Risk and Capital
– Information according to Pillar 3
2018

Handelsbanken

Contents

Reference table for CRR pursuant to EBA/GL/2016/11

This report, Risk and Capital – Information according to Pillar 3, together with the Bank's Annual Report, provides information as stipulated in the disclosure requirements regarding risk and capital management in Part Eight of Regulation (EU) No 575/2013 (CRR). For each article, the reference table below states in which of the two publications the information can be found.

Requirements on disclosures regarding banks' risk and capital management are stipulated in the accounting and capital requirement regulations. As of 2018, the risk and capital information that is applicable in order to fulfil both sets of regulations is presented in note G2 and note G50 of Handelsbanken's Annual Report for 2018.

The disclosures that are specific to CRR can be found in this report in the form of quantitative information to be provided as stipulated in EBA/GL/2016/11 and explanatory texts to the tables.

More information about Handelsbanken's management of operational risk, compliance risk, risks in the remuneration system, risks in the insurance operations, market risk, funding and liquidity risk can be found in note G2 of the Annual Report. Information about own funds and the capital requirement is also presented in the Annual Report, note G50. Information to be provided quarterly as stipulated in EBA/GL/2016/11 is published on Handelsbanken's website. For each article in Part Eight of Regulation (EU) No 575/2013 (CRR), the reference table below states in which of the two publications the information can be found.

Article in CRR	Description	Reference in Risk and Capital – Information according to Pillar 3	Reference in Handelsbanken's Annual Report and interim reports or on the Handelsbanken website
Title I	General principles		
Article 431	Scope of disclosure requirements		
1	General disclosure requirements	This report, Risk and Capital – Information according to Pillar 3	Handelsbanken's Annual Report and handelsbanken.se/ireng
2	Requirement to disclose information about operational risk	Section: Operational risk – Capital requirements for operational risk, page 55	
3	Requirement to have a formal policy to comply with the disclosure requirements	Section: Signatures of the CEO, CFO and CRO, page 97	
4	Upon request, explanations of rating decisions to SMEs or other corporate applicants for loans	Can be provided upon request	
Article 432	Non-material, proprietary or confidential information		
1–4	Institutions may exclude non-material, proprietary or confidential information under certain conditions	Section: Information items not disclosed under EBA/GL/2014/14, page 95	
Article 433	Frequency of disclosure		
	Frequency requirements for publishing disclosures of Pillar 3 information	Sections: Specific information, page 96, and the inside back cover of this report for Financial calendar. In accordance with EBA/GL/2016/11, in conjunction with the publication of annual, semi-annual and quarterly financial information	
Article 434	Means of disclosures		
1	Information medium for Pillar 3 disclosures and references to equivalent data in other media	This report, Risk and Capital – Information according to Pillar 3, this table, and in the text where applicable	Handelsbanken's Annual Report and interim reports
2	Reference to the locations where equivalent disclosures that fulfil CRR, accounting, listing or other requirements are published	This table, Reference table for CRR pursuant to EBA/GL/2016/11	
Title II	Technical criteria on transparency and disclosure		
Article 435	Risk management objectives and policies		
1 a	Strategies and processes to manage the risks	Sections: Risk management – Risk strategy page 11, – Resilient risk management, page 13; disclosures concerning risk strategy and risk management in the sections on Credit risk – Counterparty credit risks, page 49.	Handelsbanken's Annual Report, note G2, sections: Market risk, page 103 Funding and Liquidity risks, page 107 Operational risk, page 113 Compliance risk, page 116 Risk in the remuneration system, page 117 Risk in the insurance operations, page 117
1 b	Structure and organisation of the risk management organisation including its authority and statutes	Sections: Risk management – Risk strategy, page 11, – Resilient risk management, page 13; disclosures concerning risk strategy and risk management in the sections on Credit risk – Counterparty credit risks, page 49.	Handelsbanken's Annual Report, note G2, sections: Market risk, page 103 Funding and Liquidity risks, page 107 Operational risk, page 113 Compliance risk, page 116 Risk in the remuneration system, page 117 Risk in the insurance operations, page 117

Article in CRR	Description	Reference in Risk and Capital – Information according to Pillar 3	Reference in Handelsbanken's Annual Report and interim reports or on the Handelsbanken website
1 c	Scope and nature of risk reporting and measurement systems	Sections: Risk management – Risk strategy, page 11, – Resilient risk management, page 13; disclosures concerning risk strategy and risk management in the sections on Credit risk – Counterparty credit risks, page 49.	Handelsbanken's Annual Report, note G2, sections: Market risk, page 103 Funding and Liquidity risks, page 107 Operational risk, page 113 Compliance risk, page 116 Risk in the remuneration system, page 117 Risk in the insurance operations, page 117
1 d	Policies for hedging and mitigating risk	Section: Disclosures in the sections on Credit risk – Counterparty credit risks, page 49.	Handelsbanken's Annual Report, note G2, sections: Market risk, page 103 Funding and Liquidity risks, page 107 Operational risk, page 113 Compliance risk, page 116 Risk in the remuneration system, page 117 Risk in the insurance operations, page 117
1 e	Declaration of conformity that the risk management system is fit-for-purpose in relation to the institution's profile and strategy	Section: Risk management – The Board's risk declaration and risk statement, page 15	
1 f	Risk statement with overall risk profile	Section: Risk management – The Board's risk declaration and risk statement, page 15	
2 a–c	Corporate governance disclosures		Handelsbanken's Annual Report, section: Corporate Governance Report which are part of the administration report, pages 46-61
2 d	Whether or not the institution has set up a separate risk committee		Handelsbanken's Annual Report, section: Corporate Governance Report which are part of the administration report, pages 50-51
2 e	Description of the information flow on risk to the management body	Sections: Risk management – Risk organisation, page 13 – Reporting and monitoring the risk and capital situation, page 14	Handelsbanken's Annual Report, section: Corporate Governance Report which are part of the administration report, pages 46, 47, 50, 51
Article 436	Scope of application		
a	Name of the institution to which the requirements in CRR apply	Section: Specific information, page 96	
b i–iv	Outline of the differences in the basis of consolidation for accounting and prudential purposes		Handelsbanken´s Annual Report note G2, section: Market risk at Handelsbanken – Prudent valuation, page 106
c	Current or foreseen material practical or legal impediments to the prompt transfer of own funds or repayment of liabilities among the parent undertaking and its subsidiaries	Section: Own funds and capital requirement – Own funds, page 57	
d	Amount by which own funds are less than required in those subsidiaries not included in the consolidation	Section: Specific information, page 96	
e	If applicable, the circumstance of making use of the provisions laid down in Articles 7 and 9	Not applicable	
Article 437	Own funds		
1 a	General disclosure requirements regarding own funds	Section: Own funds and capital requirement, Table 85 Own funds, page 59	Handelsbanken's Annual Report, note G50, page 169
1 b	Description of the main features of capital instruments	Section: Tables - TB37 Capital instruments main features, page 90; TB38 CET1 Capital instruments main features, AT1, page 91; TB39 Capital instruments main features, T2, page 92	Handelsbanken's Annual Report, note G50, page 165
1 c	Full terms and conditions of capital instruments	Section: Tables - TB37 Capital instruments main features, page 90; TB38 CET1 Capital instruments main features, AT1, page 91; TB39 Capital instruments main features, T2, page 92	
1 d i–iii	Separate disclosures on the nature of prudential filters, deductions, and items not deducted	Section: Own funds and capital requirement -Table 85 Own funds, page 59	Handelsbanken's Annual Report, note G50, page 169
1 e	Description of restrictions applied to the calculation of own funds	Section: Own funds and capital requirement – Own funds, page 57	
1 f	Explanation of the basis on which capital ratios have been calculated if other than the basis specified in CRR	Not applicable	
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a	Institution's approach to assessing the adequacy of its internal capital	Section: Economic Capital, page 54	Handelsbanken's Annual Report section: Note G2, Economic capital, page 118-119
b	Upon demand from the relevant competent authority, the result of the institution's internal capital adequacy assessment process	Provided upon request. Section: Own funds and capital requirement – Capital requirement – Capital requirement in Pillar 2, page 69	
c	Capital requirements for credit risk calculated using the standardised approach	Section: Credit risk – Capital requirements for credit risk; table 41 Credit risks exposures according to standardised approach, page 36; and table 90 EU OV1 - Overview of RWAs, page 70	
d	Capital requirements for credit risk calculated using the IRB Approach	Section: Credit risk – Capital requirements for credit risk; table 40 Credit risks exposures according to standardised approach, page 36; and table 90 EU OV1 - Overview of RWAs, page 70	
e	Capital requirements for market risk	Section: Market risk, page 51; Table 62 EU MR1 - Market risk under the standardised approach page 51; Section: Own funds and capital requirement, table 90 EU OV1 - Overview of RWAs, page 70	
f	Capital requirements for operational risk	Section: Own funds and capital requirement, table 90 EU OV1 - Overview of RWAs, page 70	
Article 439	Exposure to counterparty credit risk		
a	Methodology to assign internal capital and credit limits for counterparty credit exposures	Section: Credit risk – Counterparty credit risks, page 49	
b	Policies for securing collateral and establishing credit reserves	Section: Credit risk – Counterparty credit risks, page 49	

Article in CRR	Description	Reference in Risk and Capital – Information according to Pillar 3	Reference in Handelsbanken's Annual Report and interim reports or on the Handelsbanken website
c	Policies with respect to wrong-way risk exposures	Section: Credit risk – Counterparty credit risks, page 49	
d	Impact of the amount of collateral the institution would have to provide given a downgrade in its credit rating	Section: Credit risk – Counterparty credit risks, page 49	
e	Net derivatives credit exposure	Section: Credit risk, Table TB28 EU CCR5-A - Impact of netting and collateral held on exposure values page 87; and Table TB30 EU CCR6 - Credit derivative exposures, page 88	
f	Methods for measures of exposure value	Section: Credit risk – Counterparty credit risks, page 49	
g	Notional value of credit derivative hedges and the distribution of current credit exposure by types of credit exposure	Section: Tables, TB30 EU CCR6 - Credit derivative exposures, page 88	
h	Notional amounts of credit derivative transactions in the bank's own credit portfolio as well as intermediation activities	Section: Credit risk – Counterparty credit risks, page 49	
i	Estimate of alpha if the institution has received the permission of the competent authorities to estimate alpha	Not applicable	
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1 a	Geographic distribution of credit exposures for calculating the countercyclical capital buffer	Section: Own funds and capital requirement, Table 88 Geographical breakdown of credit exposures relevant for the calculation of the countercyclical capital buffer, page 62	
1 b	Amount of the countercyclical capital buffer	Section: Own funds and capital requirement, Table 87 Amount of institution -specific countercyclical capital buffer, page 61	
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1	Indicators used for determining the score of the institution in accordance with the identification methodology		handelsbanken.se/ireng, 'Indicators for assessing systemic importance'
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a	Definitions for accounting purposes of 'past due' and 'impaired'	Section: Credit risk – Expected credit losses, page 16	
b	Methods for determining specific and general credit risk adjustments	Section: Credit risk – Expected credit losses, page 16	
c	Total amount of all exposures and the average amount of the exposures over the period, broken down by different types of exposure classes	Section: Credit risk, Table: 42 EU CRB-B, page 38	
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h	Geographic breakdown of impaired and past due exposures	Section: Tables, TB2 EU CR1-C - Credit quality of exposures by geography, page 74	
i i–v	Reconciliation of changes in specific and general credit risk adjustments for impaired loans	Section: Credit risk – Expected credit losses, page 16; Table 23 EU CR1-A - Credit quality of exposures by exposure class and instrument, page 18; Table 24 EU CR2-A - Changes in the stock of general and specific credit risk adjustments, page 20	
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a	Names of the nominated external credit assessment institutions (ECAIs) and export credit agencies (ECAs)	Section: Credit risk – Calculation of capital requirements for credit risk – Comparisons with external ratings, page 23; Capital requirements for credit risk – Exposure, exposure amounts and capital requirements, page 37	
b	Exposure classes for which each ECAI or ECA is used	Section: Credit risk – Calculation of capital requirements for credit risk – Comparisons with external ratings, page 23	
c	Description of the process used to transfer the issuer and issue credit assessments onto items not included in the trading book	Not applicable	
d	Association of the external rating of each nominated ECAI or ECA with the institution's scale of credit quality steps	Section: Credit risk – Calculation of capital requirements for credit risk – Comparisons with external ratings, page 23	
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Article in CRR	Description	Reference in Risk and Capital – Information according to Pillar 3	Reference in Handelsbanken's Annual Report and interim reports or on the Handelsbanken website
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Article 446	Operational risk		
	Methodology for calculating capital requirements for operational risk	Section: Own funds and capital requirement – Operational risk, page 69	
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a	Differentiation between exposures based on their objectives		Handelsbanken's Annual Report, note G2, table 24, page 106
b	Balance sheet value, fair value and, for those traded on an exchange, comparison to the market price where it is materially different from fair value		Handelsbanken's Annual Report, note G2, section: Market risk – Market risk at Handelsbanken – Equity price risk – Equity price risk outside the trading book, page 105
c	Types, nature and amounts of exchange-traded exposures, private equity exposures in sufficiently diversified portfolios, and other exposures		Handelsbanken's Annual Report, note G2, table 24, page 106
d	Cumulative realised gains or losses arising from sales and liquidations in the period		Handelsbanken's Annual Report, note G2, table 24, page 106
e	Total unrealised gains or losses		Handelsbanken's Annual Report, note G2, table 24, page 106
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a	Nature of the interest rate risk and key assumptions and frequency of measurement of interest rate risk		Handelsbanken's Annual Report, note G2, section: Market risk – Market risk at Handelsbanken – Interest rate risk – Interest rate risk in the non-trading book, page 104
b	Variation in earnings, economic value or other relevant measure used by management for upward and downward rate shocks according to methods for measuring interest rate risk, broken down by currency		Handelsbanken's Annual Report, note G2, section: Market risk – Market risk at Handelsbanken – Interest rate risk – Interest rate risk in the non-trading book, page 104
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a	Objectives in relation to securitisation activity	Section: Credit risk – Capital requirements for credit risk – Securitisation, page 48	
b	Nature of other risks including liquidity risk inherent in securitised assets	Not applicable	
c	Type of risks in terms of seniority of underlying securitisation positions and in terms of assets underlying those positions that the institution has assumed and retained with re-securitisation activity	Not applicable	
d–e	Different roles played by the institution in the securitisation process and extent of the institution's involvement in these roles	Section: Credit risk – Capital requirements for credit risk – Securitisation, page 48	
f	Description of the processes to monitor changes in the credit and market risk of positions	Section: Credit risk – Capital requirements for credit risk – Securitisation, page 48	
g	Description of the policy governing the use of hedging and unfunded protection to mitigate the risks of retained securitisation and re-securitisation exposures	Section: Credit risk – Capital requirements for credit risk – Securitisation, page 48	
h	Methods for calculating risk-weighted exposure amounts for securitisation activities	Section: Credit risk – Capital requirements for credit risk – Securitisation, page 48	
i	Types of special purpose entities that the institution, in its capacity as sponsor, uses to securitise third-party exposures	Not applicable	
j i–vi	Accounting policies for securitisation activities	Not applicable	
k	Names of the external credit assessment institutions (ECAIs) used for securitisations	Section: Credit risk, Table 49 Securitisation positions in the non-trading book by risk weight, page 49	
l	Description of the IRB Approach	Not applicable	
m	Explanation of significant changes to any of the quantitative disclosures in points n–q since the preceding reporting period	Not applicable	
n i–vi	Information on securitisation exposures in the trading book and in the non-trading book, broken down by exposure type	Section: Credit risk, Table 49 Securitisation positions in the non-trading book by risk weight, page 49	
o i–ii	Additional information on securitisation exposures in the trading book and in the non-trading book	Not applicable	
p	Information on securitisation exposures in the non-trading book that are impaired/past due and the losses recognised during the current period, both broken down by exposure type	Not applicable	
q	Total outstanding exposures securitised in the trading book and subject to a capital requirement for market risk, broken down into traditional and synthetic securitisation and by exposure type	Not applicable	
r	Where applicable, whether the institution has provided support and the impact on own funds	Not applicable	
Article 450	Remuneration policy		
1 a	Decision-making process used for determining remuneration policy, and number of meetings held by main body overseeing remuneration during the financial year		Handelsbanken's Annual Report, section: Corporate Governance Report which are part of the administration report, pages 53, 55-56, 58-59

Article in CRR	Description	Reference in Risk and Capital – Information according to Pillar 3	Reference in Handelsbanken's Annual Report and interim reports or on the Handelsbanken website
1 b	Information on link between pay and performance		Handelsbanken's Annual Report, section: Corporate Governance Report which are part of the administration report, pages 55,56
1 c–f	Criteria for performance measurement, parameters and rationale for any variable component scheme		Handelsbanken's Annual Report, section: Corporate Governance Report which are part of the administration report, pages 55,56
1 g–i	Aggregate quantitative information on remuneration, including breakdowns		Section: Note G1, page 83, Note G8 pages 122-125 and Corporate Governance Report which are part of the administration report, pages 55-56, 83
1 j	Upon demand, total remuneration for each member of the management body or senior management		Note G8, pages 122-125 and Corporate Governance Report which are part of the administration report, pages 58-59
2	Quantitative information about remuneration to members of the institution's management body for significant institutions		Section: Note G8, pages 122-125, Corporate Governance Report which are part of the administration report, pages 58-59, Annual Report's of Handelsbanken plc and Handelsbanken Stadshypotek AB.
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1 a	Leverage ratio	Section: Own funds and capital requirement – Leverage ratio, page 71	
1 b	Breakdown of the total exposure amount	Section: Own funds and capital requirement – Leverage ratio, page 71	
1 c	Where applicable, the amount of derecognised fiduciary items	Section: Own funds and capital requirement – Leverage ratio, page 71	
1 d	Description of the processes used to manage the risk of excessive leverage		Handelsbanken's Annual Report, section: Note G2, Capital planning section describes how the Bank monitors capitalisation, page 119
1 e	Description of factors that had an impact on the leverage ratio during the period to which the disclosed leverage ratio refers	Section: Own funds and capital requirement – Leverage ratio, page 71	
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b i	Structure of internal rating systems and relation between internal and external ratings	Sections: Credit risk – Calculation of capital requirements for credit risk – Risk rating system, page 21; Credit risk – Calculation of capital requirements for credit risk – Risk classification methods, page 21 – Comparisons with external ratings page 23	
b ii	Use of internal estimates other than for calculating risk-weighted exposure amounts	Not applicable	
b iii	Process for managing and recognising credit risk mitigation	Section: Credit risk – Collateral and actions that reduce the capital requirement, page 31	
b iv	Control mechanisms for rating systems	Section: Credit risk – Calculation of capital requirements for credit risk – Quality assurance of the rating system, page 23	
c i–v	Description of internal ratings process, provided separately for each IRB exposure class	Sections: Credit risk – Calculation of capital requirements for credit risk – Exposure classes, page 21; Risk classification methods, page 21	
d	Exposure values, provided separately for each IRB exposure class	Section: Credit risk – Capital requirements for credit risk – Exposure, exposure amounts and capital requirements, page 37	
e i–iii	Total exposures, exposure-weighted average risk weight, and total amount of undrawn commitments by risk class for the exposure classes central governments and central banks, institutions, corporates, and equities	Section: Credit risk – Capital requirements for credit risk – Risk weight and breakdown into risk classes, page 40; Table 44 EU CR6 - IRB Approach - Credit risk exposures by exposure class and PD range, page 41	
f	Information on retail exposures in the IRB Approach	Sections: Credit risk – Calculation of capital requirements for credit risk – Exposure classes, page 21; Risk classification methods, page 21	
g	Actual specific credit risk adjustments in preceding period	Section: Credit risk – Expected credit losses page 16; Table 24 EU CR2-A Changes in the stock of general and specific credit risk adjustments, page 20	
h	Factors that impacted on the loss experience in preceding period	Section: Credit risk – Expected credit losses page 16; Table 24 EU CR2-A Changes in the stock of general and specific credit risk adjustments, page 20	
i	Institution's estimates against actual outcomes	Section: Credit risk – Calculation of capital requirements for credit risk – Forecasts and outcomes in IRB Approach, page 24	
j i–ii	Geographic breakdown of PD and LGD for all IRB exposure classes	Section: Tables, TB8 EU CRB-C, page 77	
Article 453	Use of credit risk mitigation techniques		
a	Policies and processes for on- and off-balance-sheet netting	Sections: Credit risk – Collateral and actions that reduce the capital requirement, page 31; Counterparty credit risks – Mitigation of counterparty credit risk, page 49	
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Article in CRR	Description	Reference in Risk and Capital – Information according to Pillar 3	Reference in Handelsbanken's Annual Report and interim reports or on the Handelsbanken website
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e	Information about market or credit risk concentrations within the credit mitigation taken	Section:Tables,TB30 EU CCR6 - Credit derivative exposures, page 88	
f	Exposure value covered by eligible financial and other collateral for exposures under the standardised approach or the IRB Approach without own estimates of LGD and CCF	Section:Tables,TB26 EU CCR3 - Standardised approach - CCR exposures by regulatory portfolio and risk, page 85	
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	Description of the use of insurance and other risk transfer mechanisms to mitigate operational risk	Not applicable	
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a i	Characteristics of the models used	Not applicable	
a ii	Methodologies in internal models for incremental default and migration risk and for correlation trading	Not applicable	
a iii	Description of stress testing applied to the sub-portfolio	Not applicable	
a iv	Description of the approaches used for back-testing and validating the accuracy and consistency of the internal models and modelling processes	Not applicable	
b	Scope of permission by the competent authority	Not applicable	
c	Description of the extent and methodologies for compliance with the requirements set out in Articles 104 and 105	Not applicable	
d i–iii	Highest, lowest and mean values for value-at-risk measures, stressed value-at-risk measures, risk numbers for incremental default and migration risk and for the specific risk of the correlation trading portfolio	Not applicable	
e	Elements of the own funds requirement for market risk	Not applicable	
f	Weighted average liquidity horizon for each sub-portfolio covered by the internal models	Not applicable	
g	Comparison of the daily end-of-day value-at-risk measures to the one-day changes of the portfolio's value by the end of the subsequent business day	Not applicable	

Introduction

Handelsbanken works on the basis of a well-tested business model which has been unchanged for almost 50 years. The Bank has a decentralised way of working and a strong local presence through nationwide branch networks. The Bank attaches great importance to availability and long-term customer relations, has low tolerance of risk and achieves international growth by applying its business model to selected markets. Handelsbanken's business model focuses on taking credit risks that arise when granting credits in the branch operations and aims to minimise other risks.

For the past few decades, Handelsbanken's loan loss ratio has been significantly lower than the average of other Nordic banks. The Bank's goal is always that no credit will lead to a loss. This approach completely determines the branches' granting of credit and work with their credit portfolios.

By maintaining large liquidity reserves and by matching cash flows, the Bank has worked for a long time to safeguard its low liquidity risk. This is also a natural consequence of the Bank's low risk tolerance.

In addition, market risks at Handelsbanken have further decreased in the past few years, from already low levels to very low at present.

REGULATIONS AND REGULATORY DEVELOPMENTS

Capital adequacy

According to the current capital adequacy framework, Regulation (EU) 575/2013 (CRR), the Swedish Capital Buffers Act (2014:966), and the Swedish Special Supervision of Credit Institutions and Investment Firms Act (2014:968), the Bank must have common equity tier 1 capital of at least 4.5 per cent, tier 1 capital of at least 6 per cent, and total own funds that correspond to at least 8 per cent of the total risk exposure amount for credit risks, market risks and operational risks.

In addition to maintaining capital to meet the minimum requirements, the Bank must also maintain common equity tier 1 capital to comply with the combined buffer requirement, which in Sweden comprises the sum of a capital conservation buffer of 2.5 per cent, a countercyclical buffer of up to 2.5 per cent, and a systemic risk buffer of 3 per cent.

The capital conservation buffer builds up capital during good times with the aim of preventing banks from breaching capital requirements during difficult periods. The countercyclical buffer, which is decided by the Swedish Financial Supervisory Authority, varies over the business cycle, with the aim of counteracting excessively high credit growth. At present, a countercyclical buffer of 2.0 per cent applies in Sweden, but this will be raised to 2.5 per cent as of 19 September 2019. In Norway, the buffer is currently at 2.0 per cent but will be raised to 2.5 per cent as of 31 December 2019. Also, in the UK a buffer requirement of 1.0 per cent applies as of 28 November 2018 and the Danish authorities decided to implement a buffer of 0.5 per cent as of 31 March 2019. Finally, the Hong Kong Monetary Authority increased their buffer requirement to 2.5 per cent as of 1 January 2019 and France has introduced a buffer of 0.25 per cent as of 1 July 2019. No other countries where Handelsbanken has operations have decided on a countercyclical buffer requirement of more than 0 per cent.

The aim of the systemic risk buffer is to create a buffer at the largest banks in Sweden to protect the banking system as a whole in times of financial instability. The established combined buffer requirements must be satisfied, for example, to avoid restrictions on dividends.

Capital requirements within the framework of Pillar 2

In addition to the above-mentioned capital requirement, referred to as the Pillar 1 requirement, the Bank must hold capital for requirements under Pillar 2 of the regulations. These requirements are specific to each institution and are decided by the supervisory authority. Various factors are assessed within Pillar 2, such as concentration risks, pension risk, interest rate risk in the non-trading book, and additional systemic risk needs. This capital requirement can be divided into requirements for credit risk, market risk, systemic risk, and other risks.

The Swedish Financial Supervisory Authority decided (SFSA ref no 18-6251) on 22 August 2018 to impose an institution specific Pillar 1 risk weight floor of 25 per cent for exposures in Swedish mortgages covered by the IRB approach. This means that Svenska Handelsbanken AB org. no. 502007-7862 and its consolidated situation has to apply an average risk weight floor of 25 per cent for exposures in Swedish mortgages in Pillar 1. This also applies to Stadshypotek AB, org. no. 556459-6715 and its consolidated situation. The measure entered into force on 31 December 2018 and applies for a period of two years or until the macro prudential risk ceases to exist, with the possibility of an extension of one additional year at a time according to Articles 458(4) and 458(9) of the CRR. The 25 per cent risk weight floor was, prior to SFSA's measure, a Pillar 2 based floor which is replaced with a requirement within the framework of Article 458 of CRR.

The Supervisory Authority's article 458 notification to the European Banking Authority (EBA), European Central Bank (ECB) and European Systemic Risk Board (ESRB) states that the measure focuses on IRB banks as their model-implied risk weights are relatively low, compared to those implied by the standardised approach. The notification also mentions that the calibration of the minimum level for the average risk weight floor is set to cover both future loss levels in Swedish residential mortgages in a severe scenario with high financial stress and take into account the broader systemic risks that could arise

In Pillar 2, the Swedish Financial Supervisory Authority has also introduced a floor of 2.5 years for maturity assumptions for corporate exposures.

The capital requirement for market risk consists of a capital charge for market risk in the non-trading book; other capital charges include a charge for pension risk.

The Pillar 2 capital requirement for systemic risk includes a buffer requirement of 2 per cent.

The Supervisory Authority also calculates the need to hold a capital planning buffer. The capital planning buffer does not result in any further capital requirements for the Bank as long as it is not larger than the capital conservation buffer.

In addition to the regulatory minimum capital and buffer requirements, the Bank must perform an internal capital adequacy assessment, in which all risks and capital requirements are assessed in an unbiased manner. Since the introduction of Basel II in 2007, in its internal capital adequacy assessment process, Handelsbanken has kept considerably more capital than is formally required under Pillar 1. This is because the Bank's capital assessment is based on calculations of economic capital and conservative stress tests which indicate that the capital supply in a normal business cycle should be sufficient for potential losses and capital requirement changes which may occur under stressed conditions.

All capital charges within the framework of Pillar 2 are made in the overall capital assessment, that is, the Swedish Financial Supervisory Authority's individual assessment of the Bank's capital requirements. This is in addition to the minimum requirements set out in Pillar 1, and normally the Swedish Financial Supervisory Authority will not formally decide on the Pillar 2 requirements. In the absence of a formal decision, the Supervisory Authority's overall capital assessment will not affect, for example, the level at which automatic restrictions on dividends come into force.

Leverage ratio

The leverage ratio is a capital ratio defined in CRR. The ratio is defined as the tier 1 capital in relation to total assets, including certain off-balance-sheet items recalculated using the credit conversion factor defined in the standardised approach, as well as regulatory adjustments of own funds.

To date, no decision has been made on the level of leverage ratio to be required, nor whether it will constitute a binding capital requirement. The European Commission published its proposal for implementation on 23 November 2016. The proposal corresponds to the level which the Basel Committee has indicated of 3 per cent and is included in the risk reduction package which contains several proposals for changes to the present regulations (see below).

Liquidity

The liquidity coverage ratio (LCR) is a binding requirement through the European Commission's Delegated Act for banks within the EU. The measure expresses the ratio between the Bank's liquidity buffer and its net cash flows in a highly stressed scenario during a 30-day period. The requirement applies at an aggregate level and the ratio must be more than 100 per cent. In conjunction with this, the Swedish Financial Supervisory Authority also announced that they intend to exercise supervision of LCR in individual currencies within the framework of the supervisory review and evaluation process in Pillar 2 as the minimum requirements within the EU currently do not apply to individual currencies.

Minimum requirements for the net stable funding ratio (NSFR) – the structural liquidity measure that is the ratio between available stable funding and the stable funding required – are expected to be introduced in the EU in 2021 at the earliest.

New resolution legislation and minimum requirement for own funds and eligible liabilities (MREL)

The Bank Recovery and Resolution Directive 2014/59/EU (or BRRD) has been implemented in Sweden by the Resolutions Act (2015:1016). The regulations contain provisions for managing crisis-stricken banks and make it possible for authorities within a certain framework to take control, restructure and sell all or parts of the operations without having to liquidate the bank or declare it bankrupt. In addition to the actions mentioned, the regulations introduce the option of writing down certain forms of debt instruments with the aim of recapitalising a crisis-stricken bank.

The regulations also introduce a minimum requirement for own funds and eligible liabilities (MREL). The requirements for each individual institution are established in the bank's resolution plan according to the resolution authority, the Swedish National Debt Office (SNDO), in consultation with the Swedish Financial Supervisory Authority. The requirement consists of a loss absorption amount (equal to the total capital requirement less the combined buffer requirement and less macro prudential risk add-ons in Pillar 2) and a recapitalisation amount (equal to the total capital requirements less combined buffer requirements). For MREL requirements and levels see Handelsbanken's Annual Report.

The SNDO applies the liabilities proportion principle, where the recapitalisation amount should be filled with eligible liabilities (and not own funds). For this purpose, a new class of debt instruments (senior non-preferred) ranked between subordinated and senior bonds, will be introduced. The requirement is binding from 1 January 2022. Handelsbanken assesses regulatory development continuously.

Figure 1 Capital requirements for Swedish banks and actual capital for Handelsbanken

* Pillar 2 includes add-ons for systemic risks of 2%, institution-specific add-ons for concentration risk, interest rate risk in other operations and pension risk.
** Based on the buffer requirement in Sweden, Norway and all other countries where the requirement is applied and the Bank has exposure.
*** Including 2% buffer requirement aimed at other systemically important institutions (O-SII).

Changes in liquidity, capital adequacy and resolution regulations – 'Risk reduction package'

On 23 November 2016, the European Commission published proposals with clarifications, changes and additions to the present regulations. The proposals comprise capital adequacy regulations (CRR and CRD IV) and resolution regulations (BRRD). The purpose of these regulations is to increase financial stability, to improve banks' lending capacity within the EU, and to make it easier for banks to contribute to deeper and more liquid capital markets within the EU. The package includes proposals for a binding leverage ratio requirement of 3 per cent, the introduction of a binding NSFR and requirements that are more sensitive to market risk, counterparty risk and central counterparty risk (CCP) in the standardised approach. In addition, it is proposed that a requirement on total loss-absorbing capacity be introduced for global systemically important institutions (G-SII) within the framework of the existing MREL regulations. At the same time, the European Commission also published proposed revisions to the implementation of the market risk framework (called fundamental review of the trading book, FRTB). The FRTB establishes revised methods for the standardised approach as well as for the Internal Methods Approach, along with a revised boundary between the trading book and the non-trading book. The main parts deemed to have an impact on the capital requirement are the boundary between the trading book and non-trading book, the treatment of covered bonds when calculating the capital charge for credit spread risk, and the inclusion of capital charges for risk of default and residual risks. The proposals must be dealt with by the member states and the European Parliament before they are finally adopted.

Updated capital adequacy regulations in the form of CRD V and CRR II were originally intended to be introduced at the start of 2019, but at the time of publication a ruling is yet to come. Thus implementation is delayed.

On 7 December 2017, the Basel Committee published a proposal for thorough changes to all parts of the Capital Requirements Regulation. For credit risk, a revised standardised approach will be introduced with a larger component of risk sensitivity. In addition, restrictions will be introduced on how methods based on internal models may be used. The method for credit valuation adjustment (CVA), introduced in the original Basel III agreement, will be developed and changed at the same time as the option of using internal models will be revoked. The latter also applies to the method for measuring operational risk, where all banks must now measure operational risk using a new, uniform standardised approach based on a combination of the bank's earnings and historical operational losses. Finally, adjustments will also be introduced in the calculation of leverage ratio along with a buffer requirement in addition to the minimum leverage ratio requirement for banks designated as global systemically important institutions.

In addition to the changes in individual risk measurement methods, a new overall risk weight floor of 72.5 per cent of the exposure amount is being introduced according to the standardised approach for all banks that use internal models.

The Basel Committee recommends that the new rules apply as of 1 January 2022, as will the previously proposed changes in the FRTB. However, the risk weight floor requirements will be phased in between 2022 and 2027.

The EBA will introduce guidelines and technical standards regarding the methods for calculating various components in the IRB Approach. These guidelines and standards are intended to clarify specific sections of CRR. The EBA aims for these regulations to come into effect at the end of 2020. The clarifications refer to the definition of default, for example, and the application of an economic downturn period when estimating loss given default (LGD) and credit conversion factor (CCF).

Risk management

Handelsbanken's goal is to have higher profitability than the average of peer banks in its home markets. This goal is mainly to be achieved by the Bank having more satisfied customers and lower costs than its competitors. One of the purposes of the Bank's profitability goal is to offer shareholders long-term high growth in value, expressed in increasing earnings per share over a business cycle. Lower expenses also refers to lower credit losses and Handelsbanken has a low risk tolerance. This means that the quality of the credits must never be neglected in favour of achieving higher volumes or margins. This low risk tolerance applies to all areas of the Group and is maintained through a strong risk culture that is sustainable in the long term.

RISK TOLERANCE

Handelsbanken has a low risk tolerance. Credit risks arise as an inherent part of lending operations. The Bank's goal is always that no credit will lead to a loss. This approach completely determines the Bank's granting of credit and the work with its credit portfolios. The Bank focuses on long-term, steady relations with customers, both private individuals and businesses, with good repayment capacity and a strong financial position. The quality requirement must never be neglected in favour of higher credit volumes, higher prices or market share.

There is low tolerance of market risk and liquidity risk. Market risks only occur as part of customer business, in the Bank's role as a market maker and in connection with its funding and liquidity management. In addition, market risk arises in the pension system.

The Bank's low tolerance of market risk has resulted in a comparatively low proportion of the Bank's earnings coming from net gains/losses on financial transactions. All funding and liquidity risk management is centralised to Group Treasury. Liquidity risk is limited by means of requirements on matching cash flows and satisfactory liquidity reserves of high quality.

Tolerance is also low for operational risk and compliance risk. As far as possible, the Bank endeavours to prevent these risks and to reduce losses in this area. Losses must remain low.

RISK STRATEGY

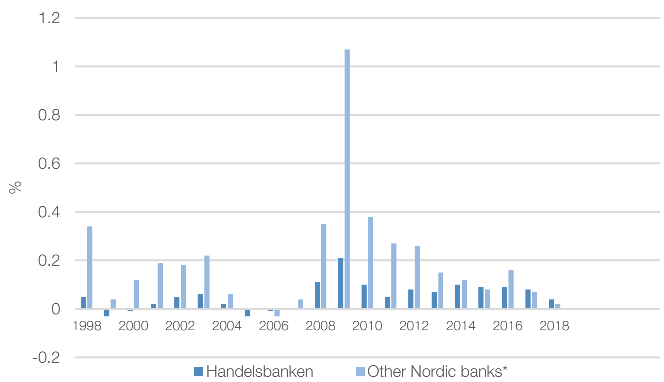
Handelsbanken offers a wide range of different banking and insurance products. These entail a variety of risks that are systematically identified, measured, managed and reported in all parts of the Group. Handelsbanken's restrictive approach to risk means that the Bank deliberately avoids high-risk transactions, even if the expected financial reward may be high at that time.

This low risk tolerance is maintained through a strong risk culture that is sustainable in the long term and applies to all areas of the Group. The risk culture is integral to every aspect of the Bank's work and is deeply rooted among the Bank's employees. The Bank is characterised by a clear allocation of responsibilities, where each part of the business operations bears full responsibility for its business and for risk management. As a consequence, there are strong incentives for high risk awareness and for prudence in business operations. However, the decentralised business model is combined with strong centralised controls. The low risk tolerance is also reflected in the view of remuneration. The main principle is that remuneration must be fixed, as this encourages the long-term perspective that is a central feature of Handelsbanken's business model. Variable remuneration is not offered to employees who, in their professional roles, can have a material impact on the Bank's risk profile. The employees are one of the largest owners of the Bank via the Oktogonen Foundation, which also contributes to a high level of risk awareness and a long-term approach.

Lending has a strong local presence, in which close customer relationships and local knowledge promote low credit risk. In addition, the Group must be well-capitalised at all times in relation to the risks in the operations and hold liquid assets so that it can always meet its payment commitments when they fall due, including in situations of financial stress when funding in the financial markets is not possible. In this way, Handelsbanken aims for a business model which is not affected by fluctuations in the business cycle.

