross/nominal amount – Performing exposures	Of which Stage 1	Of which Stage 2	Gross/nominal amount – Non-performing exposures	Of which Stage 2	Of which Stage 3	Accumulated write-downs, accumulated negative changes in fair value due to credit risk and provisions – For performing exposures	Of which Stage 1	Of which Stage 2	Accumulated write-downs … – For non-performing exposures	Of which Stage 2	Of which Stage 3	Accumulated partial write-off	Collateral and financial guarantees received – For performing exposures	For non-performing exposures
Loans and advances	4,438,443	4,288,354	116,531	33,558	0	33,558	−1,359	−500	−859	−11,084	0	−11,084	0	3,910,539	21,543
Central banks	237,089	237,089	0	0		0	0	0	0	0		0		0	0
Public sector entities	377	375	0	1		1	0	0	0	0		0		0	0
Credit institutions	64,281	64,281	0	0		0	0	0	0	0		0		0	0
Other financial sector companies	7,428	7,420	5	3		3	0	0	0	0		0		4,863	0
Non-financial companies	1,125,282	1,090,227	27,568	7,487		7,487	−257	−175	−81	−4,455		−4,455		1,087,569	2,805
of which small and medium-sized companies	419,477	411,854	6,577	1,046		1,046	−113	−95	−18	−337		−337		410,995	745
Households	3,003,986	2,888,961	88,959	26,066		26,066	−1,102	−324	−778	−6,629		−6,629		2,818,107	18,738
Interest-bearing securities	792,373	792,373	0	0	0	0	−135	−135	0	0	0	0	0	0	0
Central banks	0	0	0	0		0	0	0	0	0		0			
Public sector entities	70,783	70,783	0	0		0	−2	−2	0	0		0			
Credit institutions	441,783	441,783	0	0		0	−108	−108	0	0		0			
Other financial sector companies	279,808	279,808	0	0		0	−25	−25	0	0		0			
Non-financial companies	0	0	0	0		0	0	0	0	0		0			
Off-balance sheet exposures	443,789	317,536	2,640	57	0	57	−25	−21	−4	−13	0	−13	0	0	0
Central banks	0	0	0	0		0	0	0	0	0		0			
Public sector entities	4,091	4,091	0	0		0	−2	−2	0	0		0			
Credit institutions	11	11	0	0		0	0	0	0	0		0			
Other financial sector companies	38,364	38,364	0	0		0	0	0	0	0		0			
Non-financial companies	162,890	161,671	1,222	50		50	−5	−5	0	−4		−4			
Households	238,432	113,399	1,418	6		6	−17	−13	−4	−9		−9			
Total	**5,674,606**	**5,398,263**	**119,172**	**33,614**	**0**	**32,146**	**−1,519**	**−656**	**−863**	**−11,097**	**0**	**−11,097**	**0**	**3,910,539**	**21,543**



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