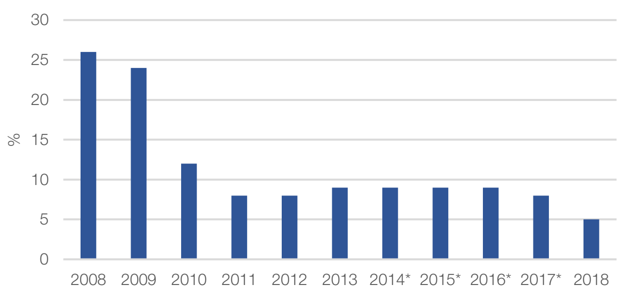
This restrictive approach to risk means that the Bank is a stable and long-term business partner for its customers, regardless of the business cycle or market situation. It contributes to both good risk management and to sustaining a high service level even when operations and the markets where the Bank operates are under strain. The same principles for the Bank's approach to risks apply in all countries where the Bank operates and they are guiding principles in the Bank's continued international expansion.

Figure 2 Credit losses as a percentage of lending 1998–2018



* Only Swedish banks are included for the period up to and including 2000.

Figure 3 Net gains/losses on financial transactions as proportion of profit 2008–2018

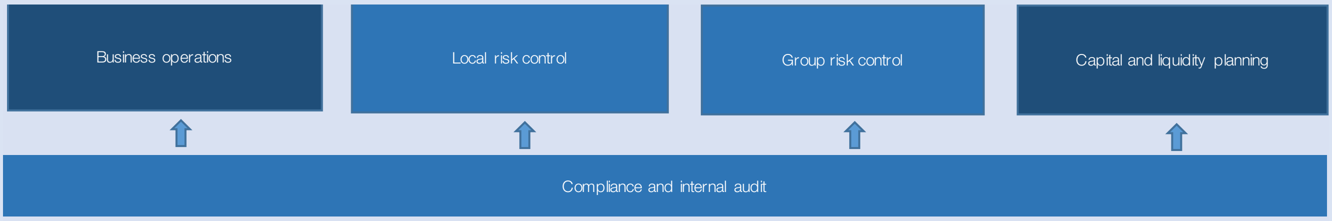


Source: Annual Report
* Excluding non recurring items.

Figure 4 Risks at Handelsbanken

	Description
Credit risk	Credit risk is defined as the risk of the Bank facing economic loss because the Bank's counterparties cannot fulfil their contractual obligations.
Market risk	Market risks arise from price and volatility changes in the financial markets. Market risks are divided into interest rate risk, equity price risk, foreign exchange risk and commodity price risk.
Liquidity risk	Liquidity risk is the risk that the Bank will not be able to meet its payment obligations when they fall due without being affected by unacceptable costs or losses.
Operational risk	Operational risk refers to the risk of loss due to inadequate or failed internal processes, human error, erroneous systems or external events. The definition includes legal risk.
Compliance risk	Compliance risk is the risk that the Bank does not comply with laws, regulations and internal rules, or accepted business practices or standards.
Remuneration risk	Remuneration risk is the risk of loss or other damage arising due to the remuneration system.
Insurance risk	Insurance risk is the risk in the outcome of an insurance that depends on the insured party's longevity or health.

Figure 5 Handelsbanken's risk management and risk control



Business operations

The Bank is characterised by a clear allocation of responsibilities, where each part of the business operations bears full responsibility for its business and for all risk management. Those who know the customer and market conditions best are in the best position to assess the risk and can also act at an early stage if problems arise. Each branch and each profit centre is responsible for dealing with any problems that arise. This creates strong incentives for high risk awareness and for prudence in the business operations.

However, the decentralised credit decisions are conditional on a joint credit process, for which Group Credits is responsible. Group Credits prepares the credit limits which the Board or the credit committee set up by the Board decide on. Group Credits also ensures that credit assessments throughout the Group are consistent and that loans are granted in accordance with the credit policy decided by the Board.

Financial risks in the Bank's business operations mainly arise at Group Treasury, Handelsbanken Capital Markets and Handelsbanken Liv, and are managed there. Handelsbanken has a highly decentralised business model, but all funding and liquidity management in the Group is centralised in Group Treasury. The market risks that arise to meet customers' demand for financial instruments with exposure to the fixed income, foreign exchange, equity or commodities markets are managed in Handelsbanken Capital Markets. Operational risk occurs in all of the Bank's operations, and the responsibility for managing operational risk is an integral part of managerial responsibility at all levels in Handelsbanken. The management of market risks, the management of the Bank's operational risk, and funding and liquidity management are all governed by policies established by the Board.

Local risk control

There is a local risk control function for each country where the Bank has operations and for subsidiaries, as well as for some central units. Local risk control works to identify, measure, analyse, and report risks in the operations. Local risk control also checks the limits for market, liquidity, counterparty, and operational risks and evaluates breaches of these limits and credit limits. In addition, local risk control must also ensure that risk analysis is performed for new or substantially changed products and services, markets, processes and IT systems, as well as organisational changes. Local risk control also evaluates the business operations' work with operational risk. At country level, local risk control is tasked with monitoring credit risks and the credit process. A special local risk control function within Group IT monitors risks in IT and information security. Local risk control reports to Group Risk Control and also to the management of the operations.

Group Risk Control

As business decisions become more decentralised, the need for central monitoring of the risk and capital situation increases. Group Risk Control is therefore a natural and vital component of the Bank's business model.

Group Risk Control has the task of identifying, measuring, analysing and reporting all the Group's material risks. It monitors that the risks and risk management fall within the risk tolerance established by the Board and that management has reliable information to use as a basis for managing risks in critical situations. Group Risk Control also has functional responsibility for ensuring that local risk control measures risks in a fit-for-purpose and consistent manner in the Group, and that the Bank's management and Board receive regular reports and analyses of the current risk situation.

Stress tests – capital and liquidity planning

If – despite the work in the three components described above – Handelsbanken were to suffer serious losses, the Bank holds capital and a liquidity reserve to ensure its survival both during and after extreme events. Capital planning is based on an assessment of the capital situation in terms of the legal capital requirement, combined with a calculation of economic capital and stress tests. Liquidity planning ensures that the Group can always meet its payment commitments when they fall due, even in situations of financial stress when funding is not possible in the financial markets. Stress tests and scenario analyses identify the measures that need to be prepared or implemented to ensure a satisfactory liquidity situation and capitalisation at any given time and which measures are needed to restore the Group's capital and liquidity in a recovery situation following a serious crisis.

Compliance and internal audit

In addition to the elements described above, operations are examined by compliance and by the internal auditors. The Compliance function is responsible for identifying the risks that the Handelsbanken Group will not meet its obligations under regulations, laws and other rules for operations that are subject to a licence and for checking and monitoring that these risks are being managed by the units concerned.

RESILIENT RISK MANAGEMENT

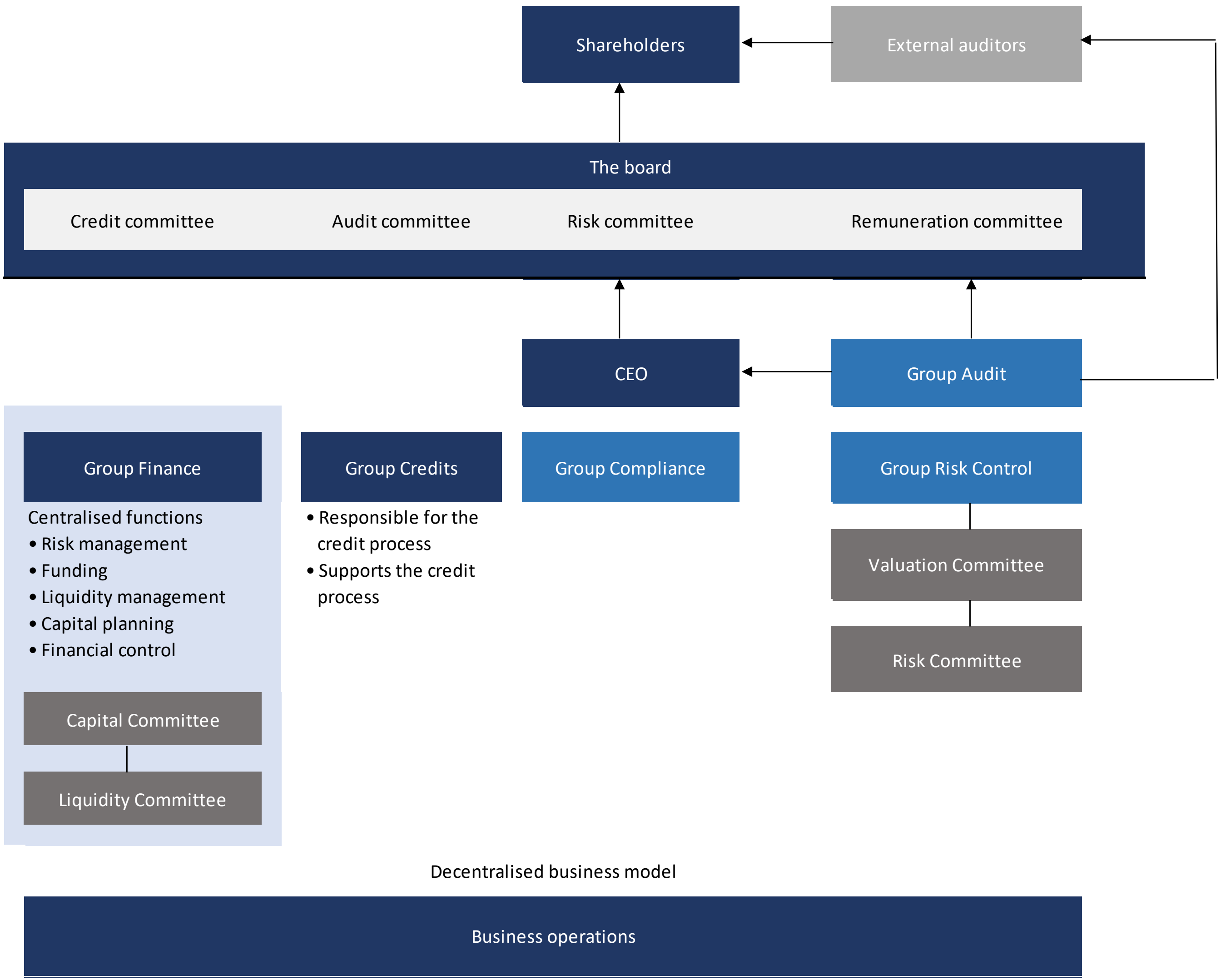
Handelsbanken's capital situation and liquidity situation are strong. The Bank has continuous access to the financial markets via its short-term and long-term funding programmes. The Bank has a large liquidity reserve of high quality, which provides a high degree of resistance to possible disruptions in the financial markets. Group Treasury's liquidity portfolio, which is part of the Bank's liquidity reserve, has a low risk profile and consists mainly of balances with central banks, government bonds and covered bonds. In addition, there is an extensive unutilised issue amount for covered bonds at Stadshypotek. Liquidity reserves are kept in all currencies that are important to the Bank.

The total liquidity reserve covers the Bank's liquidity requirements for more than three years in a stressed scenario entirely without access to ordinary market funding. Operations can be maintained for a considerable period of time even in an extreme situation when the foreign exchange markets are closed.

The Bank's capital situation remains strong. Good earnings and low credit losses during the year contributed to this.

Handelsbanken's low tolerance of risk, sound capitalisation and strong liquidity situation mean that the Bank is well equipped to operate under substantially more difficult market conditions than those experienced in recent years.

Figure 6 Handelsbanken's control and risk organisation



RISK ORGANISATION

Handelsbanken's Board has overall responsibility for the Bank's risk management and establishes internal regulations for this. The Board establishes policy documents, and the CEO establishes guidelines describing how various risks should be managed and reported.

The Board has instituted a Credit Committee (consisting of the Group Chief Executive and the Chief Credit Officer as well as a number of Board Directors). The Credit committee takes decisions on credit cases that exceed a set limit but need not be decided on by the Board, due to the importance of the case or legal requirements. The Board has also constituted several committees within the Board, which prepare matters to be decided by the Board. These are the Board's risk committee, the audit committee, and the remuneration committee. The Risk, Audit and Remuneration committees consist of Board Directors only. The Bank also has the following internal committees to advise management: Risk Committee, Liquidity Committee, Capital Committee, Valuation Committee and Committee for Operational Risk and Compliance Risk.

Handelsbanken has a Risk Forum, the purpose of which is to attend to the Bank's overall risk situation ahead of Board meetings, and to ensure that sufficient risk assessments are carried out prior to all decisions of a material nature. In addition to the CEO, the Risk Forum includes the CFO and the Heads of Group Risk Control, Group Compliance and Group Legal, as well as others.

The Board establishes rules for delegating credit decisions. The decision structure and each decision level are described in the Annual Report. However, for market and liquidity risk the Board decides total limits for the entire Group within each type of risk. These are then allocated to the operations by the CEO and the CFO. The CEO sets limits for operational risk. The CFO also decides on extra limits and risk measures and detailed instructions. The CFO decides on limits for interest rate risk, exchange rate risk and liquidity risk for the Head of Group Treasury. The Head of Group Treasury is responsible for managing these risks and in turn allocates parts of limits to other business units.

The CEO is responsible for the Bank pursuing capital planning that ensures that the Group's supply of capital is secure. The Head of Group Capital Management, reporting to the CFO, is responsible for measuring available capital and for applying the Group's Capital Policy. This assignment includes responsibility for maintaining the correct level of available capital and the correct proportions of the various types of capital and currencies in own funds. This responsibility also entails ensuring that the level of available financial resources (AFR) as a proportion of economic capital (EC) remains above the target decided by the Board and that the capital level exceeds the regulatory requirements.

Group Treasury has responsibility for Group liquidity and funding, and for carrying out risk management measures as decided by the Bank's CFO. The Bank has well-developed processes for allocating capital and liquidity to the Bank's business units. If a critical situation arises, Group Treasury is also well prepared to rapidly take action to strengthen liquidity.

The operations are monitored by control functions. Group Risk Control, whose head is the Bank's CRO, reports to the CEO, the Board and the Board's risk committee. Group Risk Control's task is to identify, measure, analyse and report all material risks and also to check that all major risks to which the Bank is exposed, or may be expected to be exposed in the future, are identified and managed by the relevant functions. The responsibility also includes identifying risks and deficiencies in the bank's risk management. Group Risk Control checks that every business unit and region or country efficiently monitors all risks of material significance to the unit via its local risk control. Local risk control reports the risk exposure to Group Risk Control and to the management of the business operations.

The operations are also examined by Group Compliance and Group Audit at central and local level. Group Risk Control and Group Compliance report to the CEO, while Group Audit reports to the Board. Group Compliance is responsible for working actively to ensure a high level of compliance within the Handelsbanken Group and reports the most material compliance risks and deficiencies to the CEO, the Board and the Board's risk committee. Group Audit reports to the Board in its entirety and to the Board's audit committee. The external auditors are accountable to the shareholders at the Annual General Meeting and also audit the Board's and the CEO's administration.

REPORTING AND MONITORING THE RISK AND CAPITAL SITUATION

The CRO presents a Group risk report compiled by Group Risk Control quarterly for the Board's risk committee and gives a presentation on the risk situation annually for the Board. The reports are also presented to the CEO. These Group risk reports contain the CRO's assessment of all material risks in the Group and an assessment of whether there are any significant deficiencies in operations to report and correct. The report also contains proposals for action and follow-up on any risks and deficiencies previously reported. The Group risk reports include forward-looking risk assessments and must make it possible to assess whether Handelsbanken is fulfilling the risk strategy and remains within the risk tolerance stated by the Board. The Group risk report is drafted in accordance with the Board's Policy for risk control.

The Risk Committee, chaired by the Bank's CRO, acts in an advisory capacity to the CEO and CFO and met on 11 occasions during 2018. At its meetings, the Risk Committee performs in-depth follow-up of the Group's current risk situation, potential risks and actions to mitigate credit risks, financial risks, operational risks and risks in the insurance operations. Other types of risk are commented on where necessary. In addition, recovery plan indicators are monitored and possible actions, including the need thereof, are discussed. Lastly, limit utilisation for financial risks is followed up for the Group as a whole. The capital situation, utilisation of market risk limits, and the liquidity situation are reported to the Board at each normal Board meeting.

The credit risk situation is reported quarterly to the Bank's Board and to the boards of the regional banks and the subsidiaries. This covers volume growth, risk-reported credits and information from the Bank's credit risk models. Each branch compiles a quarterly credit risk report, with a review of all its credit commitments where the borrower's repayment capacity is impaired and the Bank's collateral is insufficient, or there is a risk that it will be insufficient. In addition, Group Risk Control reports developments in the Bank's credit risk monthly to the CEO, CFO, Chief Credit Officer, and the heads of credits.

Limit utilisation for market risks and liquidity risks is compiled and checked on a daily basis by Group Risk Control. An exceeded limit is reported immediately to the person who decided on the limit. The liquidity risk is summarised by Group Risk Control and reported daily to the CFO, weekly to the CEO, and to the Board at every normal Board meeting. The Liquidity Committee, chaired by the Head of Group Treasury, acts in an advisory capacity to the CEO and CFO and meets before each normal Board meeting and on other occasions when necessary. At these committee meetings, reports are presented on the current liquidity situation, the results of stress tests, scenario analyses and other information which is relevant for the assessment of the Group's liquidity situation.

Operational risk is monitored on an ongoing basis by means of reports from branches and units throughout the Group on incidents which have occurred. Group Risk Control reports operational risk and incidents to the Risk Committee, Committee for Operational Risk and Compliance Risk and to the Board's risk committee. Operational risk reporting includes information regarding material events, major losses, important proactive measures and an aggregated risk assessment at Group level. In addition, local risk control, in close collaboration with Group Risk Control, monitors that the actions which have been decided are implemented.

The Bank's capital requirement is reported weekly to the CFO and the CEO, and at least quarterly to the Board. If any threshold is exceeded, or if the Head of Group Capital Management or the CFO deems it appropriate for some other reason, proposals for appropriate measures are presented to the CEO. The capital situation in a medium- and long-term perspective is summarised quarterly by the Capital Committee. Group Capital Management performs a complete update of the capital forecast on a quarterly basis, or when there are significant changes in conditions.

THE BOARD'S RISK DECLARATION AND RISK STATEMENT

The Board has decided on the following risk declaration and risk statement

Risk declaration
Handelsbanken has satisfactory arrangements for risk management which are fit-for-purpose in relation to the Bank's business goal, overall risk profile and the risk strategy which the Board has decided for the operations.

Risk statement
Handelsbanken's business goal is to have higher profitability than the average of peer banks in its home markets. This goal is mainly to be achieved by having more satisfied customers and lower costs than those of competitors. Handelsbanken is a bank with a strong local presence and a decentralised way of working.

The Bank's overall risk profile is that risks are to be kept low. The Group must be well-capitalised at all times in relation to the risks, comply with the requirements stipulated by the resolution authority, and hold liquid assets so that it can meet its payment commitments, including in situations of financial stress in the short and long term. The risk strategy and overall risk profile support Handelsbanken's aim to have a business model that is independent of changes in the business cycle.

The Bank has and will continue to have low credit risk. This is achieved in part thanks to the Bank's strong local presence and close customer relationships. The quality of credits must never be neglected in favour of achieving higher volume or a higher margin. The Bank is selective when choosing customers, with the requirement that borrowers have a good repayment capacity. As a consequence of this, the credit portfolio has a clear concentration on risk classes with a low probability of loss. This consistent approach is reflected in the Bank's low loan losses over time. In 2018, loan losses were 0.04 per cent (0.08) of lending.

To ensure that the Bank is well capitalised in relation to the risks and has a good liquidity situation, the Board stipulates the Bank's risk tolerance for capitalisation and liquidity. When the risk tolerance for capitalisation is decided, the capital measure is set partly in relation to the statutory requirements and partly in relation to Handelsbanken's assessed capital requirement based on the Bank's model for economic capital (EC), which identifies in one metric the Group's overall risks. The risk tolerance for the Bank's liquidity risk is decided, on the one hand, through requirements that the Bank under stressed circumstances must have a sufficiently large liquidity reserve in the form of liquid assets and assets which can be pledged, as well as liquidity-creating measures to be able to continue its operations during determined time periods, and, on the other hand, through requirements regarding the accumulated net amount of incoming and outgoing cash flows in different time intervals.

The Board has established that the common equity tier 1 ratio under normal circumstances must be between 1 and 3 percentage points above the total common equity tier 1 capital requirement communicated by the Swedish Financial Supervisory Authority (15.1 per cent, according to the Bank's assessment of the Authority's capital requirement at the year-end), and that the ratio of available financial resources (AFR) to EC must exceed 120 per cent. At the end of 2018, the common equity tier 1 ratio was 16.8 per cent (22.7) and the AFR/EC ratio was 271 per cent (251). The Board has stipulated the goal that the Bank must have accumulated positive net cash flows during a period of at least one year, taking into account the liquidity reserve, and with the assumption that 10 per cent of the non-fixed-term deposits from households and companies disappear during the first month. Handelsbanken's total liquidity reserve and measures to create liquidity mean that the Bank's liquidity requirements are covered for more than three years under these stressed circumstances.

The Bank's risk profile is within the risk tolerance established by the Board.

Credit risk

Handelsbanken's low risk tolerance is maintained by means of a strong credit policy and credit culture that cover the whole Group and are sustainable over time. The Bank's decentralised organisation with a local presence provides high quality in the credit decisions and ensures that credit risk is managed close to the customer

Credit risk is the risk of the Bank facing economic loss because the Bank's counterparties cannot fulfil their contractual obligations.

Introduction
International Financial Reporting Standard 9, Financial Instruments (IFRS 9), was adopted in the EU in early 2018 to replace the previous accounting standard International Accounting Standard 39, which is a move from an incurred loss model under IAS 39 to an expected credit losses (ECL) model under IFRS 9. There is ongoing work in the regulatory community on the interaction of accounting with regulatory provisions. It can be expected that the EBA's Pillar 3 guidelines will include IFRS 9 components in the EU tables going forward. Therefore, this Pillar 3 report anticipates such changes by briefly describing the Bank's application of IFRS 9 from an expected credit loss perspective in the following section.

Expected credit losses
The impairment rules presented in IFRS 9 apply to financial assets at amortised cost, financial assets at fair value through other comprehensive income, as well as financial guarantees and irrevocable loan commitments, and are based on a model for the recognition of expected credit losses (ECL). This model stipulates that the provision must reflect a probability-weighted amount determined through the evaluation of a number of potential outcomes, with consideration given to all reasonable and verifiable information available as per the reporting date without unreasonable expense or exertion. The assessment takes into account historical, current and future-oriented factors. The assets to be tested for impairment are divided into the following three stages, depending on the degree of credit impairment.

Stage 1 comprises financial assets with no significant increase in credit risk since initial recognition.

Stage 2 comprises financial assets with a significant increase in credit risk since initial recognition, but for which there is no objective evidence that the claim is credit-impaired at the time of reporting.

Stage 3 comprises financial assets for which objective circumstances have been identified indicating that the claim is credit-impaired. For a definition of credit-impaired assets, see the section titled Default/Credit-impaired asset in note G1 of the Annual Report.

In Stage 1, provisions are to be recognised which correspond to the loss expected to occur within 12 months as a result of default. In Stage 2 and Stage 3, provisions are to be recognised corresponding to the loss expected to occur at some time during the whole of the remaining maturity of the asset as a result of default.

The new impairment rules in IFRS 9 have resulted in changes in the process and methodology applied for calculating expected credit losses. The rules have not entailed any changes in the credit process, credit policy or Handelsbanken's decentralised way of working. For agreements in Stage 1 and Stage 2, there is a Group-wide, central process using model-based calculations. The process begins for all agreements with an assessment of whether there has been a significant increase in the credit risk since initial recognition (start date of the agreement). For a detailed description of what constitutes significant increases in credit risk, see the section titled Credit risks in note G2 of the Annual Report. For agreements in Stage 3, expert-based calculations are made. One exception to this is a small portfolio of homogeneous claims in Stage 3 with similar risk profiles, which also uses a model-based calculation. In conjunction with each reporting date, an assessment is made at agreement level as to whether an agreement will be subject to a model-based calculation or an expert-based calculation.

Individual assessment
Individual assessment is defined as an assessment whereby the expected credit loss is based on the specific characteristics of the individual counterparty. As a general rule, individual assessment is used for agreements in Stage 3 for which expert-based calculations are carried out.

Model-based calculations for agreements in Stage 1 and Stage 2 (and for a small portfolio of homogeneous claims in Stage 3)
For calculating the expected credit losses on agreements in Stage 1 and Stage 2, there is a Group-wide, central process using internally developed statistical models.

The calculations of expected credit losses are primarily affected by the risk parameters 'probability of default' (PD), 'exposure at default' (EAD) and 'loss given default' (LGD). Expected credit losses are determined by calculating PD, EAD and LGD up to the expected final maturity date of the agreement. The three risk parameters are multiplied and adjusted by the survival probability or, alternatively, the probability that a credit exposure has not defaulted or been repaid in advance. The estimated expected credit losses are then discounted back to the reporting date using the original effective interest rate and are totalled. The sum total of the credit losses caused by default which are expected to be incurred within 12 months constitutes the expected credit losses in Stage 1. The sum total of the credit losses caused by default which are expected to be incurred within the remaining lifetime of the asset constitutes the expected credit losses in Stage 2.

The calculation of the expected credit losses takes into consideration three macroeconomic scenarios (one neutral, one positive and one negative scenario) with relevant macroeconomic risk factors, such as unemployment, key/central bank rates, GDP, inflation and property prices, by country. The various scenarios are used to adjust the risk parameters: Every macroeconomic scenario is assigned a probability, and the expected credit losses are obtained as a probability-weighted average of the expected credit losses for each scenario.

For additional information on the models used to calculate expected credit losses for agreements in Stage 1 and Stage 2 (and for a small portfolio of homogeneous claims in Stage 3), and for an explanation of concepts such as PD, EAD and LGD, expected maturity, significant increase in credit risk and macroeconomic information, see the section titled Credit risks in note G2 of the Annual Report. For sensitivity analyses for expected credit losses, see note G10 of the Annual Report.

Expert-based calculations for agreements in Stage 3
Assets in Stage 3 are tested for impairment at the individual level using an expert-based calculation (with the exception of a small portfolio of homogeneous claims which have a model-calculated provision in Stage 3). This testing is carried out on a regular basis and in conjunction with every reporting date by the bank branch with business responsibility (unit with customer and credit responsibility) and is decided by the regional or central credit departments.

Impairment testing is carried out when there are objective circumstances which indicate that the counterparty will not be able to fulfil its contractual obligations, according to the definition of default. Such objective circumstances could be, for example, late payment or non-payment, a change in the internal rating, or if the borrower enters bankruptcy.

Impairment testing involves an estimation of the future cash flows and the value of the collateral (including guarantees). Consideration is normally given to at least two forward-looking scenarios for expected cash flows, based on both the customer's repayment capacity and the value of the collateral. The outcome of these scenarios is probability-weighted and discounted with the claim's original effective interest rate. The scenarios used may take into account both macroeconomic and agreement-specific factors, depending on what is deemed to affect the individual counterparty's repayment capacity and the value of the collateral. The assessment takes into account the specific characteristics of the individual counterparty. An impairment loss is recognised if the estimated recoverable amount is less than the carrying amount.

Expert-based calculations for agreements in Stage 1 and Stage 2

Expert-based calculation is also carried out for credit losses on agreements in Stage 1 and Stage 2, in order to incorporate the estimated impact of factors not deemed to have been considered in the model. The model-based calculations are constructed with the ambition of making as accurate estimations as possible of the individual contributions to the overall provision requirement. However, it is very difficult to incorporate all of the particular characteristics that define an individual agreement into a general model. For this reason, a manual analysis is carried out of the agreements which give the largest contributions to the overall provision requirement in Stage 1 and Stage 2. The manual analysis aims to apply expert knowledge about the individual credits to an assessment of whether the model-based calculations need to be replaced with an expert-based calculation. An expert-based calculation may entail either a higher or lower provision requirement than the model-based calculation.

Expert-based calculation can also be carried out at a more aggregate level to adjust the model-based calculations for a sub-portfolio or similar. These adjustments are distributed proportionally over the agreements involved. An expert-based calculation may entail either a higher or lower provision requirement than the model-based calculation.

Recognition and presentation of credit losses

Financial assets measured at amortised cost are recognised on the balance sheet at their net amount, after the deduction of expected credit losses.

Off-balance sheet items (financial guarantees and irrevocable loan commitments) are recognised at their nominal amounts. Provisions for expected credit losses on these instruments are recognised as a provision on the balance sheet.

Financial assets at fair value through other comprehensive income are recognised at fair value on the balance sheet. Provisions for expected credit losses on these instruments are recognised in the fair value reserve in equity and do not, therefore, reduce the carrying amount of the instrument.

For financial assets measured at amortised cost and off-balance sheet items, the period's credit losses (expected and actual) are recognised in the income statement under the item Credit losses. The item Credit losses consists of the period's provisions for expected credit losses, less reversals of previous provisions, as well as write-offs and recoveries during the period.

For financial assets measured at fair value through other comprehensive income, the credit losses for the period (expected and actual) are recognised in the income statement under the item Net gains/losses on financial transactions.

Write-offs consist of actual credit losses, less reversals of previous provisions for expected credit losses in Stage 3 and may refer to either the entirety or parts of a financial asset. Write-offs are recorded when there is deemed to be no realistic possibility of repayment. Following a write-off, the claim on the borrower and any guarantor normally remains and is thereafter, as a rule, subject to enforcement activities. Enforcement activities are not pursued in certain situations, such as when a trustee in bankruptcy has submitted their final accounts of the distribution of assets in conjunction with the bankruptcy, when a scheme of arrangement has been accepted or when a claim has been conceded in its entirety. Claims for which a concession is granted in conjunction with a restructuring of financial assets are always recognised as actual credit losses. Payments to the Bank in relation to written-off financial assets are recognised in income as recoveries. Further information on credit losses is provided in note G10 of the Annual Report.

Capital Requirements Regulation

In the Capital Requirements Regulation (CRR), credit risk adjustments are loss provisions that are divided into two categories: specific and general. The term 'Credit risk adjustment's in CRR corresponds to 'provisions' in accounting rules. Expected credit losses (ECLs) determined in accordance with IFRS 9 correspond to Specific Credit Risk Adjustments in the Capital Requirements Regulation (CRR). This is in accordance with the European Banking Authority's Opinion on transitional arrangements and credit risk adjustments due to the introduction of IFRS 9 (EBA/OP/2017/02).

Table 23 EU CR1-A – Credit quality of exposures by exposure class and instrument

The following table specifies gross exposures by exposure class and by instrument. It further specifies credit risk adjustments, write-offs and net values. It comprises figures obtained using both the standardised and the IRB Approach. Total net values have increased compared to the previous period. (For on-balance-sheet items, the net value is the gross carrying value of exposure less allowances/impairments. For off-balance-sheet items, the net value is the gross carrying value of exposure less provisions.)

EU CR1-A – Credit quality of exposures by exposure class and instrument 2018

		a	b	c	d	e	f	g
		Gross carrying values of						Net values
SEK m		Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges of the period	(a+b-c-d)
1	Central governments or central banks	-	387 797	1		-	-	387 796
2	Institutions	-	22 111	3		-	-	22 108
3	Corporates	5 016	1 423 945	2 530		258	649	1 426 431
4	*Of which: Specialised lending*							
5	*Of which: SMEs*	*2 420*	*741 786*	*1 582*		*205*	*374*	*742 624*
6	Retail	2 365	1 082 448	1 284		91	335	1 083 529
7	*Secured by real estate property*	*1 057*	*996 711*	*257*		*29*	*53*	*997 511*
8	*SMEs*	*32*	*7 261*	*16*		*0*	*3*	*7 277*
9	Non-SMEs	1 025	989 450	241		29	50	990 234
10	*Qualifying revolving*							
11	*Other retail*	*1 308*	*85 737*	*1 027*		*62*	*282*	*86 018*
12	*SMEs*	*411*	*18 853*	*308*		*51*	*96*	*18 956*
13	*Non-SMEs*	*897*	*66 884*	*719*		*11*	*186*	*67 062*
14	Equity	-	2 121	-		-	-	2 121
15	*Total IRB Approach*	*7 381*	*2 918 422*	*3 818*		*349*	*984*	*2 921 985*
16	Central governments or central banks	-	51	-		-	-	51
17	Regional governments or local authorities	-	25	-		-	-	25
18	Public sector entities	-	-	-		-	-	-
19	Multilateral development banks	-	-	-		-	-	-
20	International organisations	-	-	-		-	-	-
21	Institutions	-	4 396	10		-	-	4 386
22	Corporates	170	19 932	42		-	14	20 060
23	*Of which: SMEs*	*33*	*2 508*	*16*		*-*	*5*	*2 525*
24	Retail	572	21 401	59		-	17	21 914
25	*Of which: SMEs*	*23*	*2 541*	*14*		*-*	*5*	*2 550*
26	Secured by mortgages on immovable property	84	127 137	26		-	6	127 195
27	*Of which: SMEs*	*9*	*23 907*	*11*		*-*	*2*	*23 905*
28	Exposures in default[1]	826	-	137		-	37	689
29	Items associated with particularly high risk							
30	Covered bonds							
31	Claims on institutions and corporates with a short-term credit assessment							
32	Collective investments undertakings							
33	Equity exposures	-	6 254	-		-	-	6 254
34	Other exposures	-	8 376	-		-	-	8 376
35	*Total standardised approach*	*826*	*187 572*	*137*		*0*	*37*	*188 261*
36	*Total*	*8 207*	*3 105 994*	*3 955*		*349*	*1 021*	*3 110 246*
37	Of which: Loans	7 793	2 563 995	3 954		349	1 021	2 567 834
38	Of which: Debt securities	-	6 598	1		-	-	6 597
39	Of which: Off-balance-sheet exposures	414	535 401	-		-	-	535 815

[1] In compliance with EBA Q&A 2017:3481, row 28 shows the gross carrying value for the exposure class Exposures in default under CRR 112 j. This row is not included in the total (row 35). The defaulted exposures are recognised in their original exposure class, that is, the exposure class before default, on rows 22–27.

EU CR1-A – Credit quality of exposures by exposure class and instrument 2017

		a	b	c	d	e	f	g
		Gross carrying values of						Net values
SEK m		Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges of the period	(a+b-c-d)
1	Central governments or central banks	-	306 706	-		-	-	306 706
2	Institutions	-	21 351	-		-	-	21 351
3	Corporates	6 680	1 322 369	3 989		123	1 691	1 325 060
4	*Of which: Specialised lending*							
5	*Of which: SMEs*	*3 622*	*721 253*	*1 632*		*105*	*590*	*723 243*
6	Retail	2 333	1 030 441	1 093		28	232	1 031 681
7	*Secured by real estate property*	*913*	*931 507*	*155*		*4*	*49*	*932 265*
8	*SMEs*	*18*	*6 911*	*7*		*0*	*3*	*6 923*
9	Non-SMEs	895	924 596	148		4	46	925 343
10	*Qualifying revolving*							
11	*Other retail*	*1 420*	*98 933*	*938*		*24*	*183*	*99 415*
12	*SMEs*	*495*	*19 359*	*348*		*17*	*95*	*19 507*
13	*Non-SMEs*	*924*	*79 574*	*590*		*7*	*88*	*79 909*
14	Equity	-	1 512	-		-	-	1 512
15	*Total IRB Approach*	*9 013*	*2 682 380*	*5 082*		*151*	*1 923*	*2 686 311*
16	Central governments or central banks	-	145	-		-	-	145
17	Regional governments or local authorities	-	-	-		-	-	-
18	Public sector entities	-	-	-		-	-	-
19	Multilateral development banks	-	444	-		-	-	444
20	International organisations	-	-	-		-	-	-
21	Institutions	-	2 644	-		-	-	2 644
22	Corporates	38	20 199	4		-	-	20 233
23	*Of which: SMEs*	*38*	*4 862*	*4*		-	-	*4 895*
24	Retail	641	31 610	66		0	17	32 184
25	*Of which: SMEs*	*16*	*2 885*	*2*		-	*0*	*2 900*
26	Secured by mortgages on immovable property	49	107 877	7		-	1	107 920
27	*Of which: SMEs*	*10*	*20 712*	*2*		-	-	*20 721*
28	Exposures in default[1]	728	-	74		-	-	654
29	Items associated with particularly high risk							
30	Covered bonds							
31	Claims on institutions and corporates with a short-term credit assessment							
32	Collective investments undertakings	-	86	-		-	-	86
33	Equity exposures	-	6 813	-		-	-	6 813
34	Other exposures	-	8 229	-		-	-	8 229
35	*Total standardised approach*	*728*	*178 048*	*77*		*0*	*18*	*178 699*
36	*Total*	*9 740*	*2 860 428*	*5 159*		*151*	*1 941*	*2 865 010*
37	Of which: Loans	9 328	2 352 692	5 159		151	1 941	2 356 861
38	Of which: Debt securities	-	6 856	-		-	-	6 856
39	Of which: Off-balance-sheet exposures	412	500 880	-		-	-	501 292

[1] In compliance with EBA Q&A 2017:3481, row 28 shows the gross carrying value for the exposure class Exposures in default under CRR 112 j. This row is not included in the total (row 35). The defaulted exposures are recognised in their original exposure class, that is, the exposure class before default, on rows 22–27.

Table 24 EU CR2-A – Changes in the stock of general and specific credit risk adjustments

The following table shows the changes for the amount of general and specific credit risk adjustments. The closing balance has decreased compared to the previous period. The IFRS 9 regulation went into effect on 1 January 2018. Opening balance is according to the regulation in effect at 31 December 2017. The effect of IFRS 9 is recognized under 'other adjustments'. For further information regarding the effects of IFRS 9 see Handelsbanken's Annual and Semi-annual Report especially the IFRS 9 bridge.

EU CR2-A – Changes in the stock of general and specific credit risk adjustments 2018		a	b
SEK m		Accumulated specific credit risk adjustment	Accumulated general credit risk adjustment
1	**Opening balance**	**-5 159**	
2	Increases due to amounts set aside for estimated loan losses during the period	-189	
3	Decreases due to amounts reversed for estimated loan losses during the period	334	
4	Decreases due to amounts taken against accumulated credit risk adjustments	2 737	
5	Transfers between credit risk adjustments	-167	
6	Impact of exchange rate differences	-73	
7	Business combinations, including acquisitions and disposals of subsidiaries	0	
8	Other adjustments	-1 438	
9	**Closing balance**	**-3 955**	
10	Recoveries on credit risk adjustments recorded directly to the statement of profit or loss	176	
11	Specific credit risk adjustments directly recorded to the statement of profit or loss	-350	

EU CR2-A – Changes in the stock of general and specific credit risk adjustments 2017		a	b
SEK m		Accumulated specific credit risk adjustment	Accumulated general credit risk adjustment
1	**Opening balance**	**-4 643**	
2	Increases due to amounts set aside for estimated loan losses during the period	-1 996	
3	Decreases due to amounts reversed for estimated loan losses during the period	259	
4	Decreases due to amounts taken against accumulated credit risk adjustments	1 139	
5	Transfers between credit risk adjustments	-12	
6	Impact of exchange rate differences	94	
7	Business combinations, including acquisitions and disposals of subsidiaries	0	
8	Other adjustments	0	
9	**Closing balance**	**-5 159**	
10	Recoveries on credit risk adjustments recorded directly to the statement of profit or loss	205	
11	Specific credit risk adjustments directly recorded to the statement of profit or loss	-114	

CALCULATION OF CAPITAL REQUIREMENTS FOR CREDIT RISK

Since 2007, the Bank has had permission from the Swedish Financial Supervisory Authority to calculate the capital requirement for credit risk using the IRB Approach. The permission applies to the consolidated situation, which the parent company Svenska Handelsbanken AB (publ) leads, and the companies Svenska Handelsbanken AB (publ), Stadshypotek AB (publ), Handelsbanken Finans AB and Handelsbanken Rahoitus Oy. Certain exposures in the Handelsbanken Finans (Shanghai) Financial Leasing Co., Ltd subsidiary are also reported using the IRB Approach. In 2017, volumes chiefly related to households and companies were transferred from Handelsbanken Finans AB to Ecster AB. The consolidated situation includes Ecster AB, whose exposures are reported using the IRB Approach. The volumes were transferred because the retail financial operations in Handelsbanken Finans AB were moved to Ecster AB.

As of 1 December 2018 Handelsbanken's operations in the UK are run as a subsidiary, Handelsbanken plc. Prior to 1 December 2018, the UK business was run as a branch. The capital requirement for credit risk for UK corporate exposures in the consolidated situation at Group level is calculated applying the IRB Approach, while the local UK capital requirement for credit risk is subject to the standardised approach.

The Swedish Financial Supervisory Authority has also granted exceptions for Handelsbanken to apply the standardised approach instead of the IRB Approach for certain exposures. These exceptions cover 'insignificant size' portfolios as well as the equity exposures that the Bank held at year-end 2007/2008. Previously, exposures to central governments, central banks, regional governments and local authorities were subject to the standardised approach, but as of Q2 2017 they have been subject to the IRB Approach, since the Swedish Financial Supervisory Authority demanded that Handelsbanken apply to be allowed to use the IRB Approach for these exposures and in May 2017 was granted permission to do so.

In 2018, reporting according to the IRB Approach comprised the portfolios in Handelsbanken Sweden, Handelsbanken Norway, Handelsbanken Finland, Handelsbanken Denmark, Handelsbanken Finans in Sweden and Finland, Ecster AB, major parts of the regional banks in the UK and the Netherlands, the Bank's exposures to other banks (institutional exposures), and large parts of the Handelsbanken Capital Markets business area.

Handelsbanken has the permission of the Swedish Financial Supervisory Authority to report portfolios according to the IRB Approach with own estimates of LGD and CCF. The permit refers to counterparties which are categorised as medium-sized companies, property companies, and housing co-operative associations as well as exposures to large corporates in its home markets (excluding the Netherlands). The exposures approved for reporting according to the IRB Approach, but not yet with own estimates of LGD and CCF, will for the time being be reported according to the IRB Approach without own estimates of LGD and CCF.

At the end of 2018, the Bank calculated the capital requirement using the IRB Approach for about 86 per cent (81) of the total risk exposure amount. Of corporate exposures reported using the IRB Approach, 84 per cent (87) were reported using the IRB Approach with own estimates of LGD and CCF.

The Swedish Financial Supervisory Authority decided (SFSA ref no 18-6251) at 22 August 2018 to impose an institution-specific Pillar 1 risk weight floor of 25 per cent for exposures in Swedish mortgages covered by the IRB Approach. This means that Svenska Handelsbanken AB org. no. 502007-7862 and its consolidated situation have to apply an average risk weight floor of 25 per cent for exposures in Swedish mortgages in Pillar 1. This also applies to Stadshypotek AB, org. no. 556459-6715 and its consolidated situation. The measure entered into force on 31 December 2018 and applies for a period of two years or until the macro prudential risk ceases to exist, with the possibility of an extension of one additional year at a time according to Articles 458(4) and 458(9) of the CRR. The 25 per cent risk weight floor was, prior to the SFSA's measure, a Pillar 2-based floor which was replaced with a requirement within the framework of Article 458 of CRR.

Risk rating system

Handelsbanken's risk rating system comprises a number of different systems, methods, processes and procedures to support the Bank's classification and quantification of credit risk.

Handelsbanken's internal rating system is used to measure the credit risk in all operations reliably and consistently. The risk rating builds on the Bank's internal rating, which is based on an assessment of each counterparty's repayment capacity. The rating is determined by the risk of financial strain and by the assessed resistance to this strain. The method and classification are based on the rating model that the Bank has applied for several decades.

The internal rating is the most important component when it comes to risk ranking of customers and it provides the basis for analysing credit risk and regulatory IRB compliance. The rating is dynamic; it is reassessed if there are signs that the counterparty's repayment capacity has changed. The rating is also reviewed periodically as stipulated in the regulations. The rating is made by the person responsible for granting the credit and is subsequently checked by independent bodies.

Exposure classes

One of the basic premises of the capital adequacy regulations is that the institution's exposures are overall categorised into the exposure classes stipulated by the regulations. The number of exposure classes depends on the method used to calculate the credit risk. Exposures to be calculated according to the standardised approach can be allocated to 17 different exposure classes, while there are seven exposure classes in the IRB Approach.

The Bank uses different models for calculating credit risk, depending on the type of exposure. The overall division into exposure classes in the IRB Approach comprises sovereign, institutional, corporate, retail and equity exposures, as well as securitised exposures. In addition there are also non-credit-obligation assets, assets which do not require any performance by the counterparty, such as property and equipment.

Some exposure classes contain sub-groups where special models are applied. In practical terms, the division into exposure classes and sub-groups is made when the officer at a branch or unit responsible for the customer decides, in accordance with internal instructions, which business evaluation template is to be used when assigning the counterparty a rating.

Exposures to central governments, central banks, regional governments and local authorities are classed as sovereign exposures. Institutional exposures refers to exposures to counterparties defined as banks and other credit institutions and certain investment firms.

Retail exposures include both exposures to private individuals and to small and medium-sized enterprises (SMEs), where the total exposure within the Group does not exceed SEK 5 million. Also included are legal entities where the total exposure within the Group does not exceed SEK 5 million (excluding mortgage loans). Retail exposures are divided into two sub-groups: property loans and other retail exposures.

Corporate exposures refer to exposures to non-financial companies, consisting of legal entities with a total exposure within the Group in excess of SEK 5 million or where the company's turnover is more than SEK 50 million, and SMEs with a total exposure within the Group in excess of SEK 5 million. Apart from ordinary non-financial companies, this exposure class includes insurance companies, housing co-operative associations and exposure in the form of 'specialised lending'.

Equity exposures refer to the Bank's holdings of shares that are not in the trading book. For equity exposures held by the Bank at year-end 31 December 2007, the risk weight during 2017, in accordance with the Swedish Financial Supervisory Authority's transitional rules, was calculated using the standardised approach. New equity exposures after this date have been calculated using the IRB Approach.

For division into exposure classes according to the standardised approach, the Bank's volumes refer to one of the following exposure classes: multilateral development banks, international organisations, institutions, corporate, retail, exposures with collateral in property, exposures in default, non-performing items, other items and shares. Non-performing items in the standardised approach are exposures where overdue interest or principal amounts have remained unpaid for more than 90 days, calculated from the original contracted payment date. The exposure class called Other items includes prepaid expenses, cash in hand and unminted gold. Previously, exposures to central governments, central banks, regional governments and local authorities were subject to the standardised approach but as of May 2017 have been subject to the IRB Approach.

Risk classification methods

To quantify its credit risks, the Bank calculates the PD, the exposure the Bank is expected to have if a default occurs EAD, and the proportion of the loan that the Bank would be expected to lose in the case of default (LGD). Default is defined as the counterparty either being more than 90 days late in making a payment or being assessed as unable to pay as contractually agreed, for example if declared bankrupt.

The PD value is expressed as a percentage where, for example, a PD value of 0.5 per cent means that one borrower of 200 with the same PD value is expected to default within one year. A credit in default does not necessarily mean that the Bank will incur a loss, since in most cases there is collateral for the exposure. Nor does a default mean that it is out of the question that the counterparty will pay at some time in the future, since the payment problems may be temporary.

For corporate and institutional exposures as well as for exposures to central governments, central banks, regional governments and local authorities (sovereign exposures), the internal rating set for each counterparty is directly converted into a risk class on a scale from 1 to 10 (where risk class 10 refers to defaulted counterparties). Corporate exposures are divided into four counterparty types and sovereign exposures into two counterparty types, based on the business evaluation template used for the counterparty. PD is calculated individually for each risk class and counterparty type. For exposures that are subject to a capital requirement according to the IRB Approach without own estimates of LGD and CCF, prescribed values are applied for LGD. The prescribed value that may be used is determined by the collateral provided for each exposure.

For retail exposures, the risk class is also based on the internal rating assigned to all credit customers. The rating is not translated directly into a risk class as for corporate exposures; instead, the different exposures are sorted into a number of smaller groups on the basis of certain factors. Such factors include the type of credit, the counterparty's debt-servicing record and whether there are one or more borrowers. An average default rate is calculated for each of the smaller groups, and on the basis of this, the groups are sorted into one of the 10 risk classes. Different models are used for exposures to private individuals and to small companies (that are also classified as retail exposures), but the principle is the same.

For retail exposures and exposures to medium-sized companies, property companies and housing co-operative associations, the LGD is determined using the Bank's own loss history. For exposures to large corporates that are subject to a capital requirement using the IRB Approach with own estimates of LGD and CCF, the LGD is determined on the basis of internal losses and external observations. For retail exposures secured by property in Sweden and for property exposures to medium-sized companies, property companies and housing co-operative associations, different LGD values are applied depending on the loan-to-value ratio of the collateral. For other exposures, the LGD value is determined by factors that may depend on the existence and valuation of collateral, the type of product and similar factors.

For each exposure class, the PD is calculated for each of the risk classes that refer to non-defaulted counterparties or agreements. The PD is based on calculations of the historical percentage of defaults for different types of exposure. The average default rate is then adjusted using different margins, such as margins of conservatism.

In 2017, Handelsbanken was approved to use new PD models for corporates. These are based on the historical default frequency, by risk class and by portfolio. The estimates for each portfolio are based partly on the Bank's internal data and partly on data from other sources, such as external credit rating agencies, and are based on the duration of an imagined business cycle in which one of five years is a downturn year and the Swedish banking crisis in the 1990s is taken into account, as required by the Swedish Financial Supervisory Authority. To these estimates are added significant margins of conservatism, and the PD for these portfolios is normally not expected to vary year on year. The estimates by risk class are based on the Bank's internal default data and a model that determines the relationship of PD between different risk classes. The margins are then added so that each portfolio's aggregate PD coincides with the estimate of portfolio PD. This means that the PD for each risk class may vary over time although the portfolio PD does not, as the distribution of counterparties among the risk classes varies over time.

When establishing LGD, the risk measure shall reflect the loss rates in economically unfavourable circumstances, known as 'downturn LGD'. For collateral in property, the downturn LGD is based on observed loss rates from the property crisis in the early 1990s. For other collateral relating to retail exposures, observed LGD is adjusted for downturns by a factor which depends on the PD and type of product. For corporate exposures in the IRB Approach with own estimates of LGD and CCF, the LGD is adjusted for downturns so that the Bank's observed losses in the crisis years of 1991–1996 can be explained by the risk measures with a good margin. For exposures with property collateral, in many cases LGD is estimated on the basis of the property's loan-to-value-ratio (LTV). Since the value of the property, and consequently also the LTV, usually varies with the business cycle, this means that the capital requirement will also to some extent have a cyclical dependency.

When the exposure amount is to be calculated, certain adjustments are made to the carried exposure. Examples of this are committed loan offers or revolving credits, where the Bank agrees with the customer that the customer may borrow up to a certain amount in the future. This type of commitment constitutes a credit risk that must also be covered by adequate capital. Normally this means that the credit granted is adjusted using a certain CCF for the part of the credit that is unutilised at the time of reporting. For certain product categories for corporate exposures and institutional exposures, the credit conversion factors are determined by the regulatory code, while for retail exposures and certain product categories for large corporates, medium-sized companies, property companies and housing co-operative associations, the Bank uses its own calculated conversion factors. Here, it is the product referred to that mainly governs the CCF, but the utilisation level may also be relevant.

In addition to the capital adequacy calculation, measures of risk (PD, EAD, LGD) are used to calculate the cost of capital in each individual transaction and to calculate economic capital (EC). This means that conservatism adjustments in the risk measurements are also included in the cost of capital in individual transactions and in calculations of EC, which means that the loss levels that the risk measurements imply are conservative. The method used means that the Bank's historical losses have a direct impact on risk calculations and capital requirements.

Table 28 Calculation of credit risks broken down by method and business area, 2018

Approach	Handelsbanken in the Nordic countries[1]	Handelsbanken in the UK[1]	Handelsbanken in the Netherlands[1]	Outside Handelsbanken's home markets[1]
Standardised approach	'Insignificant size portfolio' according to FI approval Exposure to international organisations, public sector entities and multilateral development banks	'Insignificant size portfolio' according to FI approval Exposure to international organisations, public sector entities and multilateral development banks Retail exposures	'Insignificant size portfolio' according to FI approval Exposure to international organisations, public sector entities and multilateral development banks Retail exposures Corporate exposures (except Large corporates)	'Insignificant size portfolio' according to FI approval Exposure to international organisations, public sector entities and multilateral development banks
IRB Approach without own estimates of LGD and CCF	Corporate exposures Institution exposures Non credit-obligation assets Equity exposures Sovereign exposures (central governments, central banks, regional governments and local authorities)	Corporate exposures Institution exposures Non credit-obligation assets Equity exposures Sovereign exposures (central governments, central banks, regional governments and local authorities)	Corporate exposures (Large corporates) Institution exposures Non credit-obligation assets Equity exposures Sovereign exposures (central governments, central banks, regional governments and local authorities)	Corporate exposures (Large corporates) Institution exposures Non credit-obligation assets Equity exposures Sovereign exposures (central governments, central banks, regional governments and local authorities) Securitisation positions
IRB Approach with own estimates of LGD and CCF	Corporate exposures (Medium-sized companies, Property companies, Housing co-operative associations) Corporate exposures (Large corporates) Retail exposures	Corporate exposures (Medium-sized companies, Property companies, Housing co-operative associations) Corporate exposures (Large corporates)		

[1] May include legal entities in addition to the parent company (Stadshypotek, Handelsbanken Finans and others).

Comparisons with external ratings

The Bank's risk classes are not directly comparable with the ratings applied by external credit rating agencies. The agencies' ratings do not correspond to a direct classification of the probability of the counterparty defaulting, as the Bank's rating model does. In addition, the rating agencies vary in the extent to which they factor in the seriousness of the losses that default can lead to. The time horizon for which creditworthiness is assessed is not always the same for the Bank as it is for the credit rating agencies. The Bank's risk classes do not state a uniform scale, whereby a certain risk class always corresponds to a certain probability of default. Furthermore, different PD scales are applied to different parts of the credit portfolio and the PD value changes over time.

Generally, it is not possible to unambiguously and consistently translate the internal risk classes into an external rating. However, by analysing the historical default rate in Handelsbanken's risk classes in relation to the default rate in the external rating classes according to Moody's rating agency, a fair table of comparison can be obtained. Table 33 shows the external rating classes that best correspond to the historical default rate in each of Handelsbanken's risk classes. However, it should be noted that the Bank performs its own credit assessment and that the comparison here is a model which only applies at portfolio level. Individual companies that also have a rating from Moody's may have been given a risk class that deviates from the comparison table. For institutional exposures, there are insufficient internal defaults, and the rating comparison is instead based on customers with an external credit assessment. Since the comparison is model-based, it should also be noted that changes in the table may depend on changes at Handelsbanken and on changes at Moody's, or a combination of the two. This year the mappings of risk classes 5 and 8 for Large Corporations have been changed slightly as compared to the previous year.

Quality assurance of the rating system

The Bank performs a detailed annual review of its internal rating systems. The review checks that the internal ratings on which the Bank's risk classification of corporate customers (PD) is based are applied in a consistent, correct and fit-for-purpose manner (evaluation). The Bank also reviews that automatic rating models for retail customers and other IRB models measure risk in a satisfactory manner (validation).

The purpose of evaluating internal ratings is to ensure that they function well as the central factor in the risk classification of the Bank's counterparties. For example, the analysis includes evaluating whether customers are assessed equally regardless of where in the Bank the rating takes place, that the instructions for rating are followed, and that ratings are updated regularly. The evaluation aims to identify areas needing improvement, suggests risk mitigating actions and reports the status on measures to improve previously identified deficiencies. Such measures may include more frequent, specifically targeted follow-up action, changes to rating instructions or adaptations to models.

The models as well as the risk measurements they produce are validated at least annually. The validation aims to ensure that the risk classification system satisfactorily measures the risk in the different risk dimensions: PD, EAD, and LGD. They are primarily assessed to ascertain whether the outcomes observed confirm that the models applied by the Bank function as intended. To achieve this, a number of statistical tests are used with pre-defined threshold values for deficiencies in the models. The validation also covers comparative tests of a more qualitative nature. The validation may result in changes to the risk measurements or models.

The principles for evaluation and validation of the credit risk rating system are set by Group Risk Control and communicated to the Swedish Financial Supervisory Authority within the framework of the permission to use the IRB Approach. Group Risk Control is responsible for the execution and reports the results of the evaluation and validation to the Bank's CEO, CFO, Board and Risk Committee. Reports and execution are examined by Group Audit as part of the audit of the Bank's IRB Approach to ensure compliance with the established principles and regulatory requirements.

Forecasts and outcomes in IRB Approach

In the IRB Approach, the Bank's risks are calculated on the basis of internal experience and observations. The regulations define what the risk measures must reflect and how these are to be quantified. The internal models' forecasts and the actual outcomes are aggregated in table 36 and in the figures on the following pages at exposure class level to provide an overview of the models' function over a longer time period. The table and figures present forecasts and outcomes for PD, LGD, and CCF, and the loss rates for each exposure class; here, 'forecast' refers to expected loss (EL).

Table 36 presents the average value of PD, exposure-weighted and case-weighted, the number of counterparties at the beginning and end of the year, defaults and the average annual default frequency. The table also shows the number of defaults that have occurred among new counterparties to the Bank during the past year and, for institutions, the external rating that a specific PD interval corresponds to. This indicates how ratings from Moody's would be mapped according to table 33.

The performing population in table 36 is defined as non-defaulted counterparties as at 31 December 2017 with outcomes measured during 2018. Because the models for households are created at the agreement level, for these the mean and number of agreements, not counterparties, are specified. If there is a guarantee, the risk can be transferred from the counterparty to the guarantor, which has been taken into account here and in the figures for EL, PD, LGD, and CCF. This means that for such exposures the PD value usually decreases, which is often also the case for LGD and thus also for EL.

The number of counterparties in an interval at the start of the year consists of those whose PD values were within that PD interval at year-end. Similarly, the number at the end of the year consists of those who were within that particular interval at that time. PD values can change during the year, so a specific counterparty can move to another interval. For example, at the start of 2018 there were 199 counterparties in interval 4 for corporates in the Advanced IRB (A-IRB) but none at the end of 2018, chiefly because their PD values had changed during the year.

The arithmetic mean for PD per counterparty can be compared primarily with the historical mean, but this comparison is not without problems. The main reason is that the distribution of counterparties can change year on year, such that an interval consists primarily of counterparties towards the upper end of the interval during one year but counterparties towards the lower end during another year. Thus, the expected values will also vary year on year. Some of the intervals also contain few counterparties, so the outcomes for those intervals can vary widely. Further, it is worth noting that many corporate counterparties have exposures subject to capital requirement calculations both according to the Foundation IRB Approach and the Advanced IRB Approach. This means that they are reported in two places in the table, under A-IRB and F-IRB, which also occurs when there are defaults. Thus, the totals for both counterparties and defaults are less than the sums of the numbers from the different parts of the table.

The forecasts and outcomes in the figures refer to non-defaulted exposures at a given point in time and defaults arising within 12 months after that date. The measurement date chosen here was 30 June. The reason for this is that the Bank's IRB models are validated in the spring and, in many cases, get updated estimates which are then valid during the coming 12 months. Thus, comparing the outcomes and estimates for the period when the estimates are used achieves the most accuracy.

Regarding losses, it is not unusual for the level to be adjusted over time – as recoveries are realised, for example. This means that historical outcomes for LGD and EL may also be adjusted from year to year, but normally only the preceding year's figure is affected. If adjustments have been made, the comparison figures in the text below are also updated.

Forecasts and outcomes are at agreement level for retail exposures and at counterparty level for PD and LGD for corporate and institutional exposures. Regarding CCF for corporate exposures, forecasts and outcomes are at agreement level. The last reference date stated in the figures is 30 June 2018, which means that the outcome for the following 12 months is still not complete and is therefore not reported for this date.

To forecast how large the exposure amount will be at default, off-balance-sheet commitments must be managed. For corporate exposures, this is done by multiplying the off-balance-sheet part by the CCF and adding this to the exposure on the balance sheet. For retail exposures, it is done by multiplying the total credit limit by the CCF. For certain risk classes in the internal models with own estimates of CCF, there is a very small number of internal defaults. The figures show the forecasts and outcomes only for the risk classes where a sufficient number of defaults has been observed. Nevertheless, the outcomes for corporate exposures are based on a relatively small number of observations and to highlight this, the number of observations per year is also indicated in the figure.

The forecasts show that the internal models generally work well for predicting the Bank's losses with a margin of conservatism. The trends that can be discerned for the actual outcomes correspond to similar trends in the forecasts. For property exposures in the retail exposure class, EL outcomes are on average 71 per cent (69) lower than forecast. For other retail exposures, the outcomes are on average 43 per cent (41) lower than the forecast, and for corporate exposures 31 per cent (30) lower. During the most recent periods, forecasts and outcomes have indicated a stable or declining loss rate for both types of retail exposures.

According to the regulations, PD must reflect a long-term average risk of default and is thus not a forecast for an individual year. Consequently, the probability that the outcome in a certain year is higher than the forecast is much higher for PD than for the other risk parameters. However, this risk has decreased with the introduction of new PD models for corporate exposures.

The figure shows that outcomes are in line with forecasts, with a slight variation over time. The outcomes are 3 per cent (8) higher than the forecasts for property exposures and 2 per cent lower (1 higher) for other exposures in the retail exposure class during the period observed. The small difference can be explained by the fact that the forecasts of the long-term average relate to a longer period that goes back to before 2007, when a lower outcome was observed. In 2016, these models were altered by down weighting historical data, thus reducing its influence, and therefore generally increasing the PD values. It is also worth noting that the capital requirement for mortgage loans is based on the Swedish Financial Supervisory Authority's risk-weight floor for Swedish mortgage loans.

For corporate exposures, the average outcome is 27 per cent (21) lower than the forecast during the period observed. A sharp increase can be seen in institutional PD in 2013, despite the almost total absence of default in that exposure class. This is because it is very difficult to estimate the PD for institutions with high credit risk, because such institutions usually do not have an external rating from Moody's. As a result, the margin of conservatism is extremely high for such institutions, to which the Bank usually has exposures only of short maturity in connection with international trade finance. In table 36, relatively high numbers of defaults can be noted for corporates in interval 5, both in IRB-A (10 defaults) and in IRB-F (2 defaults). All these defaults belong to the same group, where the whole group defaulted, and are hence interdependent.

As regards LGD, the forecast according to the regulations reflects the expected loss given default in unfavourable economic conditions. Here it may be noted that there are considerable margins of conservatism in relation to the loss levels observed since 2007. Average outcomes are 84 per cent (84) lower than the forecasts for property exposures, and 44 per cent (45) lower for other retail exposures. For corporate exposures, the outcomes are 29 per cent (37) lower than the forecasts. The outcome regarding LGD for corporates in 2018 was substantially higher than the forecast. Since the outcomes are exposure-weighted, one default with a very large exposure dominates this outcome. Excluding this default, the outcome is in line with previous years.

For retail exposures, the CCF outcomes are 18 per cent (18) lower than the forecasts, and for corporate exposures the outcomes are 111 per cent (112) lower.

Since 2017 the Bank also has approval to use a PD-model for exposures to governments and central banks. The forecasts of this model are very close to zero, which is consequently also the case for EL, and outcomes are zero. These values are not presented in the graphs.

The expected loss rate according to the IRB Approach presented here does not represent, despite its name, the most likely loss level for the Bank. One reason for this is that the PD values used according to the regulations are intended to correspond to a long-term average. Another reason is that a number of conservative prudential adjustments are made in the value calculated using the Bank's IRB Approach. The main aim of these adjustments is to ensure that the Bank's internal models do not underestimate the actual risk.

Figure 35 illustrates how these adjustments affect the calculated value of expected losses. The first column shows the expected value for EL, this being EL based on the historical average default rates and loss rates given default per risk class, which is approximately 0.04 per cent (0.05). The other columns show how EL is affected by the introduction of margins and regulatory floors for applied PD levels.

The margins of conservatism are intended to ensure that the value applied does not underestimate the true risk as a result of various underlying factors, such as the statistical data on which the models are based not being sufficiently comprehensive, adjustments needing to be made for the business cycle or model risk, or the data being uncertain for other reasons. The downturn adjustment corrects measured values so that they are adequate for a period of economic downturn. The total contribution from the PD safety margins is greater than EL based on historical data.

Table 33 A comparison of external and internal ratings

A comparison of external and internal ratings[1]	Corporate exposures				Institution exposures
Risk class	Large corporates	Medium-sized companies	Property companies	Housing co-operative associations	
1	Aaa,Aa	Aaa,Aa	Aaa,Aa	Aaa,Aa	Aaa,Aa
2	Aaa,Aa	A	A	Aa,A	Aa,A
3	A,Baa	Baa	A,Baa	A,Baa	A
4	A,Baa	Baa,Ba	Baa	A,Baa	Baa
5	Ba	Ba	Baa,Ba	Baa,Ba	Baa,Ba
6	Ba	Ba,B	Ba,B	Baa,Ba	Ba
7	B	B,Caa	B,Caa	Ba,B	B
8	Caa	Caa	B,Caa	B	Caa
9	Caa,C	Caa,C	Caa,C	Caa,C	Caa,C

[1] Estimated link between internal risk classes and external rating based on factors such as historical default outcomes.

Figure 35 Breakdown of EL for IRB-approved exposures excluding defaulted counterparties

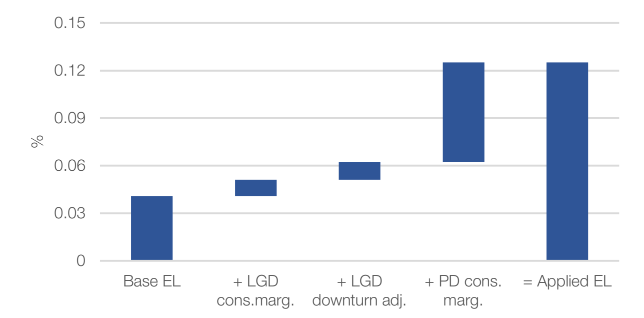
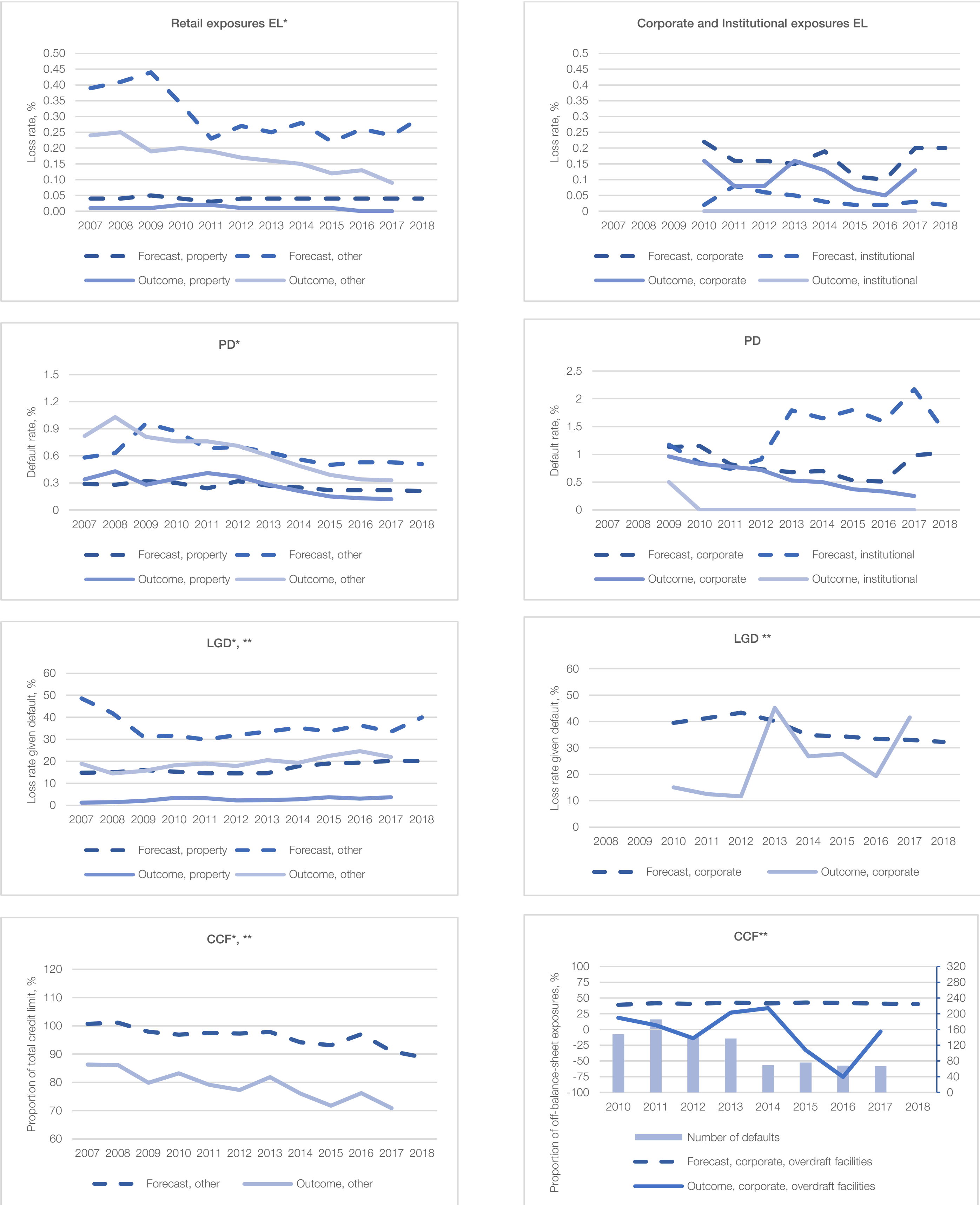


Figure 34 Forecast and outcome, IRB Approach



* Excluding Handelsbanken Finans and Ecster.
** The forecasts are calculated as PD and exposure-weighted average values. The outcomes are calculated as exposure-weighted average values.

Table 36 EU CR9 – IRB Approach – Backtesting of PD by exposure class

The table shows predictions and results of PD values for both the advanced and the Foundation IRB Approach.

EU CR9 – IRB Approach – Backtesting of PD by exposure class 2018

a	b	c	d	e	f	g		h	i	j
						Number of obligors				
Exposure class¹	IRB Approach²	PD range	External rating equivalent³	Weighted average PD	Arithmetic average PD by obligors	End of previous year	End of the year	Defaulted obligors in the year	Of which new obligors4	Average historical annual default rate
Corporate exposures	IRB-A	0.00 to <0.15		0.08%	0.08%	2 157	2 205	0	0	0.00%
Corporate exposures	IRB-A	0.15 to <0.25								0.02%
Corporate exposures	IRB-A	0.25 to <0.50		0.32%	0.32%	509	682	0	0	0.00%
Corporate exposures	IRB-A	0.50 to <0.75		0.50%	0.50%	199	0	0	0	0.04%
Corporate exposures	IRB-A	0.75 to <2.50		1.23%	1.14%	351	446	10	0	0.82%
Corporate exposures	IRB-A	2.50 to <10.00		4.48%	3.39%	82	5	0	0	1.27%
Corporate exposures	IRB-A	10.00 to <100.00		31.72%	23.73%	60	72	6	1	11.45%
Corporate exposures: SMEs	IRB-A	0.00 to <0.15		0.08%	0.08%	27 310	28 062	3	0	0.01%
Corporate exposures: SMEs	IRB-A	0.15 to <0.25		0.18%	0.18%	3 921	3 890	4	1	0.07%
Corporate exposures: SMEs	IRB-A	0.25 to <0.50		0.30%	0.30%	933	6 265	0	0	0.16%
Corporate exposures: SMEs	IRB-A	0.50 to <0.75		0.52%	0.54%	8 230	3 263	12	0	0.32%
Corporate exposures: SMEs	IRB-A	0.75 to <2.50		1.76%	1.82%	5 524	5 487	25	2	0.69%
Corporate exposures: SMEs	IRB-A	2.50 to <10.00		6.57%	6.78%	836	823	15	0	3.45%
Corporate exposures: SMEs	IRB-A	10.00 to <100.00		28.68%	27.97%	790	799	77	0	14.26%
Institution exposures	IRB-A	0.00 to <0.15								
Institution exposures	IRB-A	0.15 to <0.25								
Institution exposures	IRB-A	0.25 to <0.50								
Institution exposures	IRB-A	0.50 to <0.75								
Institution exposures	IRB-A	0.75 to <2.50								
Institution exposures	IRB-A	2.50 to <10.00								
Institution exposures	IRB-A	10.00 to <100.00								
Central governments or central banks	IRB-F	0.00 to <0.15		0.00%	0.01%	502	497	0	0	0.00%
Central governments or central banks	IRB-F	0.15 to <0.25		0.20%	0.20%	23	13	0	0	0.00%
Central governments or central banks	IRB-F	0.25 to <0.50								
Central governments or central banks	IRB-F	0.50 to <0.75								
Central governments or central banks	IRB-F	0.75 to <2.50		1.00%	1.00%	6	3	0	0	0.00%
Central governments or central banks	IRB-F	2.50 to <10.00		5.00%	5.00%	2	2	0	0	0.00%
Central governments or central banks	IRB-F	10.00 to <100.00								
Corporate exposures	IRB-F	0.00 to <0.15		0.06%	0.07%	1 236	1 248	0	0	0.03%
Corporate exposures	IRB-F	0.15 to <0.25								
Corporate exposures	IRB-F	0.25 to <0.50		0.32%	0.32%	283	336	0	0	0.00%
Corporate exposures	IRB-F	0.50 to <0.75		0.50%	0.50%	21	0	0	0	0.14%
Corporate exposures	IRB-F	0.75 to <2.50		1.01%	1.02%	173	252	2	0	0.51%
Corporate exposures	IRB-F	2.50 to <10.00		3.19%	3.30%	50	0	0	0	0.33%
Corporate exposures	IRB-F	10.00 to <100.00		22.41%	22.90%	31	39	1	0	15.06%
Corporate exposures: SMEs	IRB-F	0.00 to <0.15		0.08%	0.08%	2 052	2 139	0	0	0.00%
Corporate exposures: SMEs	IRB-F	0.15 to <0.25		0.18%	0.18%	1 592	1 673	1	0	0.03%
Corporate exposures: SMEs	IRB-F	0.25 to <0.50		0.30%	0.30%	40	558	0	0	0.16%
Corporate exposures: SMEs	IRB-F	0.50 to <0.75		0.55%	0.58%	1 835	1 454	2	0	0.15%
Corporate exposures: SMEs	IRB-F	0.75 to <2.50		1.52%	2.02%	883	941	7	0	0.92%
Corporate exposures: SMEs	IRB-F	2.50 to <10.00		6.68%	6.99%	138	157	2	0	3.91%
Corporate exposures: SMEs	IRB-F	10.00 to <100.00		27.02%	28.29%	129	145	14	0	19.30%
Institution exposures	IRB-F	0.00 to <0.15	Aaa, Aa, A	0.09%	0.10%	126	118	0	0	0.00%
Institution exposures	IRB-F	0.15 to <0.25	A	0.21%	0.21%	34	33	0	0	0.00%
Institution exposures	IRB-F	0.25 to <0.50								
Institution exposures	IRB-F	0.50 to <0.75	Baa	0.51%	0.51%	19	0	0	0	0.00%
Institution exposures	IRB-F	0.75 to <2.50	Baa, Ba	1.24%	1.24%	25	30	0	0	0.00%
Institution exposures	IRB-F	2.50 to <10.00	Ba	2.55%	2.55%	16	0	0	0	0.00%
Institution exposures	IRB-F	10.00 to <100.00	B, Caa, C	27.12%	22.92%	9	11	0	0	0.00%
Retail exposures: Other	IRB-A	0.00 to <0.15		0.08%	0.07%	736 073	347 550	647	92	0.07%
Retail exposures: Other	IRB-A	0.15 to <0.25		0.00%	0.00%	0	265 214	2	2	0.00%
Retail exposures: Other	IRB-A	0.25 to <0.50		0.39%	0.40%	339 033	198 261	1 534	344	0.29%
Retail exposures: Other	IRB-A	0.50 to <0.75		0.57%	0.57%	1 548	151 518	4	2	0.64%
Retail exposures: Other	IRB-A	0.75 to <2.50		1.39%	1.41%	268 078	256 150	4 152	889	1.04%
Retail exposures: Other	IRB-A	2.50 to <10.00		5.79%	5.79%	116 156	105 661	5 504	734	3.64%

EU CR9 – IRB Approach – Backtesting of PD by exposure class 2018

a	b	c	d	e	f	g		h	i	j
						Number of obligors				
Exposure class[1]	IRB Approach[2]	PD range	External rating equivalent[3]	Weighted average PD	Arithmetic average PD by obligors	End of previous year	End of the year	Defaulted obligors in the year	Of which new obligors4	Average historical annual default rate
Retail exposures: Other	IRB-A	10.00 to <100.00		24.34%	26.79%	36 413	46 471	7 630	95	19.82%
Retail exposures: Secured by real estate property	IRB-A	0.00 to <0.15		0.07%	0.07%	1 038 111	998 117	226	7	0.03%
Retail exposures: Secured by real estate property	IRB-A	0.15 to <0.25		0.16%	0.16%	1 344	42 895	0	0	0.01%
Retail exposures: Secured by real estate property	IRB-A	0.25 to <0.50		0.36%	0.35%	156 931	124 252	267	6	0.17%
Retail exposures: Secured by real estate property	IRB-A	0.50 to <0.75		0.57%	0.57%	1 653	15 561	4	0	0.28%
Retail exposures: Secured by real estate property	IRB-A	0.75 to <2.50		1.05%	1.04%	21 818	31 504	163	1	0.81%
Retail exposures: Secured by real estate property	IRB-A	2.50 to <10.00		6.16%	5.66%	8 250	828	355	7	4.10%
Retail exposures: Secured by real estate property	IRB-A	10.00 to <100.00		17.80%	17.40%	4 046	10 923	501	2	13.21%

[1] The change is due to the Swedish Financial Supervisory Authority's approval of the Bank's application to apply the IRB Approach. These are exempt since data was not available for the period.
[2] There are two versions of the IRB Approach: the simplified version, the IRB Approach without own estimates of LGD and CCF (here IRB-F, in previous regulations called the foundation approach), and the more advanced method, the IRB Approach with own estimates of LGD and CCF (here IRB-A, in previous regulations called the advanced approach). Only distributions where Handelsbanken has exposures are shown.
[3] External rating is only shown where it is relevant for the IRB model.
[4] Defaults during the year include agreements that become performing after a short time and on which the Bank does not make any losses. This particularly applies to defaults for new customers in the category "Retail exposures: Other", which mainly contains retail financial sales at Ecster, where new customers are sometimes late in making their first payment.

EU CR9 – IRB Approach – Backtesting of PD by exposure class 20175

a	b	c	d	e	f	g		h	i	j
						Number of obligors				
Exposure class¹	IRB Approach²	PD range	External rating equivalent³	Weighted average PD	Arithmetic average PD by obligors	End of previous year	End of the year	Defaulted obligors in the year	Of which new obligors4	Average historical annual default rate
Corporate exposures	IRB-A	0.00 to <0.15		0.04%	0.05%	1 152	2 157	0	0	0.00%
Corporate exposures	IRB-A	0.15 to <0.25		0.20%	0.20%	1 075	0	1	0	0.02%
Corporate exposures	IRB-A	0.25 to <0.50		0.48%	0.48%	482	509	0	0	0.00%
Corporate exposures	IRB-A	0.50 to <0.75		0.64%	0.64%	62	199	0	0	0.05%
Corporate exposures	IRB-A	0.75 to <2.50		0.97%	0.97%	373	351	1	0	0.31%
Corporate exposures	IRB-A	2.50 to <10.00		4.56%	4.62%	88	82	0	0	1.59%
Corporate exposures	IRB-A	10.00 to <100.00		18.18%	24.66%	18	60	1	0	12.23%
Corporate exposures: SMEs	IRB-A	0.00 to <0.15		0.04%	0.04%	26 542	27 310	0	0	0.01%
Corporate exposures: SMEs	IRB-A	0.15 to <0.25		0.18%	0.18%	8 640	3 921	4	0	0.07%
Corporate exposures: SMEs	IRB-A	0.25 to <0.50		0.35%	0.35%	3 798	933	5	0	0.20%
Corporate exposures: SMEs	IRB-A	0.50 to <0.75		0.64%	0.64%	2 556	8 230	6	1	0.36%
Corporate exposures: SMEs	IRB-A	0.75 to <2.50		1.27%	1.27%	2 453	5 524	12	0	0.75%
Corporate exposures: SMEs	IRB-A	2.50 to <10.00		4.32%	4.96%	1 169	836	39	0	3.86%
Corporate exposures: SMEs	IRB-A	10.00 to <100.00		13.59%	15.41%	399	790	38	3	15.39%
Institution exposures	IRB-A	0.00 to <0.15								
Institution exposures	IRB-A	0.15 to <0.25								
Institution exposures	IRB-A	0.25 to <0.50								
Institution exposures	IRB-A	0.50 to <0.75								
Institution exposures	IRB-A	0.75 to <2.50								
Institution exposures	IRB-A	2.50 to <10.00								
Institution exposures	IRB-A	10.00 to <100.00								
Corporate exposures	IRB-F	0.00 to <0.15		0.05%	0.05%	613	1 236	1	0	0.04%
Corporate exposures	IRB-F	0.15 to <0.25		0.20%	0.20%	629	0	0	0	0.00%
Corporate exposures	IRB-F	0.25 to <0.50		0.48%	0.48%	315	283	0	0	0.00%
Corporate exposures	IRB-F	0.50 to <0.75		0.64%	0.64%	5	21	0	0	0.17%
Corporate exposures	IRB-F	0.75 to <2.50		0.97%	0.97%	219	173	1	0	0.35%
Corporate exposures	IRB-F	2.50 to <10.00		4.64%	4.26%	69	50	0	0	0.41%
Corporate exposures	IRB-F	10.00 to <100.00		18.21%	26.32%	9	31	0	0	18.02%
Corporate exposures: SMEs	IRB-F	0.00 to <0.15		0.04%	0.04%	1 969	2 052	0	0	0.00%
Corporate exposures: SMEs	IRB-F	0.15 to <0.25		0.17%	0.17%	1 936	1 592	0	0	0.02%
Corporate exposures: SMEs	IRB-F	0.25 to <0.50		0.37%	0.37%	1 281	40	3	0	0.20%
Corporate exposures: SMEs	IRB-F	0.50 to <0.75		0.64%	0.64%	151	1 835	2	1	0.17%
Corporate exposures: SMEs	IRB-F	0.75 to <2.50		1.27%	1.27%	721	883	6	0	0.95%
Corporate exposures: SMEs	IRB-F	2.50 to <10.00		5.16%	5.26%	221	138	8	0	4.52%
Corporate exposures: SMEs	IRB-F	10.00 to <100.00		13.94%	17.06%	53	129	11	1	21.42%
Institution exposures	IRB-F	0.00 to <0.15	Aaa, Aa, A	0.09%	0.09%	116	126	0	0	0.00%
Institution exposures	IRB-F	0.15 to <0.25	A	0.21%	0.21%	43	34	0	0	0.00%
Institution exposures	IRB-F	0.25 to <0.50								
Institution exposures	IRB-F	0.50 to <0.75	Baa	0.51%	0.51%	27	19	0	0	0.00%
Institution exposures	IRB-F	0.75 to <2.50	Baa, Ba	1.24%	1.24%	28	25	0	0	0.00%
Institution exposures	IRB-F	2.50 to <10.00	Ba	2.55%	2.55%	11	16	0	0	0.00%
Institution exposures	IRB-F	10.00 to <100.00	B, Caa, C	18.59%	18.69%	16	9	0	0	0.00%
Retail exposures: Other	IRB-A	0.00 to <0.15		0.07%	0.06%	719 578	736 073	639	71	0.06%
Retail exposures: Other	IRB-A	0.15 to <0.25								
Retail exposures: Other	IRB-A	0.25 to <0.50		0.37%	0.33%	356 161	339 033	1 419	288	0.27%
Retail exposures: Other	IRB-A	0.50 to <0.75		0.65%	0.71%	36 012	1 548	630	294	0.77%
Retail exposures: Other	IRB-A	0.75 to <2.50		1.31%	1.24%	240 050	268 078	3 058	507	0.99%
Retail exposures: Other	IRB-A	2.50 to <10.00		5.12%	4.66%	118 291	116 156	4 905	638	3.52%
Retail exposures: Other	IRB-A	10.00 to <100.00		20.81%	22.23%	34 294	36 413	6 844	96	19.60%
Retail exposures: Secured by real estate property	IRB-A	0.00 to <0.15		0.07%	0.07%	1 043 239	1 038 111	239	7	0.03%
Retail exposures: Secured by real estate property	IRB-A	0.15 to <0.25		0.16%	0.16%	1 301	1 344	0	0	0.01%
Retail exposures: Secured by real estate property	IRB-A	0.25 to <0.50		0.36%	0.35%	164 953	156 931	259	7	0.17%
Retail exposures: Secured by real estate property	IRB-A	0.50 to <0.75		0.55%	0.55%	4 454	1 653	9	1	0.29%

EU CR9 – IRB Approach – Backtesting of PD by exposure class 20175

a	b	c	d	e	f	g		h	i	j
						Number of obligors				
Exposure class[1]	IRB Approach[2]	PD range	External rating equivalent[3]	Weighted average PD	Arithmetic average PD by obligors	End of previous year	End of the year	Defaulted obligors in the year	Of which new obligors4	Average historical annual default rate
Retail exposures: Secured by real estate property	IRB-A	0.75 to <2.50		1.03%	1.01%	21 300	21 818	152	1	0.83%
Retail exposures: Secured by real estate property	IRB-A	2.50 to <10.00		5.53%	5.14%	9 267	8 250	376	8	4.07%
Retail exposures: Secured by real estate property	IRB-A	10.00 to <100.00		16.04%	15.88%	4 424	4 046	608	5	13.43%

[1] Exposures to central governments and central banks used to be treated according to the standardised approach but are treated according to the Foundation IRB Approach as of Q2 2017. The change is due to the Swedish Financial Supervisory Authority's approval of the Bank's application to apply the IRB Approach. These are exempt since data was not available for the period (2017).

[2] There are two versions of the IRB Approach: the simplified version, the IRB Approach without own estimates of LGD and CCF (here IRB-F, in previous regulations called the foundation approach), and the more advanced method, the IRB Approach with own estimates of LGD and CCF (here IRB-A, in previous regulations called the advanced approach). Only distributions where Handelsbanken has exposures are shown.

[3] External rating is only shown where it is relevant for the IRB model.

[4] Defaults during the year include agreements that become performing after a short time and on which the Bank does not make any losses. This particularly applies to defaults for new customers in the category "Retail exposures: Other", which mainly contains retail financial sales at Ecster, where new customers are sometimes late in making their first payment.

[5] The process for producing table 36 has been updated during the year and an error, primarily concerning exposures to leasing and sales finance, has been corrected. This means that values for the comparison year 2017 have been updated, most evident for "Retail exposures: Other".

COLLATERAL AND ACTIONS THAT REDUCE THE CAPITAL REQUIREMENT

Collateral for the exposures that are approved for the IRB Approach is managed according to two different calculation methods: the IRB Approach without own estimates of LGD and CCF or the IRB Approach with own estimates of LGD and CCF. Collateral affects the capital requirement in different ways in these two approaches. In the IRB Approach without own estimates of LGD and CCF, only certain types of collateral are eligible and the estimates for LGD are applied as prescribed in the regulations. The Bank does, however, accept other types of collateral than those considered to be eligible.

When reporting exposures that are approved for the IRB Approach with own estimates of LGD and CCF, the Bank applies LGD estimates which it has calculated itself. For these exposures, most collateral types affect the risk-weighted exposure amount and the capital requirement.

The Bank follows up and regularly updates the market value of the collateral used for corporate exposures. A control procedure is established whereby the market value is checked at least every third year for residential properties, and at least annually for other types of property. The value is checked more frequently when there are material changes in factors affecting the property market. For properties with an exposure exceeding EUR 3 million, a new valuation by an independent assessor is made at least every third year.

With the permission of the Swedish Financial Supervisory Authority, the Bank uses volatility adjustments (known as 'haircuts') when calculating capital requirements according to the IRB Approach without own estimates of LGD and CCF for exposures that are secured by financial collateral. This means that in its capital requirement calculations, the Bank adjusts the value of financial collateral based on the historical volatility of the financial collateral instead of using the standardised volatility adjustments otherwise prescribed by the regulations. This method allows for better risk measurement when using financial collateral. Handelsbanken regularly monitors the concentration risk in individual securities. During the year, the additional concentration risk, measured as further indirect exposure according to the regulations for large exposures which has arisen by using financial collateral in the capital adequacy calculation, has on no occasion exceeded 2.0 per cent (0.7) of own funds.

An IRB Approach with own estimates of LGD and CCF is used for retail exposures, where the exposures are categorised into various groups, partly based on the existence of collateral. Also, for most of the property collateral, a segmentation is made based on the loan-to-value of the collateral. The LGD of the exposure is established on the basis of these groups.

For corporate exposures and institutional exposures for which collateral exists, the capital requirement is reduced, through an adjustment of either PD or LGD. The PD is adjusted in cases where there are approved protection providers, for example, an issuer of a guarantee or surety, with a lower PD value than the borrower. For other types of collateral, the LGD is adjusted.

Handelsbanken has also entered into a large number of netting agreements with, for example, institutional counterparties, thus reducing the exposure. Information concerning the netting effect is presented in the section on Counterparty credit risks.

Credit risk concentrations

Handelsbanken's branches focus strongly on establishing long-term relationships with customers of sound creditworthiness. If a branch identifies a good customer, it should be able to do business with this customer, whether or not the Bank as a whole has major exposure to the business sector that the customer represents. In granting credit, the Bank thus has no built-in restrictions to having relatively extensive exposures in individual sectors. However, the Bank monitors portfolio development and quality and calculates concentrations for various business sectors and geographic areas. The Bank also measures and monitors exposures to major individual counterparties. Special limits are applied to restrict the maximum credit exposure to individual counterparties, to augment the credit risk assessment. If the credit portfolio has a concentration in a particular sector or counterparty that can be assumed to increase risk, this concentration is monitored. Concentration risks are identified in the Bank's calculation of economic capital for credit risks and in the stress tests conducted in the internal capital adequacy assessment. The Swedish Financial Supervisory Authority also calculates a special capital charge under Pillar 2 for concentration risks in the credit portfolio. This ensures that Handelsbanken has sufficient capital, also taking into account concentration risks. If the concentration risks are judged to be excessive, the Bank has the opportunity and capacity to reduce them using various risk-mitigation measures.

In addition to mortgage loans and lending to housing co-operative associations, Handelsbanken has significant lending to property management of SEK 598 billion (565). Here, 'property management' refers to all companies classified as 'property companies' for risk-assessment purposes. It is common for groups of companies operating in other industries to have subsidiaries managing the properties in which the group conducts business, and such property companies are also considered to belong to property management here. However, the underlying credit risk in such cases is not solely property-related, because the counterparty's repayment capacity is determined by business operations other than property management. Also, private individuals with larger property holdings are classified as property companies for risk-assessment purposes.

A very large part of property lending consists of property mortgages with low loan-to-value ratios, which reduces the Bank's loan-loss risk. In addition, a large proportion of property lending is to government-owned property companies, municipal housing companies and other housing-related operations where the borrowers consistently have strong, stable cash flows and thus very high creditworthiness. Thus a large part of lending to the property sector is to companies with a very low probability of financial difficulty. The Bank's exposure to the property sector is specified in the tables below.

The proportion of exposures to property counterparties with a poorer rating than the Bank's risk class 5 (normal risk) is very low. 99 per cent (98) of total property lending in Sweden is in risk class 5 or better. The corresponding figures for property lending in the UK are 98 per cent (98), Denmark 97 per cent (96), Finland 98 per cent (98), Norway 97 per cent (96), and the Netherlands 0 per cent (0)[1]. For counterparties in poorer risk classes than normal, the majority are in risk classes 6–7, with only small volumes in the higher risk classes 8–9. For information about Handelsbanken's risk ratings, see the section titled Calculation of capital requirements for credit risk.

In the past few years, Handelsbanken's lending to property companies has grown partly because of the substantial credit growth in the UK following the expansion of the UK branch network. A large part of this growth has been in property-related credits. In the UK, Handelsbanken has the same strict requirements on repayment capacity, LTVs and collateral quality as in its other home markets.
See Handelsbanken's Annual Report, note G2 for tables specifying figures for property management.

[1] Netherland's capital requirement is calculated by the standardised approach, which applies regulatory risk weights. Risk classes are therefore not applicable. However, from a credit quality perspective, exposures residing in risk classes five or better are 99 per cent.

Loan-to-value ratio for property lending

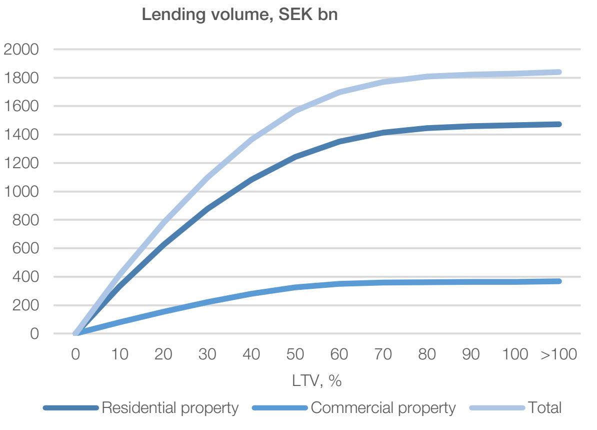
For property financing, like all granting of credit, Handelsbanken's credit assessment is always based on the borrower's repayment capacity. For mortgage loans to private individuals, Handelsbanken applies recommendations regarding debt ratio. In Sweden, for example, this is four and a half times gross income. Deviations from this are possible, but in such cases there must be a special justification. When assessing repayment capacity for mortgage loans, a calculation interest rate is also used, 7.5 per cent in Sweden, for example. As regards loan-to-value ratios (LTV) for mortgage loans, the Bank follows the supervisory authority's regulations such as the mortgage cap and amortisation requirements

For property loans to companies, there are internal recommendations for the maximum loan-to-value ratios that should be approved. The following recommendations concerning maximum LTVs for property loans to companies apply to the whole Handelsbanken Group. The LTV is based on the market value.

- Multi-family dwellings, including housing co-operative associations, 75 per cent.
- Commercial and office property, 60 per cent.
- Family farms, forest and agricultural properties, 75 per cent.

The recommended LTVs correspond to what is applied at Stadshypotek. At the time of granting the credit, LTVs which exceed the recommendations are never permitted at Stadshypotek. For loans in the Bank, LTVs which exceed the recommendations may occur, but must be specially justified. The value of industrial and warehouse properties and undeveloped land may often be much more volatile than for other property, partly due to factors such as location or alternative use. The LTV should therefore be well below 60 per cent. Financing of industrial and warehouse properties and undeveloped land is only permitted in the Bank.

Figure 15 Cumulative breakdown of property lending by LTV, Handelsbanken's home markets, 2018



The tables and figure here provide a breakdown of loan volumes based on the loan-to-value ratios for all property lending in Handelsbanken's home markets. An accumulated breakdown of the LTVs at 31 December 2018 is also presented. It should be noted that here and in the following sections, the residential property category relates to all lending for which the collateral is a property for residential purposes, such as second homes, housing co-operative apartments, and rental properties. The figure shows that a very heavy fall in property prices would be required for large parts of the lending volume to exceed a 100 per cent LTV. The LTVs for property lending in the UK are at a level similar to those in Handelsbanken's other home markets.

The LTV shows all lending secured by collateral in relation to its market value. The calculation takes account of any pledging with other credit institutions. The most recent valuation is used as the market value when compiling the LTV. In addition to distributing the loan volume by LTVs, the average LTV at Handelsbanken is calculated by weighting each property's highest LTV according to the principal debt (LTV Max).

Table 16 Breakdown of property lending by LTV, Handelsbanken's home markets

	2018			2017		
%	Residential property	Commercial property	Total	Residential property	Commercial property	Total
0–40%	73.6	76.4	74.1	74.8	75.0	74.9
41–60%	18.1	18.7	18.2	17.8	19.3	18.1
61–75%	5.6	3.0	5.1	5.1	3.3	4.7
> 75%	2.7	1.9	2.6	2.3	2.4	2.3
LTV-Max	56.0	54.2	55.7	54.5	55.4	54.7

LTV for property lending if property prices fall by 10 per cent, Handelsbanken's home markets

	2018			2017		
%	Residential property	Commercial property	Total	Residential property	Commercial property	Total
LTV-Max	62.2	60.3	61.8	60.6	61.5	60.8

LTV-Max The highest loan-to-value of the property is weighted according to the principal debt.

Table 17 Breakdown of property lending by LTV, UK

	2018			2017		
%	Residential property	Commercial property	Total	Residential property	Commercial property	Total
0–40%	77.8	82.3	79.7	77.4	81.2	79.0
41–60%	18.6	15.6	17.3	19.0	16.4	17.9
61–75%	2.8	1.1	2.1	2.8	1.3	2.1
> 75%	0.8	1.0	0.9	0.8	1.2	0.9
LTV-Max	52.0	48.9	50.7	52.4	49.8	51.3

LTV for property lending if property prices fall by 10 per cent, UK

	2018			2017		
%	Residential property	Commercial property	Total	Residential property	Commercial property	Total
LTV-Max	57.8	54.3	56.3	58.2	55.4	57.0

LTV-Max The highest loan-to-value of the property is weighted according to the principal debt.

Exposures approved for the IRB Approach

For capital requirement calculations of corporate exposures, exposures secured by property correspond to about 66 per cent (65) of the total exposure amount. The equivalent figure for guarantees is approximately 7 per cent (8), for financial collateral around 2 per cent (2), and for other collateral around 1 per cent (1).

For retail exposures, exposures secured by collateral in residential property comprise about 92 per cent (91) of the total exposure amount. Of the remaining exposure amounts, about 1 percentage point (1) can be assigned to some form of collateral, while the other 6 percentage points (8) are assigned an LGD value based on other terms. These terms are chiefly determined by factors such as the type of borrower, type of credit, and number of borrowers.

For institutional exposures, financial collateral covers some 55 per cent (50) of the exposure amount. The corresponding figure for guarantees is about 3 per cent (4).

Of the exposures covered by guarantees, totalling SEK 88 102 million (90 325), SEK 58 812 million (60 881) relates to guarantees from sovereigns, SEK 2 884 million (2 766) to guarantees from institutions, and SEK 26 406 million (26 679) to guarantees from corporates.

If an exposure is covered by several collateral objects and no individual collateral covers the total exposure, the exposure is divided into sub-exposures, one for each collateral object. The capital requirement is then calculated by sub-exposure, based on the existence of collateral.

Table 37 Acceptable collateral which reduces the capital requirement, IRB Approach

Acceptable collateral which reduces the capital requirement, IRB Approach		2018		2017	
SEK m	Type of collateral	Exposure amount covered by collateral	Proportion of exposure amount, %	Exposure amount covered by collateral	Proportion of exposure amount, %
Sovereign exposures	- Financial collateral	4 409	1	4 829	2
Corporate exposures	- Guarantees	83 525	7	85 812	8
	- Receivables	468	0	592	0
	- Financial collateral	24 637	2	20 047	2
	- Property	780 432	66	714 407	65
	- Other collateral	13 788	1	14 418	1
Retail exposures	- Residential property[1]	998 838	92	932 420	91
	- Other collateral	11 342	1	11 289	1
Institution exposures	- Guarantees	2 635	3	2 836	4
	- Financial collateral	47 496	55	36 231	50
Securitisation positions	- Guarantees	1 205	98	1 111	98
Total		1 968 775	72	1 823 992	73

[1] Including shares in housing co-operative associations

Exposures calculated according to the standardised approach

For exposures reported in the institutional, corporate, and retail exposure categories according to the standardised approach, and exposures secured by property, collateral covers about 83 per cent (79) of the reported exposure value, of which about 1 percentage point (1) refers to guarantees and the remaining 79 percentage points (78) refer to property and financial collateral.

For all exposures calculated using the standardised approach, the regulations state a risk weight based on the exposure class of the counterparty.

Table 39 shows the exposure amount per exposure class, broken down by risk weights according to the standardised approach.

Table 38 Acceptable collateral which reduces the capital requirement, Standardised Approach

Table 38 Acceptable collateral which reduces the capital requirement, Standardised Approach		2018		2017	
SEK m	Type of collateral	Exposure value covered by collateral[1]	Proportion of exposure value, %	Exposure value covered by collateral[1]	Proportion of exposure value, %
Sovereign exposures	- Financial collateral	-	0	-	-
Corporate exposures	- Guarantees	745	2	943	2
	- Financial collateral	189	0	534	1
	- Property	31 783	78	28 611	75
Retail exposures	- Guarantees	4	0	239	0
	- Financial collateral	1 056	1	1 702	2
	- Property	93 266	89	77 401	81
Institution exposures	- Guarantees	353	3	96	1
	- Financial collateral	3 914	33	1 928	25
Total		131 310	83	111 454	78

[1] Exposure value according to the standardised method is calculated excluding exposures with financial collateral. Those exposures are included in the exposure values in this table.

Table 39 EU CR5 – Standardised approach 2018

The table below shows the EAD broken down by exposure class and risk weight. It comprises figures obtained using the standardised approach. Total EAD has increased compared with the previous period.

EU CR5 – Standardised approach 2018

		Risk weight																	
	Exposure classes SEK m	0%	2%	4%	10%	20%	35%	50%	70%	75%	100%	150%	250%	370%	1 250%	Others	De-ducted	Total	Of which unrated
1	Central governments or central banks	404																404	
2	Regional government or local authorities					25												25	
3	Public sector entities																		
4	Multilateral development banks																		
5	International organisations																		
6	Institutions	0				2 117		676										2 793	
7	Corporates										10 207							10 207	3 540
8	Retail									9 078								9 078	9 078
9	Secured by mortgages on immovable property						107 414	11 636		6 057								125 107	125 107
10	Exposures in default										358	347						705	587
11	Exposures associated with particularly high risk																		
12	Covered bonds																		
13	Institutions and corporates with a short-term credit assessment																		
14	Collective investments undertakings																		
15	Equity												6 254					6 254	6 254
16	Other items	160									6 277		5			162		6 604	6 604
17	Total	564				2 142	107 414	12 312		15 135	16 842	347	6 259			162		161 177	151 170

EU CR5 – Standardised approach 2017

		Risk weight																	
	Exposure classes SEK m	0%	2%	4%	10%	20%	35%	50%	70%	75%	100%	150%	250%	370%	1 250%	Others	De-ducted	Total	Of which unrated
1	Central governments or central banks	236																236	
2	Regional government or local authorities																		
3	Public sector entities																		
4	Multilateral development banks	445																445	
5	International organisations																		
6	Institutions					1 333		250										1 583	
7	Corporates							0			9 252							9 252	3 003
8	Retail									16 710								16 710	16 710
9	Secured by mortgages on immovable property						92 411	13 798		107								106 316	106 316
10	Exposures in default										465	189						654	634
11	Exposures associated with particularly high risk																		
12	Covered bonds																		
13	Institutions and corporates with a short-term credit assessment																		
14	Collective investments undertakings										86							86	86
15	Equity										594		6 220					6 813	6 813
16	Other items	227									6 293					259		6 779	6 779
17	Total	908				1 333	92 411	14 048		16 817	16 690	189	6 220			259		148 874	140 342

Table 40 Credit risk exposures approved for IRB Approach

Credit risk exposures approved for IRB Approach	Exposure amount		Of which off-balance-sheet		Risk-weighted exposure amount		Capital requirement		Average risk weight, %	
SEK m	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
Sovereign exposures	440 789	357 719	19 114	18 456	7 694	7 474	616	598	1.7	2.1
Corporate exposures	908 004	852 845	133 978	121 454	250 750	237 107	20 060	18 969	27.6	27.8
Corporate lending	888 991	835 665	133 763	121 384	247 764	233 707	19 821	18 697	27.9	28.0
of which other lending, IRB Approach without own estimates of LGD and CCF	*125 126*	*109 608*	*72 146*	*62 936*	*37 526*	*32 467*	*3 002*	*2 598*	*30.0*	*29.6*
of which other lending, IRB Approach with own estimates of LGD and CCF	*763 865*	*726 057*	*61 617*	*58 448*	*210 238*	*201 240*	*16 819*	*16 099*	*27.5*	*27.7*
of which large corporates	*154 297*	*152 189*	*36 485*	*32 991*	*57 241*	*58 176*	*4 579*	*4 654*	*37.1*	*38.2*
of which medium-sized companies	*85 130*	*80 590*	*8 961*	*9 914*	*37 275*	*37 839*	*2 982*	*3 027*	*43.8*	*47.0*
of which property companies	*524 438*	*493 278*	*16 171*	*15 543*	*115 722*	*105 225*	*9 258*	*8 418*	*22.1*	*21.3*
Counterparty risk	19 013	17 180	215	70	2 986	3 400	239	272	15.7	19.8
Housing co-operative associations	216 026	195 265	3 812	4 680	9 902	9 974	791	798	4.6	5.1
Retail exposures	1 079 337	1 026 668	55 531	51 744	85 185	72 574	6 815	5 806	7.9	7.1
Private individuals	1 054 730	1 001 733	49 507	45 593	77 746	65 742	6 220	5 259	7.4	6.6
of which property loans	*991 558*	*925 491*	*29 601*	*21 280*	*62 459*	*51 092*	*4 997*	*4 087*	*6.3*	*5.5*
of which other	*63 172*	*76 242*	*19 906*	*24 313*	*15 287*	*14 650*	*1 223*	*1 172*	*24.2*	*19.2*
Small companies	24 607	24 935	6 024	6 151	7 438	6 832	595	547	30.2	27.4
of which property loans	*7 280*	*6 929*	*63*	*7*	*1 409*	*1 707*	*113*	*137*	*19.4*	*24.6*
of which other	*17 327*	*18 006*	*5 961*	*6 144*	*6 029*	*5 125*	*482*	*410*	*34.8*	*28.5*
Institution exposures	86 423	72 223	13 295	12 426	14 858	13 929	1 189	1 114	17.2	19.3
Lending to institutions	17 559	16 332	6 014	6 195	5 640	5 232	452	418	32.1	32.0
Counterparty risk	68 864	55 891	7 281	6 231	9 218	8 697	737	696	13.4	15.6
of which repos and securities loans	*10 379*	*7 667*	*7 281*	*6 231*	*455*	*173*	*36*	*14*	*4.4*	*2.3*
of which derivatives	*58 485*	*48 224*	*-*	*-*	*8 763*	*8 524*	*701*	*682*	*15.0*	*17.7*
Equity exposures	2 121	1 512	-	-	7 410	5 068	593	405	349.4	335.1
of which listed equities	*545*	*661*	*-*	*-*	*1 581*	*1 916*	*126*	*153*	*290.0*	*290.0*
of which other equities	*1 576*	*851*	*-*	*-*	*5 829*	*3 152*	*467*	*252*	*370.0*	*370.0*
Non credit-obligation asset exposures	2 239	2 238	-	-	2 239	2 238	179	179	100.0	100.0
Securitisation positions	22	20	-	-	51	22	4	2	229.2	106.0
of which traditional securitisation	*22*	*20*	*-*	*-*	*51*	*22*	*4*	*2*	*229.2*	*106.0*
of which synthetic securitisation	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*
Total IRB Approach	2 734 961	2 508 490	225 730	208 760	378 089	348 386	30 247	27 871	13.8	13.9
Risk weight floor for Swedish mortgage*					**163 123**		**13 050**			
Total IRB Approach including floor	**2 734 961**	**2 508 490**	**225 730**	**208 760**	**541 212**	**348 386**	**43 297**	**27 871**	**19.8**	**13.9**

*FI's board of directors decided to change the method used to apply current risk weight floor for Swedish mortgages on 25 % though pillar 2 by replacing it with a corresponding requirement under article 458 CRR. The change entered into force on 31 December 2018

Table 41 Credit risk exposures according to standardised approach

Credit risk exposures according to standardised approach[1]	Exposure value		Of which off-balance-sheet		Risk-weighted exposure amount		Capital requirement		Average risk weight, %	
SEK m	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
Sovereign and central banks	403	236	21	21	-	-	-	-	0.0	0.0
Municipalities	25	-	-	-	5	-	-	-	20.0	0.0
Multilateral development banks	183	568	-	1	-	-	-	-	0.0	0.0
International organisations	-	35	-	-	-	-	-	-	-	0.0
Institutions	9 570	7 290	490	498	897	506	72	40	9.4	6.9
Corporate	10 282	9 407	2 360	2 205	10 191	9 312	815	745	99.1	99.0
Retail	9 198	16 824	2 306	3 186	6 867	12 580	549	1 006	74.7	74.8
Property mortgages	125 107	106 316	7 126	6 426	46 682	38 158	3 735	3 053	37.3	35.9
Past due items	705	654	13	7	878	748	70	60	124.6	114.4
CIU'S	-	86	-	-	-	86	-	7	-	100.0
Equities	6 254	6 813	-	-	15 636	16 143	1 251	1 291	250.0	236.9
of which listed equities	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*
of which unlisted equities	*6 254*	*6 813*	*-*	*-*	*15 636*	*16 143*	*1 251*	*1 291*	*250.0*	*236.9*
Other items	6 604	6 780	26	-	6 295	6 300	504	505	95.3	92.9
Total standardised approach	168 331	155 009	12 342	12 344	87 451	83 833	6 996	6 707	52.0	54.1

CAPITAL REQUIREMENTS FOR CREDIT RISK

This section presents the credit portfolio based on CRR. The presentations show both the IRB Approach and the standardised approach. Portfolios in the IRB Approach are divided into the IRB Approach with own estimates of LGD and CCF, and the IRB Approach without own estimates of LGD and CCF. When the capital requirement is calculated, this is normally done for the exposure amount, which is the sum of the exposure on the balance sheet and the exposure off the balance sheet multiplied by a conversion factor.

Exposure, exposure amounts and capital requirements

Tables 40 and 41 include information about exposures approved for the IRB Approach and the standardised approach based on different definitions as well as details of capital requirements for various exposure classes, the exposures and the total exposure amounts in the credit portfolio approved for the IRB Approach and their risk-weighted amounts as well as the capital requirement that these exposures give rise to. The Tables section specifies the geographic distribution of exposures (table TB8) and their breakdown by industry or counterparty (table TB9). 'Exposures' refers to the total exposures on and off the balance sheet. The exposure amount is the exposure on which the capital requirement is calculated according to CRR. The following are also shown: the average exposure amount during the year, the average risk weight for the exposures (the risk-weighted amount divided by the exposure amount), and the average LGD value applied.

The risk estimates according to the IRB Approach with own estimates of LGD and CCF are based on the Bank's historical outcome data applying the margins of conservatism approved by the Swedish Financial Supervisory Authority. In the IRB Approach with own estimates of LGD and CCF, the capital requirement is also affected by the maturity of the credit, unlike in the IRB Approach without own estimates of LGD and CCF.

For corporate exposures, SEK 62 016 million (63 482) is covered by guarantees from counterparties within the sovereign and municipal exposure class or the institutional class. This reduces the exposure amount. The corresponding figure for institutional exposures is SEK 2 149 million (1 770). When there is a guarantor with a lower PD than the counterparty, the capital requirement is calculated based on this PD instead of the original counterparty's, a practice known as substitution. This means that the guarantor's more advantageous PD can be used instead of the borrower's PD. On the other hand, the capital requirement does not take account of the fact that the credit risk is less, since both the borrower and the guarantor must default in order for the Bank to incur a loan loss.

For the parts of the credit portfolio which are not approved for the IRB Approach and also where a permanent or time-limited approval has been given by the Swedish Financial Supervisory Authority, the capital requirements for credit risk are calculated using the standardised approach. Table 41 shows the exposures and capital requirements for the standardised portfolio.

When calculating risk weights according to the standardised approach, information regarding the external rating from external rating agencies is used, where applicable. Handelsbanken uses an external rating from Standard & Poor's for institutional exposures and corporate exposures. Table 43 shows the exposure values for each credit quality step. No deduction is made from own funds for exposures in the standardised approach with external ratings.

Table 42 presents Handelsbanken's net exposures at the end of 2018 and the average value for the net exposure at the end of each quarter for the observation period. The table shows that these values are stable over time.

Table TB11 in the Tables section shows the risk-weighted exposure amounts before credit derivatives and net after credit risk-mitigation measures by exposure class at the end of 2018. The amounts are calculated for exposures processed according to the Foundation IRB Approach and exposures processed according to the Advanced IRB Approach. The table shows that Handelsbanken's risk-weighted exposure amounts have not been affected by credit derivatives

Table 42 EU CRB-B – Total and average net amount of exposures

The table below shows the total net exposure and average net exposure broken down by exposure class at year-end. For on-balance sheet items, the net value is the gross carrying value of exposure less allowances/impairments. For off-balance sheet items, the net value is the gross carrying value of the exposure less provisions. It comprises figures obtained using both the standardised and the IRB Approach. Net exposures have been stable over time based on an average of the three preceding quarters.

EU CRB-B – Total and average net amount of exposures 2018		a	b
SEK m		Net value of exposures at the end of the period	Average net exposures over the period
1	Central governments or central banks	387 796	431 244
2	Institutions	22 108	21 637
3	Corporates	1 426 432	1 414 643
4	*Of which: Specialised lending*		
5	*Of which: SMEs*	*742 625*	*740 989*
6	Retail	1 083 528	1 072 681
7	*Secured by real estate property*	*997 512*	*982 785*
8	*SMEs*	*7 277*	*7 125*
9	*Non-SMEs*	*990 235*	*975 660*
10	*Qualifying revolving*		
11	*Other retail*	*86 016*	*89 896*
12	*SMEs*	*18 956*	*19 276*
13	*Non-SMEs*	*67 060*	*70 620*
14	Equity	2 121	1 942
15	Total IRB Approach	2 921 985	2 942 147
16	Central governments or central banks	51	295
17	Regional governments or local authorities	25	16
18	Public sector entities		
19	Multilateral development banks		243
20	International organisations		
21	Institutions	4 386	4 024
22	Corporates	19 930	21 015
23	*Of which: SMEs*	*2 507*	*3 920*
24	Retail	21 394	31 625
25	*Of which: SMEs*	*2 540*	*2 811*
26	Secured by mortgages on immovable property	127 127	122 005
27	*Of which: SMEs*	*23 901*	*23 146*
28	Exposures in default	718	709
29	Items associated with particularly high risk		
30	Covered bonds		
31	Claims on institutions and corporates with a short-term credit assessment		
32	Collective investments undertakings		63
33	Equity exposures	6 254	6 254
34	Other exposures	8 376	9 372
35	Total standardised approach	188 261	195 621
36	Total	3 110 246	3 137 768

EU CRB-B – Total and average net amount of exposures 2017		a	b
SEK m		Net value of exposures at the end of the period	Average net exposures over the period
1	Central governments or central banks	306 706	457 056
2	Institutions	21 351	23 116
3	Corporates	1 325 060	1 300 897
4	*Of which: Specialised lending*		
5	*Of which: SMEs*	*723 243*	*702 908*
6	Retail	1 031 681	1 011 929
7	*Secured by real estate property*	*932 265*	*912 133*
8	*SMEs*	*6 923*	*7 227*
9	*Non-SMEs*	*925 343*	*904 907*
10	*Qualifying revolving*		
11	*Other retail*	*99 415*	*99 795*
12	*SMEs*	*19 507*	*19 805*
13	*Non-SMEs*	*79 909*	*79 991*
14	Equity	1 512	1 848
15	Total IRB Approach	2 686 311	2 794 846
16	Central governments or central banks	145	120 960
17	Regional governments or local authorities		11 922
18	Public sector entities		
19	Multilateral development banks	444	616
20	International organisations		
21	Institutions	2 644	2 071
22	Corporates	20 199	20 264
23	*Of which: SMEs*	*4 861*	*5 056*
24	Retail	31 609	33 514
25	*Of which: SMEs*	*2 885*	*2 844*
26	Secured by mortgages on immovable property	107 875	102 543
27	*Of which: SMEs*	*20 712*	*20 424*
28	Exposures in default	654	465
29	Items associated with particularly high risk		
30	Covered bonds		
31	Claims on institutions and corporates with a short-term credit assessment		
32	Collective investments undertakings	86	96
33	Equity exposures	6 813	6 784
34	Other exposures	8 229	7 905
35	Total standardised approach	178 699	295 218
36	Total	2 865 010	3 090 064

Table 43 Exposure calculated according to standardised approach broken down into credit quality steps based on external ratings

Exposure calculated according to standardised approach broken down into credit quality steps based on external ratings 2018

	Sovereign and central banks		Municipalities		Institutions		Corporate	
SEK m	Exposure	Exposure value	Exposure	Exposure value	Exposure	Exposure value	Exposure	Exposure value
Credit quality step								
1	51	403	-	-	1820	1732	-	-
2	-	-	25	25	1430	597	-	-
3	-	-	-	-	351	114	-	-
4	-	-	-	-	356	238	-	-
5	-	-	-	-	207	64	-	-
6	-	-	-	-	-	-	-	-

Exposure calculated according to standardised approach broken down into credit quality steps based on external ratings 2017

	Sovereign and central banks		Municipalities		Institutions		Corporate	
SEK m	Exposure	Exposure value	Exposure	Exposure value	Exposure	Exposure value	Exposure	Exposure value
Credit quality step								
1	145	236	-	-	917	1 101	-	-
2	0	0	-	-	858	227	-	-
3	-	-	-	-	236	56	-	-
4	-	-	-	-	162	52	-	-
5	-	-	-	-	260	78	-	-
6	-	-	-	-	-	-	-	-

Risk weight and breakdown into risk classes
Table 44 shows exposures by exposure class and PD interval, in accordance with the EBA's division of PD intervals. This table includes gross exposures, average PD, LGD and CCF, the number of debtors, risk-weighted exposure amounts, risk weights, expected loss, value adjustments and other data.

The PD values applied in the IRB Approach for corporate and retail exposures are based on the Bank's own loss and default history. Handelsbanken's PD models for corporates are based on the historical default frequency, by risk class and by portfolio. The estimates for each portfolio are based partly on the Bank's internal data and partly on data from other sources, such as external credit rating agencies, and are based on the duration of an imagined business cycle in which one of five years is a downturn year and the Swedish banking crisis in the 1990s is taken into account. To these estimates are also added significant margins of conservatism. See also the Risk classification methods section. Handelsbanken's low, stable default rates and loan loss ratio means that the Bank's PD values are low, particularly in good risk classes where defaults have been extremely rare even in times of major economic turbulence. The risk weights are also affected by the LGD values used. These are also calculated on the basis of the Bank's own loss history for all exposures covered by the IRB Approach with own estimates of LGD and CCF.

The applied PD and LGD include margins of conservatism. Comprehensive tests have also been performed to ensure that the risk measures are applicable to the Bank's current portfolios. This means that differences between different banks' average risk weights are due to the credit quality of the existing exposures and the historic loan losses.

In January 2018, the SFSA approved the introduction of a Pillar 1 IRB system that results in a risk weight of 50 per cent for the aggregated UK commercial real estate ("CRE") portfolio. In 2017 the SFSA applied a Pillar 2 add-on for the UK commercial real estate ("CRE") portfolio. The background was that the SFSA deemed that earlier applied risk weight levels in Handelsbanken for UK commercial real estate were not conservative enough, given the historic levels of losses that UK banks experienced in 2008-2009.

Differing portfolio composition is another factor which leads to variations in different banks' average risk weights for various exposure classes. One important aspect of several is how banks have chosen to categorise their exposures. Handelsbanken has classified its lending to housing co-operative associations as corporate exposures, while certain other banks have decided to classify this as retail exposures. At the same time, lending to housing co-operative associations has lower risk than corporate lending on average. This means that the total average risk weight for the corporate exposures class including housing co-operative associations will be lower for Handelsbanken than for banks which have classified housing co-operative associations as retail exposures. The average risk weight for corporate exposures excluding housing co-operative associations is 27.6 per cent (27.8).

Handelsbanken's choice is conservative, because exposures that are classified as corporates have a higher risk weight in the IRB Approach than retail exposures with the same risk measure.

The Bank has very low exposures to counterparties in poorer risk classes. For corporate exposures, 97.7 per cent (97) of the exposure amount is in risk classes 1–5 with low PD values. The corresponding figure for institutional exposures is 99.9 per cent (100). For retail exposures – private individuals and small companies – the corresponding figures in the better risk classes are 95 per cent (98) and 71 per cent (89), respectively. A clear majority of the Bank's exposures are in risk classes 1–4, which means that the average risk level in the credit portfolio is significantly lower than the level which is assessed as normal risk. See tables TB12, TB13, TB14, and TB15 in the Tables section.

The risk weights applied by Handelsbanken result in a capital requirement that is, in relation to the Bank's actual historical loan losses in the past 10 years, considerably higher than the corresponding ratio for other Nordic and European banks on average. This means that Handelsbanken's risk weights are more cautious in relation to the Bank's historical losses than in models applied by other banks. Figure 2 shows a comparison of Handelsbanken's historical loan losses with those of the other Nordic banks

Table 44 EU CR6 – IRB Approach – Credit risk exposures by exposure class and PD range

The following table shows the total EAD, undrawn commitments, exposure-weighted average PD, LGD and CCF, and exposure-weighted average risk weights broken down by exposure class and obligor grade. FI's board of directors decided to change the method used to apply current risk weight floor for Swedish mortgages on 25% though pillar 2 by replacing it with a corresponding requirement under article 458 CRR. The change entered into force on 31 December 2018. RWA and RWA density is here calculated using the IRB Approach not including the risk weight floor.

EU CR6 – IRB Approach – Credit risk exposures by exposure class and PD range 2018

			a	b	c	d	e	f	g	h	i	j	k	l
Exposure class	IRB Approach[1]	PD scale	Original on-balance-sheet gross exposures, SEK m	Off-balance-sheet exposures pre-CCF, SEK m	Average CCF	EAD post CRM and post CCF, SEK m	Average PD	Number of obligors[2]	Average LGD	Average maturity, year	RWAs, SEK m	RWA density	EL, SEK m	Value adjust-ments and provisions, SEK m
Sovereign exposures	IRB-F	0.00 to <0.15	364 765	22 897	39.67%	432 487	0.00%	386	45.00%	1.3	7 564	1.75%	6	-17
Sovereign exposures	IRB-F	0.15 to <0.25	50	1	75.00%	72	0.20%	11	45.00%	2.5	32	44.65%	0	0
Sovereign exposures	IRB-F	0.25 to <0.50												
Sovereign exposures	IRB-F	0.50 to <0.75												
Sovereign exposures	IRB-F	0.75 to <2.50	82	0	75.00%	0	1.00%	3	45.00%	2.5	0	97.86%	0	0
Sovereign exposures	IRB-F	2.50 to <10.00	2	0	75.00%	2	5.00%	2	45.00%	2.5	3	158.85%	0	0
Sovereign exposures	IRB-F	10.00 to <100.00												
Sovereign exposures	IRB-F	100.00 (Default)												
Sovereign exposures	IRB-F	Other												
Sovereign exposures	**IRB-F**	**Subtotal**	**364 899**	**22 898**	**39.67%**	**432 561**	**0.00%**	**402**	**45.00%**	**1.3**	**7 599**	**1.76%**	**6**	**-17**
Institution exposures	IRB-F	0.00 to <0.15	10 020	6 314	47.77%	12 216	0.06%	84	33.10%	2.5	2 848	23.32%	3	-2
Institution exposures	IRB-F	0.15 to <0.25	4 019	1 326	35.72%	5 087	0.19%	25	37.92%	2.5	2 476	48.67%	4	-1
Institution exposures	IRB-F	0.25 to <0.50	32	235	50.00%	150	0.49%	12	45.00%	2.5	141	94.32%	0	0
Institution exposures	IRB-F	0.50 to <0.75												
Institution exposures	IRB-F	0.75 to <2.50	19	97	51.19%	68	1.19%	27	44.85%	2.5	86	125.65%	0	0
Institution exposures	IRB-F	2.50 to <10.00												
Institution exposures	IRB-F	10.00 to <100.00	29	20	50.00%	39	17.10%	11	45.00%	2.5	89	229.45%	3	0
Institution exposures	IRB-F	100.00 (Default)												
Institution exposures	IRB-F	Other												
Institution exposures	**IRB-F**	**Subtotal**	**14 119**	**7 992**	**45.89%**	**17 560**	**0.15%**	**159**	**34.67%**	**2.5**	**5 640**	**32.12%**	**10**	**-3**
Corporate exposures	IRB-F	0.00 to <0.15	59 215	105 012	61.12%	102 262	0.07%	2 778	38.73%	2.5	21 386	20.91%	28	-5
Corporate exposures	IRB-F	0.15 to <0.25	2 158	2 058	50.77%	3 267	0.17%	1 557	35.83%	2.5	863	26.42%	2	-2
Corporate exposures	IRB-F	0.25 to <0.50	5 960	9 706	48.60%	9 962	0.35%	779	40.14%	2.5	5 104	51.24%	14	-3
Corporate exposures	IRB-F	0.50 to <0.75	1 887	1 535	55.02%	2 662	0.64%	1 399	35.28%	2.5	1 330	49.97%	6	-4
Corporate exposures	IRB-F	0.75 to <2.50	3 433	15 169	51.24%	8 552	1.12%	1 107	42.42%	2.5	7 317	85.56%	40	-9
Corporate exposures	IRB-F	2.50 to <10.00	352	115	49.87%	387	8.47%	148	36.68%	2.5	469	121.37%	12	-4
Corporate exposures	IRB-F	10.00 to <100.00	704	529	57.68%	982	25.94%	180	40.20%	2.5	2 030	206.76%	99	-17
Corporate exposures	IRB-F	100.00 (Default)	353	310	99.77%	642	100.00%	52	43.39%	2.5	0	0.00%	278	-186
Corporate exposures	IRB-F	Other												
Corporate exposures	**IRB-F**	**Subtotal**	**74 062**	**134 434**	**58.94%**	**128 716**	**0.90%**	**8 000**	**38.97%**	**2.5**	**38 499**	**29.91%**	**479**	**-230**
Corporate exposures	IRB-A	0.00 to <0.15	675 402	209 629	21.57%	702 078	0.09%	30 497	21.03%	3.2	87 800	12.51%	137	-22
Corporate exposures	IRB-A	0.15 to <0.25	23 418	8 929	38.63%	26 947	0.17%	3 826	34.62%	2.9	7 364	27.33%	16	-13
Corporate exposures	IRB-A	0.25 to <0.50	141 941	29 137	24.94%	140 709	0.44%	7 027	26.17%	2.6	47 606	33.83%	158	-32
Corporate exposures	IRB-A	0.50 to <0.75	21 702	6 299	41.44%	24 052	0.64%	3 226	32.51%	2.8	11 211	46.61%	50	-31
Corporate exposures	IRB-A	0.75 to <2.50	58 779	20 283	26.45%	60 530	1.54%	5 914	29.33%	2.6	35 456	58.58%	274	-125
Corporate exposures	IRB-A	2.50 to <10.00	7 984	740	41.13%	8 150	7.16%	824	31.72%	2.8	8 069	99.00%	190	-70
Corporate exposures	IRB-A	10.00 to <100.00	9 957	1 911	21.71%	9 577	27.46%	873	33.69%	2.5	14 947	156.06%	892	-311
Corporate exposures	IRB-A	100.00 (Default)	4 280	74	26.91%	4 257	100.00%	265	39.63%	2.0	6 713	157.70%	1 680	-1 681
Corporate exposures	IRB-A	Other												
Corporate exposures	**IRB-A**	**Subtotal**	**943 463**	**277 002**	**23.34%**	**976 300**	**1.01%**	**52 452**	**23.24%**	**3.0**	**219 166**	**22.45%**	**3 397**	**-2 285**
Corporate exposures	Total	0.00 to <0.15	734 615	314 643	34.77%	804 340	0.08%	31 751	23.28%	3.1	109 186	13.57%	164	-27
Corporate exposures	Total	0.15 to <0.25	25 577	10 987	40.90%	30 214	0.17%	4 487	34.75%	2.8	8 227	27.23%	18	-15
Corporate exposures	Total	0.25 to <0.50	147 902	38 843	30.85%	150 671	0.43%	7 330	27.09%	2.6	52 711	34.98%	172	-36
Corporate exposures	Total	0.50 to <0.75	23 589	7 834	44.10%	26 714	0.64%	3 798	32.78%	2.7	12 542	46.95%	56	-35
Corporate exposures	Total	0.75 to <2.50	62 212	35 451	37.06%	69 082	1.48%	6 424	30.95%	2.6	42 772	61.92%	314	-135
Corporate exposures	Total	2.50 to <10.00	8 336	855	42.30%	8 537	7.22%	866	31.94%	2.8	8 538	100.01%	202	-74
Corporate exposures	Total	10.00 to <100.00	10 661	2 440	29.51%	10 559	27.32%	951	34.29%	2.5	16 976	160.78%	991	-328
Corporate exposures	Total	100.00 (Default)	4 633	384	85.74%	4 899	100.00%	282	40.12%	2.1	6 713	137.03%	1 959	-1 864
Corporate exposures	Total	Other												
Corporate exposures	**Total**	**Subtotal**	**1 017 525**	**411 437**	**34.97%**	**1 105 016**	**0.99%**	**55 889**	**25.07%**	**3.0**	**257 665**	**23.32%**	**3 876**	**-2 514**
Corporate exposures: SMEs	IRB-F	0.00 to <0.15	11 028	5 525	63.52%	10 756	0.08%	1 810	26.89%	2.5	1 449	13.47%	3	-2
Corporate exposures: SMEs	IRB-F	0.15 to <0.25	2 158	2 058	50.77%	3 267	0.17%	1 557	35.83%	2.5	863	26.42%	2	-2
Corporate exposures: SMEs	IRB-F	0.25 to <0.50	2 572	1 005	67.52%	2 860	0.45%	481	37.81%	2.5	1 243	43.46%	5	-1
Corporate exposures: SMEs	IRB-F	0.50 to <0.75	1 887	1 535	55.02%	2 662	0.64%	1 399	35.28%	2.5	1 330	49.97%	6	-4
Corporate exposures: SMEs	IRB-F	0.75 to <2.50	1 474	998	58.93%	1 950	1.87%	887	36.66%	2.5	1 352	69.33%	13	-6
Corporate exposures: SMEs	IRB-F	2.50 to <10.00	343	115	49.87%	377	8.53%	147	36.57%	2.5	458	121.44%	12	-4
Corporate exposures: SMEs	IRB-F	10.00 to<100.00	277	124	62.32%	327	30.59%	143	33.56%	2.5	471	144.25%	32	-11
Corporate exposures: SMEs	IRB-F	100.00 (Default)	181	3	76.22%	163	100.00%	43	38.65%	2.5	0	0.00%	63	-39

EU CR6 – IRB Approach – Credit risk exposures by exposure class and PD range 2018

			a	b	c	d	e	f	g	h	i	j	k	l
Exposure class	IRB Approach[1]	PD scale	Original on-balance-sheet gross exposures, SEK m	Off-balance-sheet exposures pre-CCF, SEK m	Average CCF	EAD post CRM and post CCF, SEK m	Average PD	Number of obligors[2]	Average LGD	Average maturity, year	RWAs, SEK m	RWA density	EL, SEK m	Value adjustments and provisions, SEK m
Corporate exposures: SMEs	IRB-F	Other												
Corporate exposures: SMEs	**IRB-F**	**Subtotal**	**19 920**	**11 363**	**59.87%**	**22 362**	**1.68%**	**6 467**	**31.79%**	**2.5**	**7 166**	**32.05%**	**136**	**-69**
Corporate exposures: SMEs	IRB-A	0.00 to <0.15	470 127	26 813	33.02%	458 305	0.09%	27 911	16.30%	3.5	38 219	8.34%	73	-13
Corporate exposures: SMEs	IRB-A	0.15 to <0.25	23 418	8 929	38.63%	26 947	0.17%	3 826	34.62%	2.9	7 364	27.33%	16	-13
Corporate exposures: SMEs	IRB-A	0.25 to <0.50	93 510	4 607	41.35%	91 218	0.47%	6 212	23.28%	2.8	24 611	26.98%	101	-20
Corporate exposures: SMEs	IRB-A	0.50 to <0.75	21 702	6 299	41.44%	24 052	0.64%	3 226	32.51%	2.8	11 211	46.61%	50	-31
Corporate exposures: SMEs	IRB-A	0.75 to <2.50	37 189	4 220	36.33%	36 268	1.80%	5 453	26.59%	2.9	18 288	50.43%	187	-101
Corporate exposures: SMEs	IRB-A	2.50 to <10.00	6 427	674	40.15%	6 559	7.38%	814	33.13%	2.7	6 408	97.69%	164	-57
Corporate exposures: SMEs	IRB-A	10.00 to<100.00	6 142	629	34.19%	5 697	30.47%	802	31.68%	2.9	7 640	134.11%	566	-226
Corporate exposures: SMEs	IRB-A	100.00 (Default)	2 174	64	26.38%	2 154	100.00%	236	42.48%	1.9	3 224	149.69%	1 038	-1 038
Corporate exposures: SMEs	IRB-A	Other												
Corporate exposures: SMEs	**IRB-A**	**Subtotal**	**660 689**	**52 235**	**36.09%**	**651 200**	**0.93%**	**48 480**	**19.60%**	**3.3**	**116 965**	**17.96%**	**2 195**	**-1 499**
Corporate exposures: SMEs	Total	0.00 to <0.15	481 156	32 337	38.23%	469 062	0.09%	28 579	16.54%	3.5	39 667	8.46%	76	-15
Corporate exposures: SMEs	Total	0.15 to <0.25	25 577	10 987	40.90%	30 214	0.17%	4 487	34.75%	2.8	8 227	27.23%	18	-15
Corporate exposures: SMEs	Total	0.25 to <0.50	96 082	5 612	46.04%	94 078	0.46%	6 353	23.72%	2.8	25 854	27.48%	106	-22
Corporate exposures: SMEs	Total	0.50 to <0.75	23 589	7 834	44.10%	26 714	0.64%	3 798	32.78%	2.7	12 542	46.95%	56	-35
Corporate exposures: SMEs	Total	0.75 to <2.50	38 663	5 219	40.66%	38 217	1.81%	5 841	27.11%	2.9	19 640	51.39%	201	-108
Corporate exposures: SMEs	Total	2.50 to <10.00	6 769	788	41.56%	6 936	7.45%	855	33.32%	2.7	6 866	98.98%	176	-60
Corporate exposures: SMEs	Total	10.00 to<100.00	6 419	754	38.83%	6 024	30.48%	857	31.78%	2.9	8 112	134.66%	599	-238
Corporate exposures: SMEs	Total	100.00 (Default)	2 354	66	28.31%	2 316	100.00%	252	42.21%	2.0	3 224	139.18%	1 099	-1 075
Corporate exposures: SMEs	Total	Other												
Corporate exposures: SMEs	**Total**	**Subtotal**	**680 609**	**63 597**	**40.34%**	**673 561**	**0.95%**	**51 022**	**20.00%**	**3.3**	**124 132**	**18.43%**	**2 331**	**-1 568**
Retail exposures	IRB-A	0.00 to <0.15	788 119	35 068	100.60%	823 449	0.07%	1 345 727	15.76%		25 100	3.05%	96	-34
Retail exposures	IRB-A	0.15 to <0.25	63 812	10 671	97.18%	74 211	0.18%	308 135	27.07%		7 715	10.40%	36	-7
Retail exposures	IRB-A	0.25 to <0.50	91 930	4 038	68.13%	94 115	0.32%	322 531	21.29%		11 624	12.35%	65	-15
Retail exposures	IRB-A	0.50 to <0.75	27 909	4 620	61.24%	30 738	0.61%	167 085	26.51%		7 302	23.76%	49	-23
Retail exposures	IRB-A	0.75 to <2.50	35 445	4 403	71.74%	38 656	1.71%	287 723	26.88%		15 427	39.91%	167	-58
Retail exposures	IRB-A	2.50 to <10.00	4 919	1 552	66.56%	5 960	6.00%	106 563	38.77%		3 624	60.80%	143	-85
Retail exposures	IRB-A	10.00 to<100.00	9 672	291	54.83%	9 844	13.89%	57 803	24.67%		10 116	102.76%	389	-97
Retail exposures	IRB-A	100.00 (Default)	2 361	3	71.53%	2 364	100.00%	23 496	39.34%		4 295	181.72%	964	-965
Retail exposures	IRB-A	Other												
Retail exposures	**IRB-A**	**Subtotal**	**1 024 167**	**60 646**	**91.65%**	**1 079 337**	**0.55%**	**2 618 739**	**17.98%**		**85 203**	**7.89%**	**1 909**	**-1 284**
Retail exposures: Secured by real estate property	IRB-A	0.00 to <0.15	773 120	24 591	104.00%	798 718	0.07%	998 153	15.18%		23 176	2.90%	88	-31
Retail exposures: Secured by real estate property	IRB-A	0.15 to <0.25	59 692	3 430	100.00%	63 122	0.17%	42 901	22.94%		5 542	8.78%	25	-3
Retail exposures: Secured by real estate property	IRB-A	0.25 to <0.50	76 653	114	98.79%	76 765	0.31%	124 262	19.63%		8 775	11.43%	47	-7
Retail exposures: Secured by real estate property	IRB-A	0.50 to <0.75	23 667	312	99.99%	23 978	0.62%	15 563	24.52%		5 640	23.52%	36	-15
Retail exposures: Secured by real estate property	IRB-A	0.75 to <2.50	25 951	181	111.21%	26 189	1.83%	31 523	20.19%		9 824	37.51%	91	-10
Retail exposures: Secured by real estate property	IRB-A	2.50 to <10.00	1 071	4	100.00%	1 074	4.88%	829	22.42%		702	65.33%	12	-3
Retail exposures: Secured by real estate property	IRB-A	10.00 to<100.00	7 901	25	113.93%	7 936	12.26%	11 073	20.16%		8 310	104.71%	209	-35
Retail exposures: Secured by real estate property	IRB-A	100.00 (Default)	1 055	2	100.00%	1 056	100.00%	1 371	21.02%		1 918	181.59%	153	-153
Retail exposures: Secured by real estate property	IRB-A	Other												

EU CR6 – IRB Approach – Credit risk exposures by exposure class and PD range 2018

			a	b	c	d	e	f	g	h	i	j	k	l
Exposure class	IRB Approach[1]	PD scale	Original on-balance-sheet gross exposures, SEK m	Off-balance-sheet exposures pre-CCF, SEK m	Average CCF	EAD post CRM and post CCF, SEK m	Average PD	Number of obligors[2]	Average LGD	Average maturity, year	RWAs, SEK m	RWA density	EL, SEK m	Value adjust-ments and provisions, SEK m
Retail exposures: Secured by real estate property	**IRB-A**	**Subtotal**	**969 110**	**28 659**	**103.51%**	**998 838**	**0.36%**	**1 225 353**	**16.42%**		**63 887**	**6.40%**	**661**	**-257**
Retail exposures: Other	IRB-A	0.00 to <0.15	14 999	10 475	92.64%	24 732	0.08%	347 572	34.48%		1 923	7.78%	7	-4
Retail exposures: Other	IRB-A	0.15 to <0.25	4 120	7 241	95.84%	11 089	0.18%	265 234	50.56%		2 173	19.59%	10	-4
Retail exposures: Other	IRB-A	0.25 to <0.50	15 278	3 924	67.24%	17 350	0.36%	198 269	28.61%		2 849	16.42%	18	-8
Retail exposures: Other	IRB-A	0.50 to <0.75	4 242	4 308	58.43%	6 759	0.57%	151 522	33.59%		1 663	24.60%	13	-8
Retail exposures: Other	IRB-A	0.75 to <2.50	9 494	4 222	70.04%	12 468	1.47%	256 200	40.93%		5 603	44.94%	75	-48
Retail exposures: Other	IRB-A	2.50 to <10.00	3 848	1 549	66.48%	4 886	6.24%	105 734	42.36%		2 922	59.80%	131	-82
Retail exposures: Other	IRB-A	10.00 to<100.00	1 771	266	49.22%	1 908	20.69%	46 730	43.43%		1 806	94.67%	183	-63
Retail exposures: Other	IRB-A	100.00 (Default)	1 306	2	40.60%	1 307	100.00%	22 125	54.15%		2 377	181.83%	811	-811
Retail exposures: Other	IRB-A	Other												
Retail exposures: Other	**IRB-A**	**Subtotal**	**55 058**	**31 987**	**81.03%**	**80 499**	**2.90%**	**1 393 386**	**37.37%**		**21 316**	**26.48%**	**1 248**	**-1 028**
Equity exposures	IRB-F	0.00 to <0.15												
Equity exposures	IRB-F	0.15 to <0.25												
Equity exposures	IRB-F	0.25 to <0.50												
Equity exposures	IRB-F	0.50 to <0.75												
Equity exposures	IRB-F	0.75 to <2.50												
Equity exposures	IRB-F	2.50 to <10.00												
Equity exposures	IRB-F	10.00 to<100.00												
Equity exposures	IRB-F	100.00 (Default)												
Equity exposures	IRB-F	Other	2 121			2 121		3			7 410	349.44%	42	0
Equity exposures	**IRB-F**	**Subtotal**	**2 121**			**2 121**		**3**			**7 410**	**349.44%**	**42**	**0**
Total	IRB-F	0.00 to <0.15	433 998	134 223	56.83%	546 965	0.02%	3 246	43.56%	1.5	31 797	5.81%	36	-22
Total	IRB-F	0.15 to <0.25	6 227	3 385	44.88%	8 426	0.18%	1 593	37.17%	2.5	3 371	40.01%	6	-4
Total	IRB-F	0.25 to <0.50	5 993	9 941	48.63%	10 112	0.36%	791	40.21%	2.5	5 246	51.87%	14	-3
Total	IRB-F	0.50 to <0.75	1 887	1 535	55.02%	2 662	0.64%	1 399	35.28%	2.5	1 330	49.97%	6	-4
Total	IRB-F	0.75 to <2.50	3 534	15 266	51.24%	8 621	1.12%	1 137	42.44%	2.5	7 403	85.87%	40	-9
Total	IRB-F	2.50 to <10.00	354	115	49.87%	389	8.45%	150	36.72%	2.5	472	121.56%	12	-4
Total	IRB-F	10.00 to<100.00	733	549	57.40%	1 020	25.60%	191	40.38%	2.5	2 119	207.62%	102	-17
Total	IRB-F	100.00 (Default)	353	310	99.77%	642	100.00%	52	43.39%	2.5	0	0.00%	279	-186
Total	IRB-F	Other	2 121			2 121		3			7 410	349.44%	42	0
Total	**IRB-F**	**Subtotal**	**455 200**	**165 324**	**55.64%**	**580 958**	**0.20%**	**8 562**	**43.19%**	**1.6**	**59 148**	**10.18%**	**537**	**-249**
Total	IRB-A	0.00 to <0.15	1 463 523	244 699	32.89%	1 525 527	0.08%	1 376 225	18.19%	1.5	112 899	7.40%	232	-57
Total	IRB-A	0.15 to <0.25	87 230	19 600	70.50%	101 158	0.17%	311 961	29.08%	0.8	15 079	14.91%	51	-20
Total	IRB-A	0.25 to <0.50	233 871	33 175	30.20%	234 824	0.39%	329 558	24.21%	1.6	59 230	25.22%	224	-47
Total	IRB-A	0.50 to <0.75	49 610	10 918	49.81%	54 789	0.62%	170 311	29.14%	1.2	18 514	33.79%	99	-54
Total	IRB-A	0.75 to <2.50	94 224	24 686	34.53%	99 186	1.60%	293 637	28.37%	1.6	50 883	51.30%	441	-184
Total	IRB-A	2.50 to <10.00	12 903	2 292	58.35%	14 111	6.67%	107 387	34.70%	1.6	11 693	82.86%	333	-155
Total	IRB-A	10.00 to<100.00	19 629	2 202	26.09%	19 421	20.58%	58 676	29.12%	1.2	25 063	129.05%	1 281	-408
Total	IRB-A	100.00 (Default)	6 641	77	28.89%	6 621	100.00%	23 761	39.53%	1.3	11 009	166.27%	2 645	-2 644
Total	IRB-A	Other												
Total	**IRB-A**	**Subtotal**	**1 967 631**	**337 649**	**35.61%**	**2 055 637**	**0.77%**	**2 671 191**	**20.48%**	**1.4**	**304 370**	**14.81%**	**5 306**	**-3 569**
Total	Total	0.00 to <0.15	1 897 521	378 921	41.37%	2 072 492	0.06%	1 377 951	24.88%	1.5	144 696	6.98%	268	-79
Total	Total	0.15 to <0.25	93 457	22 985	66.73%	109 584	0.17%	312 658	29.70%	0.9	18 450	16.84%	57	-24
Total	Total	0.25 to <0.50	239 864	43 116	34.45%	244 936	0.39%	329 873	24.87%	1.6	64 476	26.32%	238	-51
Total	Total	0.50 to <0.75	51 498	12 454	50.46%	57 452	0.62%	170 883	29.43%	1.3	19 844	34.54%	105	-58
Total	Total	0.75 to <2.50	97 758	39 952	40.92%	107 806	1.57%	294 177	29.50%	1.7	58 286	54.07%	481	-193
Total	Total	2.50 to <10.00	13 257	2 407	57.94%	14 499	6.72%	107 431	34.75%	1.7	12 165	83.90%	345	-159
Total	Total	10.00 to<100.00	20 361	2 751	32.34%	20 442	20.83%	58 765	29.68%	1.3	27 181	132.97%	1 383	-425
Total	Total	100.00 (Default)	6 994	387	85.61%	7 263	100.00%	23 778	39.87%	1.4	11 009	151.58%	2 923	-2 829
Total	Total	Other	2 121			2 121		3			7 410	349.44%	42	0
		Total (all portfolios)	2 422 831	502 973	42.19%	2 636 595	0.64%	2 675 189	25.48%	1.5	363 517	13.79%	5 842	-3 818

[1] There are two versions of the IRB Approach: the simplified version, the IRB Approach without own estimates of LGD and CCF (here IRB-F, in previous regulations called the foundation approach), and the more advanced method, the IRB Approach with own estimates of LGD and CCF (here IRB-A, in previous regulations called the advanced approach).

[2] The amount is based on the number of agreements rather than counterparties for retail exposures.

EU CR6 – IRB Approach – Credit risk exposures by exposure class and PD range 2017

			a	b	c	d	e	f	g	h	i	j	k	l
Exposure class	IRB Approach[1]	PD scale	Original on-balance-sheet gross exposures, SEK m	Off-balance-sheet exposures pre-CCF, SEK m	Average CCF %	EAD post CRM and post CCF, SEK m	Average PD %	Number of obligors[2]	Average LGD	Average maturity, year	RWAs, SEK m	RWA density %	EL, SEK m	Value adjust-ments and provisions, SEK m
Sovereign exposures	IRB-F	0.00 to <0.15	278 454	28 026	35.72%	349 171	0.00%	386	44.92%	1.4	7 135	2.04%	5	0
Sovereign exposures	IRB-F	0.15 to <0.25	126	6	75.00%	318	0.20%	17	45.00%	2.5	148	46.53%	0	0
Sovereign exposures	IRB-F	0.25 to <0.50												
Sovereign exposures	IRB-F	0.50 to <0.75												
Sovereign exposures	IRB-F	0.75 to <2.50	45	47	4.33%	5	1.00%	5	45.00%	2.4	5	96.92%	0	0
Sovereign exposures	IRB-F	2.50 to <10.00	2	0	75.00%	2	5.00%	2	45.00%	2.5	3	158.85%	0	0
Sovereign exposures	IRB-F	10.00 to <100.00												
Sovereign exposures	IRB-F	100.00 (Default)												
Sovereign exposures	IRB-F	Other												
Sovereign exposures	**IRB-F**	**Subtotal**	**278 627**	**28 079**	**35.68%**	**349 497**	**0.00%**	**410**	**44.92%**	**1.4**	**7 291**	**2.09%**	**5**	**0**
Institution exposures	IRB-F	0.00 to <0.15	11 326	5 579	42.23%	13 158	0.09%	85	32.30%	2.5	3 291	25.01%	3	0
Institution exposures	IRB-F	0.15 to <0.25	1 437	2 289	59.63%	2 828	0.21%	25	45.00%	2.5	1 488	52.63%	3	0
Institution exposures	IRB-F	0.25 to <0.50												
Institution exposures	IRB-F	0.50 to <0.75	24	269	48.52%	155	0.51%	16	45.00%	2.5	151	97.33%	0	0
Institution exposures	IRB-F	0.75 to <2.50	32	156	19.72%	63	1.24%	23	44.85%	2.5	84	132.71%	0	0
Institution exposures	IRB-F	2.50 to <10.00	77	130	39.26%	116	2.55%	15	45.00%	2.5	185	159.69%	1	0
Institution exposures	IRB-F	10.00 to <100.00	2	30	36.56%	13	18.59%	9	45.00%	2.5	34	267.33%	2	0
Institution exposures	IRB-F	100.00 (Default)												
Institution exposures	IRB-F	Other												
Institution exposures	**IRB-F**	**Subtotal**	**12 898**	**8 453**	**46.66%**	**16 332**	**0.15%**	**173**	**34.76%**	**2.5**	**5 232**	**32.04%**	**9**	**0**
Corporate exposures	IRB-F	0.00 to <0.15	54 486	88 468	62.70%	88 137	0.05%	2 562	38.90%	2.5	17 039	19.33%	22	0
Corporate exposures	IRB-F	0.15 to <0.25	1 881	1 517	50.91%	2 526	0.20%	1 482	33.14%	2.5	628	24.85%	2	0
Corporate exposures	IRB-F	0.25 to <0.50	3 920	9 156	59.38%	8 557	0.48%	265	39.88%	2.5	4 419	51.65%	11	0
Corporate exposures	IRB-F	0.50 to <0.75	4 031	2 026	52.10%	4 666	0.64%	1 729	35.54%	2.5	2 151	46.11%	9	0
Corporate exposures	IRB-F	0.75 to <2.50	2 306	12 897	53.59%	6 997	0.97%	983	41.82%	2.5	6 036	86.27%	34	0
Corporate exposures	IRB-F	2.50 to <10.00	1 140	1 348	69.08%	1 902	4.64%	174	39.35%	2.5	2 274	119.53%	28	2
Corporate exposures	IRB-F	10.00 to <100.00	587	359	59.42%	607	18.21%	159	42.15%	2.5	1 189	195.88%	59	12
Corporate exposures	IRB-F	100.00 (Default)	625	21	78.22%	638	100.00%	38	43.51%	2.5	0	0.00%	277	292
Corporate exposures	IRB-F	Other												
Corporate exposures	**IRB-F**	**Subtotal**	**68 977**	**115 792**	**61.15%**	**114 029**	**0.92%**	**7 386**	**38.94%**	**2.5**	**33 736**	**29.59%**	**442**	**307**
Corporate exposures	IRB-A	0.00 to <0.15	627 455	192 812	23.23%	651 469	0.04%	29 257	21.73%	3.2	75 354	11.57%	125	0
Corporate exposures	IRB-A	0.15 to <0.25	24 337	10 020	37.36%	28 254	0.20%	3 841	35.57%	2.9	8 569	30.33%	18	0
Corporate exposures	IRB-A	0.25 to <0.50	38 774	17 272	19.95%	38 488	0.48%	1 431	31.19%	3.0	14 984	38.93%	38	0
Corporate exposures	IRB-A	0.50 to <0.75	115 541	14 188	33.19%	115 946	0.64%	8 326	26.92%	2.6	40 168	34.64%	163	0
Corporate exposures	IRB-A	0.75 to <2.50	56 052	15 511	22.81%	56 951	0.97%	5 820	30.27%	2.7	34 964	61.39%	269	0
Corporate exposures	IRB-A	2.50 to <10.00	9 627	4 002	19.63%	9 734	4.56%	909	31.97%	2.7	9 151	94.01%	182	23
Corporate exposures	IRB-A	10.00 to <100.00	10 241	2 414	22.94%	10 323	18.18%	854	36.64%	2.6	18 644	180.61%	1 155	326
Corporate exposures	IRB-A	100.00 (Default)	5 653	380	26.10%	5 734	100.00%	286	40.54%	1.8	8 110	141.44%	3 314	3 332
Corporate exposures	IRB-A	Other												
Corporate exposures	**IRB-A**	**Subtotal**	**887 681**	**256 600**	**24.03%**	**916 899**	**1.27%**	**50 724**	**24.13%**	**3.0**	**209 946**	**22.90%**	**5 265**	**3 682**
Corporate exposures	Total	0.00 to <0.15	681 941	281 280	35.65%	739 607	0.08%	30 409	23.78%	3.1	92 393	12.49%	147	0
Corporate exposures	Total	0.15 to <0.25	26 217	11 536	39.14%	30 779	0.18%	4 435	35.37%	2.9	9 197	29.88%	20	0
Corporate exposures	Total	0.25 to <0.50	42 695	26 429	33.61%	47 045	0.31%	1 581	32.77%	2.9	19 403	41.24%	49	0
Corporate exposures	Total	0.50 to <0.75	119 572	16 215	35.55%	120 612	0.52%	8 980	27.26%	2.6	42 320	35.09%	173	0
Corporate exposures	Total	0.75 to <2.50	58 359	28 408	36.79%	63 947	1.52%	6 250	31.53%	2.7	41 000	64.11%	304	0
Corporate exposures	Total	2.50 to <10.00	10 768	5 350	32.09%	11 637	5.58%	972	33.18%	2.7	11 425	98.18%	210	26
Corporate exposures	Total	10.00 to <100.00	10 828	2 773	27.66%	10 930	29.77%	934	36.95%	2.6	19 834	181.46%	1 214	338
Corporate exposures	Total	100.00 (Default)	6 278	402	28.87%	6 371	100.00%	301	40.84%	1.9	8 110	127.29%	3 592	3 625
Corporate exposures	Total	Other												
Corporate exposures	**Total**	**Subtotal**	**956 657**	**372 392**	**35.57%**	**1 030 929**	**1.23%**	**53 856**	**25.77%**	**3.0**	**243 682**	**23.64%**	**5 708**	**3 989**
Corporate exposures: SMEs	IRB-F	0.00 to <0.15	10 797	6 395	70.45%	11 736	0.04%	1 672	29.03%	2.5	1 651	14.07%	3	0
Corporate exposures: SMEs	IRB-F	0.15 to <0.25	1 881	1 517	50.91%	2 526	0.17%	1 482	33.14%	2.5	628	24.85%	2	0
Corporate exposures: SMEs	IRB-F	0.25 to <0.50	365	673	74.83%	580	0.37%	22	36.45%	2.5	182	31.43%	1	0
Corporate exposures: SMEs	IRB-F	0.50 to <0.75	3 815	1 812	47.65%	4 522	0.64%	1 724	35.25%	2.5	2 046	45.23%	9	0
Corporate exposures: SMEs	IRB-F	0.75 to <2.50	1 404	1 648	68.57%	2 379	1.27%	832	36.84%	2.5	1 553	65.27%	13	0
Corporate exposures: SMEs	IRB-F	2.50 to <10.00	435	109	68.58%	427	5.16%	132	28.86%	2.5	351	82.17%	8	1
Corporate exposures: SMEs	IRB-F	10.00 to <100.00	246	100	58.87%	218	13.99%	129	37.93%	2.5	327	149.64%	24	5
Corporate exposures: SMEs	IRB-F	100.00 (Default)	394	11	58.15%	396	100.00%	33	42.72%	2.5	0	0.00%	169	126
Corporate exposures: SMEs	IRB-F	Other												
Corporate exposures: SMEs	**IRB-F**	**Subtotal**	**19 336**	**12 265**	**64.53%**	**22 784**	**2.47%**	**6 021**	**32.04%**	**2.5**	**6 736**	**29.57%**	**228**	**132**

EU CR6 – IRB Approach – Credit risk exposures by exposure class and PD range 2017

			a	b	c	d	e	f	g	h	i	j	k	l
Exposure class	IRB Approach[1]	PD scale	Original on-balance-sheet gross exposures, SEK m	Off-balance-sheet exposures pre-CCF, SEK m	Average CCF %	EAD post CRM and post CCF, SEK m	Average PD %	Number of obligors[2]	Average LGD	Average maturity, year	RWAs, SEK m	RWA density %	EL, SEK m	Value adjust-ments and provisions, SEK m
Corporate exposures: SMEs	IRB-A	0.00 to <0.15	454 640	32 986	36.72%	445 533	0.04%	27 148	17.32%	3.5	39 549	8.88%	76	0
Corporate exposures: SMEs	IRB-A	0.15 to <0.25	24 337	10 020	37.36%	28 254	0.18%	3 841	35.57%	2.9	8 569	30.33%	18	0
Corporate exposures: SMEs	IRB-A	0.25 to <0.50	13 839	883	33.88%	12 292	0.35%	934	18.80%	4.0	2 176	17.70%	7	0
Corporate exposures: SMEs	IRB-A	0.50 to <0.75	92 525	8 525	42.69%	95 100	0.64%	8 127	27.12%	2.7	32 352	34.02%	136	0
Corporate exposures: SMEs	IRB-A	0.75 to <2.50	35 460	3 377	40.86%	34 773	1.27%	5 476	28.04%	3.0	18 352	52.78%	181	0
Corporate exposures: SMEs	IRB-A	2.50 to <10.00	6 551	607	37.35%	6 606	4.32%	828	32.01%	2.6	5 751	87.05%	140	18
Corporate exposures: SMEs	IRB-A	10.00 to <100.00	5 607	699	30.36%	5 355	13.65%	796	36.15%	2.8	8 382	156.52%	570	118
Corporate exposures: SMEs	IRB-A	100.00 (Default)	3 188	29	24.51%	3 177	100.00%	268	43.03%	1.9	6 466	203.54%	1 350	1 362
Corporate exposures: SMEs	IRB-A	Other												
Corporate exposures: SMEs	**IRB-A**	**Subtotal**	**636 148**	**57 127**	**37.85%**	**631 090**	**1.07%**	**47 418**	**20.68%**	**3.3**	**121 597**	**19.27%**	**2 478**	**1 498**
Corporate exposures: SMEs	Total	0.00 to <0.15	465 437	39 382	42.19%	457 269	0.08%	27 736	17.62%	3.5	41 200	9.01%	79	0
Corporate exposures: SMEs	Total	0.15 to <0.25	26 217	11 536	39.14%	30 779	0.18%	4 435	35.37%	2.9	9 197	29.88%	20	0
Corporate exposures: SMEs	Total	0.25 to <0.50	14 205	1 556	51.58%	12 872	0.30%	953	19.60%	4.0	2 359	18.32%	8	0
Corporate exposures: SMEs	Total	0.50 to <0.75	96 340	10 337	43.56%	99 623	0.52%	8 779	27.49%	2.7	34 397	34.53%	145	0
Corporate exposures: SMEs	Total	0.75 to <2.50	36 864	5 024	49.95%	37 152	1.75%	5 826	28.60%	2.9	19 905	53.58%	194	0
Corporate exposures: SMEs	Total	2.50 to <10.00	6 986	716	42.09%	7 033	6.57%	870	31.82%	2.6	6 102	86.76%	148	19
Corporate exposures: SMEs	Total	10.00 to <100.00	5 854	799	33.93%	5 574	28.69%	854	36.22%	2.8	8 709	156.25%	594	123
Corporate exposures: SMEs	Total	100.00 (Default)	3 581	40	33.72%	3 572	100.00%	280	42.99%	2.0	6 466	181.00%	1 519	1 488
Corporate exposures: SMEs	Total	Other												
Corporate exposures: SMEs	**Total**	**Subtotal**	**655 484**	**69 391**	**42.56%**	**653 874**	**1.11%**	**49 727**	**21.07%**	**3.3**	**128 334**	**19.63%**	**2 706**	**1 630**
Retail exposures	IRB-A	0.00 to <0.15	809 112	39 276	96.54%	846 645	0.07%	1 774 282	16.27%		28 417	3.36%	110	0
Retail exposures	IRB-A	0.15 to <0.25	0	2 725	100.00%	2 725	0.16%	1 344	19.00%		186	6.84%	1	0
Retail exposures	IRB-A	0.25 to <0.50	122 681	10 182	74.97%	130 325	0.37%	495 990	21.78%		18 381	14.10%	107	0
Retail exposures	IRB-A	0.50 to <0.75	598	2	100.00%	600	0.57%	3 201	53.07%		278	46.32%	2	0
Retail exposures	IRB-A	0.75 to <2.50	27 398	3 881	67.70%	30 043	1.21%	289 970	28.93%		10 189	33.91%	110	5
Retail exposures	IRB-A	2.50 to <10.00	9 422	1 193	61.37%	10 158	5.98%	124 567	27.90%		6 771	66.66%	175	35
Retail exposures	IRB-A	10.00 to <100.00	3 687	283	52.85%	3 839	20.11%	40 919	28.43%		4 184	108.98%	237	47
Retail exposures	IRB-A	100.00 (Default)	2 329	4	84.07%	2 333	100.00%	21 651	39.76%		4 168	178.68%	1 005	1 006
Retail exposures	IRB-A	Other												
Retail exposures	**IRB-A**	**Subtotal**	**975 227**	**57 547**	**90.00%**	**1 026 668**	**0.50%**	**2 751 570**	**17.58%**		**72 574**	**7.07%**	**1 747**	**1 093**
Retail exposures: Secured by real estate property	IRB-A	0.00 to <0.15	783 599	18 089	100.00%	801 688	0.07%	1 038 158	15.40%		25 347	3.16%	98	0
Retail exposures: Secured by real estate property	IRB-A	0.15 to <0.25	0	2 725	100.00%	2 725	0.16%	1 344	19.00%		186	6.84%	1	0
Retail exposures: Secured by real estate property	IRB-A	0.25 to <0.50	102 762	364	99.94%	103 126	0.36%	156 941	20.02%		13 622	13.21%	76	0
Retail exposures: Secured by real estate property	IRB-A	0.50 to <0.75	378	1	100.00%	379	0.55%	1 653	52.00%		178	47.10%	1	0
Retail exposures: Secured by real estate property	IRB-A	0.75 to <2.50	15 737	87	99.65%	15 824	1.03%	21 830	22.57%		4 708	29.75%	39	0
Retail exposures: Secured by real estate property	IRB-A	2.50 to <10.00	5 280	9	100.00%	5 289	5.52%	8 299	20.18%		4 199	79.40%	72	13
Retail exposures: Secured by real estate property	IRB-A	10.00 to <100.00	2 466	11	97.99%	2 476	16.06%	4 158	20.76%		2 873	116.05%	93	16
Retail exposures: Secured by real estate property	IRB-A	100.00 (Default)	912	1	100.00%	913	100.00%	1 235	21.10%		1 685	184.41%	127	126
Retail exposures: Secured by real estate property	IRB-A	Other												

EU CR6 – IRB Approach – Credit risk exposures by exposure class and PD range 2017

			a	b	c	d	e	f	g	h	i	j	k	l
Exposure class	IRB Approach[1]	PD scale	Original on-balance-sheet gross exposures, SEK m	Off-balance-sheet exposures pre-CCF, SEK m	Average CCF %	EAD post CRM and post CCF, SEK m	Average PD %	Number of obligors[2]	Average LGD	Average maturity, year	RWAs, SEK m	RWA density %	EL, SEK m	Value adjustments and provisions, SEK m
Retail exposures: Secured by real estate property	**IRB-A**	**Subtotal**	**911 133**	**21 288**	**100.00%**	**932 420**	**0.30%**	**1 233 267**	**16.10%**		**52 799**	**5.66%**	**507**	**155**
Retail exposures: Other	IRB-A	0.00 to <0.15	25 513	21 187	93.59%	44 957	0.08%	736 124	31.80%		3 070	6.83%	12	0
Retail exposures: Other	IRB-A	0.15 to <0.25												
Retail exposures: Other	IRB-A	0.25 to <0.50	19 919	9 818	74.04%	27 199	0.39%	339 049	28.44%		4 759	17.50%	31	0
Retail exposures: Other	IRB-A	0.50 to <0.75	220	1	100.00%	221	0.57%	1 548	54.90%		100	45.00%	1	0
Retail exposures: Other	IRB-A	0.75 to <2.50	11 661	3 794	66.97%	14 220	1.39%	268 140	36.01%		5 481	38.54%	71	4
Retail exposures: Other	IRB-A	2.50 to <10.00	4 142	1 184	61.07%	4 869	5.79%	116 268	36.28%		2 572	52.82%	103	23
Retail exposures: Other	IRB-A	10.00 to <100.00	1 222	273	51.11%	1 364	24.32%	36 761	42.35%		1 311	96.13%	144	30
Retail exposures: Other	IRB-A	100.00 (Default)	1 417	3	75.27%	1 419	100.00%	20 416	51.77%		2 484	174.99%	878	880
Retail exposures: Other	IRB-A	Other												
Retail exposures: Other	**IRB-A**	**Subtotal**	**64 094**	**36 259**	**84.13%**	**94 248**	**2.52%**	**1 518 303**	**32.20%**		**19 776**	**20.98%**	**1 240**	**938**
Equity exposures	IRB-F	0.00 to <0.15												
Equity exposures	IRB-F	0.15 to <0.25												
Equity exposures	IRB-F	0.25 to <0.50												
Equity exposures	IRB-F	0.50 to <0.75												
Equity exposures	IRB-F	0.75 to <2.50												
Equity exposures	IRB-F	2.50 to <10.00												
Equity exposures	IRB-F	10.00 to <100.00												
Equity exposures	IRB-F	100.00 (Default)												
Equity exposures	IRB-F	Other	1 512			1 512		15			5 068	335.06%	26	0
Equity exposures	**IRB-F**	**Subtotal**	**1 512**			**1 512**		**15**			**5 068**	**335.06%**	**26**	**0**
Total	IRB-F	0.00 to <0.15	344 266	122 073	55.57%	450 467	0.02%	3 032	43.37%	1.6	27 465	6.10%	30	0
Total	IRB-F	0.15 to <0.25	3 444	3 811	56.18%	5 672	0.20%	1 524	39.72%	2.5	2 264	39.92%	4	0
Total	IRB-F	0.25 to <0.50	3 920	9 156	59.38%	8 557	0.32%	265	39.88%	2.5	4 419	51.65%	11	0
Total	IRB-F	0.50 to <0.75	4 055	2 296	51.68%	4 821	0.55%	1 745	35.85%	2.5	2 302	47.75%	10	0
Total	IRB-F	0.75 to <2.50	2 384	13 100	53.01%	7 065	1.20%	1 011	41.85%	2.5	6 125	86.69%	35	0
Total	IRB-F	2.50 to <10.00	1 219	1 478	66.46%	2 020	3.89%	191	39.68%	2.5	2 462	121.87%	30	2
Total	IRB-F	10.00 to <100.00	588	388	57.68%	620	23.20%	168	42.21%	2.5	1 223	197.33%	60	12
Total	IRB-F	100.00 (Default)	625	21	78.22%	638	100.00%	38	43.51%	2.5	0	0.00%	277	292
Total	IRB-F	Other	1 512			1 512		15			5 068	335.06%	26	0
Total	**IRB-F**	**Subtotal**	**362 014**	**152 324**	**55.65%**	**481 370**	**0.23%**	**7 977**	**43.01%**	**1.7**	**51 327**	**10.66%**	**483**	**307**
Total	IRB-A	0.00 to <0.15	1 436 566	232 088	35.64%	1 498 114	0.08%	1 803 539	18.64%	1.4	103 771	6.93%	235	0
Total	IRB-A	0.15 to <0.25	24 337	12 745	50.76%	30 979	0.18%	5 185	34.11%	2.7	8 756	28.26%	19	0
Total	IRB-A	0.25 to <0.50	161 455	27 455	40.35%	168 813	0.36%	497 421	23.93%	0.7	33 365	19.76%	144	0
Total	IRB-A	0.50 to <0.75	116 139	14 190	33.20%	116 546	0.52%	11 527	27.06%	2.5	40 446	34.70%	165	0
Total	IRB-A	0.75 to <2.50	83 450	19 392	31.80%	86 994	1.44%	295 790	29.81%	1.8	45 152	51.90%	379	5
Total	IRB-A	2.50 to <10.00	19 049	5 195	29.22%	19 892	5.94%	125 476	29.89%	1.3	15 922	80.04%	357	59
Total	IRB-A	10.00 to <100.00	13 928	2 697	26.08%	14 163	27.43%	41 773	34.42%	1.9	22 829	161.19%	1 392	373
Total	IRB-A	100.00 (Default)	7 982	384	26.69%	8 067	100.00%	21 937	40.32%	1.3	12 278	152.21%	4 320	4 338
Total	IRB-A	Other												
Total	**IRB-A**	**Subtotal**	**1 862 907**	**314 147**	**36.12%**	**1 943 567**	**0.86%**	**2 802 294**	**20.67%**	**1.4**	**282 520**	**14.54%**	**7 012**	**4 775**
Total	Total	0.00 to <0.15	1 780 832	354 161	42.51%	1 948 581	0.06%	1 805 161	24.36%	1.4	131 236	6.73%	265	0
Total	Total	0.15 to <0.25	27 781	16 556	52.01%	36 651	0.18%	5 821	34.98%	2.6	11 020	30.07%	23	0
Total	Total	0.25 to <0.50	165 376	36 611	45.11%	177 370	0.35%	497 571	24.69%	0.8	37 785	21.30%	155	0
Total	Total	0.50 to <0.75	120 194	16 486	35.77%	121 367	0.52%	12 197	27.41%	2.5	42 748	35.22%	175	0
Total	Total	0.75 to <2.50	85 834	32 492	40.35%	94 058	1.42%	296 248	30.71%	1.8	51 277	54.52%	414	5
Total	Total	2.50 to <10.00	20 268	6 673	37.47%	21 912	5.75%	125 556	30.79%	1.4	18 384	83.90%	387	61
Total	Total	10.00 to <100.00	14 517	3 086	30.05%	14 782	27.26%	41 862	34.74%	2.0	24 051	162.70%	1 452	385
Total	Total	100.00 (Default)	8 607	406	29.40%	8 704	100.00%	21 952	40.55%	1.4	12 278	141.06%	4 597	4 631
Total	Total	Other	1 512			1 512		15			5 068	335.06%	26	0
		Total (all portfolios)	**2 224 921**	**466 471**	**42.50%**	**2 424 938**	**0.74%**	**2 806 011**	**25.11%**	**1.5**	**333 847**	**13.77%**	**7 495**	**5 082**

[1] There are two versions of the IRB Approach: the simplified version, the IRB Approach without own estimates of LGD and CCF (here IRB-F, in previous regulations called the foundation approach), and the more advanced method, the IRB Approach with own estimates of LGD and CCF (here IRB-A, in previous regulations called the advanced approach).

[2] The amount is based on the number of agreements rather than counterparties for retail exposures.

Evolution of risk exposure amount for credit risk during 2018
In 2018, the Bank's risk exposure amount for credit risk, including CVA risk, increased by SEK 196.8 billion. This includes the effect of SEK 163.1 billion of moving the risk weight floor on Swedish mortgage loans from Pillar 2 to Pillar 1. The floor is set at 25% and the underlying risk weight on the affected portfolio was 4.5% year-end 2018. Excluding this effect, the risk exposure amount increased by SEK 33.6 billion. Of this total, the standardised approach accounted for an increase of SEK 3.6 billion, and CVA risk for an increase of SEK 0.3 billion. The changes related to the IRB Approach and are described in more detail in the text and table below.

The largest increase in the risk exposure amount for the IRB approach during the year, SEK 18.2 billion, came from model updates (corporates +10.2, retail +8.6, institutions -0.6). Changes in asset quality, reflecting the credit quality of the bank's clients and quality of collateral, had a minor net impact, SEK -0.9 billion. Out of this the fact that new business was done with counterparties who had risk weights that were lower than the average in the Bank's existing credit portfolio caused an decrease of SEK 5.5 billion. The net effect of existing counterparties having migrated between risk classes – in other words, the net of exposures to customers that migrate to better risk classes and customers that migrate to poorer classes – was an increase in the risk-weighted exposure amount of SEK 10.1 billion. The impact of the use of collateral, which reduced the risk-weighted exposure amount by SEK 5.6 billion.

The effect of exchange rate movements led to an increase of SEK 8.3 billion in the risk exposure amount. Underlying increase in credit volume increased the risk exposure amount by SEK 7.9 billion. With respect to credit risk, the 'Other' item includes factors such as changes in shareholdings, the effects of defaults, and changes in maturity. In net terms, these factors contributed to a decrease in the risk-weighted exposure amount of SEK 3.8 billion.

Table 45 EU CR8 – RWA flow statements of credit risk exposures under the IRB Approach

The following table shows the change for risk exposure amount for credit risk calculated by the IRB Approach. It further specifies the capital requirement. The change of risk exposure amount is broken down by type of driver. The risk exposure amount has increased compared to the previous Period. The main driver is that FI's board of directors decided to change the method used to apply current risk weight floor for Swedish mortgages on 25% though pillar 2 by replacing it with a corresponding requirement under article 458 CRR. The change entered into force on 31 December 2018

EU CR8 – RWA flow statements of credit risk exposures under the IRB Approach 2018

SEK bn		a RWA amounts	b Capital requirements
1	RWAs as at the end of the previous reporting period	348.4	27.9
2	Asset size	7.9	0.6
3	Asset quality	-0.9	-0.1
4	Model updates	18.2	1.5
5	Methodology and policy	0.0	0.0
6	Acquisitions and disposals	0.0	0.0
7	Foreign exchange movements	8.3	0.7
8a	Risk weight floor for Swedish mortgages	163.1	13.0
8	Other	-3.8	-0.3
9	RWAs as at the end of the reporting period	541.2	43.3

EU CR8 – RWA flow statements of credit risk exposures under the IRB Approach 2017

SEK bn		a RWA amounts	b Capital requirements
1	RWAs as at the end of the previous reporting period	299.4	24
2	Asset size	9.2	0.7
3	Asset quality	5.2	0.4
4	Model updates	29.4	2.4
5	Methodology and policy	9.7	0.8
6	Acquisitions and disposals	0	0
7	Foreign exchange movements	-4.1	-0.3
8	Other	-0.4	0
9	RWAs as at the end of the reporting period	348.4	28

Figure 46 Proportion of counterparties migrating between internal risk classes, corporate exposures, 2013–2018

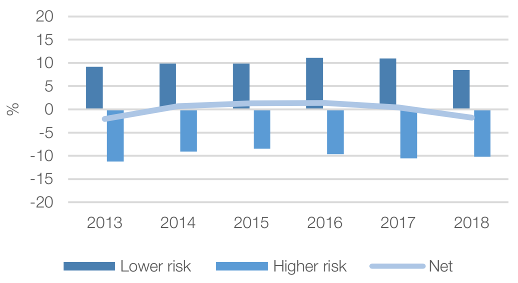


Figure 47 Proportion of counterparties migrating between internal risk classes, retail exposures – small companies, 2013–2018

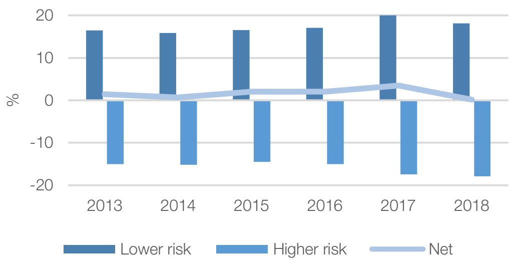
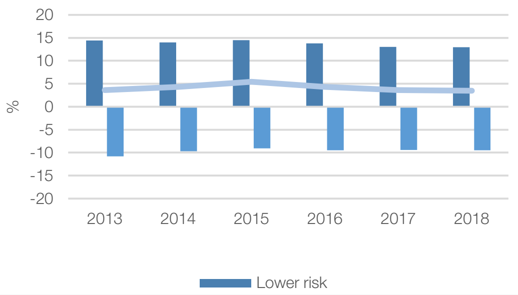


Figure 48 Proportion of counterparties whose internal rating migrates, retail exposures– private individuals, 2013–2018



Migrations

Trends in the quality of the credit portfolio can to some extent be identified by analysing changes in the internal risk assessment at counterparty level. This is known as rating migration. In this section, the number of migrating counterparties is measured. The previous section referred to the volume effect of this. In 2018, migration for corporate counterparties was negative measured both in volume and in terms of the number of counterparties. The negative effect in migration for 2018, in terms of number of counterparties, is explained by more counterparties maintaining their risk class unchanged, while the number of customers moving to lower risk classes decreased.

The Bank's corporate counterparties are given an internal rating. The rating is converted to an internal risk class for application of the IRB Approach. In the analysis of how the risk assessment changes at the counterparty level for corporate counterparties, migration is monitored at the risk class level.

For private individuals, in addition to the internal rating, other factors are included when setting the risk class for application of the IRB Approach. In the analysis (figure 48) of how the risk assessment changes at counterparty level for private individuals, only the internal rating is used on a 1–5 scale, from very low risk to very high risk.

Handelsbanken's internal rating method is dynamic, which means that the rating is re-assessed when there are signs that the counterparty's repayment capacity has changed to lower or higher risk. Internal rating is always updated once a year for all counterparties, regardless of whether there are signs that the repayment capacity has changed or not.

In the adjoining figures, the proportion of counterparties migrating between risk classes is presented for corporate exposures and for small companies, which due to their size are included in the exposure class for retail exposures, and also for migrations based on the internal rating for retail exposures to private individuals.

Securitisation

Handelsbanken has limited exposures which are securitisations. These are holdings in bonds and other debt instruments issued by special purpose vehicles. These exposures are only in the Bank's liquidity portfolio. Existing holdings mature at regular intervals and no new investments are made in securitisations. The purpose of the holdings is to utilise them as collateral with various central banks and thus create liquidity facilities. The Bank has no securitisations of its own.

Handelsbanken has applied the IRB Approach for capital adequacy for securitisations in the non-trading book since Q4 2008.

All securitised exposures were acquired prior to 2008. Handelsbanken's total exposure in securitised exposures after credit risk protection is SEK 22 million (20). All positions are in the role of investor. The risk weight for securitised exposures is determined on the basis of external credit ratings from rating agencies using the external rating approach. Handelsbanken has no resecuritisations.

All risks related to the securitisation positions are managed in the same way as the Bank's other processes, since the limited extent of these positions does not justify separate processes.

Table 49 Securitisation positions in the non-trading book by risk weight

Securitisation positions in the non-trading book by risk weight 2018[1,2]		Risk weight		
SEK m	Exposure amount	7–10%	12–850%	1 250%
Traditional securitisation	22	-	22	-
Synthetic securitisation	-	-	-	-
Total IRB Approach	22	-	22	-

[1] No securitisation positions in trading portfolio 2017 or 2018.
[2] The exposures have an external rating from Standard & Poors, Moody's and Fitch respectively.

Securitisation positions in the non-trading book by risk weight 2017[1,2]		Risk weight		
SEK m	Exposure amount	7–10%	12–850%	1 250%
Traditional securitisation	20	-	20	-
Synthetic securitisation	-	-	-	-
Total IRB Approach	20	-	20	-

[1] No securitisation positions in trading portfolio 2017 or 2018.
[2] The exposures have an external rating from Standard & Poors, Moody's and Fitch respectively.

COUNTERPARTY CREDIT RISKS

Counterparty credit risk arises when the Bank has entered into a derivative contract or a contract for the loan of securities with a counterparty. Thus, in addition to derivatives, the capital adequacy regulations treat both repurchase transactions and equity loans as counterparty credit risks.

In calculating the capital requirement and economic capital (EC), counterparty credit exposures are taken into account based on the exposure amounts stipulated by the capital adequacy regulations. Handelsbanken applies the mark-to-market method to calculate exposure amounts for derivatives contracts for capital adequacy purposes. To determine the current replacement cost for all contracts with a positive value, the contracts are assigned their prevailing market values. To estimate the possible future credit exposure, the nominal amount of the contract is multiplied by the percentage rate stipulated in the regulations, which depends on the type of derivative and the maturity of the exposure.

Counterparty credit risk is regarded as a credit risk where the market value of the contract determines the size of the exposure. If the contract has a positive value, the default of the counterparty means a potential loss for the Bank.

Mitigation of counterparty credit risk

Counterparty credit risk occurs from the trade date up until delivery and means that the Bank can suffer costs for winding down the position if the counterparty cannot fulfil its obligations. This risk exists in all derivative transactions and in securities transactions in which the Bank has not hedged the payment in advance.

The size of counterparty credit exposures is restricted by setting credit limits in the regular credit process. The size of the exposures may vary substantially due to fluctuations in the price of the underlying asset. In order to take account of the risk that the exposure may increase, supplements are added to the value of the exposure when setting credit limits. These add-ons are calculated using standard amounts that depend on the type of contract and the time to maturity. The exposures are calculated and followed up daily.

The counterparty credit risk in derivatives is reduced through close-out netting agreements, which involve offsetting positive values against negative values in all derivative transactions with the same counterparty. Netting agreements are supplemented with credit support annex (CSA) agreements, for issuing collateral for the net exposure, which further reduces the counterparty credit risk. The collateral for these transactions is mainly cash, but government instruments are also used. Due to the high proportion of cash, the concentration risks in the collateral are limited.

A small number of the collateral agreements entered into by the Bank include terms and conditions concerning rating-based threshold amounts for Handelsbanken. These conditions mean that the Bank must provide further collateral for the counterparty in question, in the event of external parties lowering the Bank's rating. At year-end, a downgrading from AA/Aa2 to AA-/Aa3 would have meant the Bank having to provide additional collateral of SEK 60 million (34).

The majority of Handelsbanken's contracts contain close-out netting, and the contracts with the largest exposures also contain CSA agreements.

Derivatives which are cleared via central counterparties also give rise to capital requirements. Central counterparties are clearing houses which act as the counterparty for both the buyer and seller in various transactions, and thus take over the responsibility for fulfilling the parties' obligations. All parties which use a central counterparty must provide collateral for all transactions. In most cases, the risk weight for centrally cleared derivatives is considerably lower than for other types of derivatives. The risk-weighted exposure amount for derivative transactions with central counterparties was SEK 136 million (114) at year-end.

Non-cleared derivative transactions also result in capital requirements for credit valuation adjustment (CVA) risk. This risk is related to the counterparty's credit quality. The capital requirement for CVA risk was SEK 417 million (391) at year-end.

Payment risk

Payment risk arises in transactions where the Bank has fulfilled its commitments in the form of foreign exchange conversion, payments or delivery of securities, but cannot at the same time ensure that the counterparty has fulfilled its commitments to the Bank. The risk amount equals the amount of the payment transaction. The payment risks are not included in the credit limit of each customer; instead, they are covered by a separate limit. At Handelsbanken, the risk of value changes in spot transactions is categorised as payment risk, while the risk of value changes in derivative transactions is categorised as credit risk.

Table 50 Counterparty credit risk broken down into exposure classes, exposure amounts and risk-weighted exposure amounts, IRB Approach

Exposure amount broken down into derivatives and SFTs (securities financing transactions).

Counterparty risk broken down into exposure classes, exposure amounts and risk-weighted exposure amounts, IRB Approach	2018		2017	
SEK m	Exposure amount	Risk-weighted exposure amount	Exposure amount	Risk-weighted exposure amount
Exposure classes IRB Approach				
Institution exposures	68 864	9 218	55 891	8 697
Corporate exposures	19 013	2 986	17 180	3 400
Sovereign exposures	8 228	96	8 223	183
Total IRB Approach	96 105	12 300	81 294	12 280

Table 51 Counterparty credit risk broken down into exposure classes, exposure values and risk-weighted exposure amounts, standardised approach

Exposure value broken down into derivatives and SFTs (securities financing transactions).

Counterparty risk broken down into exposure classes, exposure values and risk-weighted exposure amounts, standardised approach	2018		2017	
SEK m	Exposure value	Risk-weighted exposure amount	Exposure value	Risk-weighted exposure amount
Exposure classes standardised approach				
Institution exposures	6 776	136	5 708	114
of which cleared via central counterparties	*6 776*	*136*	*5 708*	*114*
Other	378	162	426	238
Total standardised approach	7 154	298	6 134	352
Total IRB and standardised approach	103 259	12 598	87 428	12 632

Table 52 Counterparty credit risks in derivative contracts excluding standard add-ons for potential future exposure

Counterparty credit risks in derivative contracts excluding standard add-ons for potential future exposure SEK m	2018	2017
Positive gross market value for derivative contracts	79 091	76 892
Netting gains[1]	33 654	37 660
Current set-off exposure	45 437	39 232
Collateral[1]	38 698	30 023
Net credit exposure for derivatives	6 739	9 209

[1] Collateral offset in the balance sheet is reported under netting gains.

Table 53 Counterparty credit risks in derivative contracts including potential future exposure

Counterparty credit risks in derivative contracts including potential future exposure 2018 SEK m	Current set-off exposure	Potential future exposure	Exposure amount	Risk-weighted exposure amount	Capital requirement
Sovereign exposures	1 714	658	2 372	95	8
Institution exposures	37 528	26 531	64 059	8 900	711
Corporate exposures	6 120	3 767	9 887	3 021	242
Others	75	45	120	88	7
Total	45 437	31 001	76 438	12 104	968
of which operations in the trading book	*10 665*	*11 993*	*22 658*	*4 185*	*335*

Counterparty credit risks in derivative contracts including potential future exposure 2017 SEK m	Current set-off exposure	Potential future exposure	Exposure amount	Risk-weighted exposure amount	Capital requirement
Sovereign exposures	2 015	1 009	3 024	183	15
Institution exposures	28 702	23 812	52 514	8 638	691
Corporate exposures	8 455	3 504	11 959	3 515	281
Others	60	54	114	84	7
Total	39 232	28 379	67 611	12 420	994
of which operations in the trading book	*13 479*	*12 628*	*26 107*	*5 203*	*416*

Market risk

Handelsbanken aims to have low market risks and low volatility in its earnings. Market risks mainly arise in Handelsbanken Capital Markets as a result of customer-driven transactions, in connection with the Bank's funding and liquidity management and in its role as a market maker. In addition, market risk arises in the pension system. Market risks arise from price and volatility changes in the financial markets. Market risks are divided into interest rate risk, equity price risk, exchange rate risk and commodity price risk.

For a more detailed description of the Banks market risks please see Handelsbanken's Annual Report, note G2.

Table 62 EU MR1 – Market risk under the standardised approach

The following table shows capital requirements and REA for market risk according to the standardised approach (CRR) at year-end 2018

EU MR1 – Market risk under the standardised approach	**2018**		**2017**	
	a	**b**	**a**	**b**
SEK m	**REA**	**Capital requirements**	**REA**	**Capital requirements**
Outright products				
Interest rate risk	9 552	764	10 089	808
of which general risk	*7 888*	*631*	*7 145*	*572*
of which specific risk	*1 664*	*133*	*2 944*	*236*
Equity risk	84	7	113	9
of which general risk	*27*	*2*	*34*	*3*
of which specific risk	*54*	*5*	*74*	*6*
of which CIUs	*3*	*0*	*5*	*0*
Foreign exchange risk	-	-	-	-
Commodity risk	85	7	60	5
Options				
Scenario approach	43	3	48	3
of which interest rate risk	*4*	*0*	*5*	*0*
of which equity risk	*39*	*3*	*43*	*3*
of which foreign exchange risk	-	-	-	-
of which commodity risk	*0*	*0*	*0*	*0*
Securitisation (specific risk)	-	-	-	-
Settlement risk	1	0	0	0
Total	**9 765**	**781**	**10 310**	**825**

Funding and liquidity risk

The starting point for Handelsbanken's work on liquidity risk is a well-balanced balance sheet where long-term assets are financed with stable funding. As a consequence of Handelsbanken's low tolerance of risks, over time the Bank has worked on building up liquidity reserves and matching cash flows to limit its liquidity risks.

Liquidity risk is the risk that the Bank will not be able to meet its payment obligations as they fall due without being affected by unacceptable costs or losses.

For a more detailed description of the Banks funding and liquidity risk please see Handelsbanken's Annual Report, note G2.

Table TB33 EU LIQ1 – LCR disclosure template

The following table shows weighted and unweighted components and levels for the liquidity coverage ratio (LCR) where the values presented are simple averages of month-end observations over the 12 months preceding the end of each quarter.

EU LIQ1 – LCR disclosure template Consolidated situation		Total unweighted value (average)				Total weighted value (average)			
SEK m	Quarter ending on	31 Dec 18	30 Sep 18	30 Jun 18	31 Mar 18	31 Dec 18	30 Sep 18	30 Jun 18	31 Mar 18
	Number of data points used in the calculation of averages	12	12	12	12	12	12	12	12
	HIGH-QUALITY LIQUID ASSETS								
1	Total high-quality liquid assets (HQLA)					580 784	584 549	595 486	607 453
	CASH – OUTFLOWS								
2	Retail deposits and deposits from small business customers, of which:	625 972	612 247	596 504	580 356	56 821	55 498	53 853	52 294
3	*Stable deposits*	*279 235*	*275 227*	*270 459*	*265 496*	*13 962*	*13 761*	*13 523*	*13 275*
4	*Less stable deposits*	*346 737*	*337 020*	*326 044*	*314 860*	*42 859*	*41 736*	*40 330*	*39 019*
5	Unsecured wholesale funding	596 272	604 502	620 511	639 377	362 734	367 254	372 838	387 814
6	*Operational deposits (all counterparties) and deposits in networks of cooperative banks*	*177 737*	*180 717*	*191 566*	*197 393*	*43 210*	*43 927*	*46 640*	*48 078*
7	*Non-operational deposits (all counterparties)*	*332 614*	*342 011*	*347 620*	*357 768*	*233 603*	*241 553*	*244 872*	*255 521*
8	*Unsecured debt*	*85 922*	*81 774*	*81 325*	*84 216*	*85 922*	*81 774*	*81 325*	*84 216*
9	Secured wholesale funding					8 596	9 232	9 663	9 766
10	Additional requirements	282 122	277 691	271 436	267 547	36 071	35 396	35 355	34 836
11	*Outflows related to derivative exposures and other collateral requirements*	*8 064*	*7 472*	*7 595*	*7 124*	*8 035*	*7 443*	*7 595*	*7 124*
12	*Outflows related to loss of funding on debt products*	-	-	-	-	-	-	-	-
13	*Credit and liquidity facilities*	*274 058*	*270 220*	*263 841*	*260 423*	*28 036*	*27 954*	*27 759*	*27 712*
14	Other contractual funding obligations	1 430	1 475	1 125	1 914	1 430	1 475	1 125	1 914
15	Other contingent funding obligations	252 843	249 312	254 137	255 402	382	584	1 368	2 316
16	TOTAL CASH OUTFLOWS	-	-	-	-	466 034	469 439	474 202	488 939
	CASH – INFLOWS								
17	Secured lending (e.g. reverse repos)	43 521	41 853	41 456	41 960	23 786	21 327	19 766	20 586
18	Inflows from fully performing exposures	66 139	65 453	64 840	65 857	42 033	41 173	40 915	41 664
19	Other cash inflows	11 294	11 440	10 893	8 683	11 294	11 440	10 893	8 683
EU-19a	(Difference between total weighted inflows and total weighted outflows arising from transactions in third countries where there are transfer restrictions or which are denominated in non-convertible currencies)	-	-	-	-	-	-	-	-
EU-19b	(Excess inflows from a related specialised credit institution)	-	-	-	-	-	-	-	-
20	TOTAL CASH INFLOWS	120 955	118 746	117 189	116 500	77 113	73 940	71 574	70 932
EU-20a	*Fully exempt inflows*	-	-	-	-	-	-	-	-
EU-20b	*Inflows subject to 90% cap*	-	-	-	-	-	-	-	-
EU-20c	*Inflows subject to 75% cap*	108 371	106 289	103 699	103 303	77 113	73 940	71 574	70 932
21	LIQUIDITY BUFFER					580 784	584 549	595 486	607 453
22	TOTAL NET CASH OUTFLOWS					388 921	395 499	402 628	418 007
23	LIQUIDITY COVERAGE RATIO (%)					151%	149%	149%	146%

Table TB34 Encumbered and unencumbered assets

The following table shows encumbered and unencumbered assets. The information is presented as quarterly medians over the previous 12 months.

Encumbered and unencumbered assets 2018		Carrying amount of encumbered assets		Fair value of encumbered assets		Carrying amount of unencumbered assets		Fair value of unencumbered assets	
			of which notionally eligible EHQLA and HQLA		of which notionally eligible EHQLA and HQLA		of which EHQLA and HQLA		of which EHQLA and HQLA
SEK m		010	030	040	050	060	80	090	100
010	Assets of the reporting institution	698 375	11 126			2 184 430	162 890		
030	Equity instruments	6 305	0			12 146	0		
040	Debt securities	11 942	11 126	11 941	11 126	164 693	162 890	164 693	162 890
050	*of which: covered bonds*	1 390	1 390	1 390	1 390	37 043	36 814	37 043	36 814
060	*of which: asset-backed securities*	0	0	0	0	0	0	0	0
070	*of which: issued by general governments*	9 641	9 641	9 641	9 641	37 111	37 102	37 111	37 102
080	*of which: issued by financial corporations*	1 427	1 427	1 427	1 427	49 329	47 549	49 329	47 549
090	*of which: issued by non-financial corporations*	0	0	0	0	2 035	69	2 240	69
120	Other assets	680 261	0			2 007 982	0		

Table TB35 Collateral received

The following table shows collateral received. The information is presented as quarterly medians over the previous 12 months.

Collateral received 2018				Unencumbered	
		Fair value of encumbered collateral received or own debt securities issued		Fair value of collateral received or own debt securities issued available for encumbrance	
			of which notionally eligible EHQLA and HQLA		of which EHQLA and HQLA
SEK m		010	030	040	060
130	Collateral received by the reporting institution	11 709	3 567	10 535	7 542
140	Loans on demand	0	0	0	0
150	Equity instruments	7 926	0	2 993	0
160	Debt securities	3 567	3 567	7 542	7 542
170	*of which: covered bonds*	*3*	*3*	*5 495*	*5 495*
180	*of which: asset-backed securities*	*0*	*0*	*0*	*0*
190	*of which: issued by general governments*	*3 540*	*3 540*	*2 181*	*2 181*
200	*of which: issued by financial corporations*	*65*	*65*	*6 009*	*6 009*
210	*of which: issued by non-financial corporations*	*0*	*0*	*0*	*0*
220	Loans and advances other than loans on demand	0	0	0	0
230	Other collateral received	0	0	0	0
240	Own debt securities issued other than own covered bonds or asset-backed securities	0	0	0	0
241	Own covered bonds and asset-backed securities issued and not yet pledged			0	0
250	Total assets, collateral received and own debt securities issued	710 084	14 694		

Table TB36 Sources of encumbrance

The following table shows sources of encumbrance. The information is presented as quarterly medians over the previous 12 months.

	Sources of encumbrance 2018	Matching liabilities, contingent liabilities or securities lent	Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered
SEK m		010	030
010	Carrying amount of selected financial liabilities	640 083	693 805

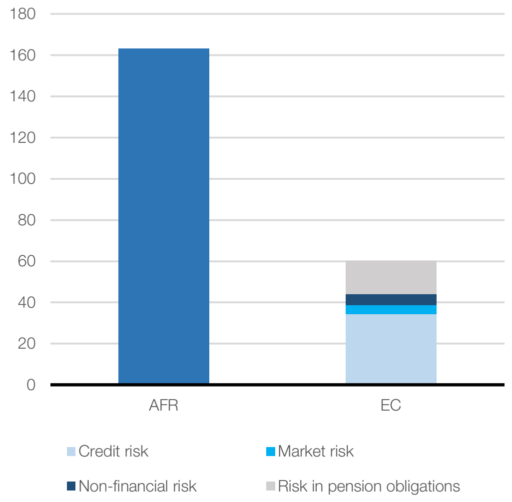
Economic capital

Group Risk Control is responsible for comprehensive monitoring of the Group's various risks. The Bank's model for economic capital (EC) is an instrument in this monitoring. It is also part of the Bank's assessment of the internal capital requirement which is reported quarterly to the Board. This assessment is intended to ensure that the Group has sufficient capital at all times in relation to all risks in the Group. The Group perspective means that EC includes risks in the insurance operations and risks in the Bank's pension obligations.

Handelsbanken's model for calculating EC identifies in one measurement the Group's overall risks and indicates the capital which, with very high probability, will cover unexpected losses or decreases in value. The capital and other financial resources which form a buffer that can absorb negative outcomes are called available financial resources (AFR).

For a more detailed description of the Bank's capital, please see Handelsbanken's Annual Report, note G2.

Figure 83 Total of AFR and EC including diversification 2018
SEK bn



Operational risk

Handelsbanken has a low tolerance of operational risk and strives to keep the operational risk at a low level so that the operational losses remain low in comparison with previous losses incurred.

Operational risk refers to the risk of loss due to inadequate or failed internal processes, human error, erroneous systems or external events. The definition includes legal risk.

The Board has established the Handelsbanken Group's tolerance for operational risk. Handelsbanken has a low tolerance of operational risk, while operational risk is an inevitable component of all operations at the Bank. Significant operational risk that could cause major operational losses must be reduced through risk-mitigation measures to a lower risk level so that the risks lie within the Bank's risk tolerance, that is, so that the consequences and/or probability of an incident become acceptable. Losses resulting from an operational risk event can be covered by insurance or other solutions.

Operational risk must be managed so that the Group's operational losses remain small. The Group Chief Executive has established limits and threshold levels for operational risk. Handelsbanken's operational losses, which comprise expected and recognised operational losses and any recoveries, totalled SEK 60 million (49) in 2018. It is not unusual that the amount referring to operational losses is adjusted over time due to recoveries or other compensation received, or that additional losses are added which are related to a previously reported incident. This may affect the comparison figures for previously reported losses.

ORGANISATIONAL STRUCTURE

The responsibility for identifying, assessing and managing operational risk is an integral part of managerial responsibility at all levels in the Handelsbanken Group. The Bank's decentralised way of working and cost-consciousness promote good management of operational risk, which leads to vigilance against potential loss risks in daily procedures and events.

Operational risk management is described in Handelsbanken's Annual Report, note G2.

CAPITAL REQUIREMENT FOR OPERATIONAL RISK

Handelsbanken uses the standardised approach to calculate the capital requirement for operational risk. According to the standardised approach, the capital requirement is calculated by multiplying a factor specified in the regulations by the average operating income during the last three years of operation. Different factors are applied in different business segments.

At the end of 2018, the total capital requirement for operational risk for the consolidated situation was SEK 5 115 million (4 929).

Compliance risk

Handelsbanken has a low tolerance of compliance risks and, as far as possible, it must endeavour to prevent these risks.

Compliance risk is the risk that the Bank does not comply with laws, regulations or internal rules, or accepted business practices or standards.

The Handelsbanken Group has high ambitions regarding good administrative order, ethical standards and compliance with laws and regulations. In its Policy for Compliance, Handelsbanken's Board has established that "the Bank has a low tolerance of compliance risks and, as far as possible, it must endeavour to prevent these risks." Poor management of compliance risks may lead to increased operational risks, the risk of sanctions or other interventions, financial losses or a loss of confidence in the Group's business operations. The work of compliance aims to protect the Bank from compliance risks through advice and support, to identify compliance risks and to recommend actions to mitigate them.

ORGANISATIONAL STRUCTURE

In functional and operational terms, Compliance is a joint function, comprised of several units in which there is a clear local presence and responsibility for local compliance work. Organisationally, these units may report to the central department (Group Compliance) or, if delegated by the Chief Compliance Officer, to their local head of operations. The Chief Compliance Officer carries out an annual evaluation of whether units which report to their local head of operations have the requisite resources and competency, and whether work at the unit is being run effectively and independently of the operations being monitored. Management of compliance risk is described in Handelsbanken's Annual Report, note G2.

Own funds and capital requirement

Handelsbanken aims to be well capitalised in relation to its risks at all times, and to fulfil the capital adequacy requirements established by supervisory authorities, including in situations of financial stress. This is part of the Bank's strategy to have a business model that is independent of changes in the business cycle.

Handelsbanken is obliged to meet the requirements of the capital adequacy regulations and also requirements regarding the financial conglomerate.

The Bank's goal is that the common equity tier 1 ratio must under normal circumstances be between 1 and 3 percentage points above the total common equity tier 1 capital requirement communicated to the Bank by the Swedish Financial Supervisory Authority. Furthermore, the tier 1 ratio and the total capital ratio must be at least 1 percentage point above the total capital requirement communicated to the Bank by the Supervisory Authority for the respective capital tiers.

DESCRIPTION OF THE CONSOLIDATED SITUATION

The regulatory consolidation (consolidated situation) consists of the parent company and subsidiaries and associated companies that are included in the consolidated accounts, as shown in table TB40 in the Tables section. The companies that are included in the consolidated accounts but are excluded from the consolidated situation are also shown in table TB40. Just as in the consolidated accounts, associated companies are consolidated using the equity method in the regulatory consolidated situation. Further, subsidiaries are consolidated according to the acquisition method. All subsidiaries which are subject to the regulations are included in the consolidated situation. Handelsbanken has no subsidiaries where the actual own funds are less than the prescribed own funds.

OWN FUNDS

The Bank's Annual Report provides a description of the composition of own funds for the consolidated situation, the terms applying to the different parts of own funds, and the deductions made from various items.

For the Bank's risk management, it is important that in risk terms, both the Group and the regulatory consolidation can be viewed as one unit. To enable efficient risk management in the Group, capital may need to be re-allocated among the various companies in the Group. In general, Handelsbanken is able to reallocate capital among the Group companies, to the extent that is permitted by legislation, for example, with reference to capital adequacy requirements and restrictions in corporate law. The Bank sees no other material or legal obstacles to a rapid transfer of funds from own funds, or repayment of liabilities between the parent company and its subsidiaries.

Table 84 Balance sheet

Balance sheet	2018		2017	
SEK m	Consolidated situation	Banking group	Consolidated situation	Banking group
ASSETS				
Cash and balances with central banks	317 217	317 217	226 314	226 314
Other loans to central banks	33 557	33 557	38 920	38 920
Interest-bearing securities available as collateral with central banks	118 929	122 260	125 898	129 006
Loans to other credit institutions	22 133	22 137	20 250	20 250
Loans to the public	2 190 223	2 189 092	2 066 890	2 065 761
Value change of interest-hedged item in portfolio hedge	33	33	36	36
Bonds and other interest-bearing securities	47 850	50 729	46 220	49 601
of which interest-bearing instruments classified as available for sale (carrying amount)	*5 373*	*5 373*	*5 393*	*5 393*
of which interest-bearing instruments classified as available for sale, accumulated value change	*-79*	*-79*	*-67*	*-67*
Shares and participating interests	13 168	13 821	13 088	14 052
of which shares classified as available for sale (carrying amount)	*1 841*	*1 841*	*1 174*	*1 174*
of which shares classified as available for sale, accumulated value change	*367*	*367*	*554*	*554*
Investments in associates	6 534	259	6 574	297
Assets where the customer bears the value change risk	5 345	136 346	5 023	135 617
Derivative instruments	58 041	58 041	56 070	56 070
of which cash flow hedges	*1 263*	*1 263*	*654*	*654*
Reinsurance assets	-	12	-	14
Intangible assets	10 322	10 455	9 720	9 861
Property and equipment	2 229	2 229	2 238	2 238
Current tax assets	615	617	238	242
Deferred tax assets	1 044	1 044	399	399
of which related to cash flow hedges	-	-	-	-
of which related to interest-bearing instruments classified as available for sale	*21*	*21*	*19*	*19*
Pension assets	-	-	1 283	1 239
Assets held for sale	19	19	-	-
Other assets	16 652	16 880	10 351	10 715
Prepaid expenses and accrued income	3 406	3 426	6 288	6 345
Total assets	2 847 317	2 978 174	2 635 800	2 766 977
LIABILITIES AND EQUITY				
Liabilities to credit institutions	194 033	194 082	174 795	174 820
Deposits and borrowing from the public	1 007 837	1 008 487	939 792	941 967
Liabilities where the customer bears the value change risk	5 345	136 346	5 023	135 617
Issued securities	1 394 647	1 394 647	1 276 595	1 276 595
Derivative instruments	17 361	17 360	24 877	24 876
of which cash flow hedges	-	-	-	-
Short positions	6 163	6 163	2 072	2 072
Insurance liabilities	-	542	-	549
Current tax liabilities	1 105	1 118	368	394
Deferred tax liabilities	5 746	5 786	6 813	6 853
of which related to cash flow hedges	*344*	*344*	*184*	*184*
of which related to shares classified as available for sale	*6*	*6*	*7*	*7*
Provisions	213	222	143	153
Pension obligations	3 171	3 226	-	-
Liabilities related to assets held for sale	-	-	-	-
Other liabilities	12 694	12 984	15 580	15 863
Accrued expenses and deferred income	3 784	3 865	12 589	12 718
Subordinated liabilities	51 085	51 085	32 896	32 896
of which tier 1 capital loans	*13 053*	*13 053*	*12 146*	*12 146*
of which loans with remaining time to maturity > 5 yrs	*18 325*	*18 325*	*17 745*	*17 745*
of which loans with remaining time to maturity < 5 yrs	-	-	-	-
of which other loans	*18 514*	*18 514*	*3 004*	*3 004*
Total liabilities	2 703 184	2 835 913	2 491 543	2 625 373
Minority interest	12	12	11	11
Share capital	3 013	3 013	3 013	3 013
Holdings of own shares	*0*	*0*	-	-
Share premium reserve	5 629	5 629	5 629	5 629
of which equity from combined financial instruments	*466*	*466*	*466*	*466*
Other reserves	5 105	5 098	8 116	8 106
Retained earnings	113 799	111 155	112 210	108 746
Profit for the year (belonging to shareholders of Svenska Handelsbanken AB)	16 575	17 354	15 278	16 099
Total equity	144 133	142 261	144 257	141 604
Total liabilities and equity	2 847 317	2 978 174	2 635 800	2 766 977

Table 85 Own funds

Presentation in accordance with the requirements of Commission Implementing Regulation (EU) No 1423/2013. Excluded rows are deemed not relevant for Handelsbanken at present.

Table 85 Own funds		2018			2017	
SEK m		Amount at disclosure date	Amounts subject to pre-regulation (EU) No 575/2013 treatment or prescribed residual amount of regulation (EU) No 575/2013	Regulation (EU) No 575/2013 article reference	Amount at disclosure date	Amounts subject to pre-regulation (EU) No 575/2013 treatment or prescribed residual amount of regulation (EU) No 575/2013
	Common equity tier 1 capital: instruments and reserves					
1	Capital instruments and the related share premium accounts	8 177		26 (1), 27, 28, 29, EBA list 26 (3)	8 177	
	of which: share capital	8 177		EBA list 26 (3)	8 177	
	of which: convertible securities	-		EBA list 26 (3)	-	
2	Retained earnings	113 799		26 (1) (c)	112 210	
3	Accumulated other comprehensive income (and any other reserves, to include unrealised gains and losses according to the applicable accounting standards)	5 536		26 (1)	8 445	
5a	Independently reviewed interim profits net of any foreseeable charge or dividend	5 881		26 (2)	697	
6	Common equity tier 1 (CET1) capital before regulatory adjustments	133 393			129 529	
	Common equity tier 1 (CET1) capital: regulatory adjustments					
7	Additional value adjustments (negative amount)	-375		34, 105	-409	
8	Intangible assets (net of related tax liability) (negative amount)	-10 390		36 (1) (b), 37	-9 787	
11	Fair value reserves related to gains or losses on cash flow hedges	-1 263		33.1 (a)	-654	
12	Negative amounts resulting from the calculation of expected loss amounts	-2 047		36 (1) (d), 40, 159	-2 357	
14	Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	-		33.1 (b)	-	
15	Defined benefit pension fund assets (negative amount)	-		36 (1) (e), 41	-	
16	Direct and indirect holdings by an institution of own CET1 instruments (negative amount)	-508		36 (1) (f), 42	-569	
19	Direct, indirect and synthetic holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	-		36 (1) (i), 43, 45, 47, 48 (1) (b), 49 (1) to (3), 79	-	
21	Deferred tax assets arising from temporary differences (amount above 10% threshold, net of related tax liability where the conditions in Article 38 (3) are met) (negative amount)	-		36 (1) (c), 38, 48 (1) (a)	-	
22	Amount exceeding the 15% threshold (negative amount)	-		48 (1)	-	
23	of which: direct and indirect holdings by the institution of CET1 instruments of financial sector entities where the institution has significant investments in those entities	-		36 (1) (i), 48 (1) (b)	-	
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 tax charges relating to CET1 items (negative amount)	-		36 (1) (l)	-	
27	Qualifying AT1 deductions that exceed the AT1 capital of the institution (negative amount)	-		36 (1) (j)	-	
28	Total regulatory adjustments to common equity tier 1 (CET1) capital	-14 583			-13 776	
29	Common equity tier 1 (CET1) capital	118 810			115 753	
	Additional tier 1 (AT1) capital: instruments					
30	Capital instruments and the related share premium accounts	10 701		51, 52	9 794	
32	of which: classified as liabilities under applicable accounting standards	10 701			9 794	
33	Amount of qualifying items referred to in Article 484 (4) and the related share premium accounts subject to phase-out from AT1	2 352	2 352	486 (3)	2 352	2 352
36	Additional tier 1 (AT1) capital before regulatory adjustments	13 053			12 146	
	Additional tier 1 (AT1) capital: regulatory adjustments					
37	Direct and indirect holdings by an institution of own AT1 instruments (negative amount)	-400	-400	52 (1) (b), 56 (a), 57	-400	-400
40	Direct and indirect holdings of the AT1 instruments of financial sector entities where the institution has a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	-		56 (d), 59, 79	-	
42	Qualifying (T2) deductions that exceed the T2 capital of the institution (negative amount)	-		56 (e)	-	
43	Total regulatory adjustments to additional tier 1 (AT1) capital	-400			-400	
44	Additional tier 1 (AT1) capital	12 653			11 746	
45	Tier 1 capital (T1 = CET1 + AT1)	131 463			127 499	
	Tier 2 (T2) capital: instruments and provisions					
46	Capital instruments and the related share premium accounts	33 704		62, 63	17 745	

Table 85 Own funds

SEK m		2018 Amount at disclosure date	2018 Amounts subject to pre-regulation (EU) No 575/2013 treatment or prescribed residual amount of regulation (EU) No 575/2013	2018 Regulation (EU) No 575/2013 article reference	2017 Amount at disclosure date	2017 Amounts subject to pre-regulation (EU) No 575/2013 treatment or prescribed residual amount of regulation (EU) No 575/2013
50	Credit risk adjustments	0		62 c and d		
51	Tier 2 (T2) capital before regulatory adjustments	33 704			17 745	
	Tier 2 (T2) capital: regulatory adjustments					
52	Direct and indirect holdings by an institution of own T2 instruments and subordinated loans (negative amount)	-15 379		63 (b) (i), 66 (a), 67	-	
55	Direct and indirect holdings of the T2 instruments and subordinated loans of financial sector entities where the institution has a significant investment in those entities (net of eligible short positions) (negative amounts)	-1 129		66 (d), 69, 79	-1 129	
57	Total regulatory adjustments to tier 2 (T2) capital	-16 508			-1 129	
58	Tier 2 (T2) capital	17 196			16 616	
59	Total capital (TC = T1 + T2)	148 659			144 115	
60	Total risk-weighted assets	707 579			509 032	
	Capital ratios and buffers					
61	Common equity tier 1 capital (as a percentage of total risk exposure amount)	16.8		92 (2) (a)	22.7	
62	Tier 1 capital (as a percentage of total risk exposure amount)	18.6		92 (2) (b)	25.0	
63	Total capital (as a percentage of total risk exposure amount)	21.0		92 (2) (c)	28.3	
64	Institution-specific buffer requirement (CET1 requirement in accordance with Article 92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus the systemically important institution buffer (G-SII or O-SII buffer) expressed as a percentage of total risk exposure amount)	7.0		CRD 128, 129, 130	6.7	
65	of which: capital conservation buffer requirement	2.5			2.5	
66	of which: countercyclical buffer requirement	1.5			1.2	
67	of which: systemic risk buffer requirement	3.0			3.0	
67a	of which: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer	0.0		CRD 131	0.0	
68	Common equity tier 1 capital available to meet buffers (as a percentage of risk exposure amount)	12.3		CRD 128	18.2	
	Capital ratios and buffers					
72	Direct and indirect holdings of the capital of financial sector entities where the institution does not have a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	0		36 (1) (h), 45, 46, 472 (10), 56 (c), 59, 60, 66 (c), 69, 70	2	
73	Direct and indirect holdings of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	-		36 (1) (i), 45, 48	-	
75	Deferred tax assets arising from temporary differences (amount below 10% threshold, net of related tax liability where the conditions in Article 38 (3) are met)	-960		36 (1) (c), 38, 48	-315	
	Applicable caps on the inclusion of provisions tier 2 capital					
76	Credit risk adjustments included in T2 in respect of exposures subject to standardised approach (prior to the application of the cap)	-		62	-	
77	Cap on inclusion of credit risk adjustments in T2 under standardised approach	1 093		62	1 048	
78	Credit risk adjustments included in T2 in respect of exposures subject to internal ratings-based approach (prior to the application of the cap)	-		62	-	
79	Cap for inclusion of credit risk adjustments in T2 under internal ratings-based approach	3 247		62	2 090	
	Capital instruments subject to phase-out arrangements (only applicable between 1 January 2013 and 1 January 2022)					
80	Current cap on CET1 instruments subject to phase-out arrangements	58		484 (3), 486 (2) and (5)	116	
81	Amount excluded from CET1 due to cap (excess over cap after redemptions and maturities)	-		484 (3), 486 (2) and (5)	-	
82	Current cap on AT1 instruments subject to phase-out arrangements	2 445		484 (4), 486 (3) and (5)	4 890	
83	Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)	-		484 (4), 486 (3) and (5)	-	
84	Current cap on T2 instruments subject to phase-out arrangements	1 481		484 (5), 486 (4) and (5)	2 963	
85	Amount excluded from T2 due to cap (excess over cap after redemptions and maturities)	-		484 (5), 486 (4) and (5)	-	

The yearly changes in capital ratios and risk exposure amount are due to the move of Pillar 2 requirements for risk weight floors regarding Swedish mortgages to Pillar 1.

Table 86 EU INS1 – Non-deducted participations in insurance undertakings

EU INS1 – Non-deducted participations in insurance undertakings SEK m	2018	2017
Holdings of own funds instruments of a financial sector entity where the institution has a significant investment not deducted from own funds (before risk-weighting)	6 253	6 253
Total RWAs	15 633	15 633

Table 87 Amount of institution-specific countercyclical capital buffer

The table shows the total amount for the institution-specific countercyclical capital buffer.
The capital requirement for the countercyclical capital buffer has increased compared to the previous period.

	Amount of institution-specific countercyclical capital buffer	2018	2017
	SEK m	010	010
10	Total risk exposure amount	707 579	509 032
20	Institution specific countercyclical buffer rate	1.5%	1.2%
30	Institution specific countercyclical buffer requirement	10 764	6 121

Table 88 Geographical breakdown of credit exposures relevant for the calculation of the countercyclical capital buffer

The table shows the geographical breakdown of credit exposures relevant for the calculation of the countercyclical capital buffer. The capital requirement for the countercyclical capital buffer has increased compared to the previous period.

Geographical breakdown of credit exposures relevant for the calculation of the countercyclical capital buffer 2018

		General credit exposures		Trading book exposure		Securitisation exposure		Own funds requirements					
Row		Exposure value for SA	Exposure value IRB	Sum of short and long position for trading book	Value of trading book exposure for internal models	Exposure value for SA	Exposure value for IRB	Of which: General credit exposures	Of which: Trading book exposures	Of which: Securitisation exposures	Total	Own funds requirement weights, %	Countercyclical capital buffer rate
SEK m		010	020	030	040	050	060	070	080	090	100	110	120
10	Breakdown by country												
	Sweden	18 079	1 447 197	705	-	-	-	28 834	122	-	28 957	59.6	6 415
	Norway	2 662	284 468	30	-	-	-	4 602	6	-	4 608	9.5	1 023
	Other countries	137 409	476 061	80	-	-	22	14 982	54	4	15 040	30.9	3 326
20	Total	158 150	2 207 726	815	-	-	22	48 418	182	4	48 605		10 764

Geographical breakdown of credit exposures relevant for the calculation of the countercyclical capital buffer 2017

		General credit exposures		Trading book exposure		Securitisation exposure		Own funds requirements					
Row		Exposure value for SA	Exposure value IRB	Sum of short and long position for trading book	Value of trading book exposure for internal models	Exposure value for SA	Exposure value for IRB	Of which: General credit exposures	Of which: Trading book exposures	Of which: Securitisation exposures	Total	Own funds requirement weights, %	Countercyclical capital buffer rate
SEK m		010	020	030	040	050	060	070	080	090	100	110	120
10	Breakdown by country												
	Sweden	18 678	1 376 691	578	-	-	-	15 384	93	-	15 477	46.9	2 871
	Norway	1 935	266 621	0	-	-	-	4 344	0	-	4 344	13.2	808
	Other countries	126 267	435 215	125	-	-	20	13 197	96	2	13 295	39.9	2 442
20	Total	146 880	2 078 527	703	-	-	20	32 828	189	2	33 019		6 121

Table 89 Change in own funds

Presentation in accordance with the requirements of Commission Implementing Regulation (EU) No 1423/2013.

Change in own funds SEK m	2018	2017
Common equity tier 1 capital – opening amount	115 753	115 240
Profit for the period	16 575	15 278
Dividend	-10 693	-14 581
Conversions	102	99
Minority interests	0	0
Deferred tax	-64	-427
Capital contributions outside consolidated situation	0	0
Securitisation positions	0	0
Goodwill and other intangible assets	-602	-432
Value adjustments for positions measured at fair value	33	237
Own shares	61	67
Negative amounts resulting from the calculation of expected loss amounts	310	-830
Items affected via other comprehensive income		
AFS shares	-185	-10
AFS interest	-10	12
Pensions (IAS 19)	-3 417	3 510
Exchange rate effects	659	-750
Net investment hedging	-657	-1 177
Other, incl. changes in investment portfolio	945	-483
Common equity tier 1 capital – closing amount	118 810	115 753
Additional tier 1 capital – opening amount	11 746	12 768
Additional tier 1 instruments		
Issues	0	0
Calls	0	0
Exchange rate effects	907	-1 021
Conversions	0	-1
Regulatory adjustments capital	0	0
Additional tier 1 capital – closing amount	12 653	11 746
Total tier 1 capital	131 463	127 499
Tier 2 capital – opening amount	16 616	16 225
Tier 2 capital instruments		
Issues	15 394	2 994
Calls	-15 684	-2 999
Exchange rate effects	870	396
Adjustment for time to maturity	0	0
Tier 2 capital – closing amount	17 196	16 616
Total own funds	148 659	144 115

Table 96 EU LI1 – Differences between accounting and regulatory scopes of consolidation and the mapping of financial statement categories with regulatory risk categories

The table shows which regulatory framework is used to calculate the capital requirement for each asset type in the balance sheet. Derivatives, repos and securities lending capital requirements are calculated according to both the CCR framework and the market risk framework. Because of this, the sums of rows including those exposures are larger than the total in column b. Further note that column g stems from the equity section of the balance sheet
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EU LI1 – Differences between accounting and regulatory scopes of consolidation and the mapping of financial statement categories with regulatory risk categories 2018

	a	b	c	d	e	f	g
			Carrying values of items				
SEK m	Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation	Subject to the credit risk framework	Subject to the CCR framework	Subject to the securitisation framework	Subject to the market risk framework	Subject to deduction from capital
Assets							
Cash and balances with central banks	317 217	317 217	317 217				
Other loans to central banks	33 557	33 557	33 557				
Interest-bearing securities available as collateral with central banks	122 260	118 929	1 236			121 024	
Loans to other credit institutions	22 137	22 133	19 381	2 752			
Loans to the public	2 189 092	2 190 223	2 178 817	9 049	1 228		1 129
Value change of interest-hedged item in portfolio hedge	33	33	33				
Bonds and other interest-bearing securities	50 729	47 850	5 373			45 356	
Shares and participating interests	13 821	13 168	1 841	13 129		11 981	
Investments in associates	259	6 534	6 466				68
Assets where the customer bears the value change risk	136 346	5 345	5 345				
Derivative instruments	58 041	58 041		58 041		12 547	
Reinsurance assets	12						
Intangible assets	10 455	10 322	-				10 322
Property and equipment	2 229	2 229	2 229				
Current tax assets	617	615	615				
Deferred tax assets	1 044	1 044	5				1 039
Pension assets	0	0	-				-
Assets held for sale	19	19	19				
Other assets	16 880	16 652	6 153			10 499	
Prepaid expenses and accrued income	3 426	3 406	3 406				
Total assets	2 978 174	2 847 317	2 581 693	82 971	1 228	201 407	12 558
Liabilities							
Liabilities to credit institutions	194 082	194 033					
Deposits and borrowing from the public	1 008 487	1 007 837					
Liabilities where the customer bears the value change risk	136 346	5 345					
Issued securities	1 394 647	1 394 647				2 250	
Derivative instruments	17 360	17 361		17 361		13 160	
Short positions	6 163	6 163				6 132	
Insurance liabilities	542	0					
Current tax liabilities	1 118	1 105					
Deferred tax liabilities	5 786	5 746					
Provisions	222	213					
Pension obligations	3 226	3 171					
Liabilities related to assets held for sale	0	0					
Other liabilities	12 984	12 694					
Accrued expenses and deferred income	3 865	3 784					
Subordinated liabilities	51 085	51 085					
Total liabilities	2 835 913	2 703 184		17 361		21 542	

EU LI1 – Differences between accounting and regulatory scopes of consolidation and the mapping of financial statement categories with regulatory risk categories 2017

	a	b	c	d	e	f	g
			Carrying values of items				
SEK m	Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation	Subject to the credit risk framework	Subject to the CCR framework	Subject to the securitisation framework	Subject to the market risk framework	Subject to deduction from capital
Assets							
Cash and balances with central banks	226 314	226 314	226 314				
Other loans to central banks	38 920	38 920	38 920				
Interest-bearing securities available as collateral with central banks	129 006	125 898	974			124 924	
Loans to other credit institutions	20 250	20 250	18 912	1 338			
Loans to the public	2 065 761	2 066 890	2 058 023	6 607	1 131		1 129
Value change of interest-hedged item in portfolio hedge	36	36	36				
Bonds and other interest-bearing securities	49 601	46 220	5 393			40 827	
Shares and participating interests	14 052	13 088	1 174	10 188		11 914	
Investments in associates	297	6 574	6 506				68
Assets where the customer bears the value change risk	135 617	5 023	5 023				
Derivative instruments	56 070	56 070		56 070		12 572	
Reinsurance assets	14						
Intangible assets	9 861	9 720	-				9 720
Property and equipment	2 238	2 238	2 238				
Current tax assets	242	238	238				
Deferred tax assets	399	399	84				315
Pension assets	1 239	1 283	754				529
Assets held for sale	-	-	-				
Other assets	10 715	10 351	3 546			6 805	
Prepaid expenses and accrued income	6 345	6 288	6 288				
Total assets	**2 766 977**	**2 635 800**	**2 374 423**	**74 203**	**1 131**	**197 042**	**11 761**
Liabilities							
Liabilities to credit institutions	174 820	174 795					
Deposits and borrowing from the public	941 967	939 792					
Liabilities where the customer bears the value change risk	135 617	5 023					
Issued securities	1 276 595	1 276 595				4 625	
Derivative instruments	24 876	24 877		24 877		15 210	
Short positions	2 072	2 072				2 072	
Insurance liabilities	549						
Current tax liabilities	394	368					
Deferred tax liabilities	6 853	6 813					
Provisions	153	143					
Pension obligations	0	0					
Liabilities related to assets held for sale	-	-					
Other liabilities	15 863	15 580					
Accrued expenses and deferred income	12 718	12 589					
Subordinated liabilities	32 896	32 896					
Total liabilities	**2 625 373**	**2 491 543**		**24 877**		**21 907**	

Table 97 EU LI2 – Main sources of differences between regulatory exposure amounts and carrying values in financial statements

The table shows the difference between the carrying amount under the scope of regulatory consolidation and exposures considered for regulatory purposes.

EU LI2 – Main sources of differences between regulatory exposure amounts and carrying values in financial statements 2018		a	b	c	d	e
			Items subject to			
SEK m		Total	Credit risk framework	CCR framework	Securitisation framework	Market risk framework
1	Assets carrying value amount under the scope of regulatory consolidation (as per template EU LI1)	2 867 299	2 581 693	82 971	1 228	201 407
2	Liabilities carrying value amount under the regulatory scope of consolidation (as per template EU LI1)	38 903		17 361		21 542
3	Total net amount under the regulatory scope of consolidation	2 888 840	2 581 693	82 971	1 228	222 948
4	Off-balance-sheet amounts	535 815	535 815		-	
5	Differences in valuations					
6	Differences due to different netting rules, other than those already included in row 2	-207 218		-12 604		-194 614
7	Differences due to consideration of provisions	2 830	2 830	0	-	
8	Differences due to prudential filters					
9	Differences due to derivative exposure add-ons	31 001		31 001		
10	Exposure amounts considered for regulatory purposes	3 251 268	3 120 338	101 368	1 228	28 334

EU LI2 – Main sources of differences between regulatory exposure amounts and carrying values in financial statements 2017		a	b	c	d	e
			Items subject to			
SEK m		Total	Credit risk framework	CCR framework	Securitisation framework	Market risk framework
1	Assets carrying value amount under the scope of regulatory consolidation (as per template EU LI1)	2 646 799	2 374 423	74 203	1 131	197 042
2	Liabilities carrying value amount under the regulatory scope of consolidation (as per template EU LI1)	46 784		24 877		21 907
3	Total net amount under the regulatory scope of consolidation	2 668 706	2 374 423	74 203	1 131	218 949
4	Off-balance-sheet amounts	501 292	501 292		-	
5	Differences in valuations					
6	Differences due to different netting rules, other than those already included in row 2	-232 676		-16 838		-215 838
7	Differences due to consideration of provisions	4 616	4 616	0	-	
8	Differences due to prudential filters					
9	Differences due to derivative exposure add-ons	28 379		28 379		
10	Exposure amounts considered for regulatory purposes	2 970 317	2 880 331	85 744	1 131	3 111

Table 98 EU LI3 – Outline of the differences in the scopes of consolidation (entity by entity)

The table outlines the scopes of consolidation for the companies included in the consolidated situation at year-end.

EU LI3 – Outline of the differences in the scopes of consolidation (entity by entity) 2018

	a	b	c	d	e	f
		Method of regulatory consolidation				
Name of the entity	Method of accounting consolidation	Full consoli-dation	Proportional consoli-dation	Neither consolidated nor deducted	Deducted	Description of the entity
Handelsbanken Finans AB	Full consolidation	X				Credit institution
Handelsbanken Finans (Shanghai) Financial Leasing Co., Ltd	Full consolidation	X				Credit institution
Stadshypotek AB	Full consolidation	X				Credit institution
Svenska Intecknings Garanti AB Sigab	Full consolidation	X				Non-financial corporation
Handelsbanken Fondbolagsförvaltning AB	Full consolidation	X				Financial corporations other than credit institutions
Handelsbanken Fonder AB	Full consolidation	X				Financial corporations other than credit institutions
Handelsinvest Investeringsforvaltning A/S	Full consolidation	X				Financial corporations other than credit institutions
Xact Kapitalförvaltning AB	Full consolidation	X				Financial corporations other than credit institutions
AB Handel och Industri	Full consolidation	X				Non-financial corporation
Ecster AB	Full consolidation	X				Credit institution
Handelsbanken Plc	Full consolidation	X				Credit institution
Heartwood Wealth Management Limited	Full consolidation	X				Financial corporations other than credit institutions
Heartwood Nominees Limited	Full consolidation	X				Non-financial corporation
Heartwood Second Nominees Limited	Full consolidation	X				Non-financial corporation
Private Office Limited	Full consolidation	X				Non-financial corporation
SIL (Nominees) Limited	Full consolidation	X				Non-financial corporation
Svenska Property Nominees Limited	Full consolidation	X				Non-financial corporation
Optimix Vermogensbeheer N.V.	Full consolidation	X				Financial corporations other than credit institutions
Add Value Fund Management B.V.	Full consolidation	X				Financial corporations other than credit institutions
Optimix Beheer en Belegging B.V.	Full consolidation	X				Non-financial corporation
Ejendomsselskabet af 1. maj 2009 A/S	Full consolidation	X				Non-financial corporation
Forva AS	Full consolidation	X				Non-financial corporation
Handelsbanken Markets Securities, Inc.	Full consolidation	X				Credit institution
Handelsbanken Rahoitus Oy	Full consolidation	X				Credit institution
Lokalbolig A/S	Full consolidation	X				Non-financial corporation
Rådstuplass 4 AS	Full consolidation	X				Non-financial corporation
Lila stugan i Stockholm AB	Full consolidation	X				Non-financial corporation
Blå stugan i Stockholm AB	Full consolidation	X				Non-financial corporation
Handelsbanken Fastigheter AB	Full consolidation	X				Non-financial corporation
Bankomat AB	Equity method		X			Non-financial corporation
Bankomatcentralen AB	Equity method		X			Non-financial corporation
BGC Holding AB	Equity method		X			Non-financial corporation
Bankgirocentralen BGC AB	Equity method		X			Non-financial corporation
Torig AB	Equity method		X			Non-financial corporation
Finansiell ID-teknik BID AB	Equity method		X			Non-financial corporation
USE Intressenter AB	Equity method		X			Non-financial corporation
Getswish AB	Equity method		X			Non-financial corporation

[1]As from 1 December 2018 Handelsbanken's operations in UK are run as a subsidiary

Table TB40 Companies included in consolidated situation

Companies included in consolidated situation	Ownership share. %	Corporate identity number	Domicile
Handelsbanken AB (publ)[1]		502007-7862	Stockholm
SUBSIDIARIES			
Handelsbanken Finans AB[1]	100	556053-0841	Stockholm
Handelsbanken Finans (Shanghai) Financial Leasing Co., Ltd	100	310101717882194	Shanghai
Stadshypotek AB[1]	100	556459-6715	Stockholm
Svenska Intecknings Garanti AB Sigab (inactive)	100	556432-7285	Stockholm
Handelsbanken Fondbolagsförvaltning AB	100	556070-0683	Stockholm
Handelsbanken Fonder AB	100	556418-8851	Stockholm
Handelsinvest Investeringsforvaltning A/S	100	12930879	Copenhagen
Xact Kapitalförvaltning AB	100	556997-8140	Stockholm
AB Handel och Industri	100	556013-5336	Stockholm
Ecster AB	100	556993-2311	Stockholm
Handelsbanken plc [1,3]	100	11305395	London
Heartwood Wealth Management Limited	100	4132340	London
Heartwood Nominees Limited (inactive)	100	2299877	London
Heartwood Second Nominees Limited (inactive)	100	3193458	London
Private Office Limited (inactive)	100	4332528	London
SIL (Nominees) Limited (inactive)	100	1932320	London
Svenska Property Nominees Limited (inactive)	100	2308524	London
Optimix Vermogensbeheer N.V.	100	33194359	Amsterdam
Add Value Fund Management B.V.	80	19196768	Amsterdam
Optimix Beheer en Belegging B.V. (inactive)	100	33186584	Amsterdam
Other			
Ejendomsselskabet af 1. maj 2009 A/S[1]	100	59173812	Hillerød
Forva AS	100	945812141	Oslo
Handelsbanken Markets Securities, Inc[1]	100	11-3257438	New York
Handelsbanken Rahoitus Oy	100	0112308-8	Helsinki
Lokalbolig A/S	60	78488018	Hillerød
Rådstuplass 4 AS	100	910508423	Bergen
Lila stugan i Stockholm AB (inactive)	100	556993-9084	Stockholm
Blå stugan i Stockholm (inactive)	100	556993-9357	Stockholm
Subsidiary of Handelsbanken Liv Försäkrings AB			
Handelsbanken Fastigheter AB	100	556873-0021	Stockholm
ASSOCIATES			
Bankomat AB	20	556817-9716	Stockholm
Bankomatcentralen AB	100	556197-2265	Stockholm
BGC Holding AB	25.38	556607-0933	Stockholm
Bankgirocentralen BGC AB[2]	100	556047-3521	Stockholm
Torig AB	100	556564-5404	Stockholm
Finansiell ID-teknik BID AB	28.3	556630-4928	Stockholm
USE Intressenter AB	24.48	559161-9464	Stockholm
Getswish AB	20	556913-7382	Stockholm

Companies not included in consolidated situation	Ownership share. %	Corporate identity number	Domicile
Handelsbanken Liv Försäkring AB (group excl. Handelsbanken Fastigheter AB)	100	516401-8284	Stockholm
Svenska Re S.A.	100	RCS Lux B-32053	Luxembourg
Handelsbanken Skadeförsäkrings AB	100	516401-6767	Stockholm
Dyson Group plc	27	163096	Sheffield
EFN Ekonomikanalen AB	100	556930-1608	Stockholm
SHB Liv Försäkringsaktiebolag	100	2478149-7	Helsinki
Svenska RKA International Insurance Services AB (inactive)	100	556324-2964	Stockholm

[1]Credit institution.

[2]Ownership in subsidiaries and associates.

[3]As from December 1 2018 Handelsbanken's operations in UK are run as a subsidiary

CAPITAL REQUIREMENT

Credit risk

The capital requirements for credit risk are calculated by a risk-weighted exposure amount being calculated for all the exposures in the regulatory consolidation. The risk-weighted exposure amount is calculated for credit risk – partly using the IRB Approach with and without own estimates of LGD and CCF, and partly using the standardised approach

Market risk

The capital requirements for market risk are calculated for the Bank's consolidated situation. The capital requirements for interest rate risk and equity price risk are, however, only calculated for positions in the trading book. When calculating the capital requirements for market risk, the standardised approach is applied.

Operational risk

Handelsbanken uses the standardised approach to calculate the capital requirements for operational risk. According to the standardised approach, the capital requirements are calculated by multiplying a factor specified in the regulations by the average operating income during the last three years of operation. Different factors are applied in different business segments.

Table 90 shows the total capital requirement and its various components.

Capital requirement in Pillar 2

Credit risk

At the end of the fourth quarter, the Bank's assessment of the Swedish Financial Supervisory Authority's (SFSA) common equity tier 1 (CET1) capital requirement pursuant to Pillar 2 was SEK 25.3 billion, corresponding to 3.6 per cent of Pillar 1 REA. The capital requirement is derived from requirements for credit risk, market risk, systemic risk, and other risks.

As of the fourth quarter, the SFSA has changed the method it uses to apply the risk weight floor for Swedish mortgages through Pillar 2 by replacing it with a requirement within the Pillar 1 framework thus lowering the total Pillar 2 requirement. Both previous Pillar 2 and the current Pillar 1 requirement entails a risk weight floor of 25 per cent for exposures in Swedish mortgages covered by the IRB approach. The CET1 capital requirement is only marginally effected by the change in methodology with an increase of approximately SEK 0.2 billion. In addition, a Pillar 2 risk weight floor of 22 per cent still applies to Norwegian mortgage loans. The resulting CET1 requirement amounts to SEK 1.7 billion or 0.2 per cent of REA.

Also within Pillar 2, the SFSA still apply a maturity floor of 2.5 years for maturity assumptions pertaining to corporate exposures and a model for credit related concentration risk. The CET1 capital charge was SEK 2.5 billion and SEK 2.9 billion respectively, corresponding to approximately 0.4 per cent of REA in each case. Altogether, the CET1 capital requirement for credit risk within Pillar 2 was SEK 7.0 billion or 1 per cent of REA.

The Bank is also subject to a CET1 capital requirement for interest rate risk in the banking book and pension risk based on the SFSA benchmark models. CET1 requirement for interest risk in the banking book amounts to SEK 2.3 billion as of the fourth quarter while there is currently no requirement for pension risk. CET1 capital charges pertaining to other risks amounts to SEK 1.9 billion.

In conclusion, the Pillar 2 CET1 capital requirement for systemic risk, a buffer requirement of 2 per cent of Pillar 1 REA, amounts to SEK 14.2 billion.

As of the fourth quarter, the Bank's assessment of the SFSA's total requirement for common equity tier 1 capital, including Pillar 1 requirements, was SEK 106.9 billion, corresponding to a common equity tier 1 ratio of 15.1 per cent of REA.

Table 90 EU OV1 – Overview of RWAs

The table shows risk exposure amounts (REA) for credit, counterparty, market and operational risk at the end of the previous and current period. Credit risk is calculated by the standardised approach, the Foundation IRB Approach and the Advanced IRB Approach. Market risk and operational risk is calculated by the standardised approach. REA for credit risk has increased compared to the previous period. FI's board of directors decided to change the method used to apply current risk weight floor for Swedish mortgages on 25% though pillar 2 by replacing it with a corresponding requirement under article 458 CRR. The change entered into force on 31 December 2018. REA for counterparty risk has decreased compared to the previous period. REA for market risk has decreased compared to the previous period. REA for operational risk has increased compared to the previous period.

EU OV1 – Overview of RWAs			RWAs		Minimum capital requirements
SEK m			2018	2017	2018
	1	Credit risk (excluding CCR)	616 009	419 557	49 281
Article 438(c)(d)	2	Of which the standardised approach	87 147	83 473	6 972
Article 438(c)(d)	3	Of which the foundation IRB (FIRB) approach	53 978	48 496	4 318
Article 438(c)(d)	4	Of which the advanced IRB (AIRB) approach	467 474	282 520	37 398
Article 438(d) Article 107	5	Of which equity IRB under the simple risk-weighted approach or the IMA	7 410	5 068	593
Article 438(c)(d)	6	CCR	12 603	12 640	1 008
Article 438(c)(d)	7	Of which mark to market	12 598	12 632	1 008
Article 438(c)(d)	8	Of which original exposure			
	9	Of which the standardised approach			
	10	Of which internal model method (IMM)			
Article 438(c)(d)	11	Of which risk exposure amount for contributions of the default fund of a CCP	5	8	0
Article 438(c)(d)	12	CVA	5 219	4 890	417
Article 438 e	13	Settlement risk	0	0	0
Article 449(o)(i)	14	Securitisation exposures in the non-trading book (after the cap)	51	22	4
	15	Of which IRB Approach	51	22	4
	16	Of which IRB supervisory formula approach (SFA)			
	17	Of which internal assessment approach (IAA)			
	18	Of which standardised approach			
Article 438 e	19	Market risk	9 765	10 310	781
	20	Of which the standardised approach	9 765	10 310	781
	21	Of which IMA			
Article 438 e	22	Large exposures			
Article 438(f)	23	Operational risk	63 932	61 613	5 115
	24	Of which basic indicator approach			
	25	Of which standardised approach	63 932	61 613	5 115
	26	Of which advanced measurement approach			
Article 437(2), Article 48 and Article 60	27	Amounts below the thresholds for deduction (subject to 250% risk weight)			
Article 500	28	Floor adjustment			
	29	Total	707 579	509 032	56 606

Table 91 Capital adequacy analysis

The table shows capital ratios. The total REA has increased compared to the previous period.

Capital adequacy analysis %	2018	2017
Common equity tier 1 ratio, CRR	16.8	22.7
Tier 1 ratio, CRR	18.6	25.0
Total capital ratio, CRR	21.0	28.3
Total risk exposure amount, CRR, SEK m	707 579	509 032
Own funds in relation to capital requirement according to Basel I floor		142.0
Institution-specific buffer requirement	7.0	6.7
of which capital conservation buffer requirement	*2.5*	*2.5*
of which countercyclical capital buffer requirement	*1.5*	*1.2*
of which systemic risk buffer requirement	*3.0*	*3.0*
Common equity tier 1 capital available for use as a buffer	12.3	18.2

CAPITAL ADEQUACY FOR THE FINANCIAL CONGLOMERATE

Please see Annual Report 2018 note G50 for a description of the capital requirement for the financial conglomerate.

LEVERAGE RATIO

Handelsbanken's leverage ratio for 2018 was 4.37 per cent (4.60). The decrease was attributable to the Bank's tier 1 capital remaining practically unchanged while total assets increased.

Table 93 LRCom: Leverage ratio common disclosure

The table shows the leverage ratio for the current and previous period. The exposures are specified for the categories on-balance, derivatives, securities finance and off-balance. The leverage ratio is calculated as tier 1 capital divided by the total exposures. The leverage ratio has decreased compared to the previous period. The main driver is that FI's board of directors decided to change the method used to apply current risk weight floor for Swedish mortgages on 25% though pillar 2 by replacing it with a corresponding requirement under article 458 CRR. The change entered into force on 31 December 2018.

LRCom: Leverage ratio common disclosure SEK m		2018	2017
	On-balance-sheet exposures (excluding derivatives and SFTs)		
1	On-balance-sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	2 777 127	2 571 653
2	(Asset amounts deducted in determining Tier 1 capital)	-14 583	-13 775
3	Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets) (sum of lines 1 and 2)	2 762 544	2 557 878
	Derivative exposures		
4	Replacement cost associated with all derivatives transactions (ie net of eligible cash variation margin)	8 183	10 962
5	Add-on amounts for PFE associated with all derivatives transactions (mark-to-market method)	31 001	28 379
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)	-5 418	-7 785
8	(Exempted CCP leg of client-cleared trade exposures)		-
9	Adjusted effective notional amount of written credit derivatives	5 774	7 766
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	-	-366
11	Total derivatives exposures (sum of lines 4 to 10)	39 540	38 955
	SFT exposures		
12	Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	12 149	8 077
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	-	-
14	Counterparty credit risk exposure for SFT assets	3 850	2 176
EU-14a	Derogation 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)	15 999	10 253
	Other off-balance-sheet exposures		
17	Off-balance-sheet exposures at gross notional amount	535 815	501 292
18	(Adjustments for conversion to credit equivalent amounts)	-343 827	-320 747
19	Other off-balance-sheet exposures (sum of lines 17 and 18)	191 988	180 545
	Exempted exposures in accordance with Article 429(7) and (14) of Regulation (EU) No 575/2013 (on and off balance sheet)		
EU-19a	(Intragroup exposures (solo basis) exempted 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 exposure measure		
20	Tier 1 capital	131 463	127 499
21	Leverage ratio total exposure measure (sum of lines 3, 11, 16, 19, EU-19a and EU-19b)	3 010 071	2 787 631
	Leverage ratio		
22	Leverage ratio	4.37%	4.60%
	Choice on transitional arrangements and amount of derecognised fiduciary items		
EU-23	Choice on transitional arrangements for the definition of the capital measure	Transitional	Transitional
EU-24	Amount of derecognised fiduciary items in accordance with Article 429 (13) of Regulation (EU) No 575/2013	0	0

Table 94 LRSum: Summary reconciliation of accounting assets and leverage ratio exposures

The table shows the summary reconciliation of accounting assets and leverage ratio exposures. The leverage ratio total exposure measure has increased compared to the previous period.

LRSum: Summary reconciliation of accounting assets and leverage ratio exposures SEK m		2018	2017
1	Total assets as per published financial statements	2 978 174	2 766 977
2	Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation	-130 857	-131 176
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)	0	0
4	Adjustments for derivative financial instruments	-18 501	-17 115
5	Adjustments for securities financing transactions (SFTs)	3 850	2 176
6	Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures)	191 988	180 545
EU-6a	(Adjustment for intragroup exposures excluded from the leverage ratio total exposure measure in accordance with Article 429(7) of Regulation (EU) No 575/2013)	0	-
EU-6b	(Adjustment for exposures excluded from the leverage ratio total exposure measure in accordance with Article 429(14) of Regulation (EU) No 575/2013)	-	-
7	Other adjustments	-14 583	-13 775
8	Leverage ratio total exposure measure	3 010 071	2 787 631

Table 95 LRSpl: Split-up of on balance sheet exposures (excluding derivatives, SFTs and exempted exposures)

The table specifies on-balance-sheet exposures excluding derivatives, SFTs, and exposures exempt from the leverage ratio calculation. The total exposure has increased compared to the previous period.

LRSpl: Split-up of on balance sheet exposures (excluding derivatives, SFTs and exempted exposures) SEK m		2018	2017
EU-1	Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which:	2 757 336	2 550 077
EU-2	Trading book exposures	180 589	227 178
EU-3	Non-trading book exposures, of which:	2 576 747	2 322 899
EU-4	Covered bonds	5 372	4 953
EU-5	Exposures treated as sovereigns	419 788	291 874
EU-6	Exposures to regional governments, MDB, international organisations and PSE not treated as sovereigns	25	0
EU-7	Institutions	8 476	6 269
EU-8	Secured by mortgages of immovable properties	1 843 389	1 703 244
EU-9	Retail exposures	64 218	80 834
EU-10	Corporate	211 962	212 566
EU-11	Exposures in default	4 797	4 607
EU-12	Other exposures (e.g. equity, securitisations, and other non-credit obligation assets)	18 720	18 553

Tables

CREDIT RISK

Information about past due and impaired loans

Table TB1 EU CR1-B – Credit quality of exposures by industry or counterparty types

The following table specifies gross exposures by exposure class and by industry. It further specifies credit risk adjustments, write-offs and net values. Specific credit risk adjustment has decreased compared to the previous period. The total net value has increased compared to the previous period.

EU CR1-B – Credit quality of exposures by industry or counterparty types 2018

		a	b	c	d	e	f	g
		Gross carrying values of						Net values
SEK m		Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges	(a+b-c-d)
1	Agriculture, forestry and fishing	114	55 423	82		2	19	55 455
2	Mining and quarrying	1	6 832	3		0	0	6 830
3	Manufacturing	480	89 509	358		30	96	89 631
4	Electricity, gas, steam and air conditioning supply	50	33 427	52		0	17	33 425
5	Water supply	4	5 076	12		50	1	5 068
6	Construction	438	79 015	246		1	61	79 207
7	Wholesale and retail trade	216	62 200	176		63	44	62 240
8	Transport and storage	1 931	29 351	437		25	145	30 845
9	Accommodation and food service activities	72	13 316	41		4	9	13 347
10	Information and communication	69	14 143	77		0	24	14 135
10a	Financial and insurance activities	263	97 453	186		12	59	97 530
11	Real estate activities	980	786 120	572		80	109	786 528
12	Professional, scientific and technical activities	153	145 557	127		0	29	145 583
13	Administrative and support service activities	49	17 886	50		0	11	17 885
14	Public administration and defence, compulsory social security	62	32 169	31		0	9	32 200
15	Education	42	20 230	36		0	11	20 236
16	Human health services and social work activities	5	31 868	10		0	1	31 863
17	Arts, entertainment and recreation	158	11 880	59		1	16	11 979
17a	Activities of households as employers	0	1 028	0		0	0	1 028
17b	Activities of extraterritorial organisations and bodies	9	1 467	5		0	1	1 471
18	Other services[1]	3 111	1 572 044	1 395		81	359	1 573 760
19	Total	8 207	3 105 994	3 955		349	1 021	3 110 246

[1] Other services include retail exposures.

EU CR1-B – Credit quality of exposures by industry or counterparty types 2017

		a	b	c	d	e	f	g
		Gross carrying values of						Net values
SEK m		Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges	(a+b-c-d)
1	Agriculture, forestry and fishing	73	51 112	23		0	7	51 163
2	Mining and quarrying	23	8 394	40		0	6	8 376
3	Manufacturing	710	75 503	446		2	129	75 767
4	Electricity, gas, steam and air conditioning supply	118	33 107	73		0	3	33 152
5	Water supply	3	4 694	8		8	0	4 689
6	Construction	1 166	86 448	728		54	112	86 886
7	Wholesale and retail trade	201	57 866	138		19	142	57 929
8	Transport and storage	1 821	27 792	1 432		4	781	28 182
9	Accommodation and food service activities	63	13 188	16		0	8	13 235
10	Information and communication	16	13 543	13		0	5	13 546
10a	Financial and insurance activities	336	84 117	152		2	86	84 301
11	Real estate activities	1 515	695 530	482		16	249	696 564
12	Professional, scientific and technical activities	168	135 342	116		14	63	135 395
13	Administrative and support service activities	52	16 500	36		0	4	16 516
14	Public administration and defence, compulsory social security	56	51 540	25		0	13	51 571
15	Education	13	20 934	8		0	0	20 939
16	Human health services and social work activities	2	33 790	2		0	6	33 790
17	Arts, entertainment and recreation	92	11 067	31		0	1	11 128
17a	Activities of households as employers	0	828	0		0	0	828
17b	Activities of extraterritorial organisations and bodies	21	1 585	13		0	5	1 593
18	Other services[1]	3 291	1 437 546	1 378		31	350	1 439 459
19	Total	9 740	2 860 428	5 159		151	1 971	2 865 010

[1] Other services include retail exposures.

Table TB2 EU CR1-C – Credit quality of exposures by geography

The following table specifies gross exposures by exposure class and by geography. It further specifies credit risk adjustments, write-offs and net values. Gross exposures have increased compared to the previous period.

EU CR1-C - Credit quality of exposures by geography 2018

		a	b	c	d	e	f	g
		Gross carrying values of						Net values
SEK m		Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges	(a+b-c-d)
1	Sweden	2 490	1 673 837	1 447		248	363	1 674 880
2	UK	888	362 408	285		0	55	363 011
3	Norway	2 100	324 276	681		27	188	325 695
4	Denmark	1 045	161 703	476		35	131	162 272
5	Finland	1 222	308 244	746		12	196	308 720
6	The Netherlands	27	55 451	9		27	1	55 469
18	Other countries	435	220 075	311		0	87	220 199
19	Total	8 207	3 105 994	3 955		349	1 021	3 110 246

EU CR1-C - Credit quality of exposures by geography 2017

		a	b	c	d	e	f	g
		Gross carrying values of						Net values
SEK m		Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges	(a+b-c-d)
1	Sweden	2 892	1 590 345	1 313		81	671	1 591 924
2	UK	1 450	352 776	753		2	111	353 473
3	Norway	960	313 695	391		4	220	314 264
4	Denmark	2 289	156 850	1 767		3	722	157 373
5	Finland	1 215	247 488	683		6	140	248 020
6	The Netherlands	27	43 854	6		5	0	43 875
18	Other countries	908	155 420	247		50	106	156 081
19	Total	9 740	2 860 428	5 159		151	1 971	2 865 010

Table TB3 EU CR1-D – Ageing of past-due exposures

The table below shows past due exposures broken down by exposure type and number of days past due. Past due exposures are in line with the previous period.

EU CR1-D – Ageing of past-due exposures 2018

		a	b	c	d	e	f
		Gross carrying values					
SEK m		≤ 30 days	> 30 days ≤ 60 days	> 60 days ≤ 90 days	> 90 days ≤ 180 days	> 180 days ≤ 1 year	> 1 year
1	Loans	23 962	774	89	354	463	1 550
2	Debt securities	0	0	0	0	0	0
3	*Total exposures*	*23 962*	*774*	*89*	*354*	*463*	*1 550*

EU CR1-D – Ageing of past-due exposures 2017

		a	b	c	d	e	f
		Gross carrying values					
SEK m		≤ 30 days	> 30 days ≤ 60 days	> 60 days ≤ 90 days	> 90 days ≤ 180 days	> 180 days ≤ 1 year	> 1 year
1	Loans	15 070	594	192	421	412	1 875
2	Debt securities	0	0	0	0	0	0
3	*Total exposures*	*15 070*	*594*	*192*	*421*	*412*	*1 875*

Table TB4 EU CR1-E – Non-performing and forborne exposures

The following table specifies gross carrying values, accounting values before impairment, provisions and accumulated negative fair value adjustments due to credit risk of performing and non-performing exposures. It further specifies the amounts broken down to past due, defaulted, impaired and forborne. Forbearance includes credits with eased terms and new credits issued to repay existing loans. The criteria for classifying as forbearance is that the borrower is in financial stress and is not able to fulfil the original terms of the credit, as well as the easing of the original terms of the credit leading to a benefit which would otherwise not have existed. The total gross exposure has increased compared to the previous period. Relations between values are in line with the previous period.

EU CR1-E – Non-performing and forborne exposures 2018

		a	b	c	d	e	f	g	h	i	j	k	l	m
		Gross carrying amount of performing and non-performing exposures							Accumulated impairment and provisions and negative fair value adjustments due to credit risk				Collaterals and financial guarantees received	
					Of which non-performing				On performing exposures		On non-performing exposures			
SEK m			Of which performing but past due > 30 days and <= 90 days	Of which performing forborne		Of which defaulted	Of which impaired	Of which forborne		Of which forborne		Of which forborne	Of which non-per-forming exposures	Of which forborne exposures
10	Debt securities	6 598	-	-	-	-	-	-	-1	-	-	-	-	-
20	Loans and advances	2 559 601	421	7 971	23 211	15 241	12 776	19 406	-985	-263	-5 173	-3 817	3 043	4 966
30	Off-balance-sheet exposures	534 856	267	2 467	2 881	414	26	2 805	-141	-4	-	0	50	229

EU CR1-E – Non-performing and forborne exposures 2017

		a	b	c	d	e	f	g	h	i	j	k	l	m
		Gross carrying amount of performing and non-performing exposures							Accumulated impairment and provisions and negative fair value adjustments due to credit risk				Collaterals and financial guarantees received	
					Of which non-performing				On performing exposures		On non-performing exposures			
SEK m			Of which performing but past due > 30 days and <= 90 days	Of which performing forborne		Of which defaulted	Of which impaired	Of which forborne		Of which forborne		Of which forborne	Of which non-per forming exposures	Of which forborne exposures
10	Debt securities	-	-	-	-	-	-	-	-	-	-	-	-	-
20	Loans and advances	2 142 943	568	5 730	9 756	9 756	7 944	6 011	-581	-178	-4 578	-3 021	4 814	4 790
30	Off-balance-sheet exposures	519 612	-	823	412	412	-	358	93	23	0	7	32	428

Table TB5 EU CR2-B – Changes in the stock of defaulted and impaired loans and debt securities

The following table shows the changes for the amount of defaulted loans, impaired loans and impaired debt securities. The closing balance has decreased compared to the previous period.

EU CR2-B – Changes in the stock of defaulted and impaired loans and debt securities 2018		a
SEK m		Gross carrying value defaulted exposures
1	Opening balance	7 944
2	Loans an debt securities that have defaulted or impaired since the last reporting period	2 271
3	Returned to non-defaulted status	-265
4	Amounts written-off	-2 966
5	Other changes	746
6	Closing balance	7 730

EU CR2-B – Changes in the stock of defaulted and impaired loans and debt securities 2017		a
SEK m		Gross carrying value defaulted exposures
1	Opening balance	7 746
2	Loans an debt securities that have defaulted or impaired since the last reporting period	1 600
3	Returned to non-defaulted status	
4	Amounts written-off	-946
5	Other changes	-456
6	Closing balance	7 944

Table TB6 Change in provision for probable loan losses

The following table shows the changes for the amount of general and specific credit risk adjustments. The closing balance has decreased compared to the previous period. The IFRS 9 regulation went into effect on the 1/1 2018. The table for 2017 is made in accordance with the regulation in effect per 31/12 2017. The table for 2018 is made according to IFRS 9. For further information regarding the effect of IFRS 9 see Handelsbankens Annual / Semi-annual Report especially the IFRS 9 bridge.

Change in provision for expected loan losses SEK m	Stage 1	Stage 2	Stage 3	Total
Provision at beginning of year	-511	-662	-4 696	-5 869
Derecognised assets	67	122	145	334
Write-offs	0	26	2 711	2 737
Remeasurements due to changes in credit risk	-117	-642	-201	-960
Changes due to update in the methodology for estimation	53	179	0	232
Foreign exchange effect, etc.	-8	-25	-40	-73
Purchased or originated assets	-87	-86	-16	-189
Transfer to Stage 1	-17	62	0	45
Transfer to Stage 2	105	-278	2	-171
Transfer to Stage 3	121	680	-842	-41
Provision at end of period	-394	-624	-2 937	-3 955

Change in provision for probable loan losses 2017 SEK m	Provision for individually assessed loans	Collective provision for individually assessed loans	Provision for collectively assessed homogeneous loans	Total provision for probable loan losses
Provision at beginning of year	-4 188	-348	-107	-4 643
The year's provision	-1 811	-120	-58	-1 989
Reversal of previous provisions	225	-	11	236
Utilised for actual loan losses	1 102		37	1 139
Foreign exchange effect etc.	94	5	-1	98
Provision at end of year	-4 578	-463	-118	-5 159

Table TB7 EU CR3 – CRM techniques – Overview

The table shows secured exposures and unsecured exposures. The outstanding secured exposures are broken down by amounts secured by collateral, guarantees and credit derivatives. Relations are in line with the previous period.

EU CR3 - CRM techniques - Overview 2018		a	b	c	d	e
SEK m		Exposures unsecured – Carrying amount	Exposures secured – Carrying amount	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
1	Total loans	977 492	2 126 158	2 028 865	97 293	-
2	Total debt securities	6 597	0	0	0	-
3	Total exposures	984 089	2 126 158	2 028 865	97 293	-
4	Of which defaulted	2 500	2 770	2 702	68	-

EU CR3 - CRM techniques - Overview 2017		a	b	c	d	e
SEK m		Exposures unsecured – Carrying amount	Exposures secured – Carrying amount	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
1	Total loans	859 132	1 999 022	1 898 596	100 426	-
2	Total debt securities	6 856	0	0	0	-
3	Total exposures	865 988	1 999 022	1 898 596	100 426	-
4	Of which defaulted	1 904	3 137	3 113	24	-

Table TB8 EU CRB-C – Geographical breakdown of exposures

The table below shows the total exposure broken down by exposure class and geographic area at year-end. It comprises figures obtained using both the standardised and the IRB Approach. The total exposure has increased compared to the previous period.

EU CRB-C – Geographical breakdown of exposures 2018

		a	b	c	d	e	f	g	h
		Net value							
SEK m		Sweden	UK	Norway	Denmark	Finland	The Netherlands	Other countries	Total
1	Central governments or central banks	31 929	75 386	4 836	25 545	139 067	3 109	107 924	387 796
2	Institutions	9 407	896	1 095	1 554	543	683	7 930	22 108
3	Corporates	749 445	199 294	214 793	58 411	120 446	5 199	78 843	1 426 431
4	Retail	857 580	1 148	100 358	71 264	46 600	181	6 398	1 083 529
5	Equity	1 515		43	538	25			2 121
6	Total IRB Approach	1 649 876	276 724	321 125	157 312	306 681	9 172	201 095	2 921 985
7	Central governments or central banks	30				20			50
8	Regional governments or local authorities							25	25
9	Public sector entities								
10	Multilateral development banks								
11	International organisations								
12	Institutions	661	183	6	3	5	0	3 528	4 386
13	Corporates	5 409	2002	1511	698	325	1063	8 922	19 930
14	Retail	4 879	8 181	1 891	4 048	1 087	675	633	21 394
15	Secured by mortgages on immovable property	1 554	75 314	762	63	41	44 519	4 874	127 127
16	Exposures in default	456	214		8	1		39	718
17	Items associated with particularly high risk								
18	Covered bonds								
19	Claims on institutions and corporates with a short-term credit assessment								
20	Collective investments undertakings								
21	Equity exposures	6 220						35	6 255
22	Other exposures	5 795	393	400	140	560	40	1048	8 376
23	Total standardised approach	25 004	86 287	4 570	4 960	2 039	46 297	19 104	188 261
24	Total	1 674 880	363 011	325 695	162 272	308 720	55 469	220 199	3 110 246

EU CRB-C – Geographical breakdown of exposures 2017

		a	b	c	d	e	f	g	h
		Net value							
SEK m		Sweden	UK	Norway	Denmark	Finland	The Netherlands	Other countries	Total
1	Central governments or central banks	34 234	86 466	12 319	27 100	94 756	397	51 434	306 706
2	Institutions	9 563	1 399	1 261	1 615	124	693	6 697	21 351
3	Corporates	698 646	183 513	203 269	55 544	108 774	3 529	71 783	1 325 060
4	Retail	822 353	1 087	93 951	65 513	42 663	184	5 930	1 031 681
5	Equity	967		18	493			35	1 512
6	Total IRB Approach	1 565 762	272 465	310 819	150 265	246 317	4 804	135 879	2 686 311
7	Central governments or central banks	123			6	17		0	145
8	Regional governments or local authorities								
9	Public sector entities								
10	Multilateral development banks							444	444
11	International organisations								
12	Institutions	79	320	2	98	0	1	2 145	2 644
13	Corporates	5 627	103	800	1 544	244	317	11 564	20 199
14	Retail	5 639	16 424	1 789	5 134	1 002	546	1 075	31 609
15	Secured by mortgages on immovable property	1 500	63 233	650	53	29	38 128	4 282	107 875
16	Exposures in default	478	126	4	0	2		44	654
17	Items associated with particularly high risk								
18	Covered bonds								
19	Claims on institutions and corporates with a short-term credit assessment								
20	Collective investments undertakings	86							86
21	Equity exposures	6 764			5	45			6 813
22	Other exposures	5 867	802	201	269	364	79	648	8 229
23	Total standardised approach	26 162	81 008	3 445	7 108	1 703	39 072	20 202	178 699
24	Total	1 591 924	353 473	314 264	157 373	248 020	43 875	156 081	2 865 010

Table TB9 EU CRB-D – Concentration of exposures by industry or counterparty types

The table below shows the total exposure broken down by exposure class and industry at year-end. It comprises figures obtained using both the standardised and the IRB Approach. The total exposure has increased compared to the previous period.

EU CRB-D – Concentration of exposures by industry or counterparty types 2018

		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v
	SEK m	Agri-culture, forestry and fishing	Mining and quarrying	Manufac-turing	Electricity, gas, steam and air conditio-ning supply	Water supply	Cons-truction	Wholesale and retail trade	Transport and storage	Accom-modation and food service activities	Informa-tion and communi-cation	Financial and insurance activities	Real estate activities	Profes-sional, scientific and technical activities	Adminis-trative and support service activities	Public adminis-tration and defence, compulsory social security	Education	Human health services and social work activities	Arts, entertain-ment and recreation	Other services	Activities of house-holds as em-ployers	Activities of extra-territorial organisa-tions and bodies	Total
1	Central governments or central banks				1 716	446		1					1 302		2	14 431	9 385	7 348		353 163		2	387 796
2	Institutions	7										9 432				2 600				10 069		0	22 108
3	Corporates	21 406	6 744	82 990	31 361	4 471	65 182	50 151	26 749	10 674	8 496	74 246	755 935	120 863	13 770	14 699	7 066	18 148	3 569	107 597	994	1 321	1 426 432
4	Retail	33 620	78	5 070	336	141	12 559	11 375	3 564	2 533	5 533	877	9 453	22 181	3 971	21	3 752	6 197	8 246	953 864	34	124	1 083 529
5	Equity										0	18								2102			2 120
6	**Total IRB Approach**	55 033	6 822	88 060	33 413	5 058	77 741	61 527	30 313	13 207	14 029	84 573	766 690	143 044	17 743	31 751	20 203	31 693	11 815	1 426 795	1028	1 447	2 921 985
7	Central governments or central banks																			51			51
8	Regional governments or local authorities																			25			25
9	Public sector entities																						
10	Multilateral development banks																						
11	International organisations																						
12	Institutions	42		0							0	334				433				3 561		16	4 386
13	Corporates	9		1 389	1	2	53	401	456	0	6	1 038	5231	1264	32		0	6	1	10 041		0	19 930
14	Retail	264	3	178	10	7	227	277	70	96	67	91	267	408	102	11	29	120	76	19 089	0	2	21 394
15	Secured by mortgages on immovable property	106	4	3			1184	34	6	44	33	5307	14334	864	8		4	43	86	105 061		6	127 127
16	Exposures in default	0				0	2	0	0	0			7	4	0					705			718
17	Items associated with particularly high risk																						
18	Covered bonds																						
19	Claims on institutions and corporates with a short-term credit assessment																						
20	Collective investments undertakings																						
21	Equity exposures											6 188								66			6 254
22	Other exposures	1										0				5				8 370			8 376
23	**Total standardised approach**	422	7	1 570	11	9	1466	712	532	140	106	12 958	19 839	2 540	142	449	33	169	163	146 969	0	24	188 261
24	**Total**	55 455	6 829	89 630	33 424	5 067	79 207	62 239	30 845	13 347	14 135	97 531	786 529	145 584	17 885	32 200	20 236	31 862	11 978	1 573 764	1028	1 471	3 110 246

EU CRB-D – Concentration of exposures by industry or counterparty types 2017

		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v
	SEK m	Agri-culture, forestry and fishing	Mining and quarrying	Manufac-turing	Electricity, gas, steam and air conditio-ning supply	Water supply	Cons-truction	Wholesale and retail trade	Transport and storage	Accom-modation and food service activities	Informa-tion and communi-cation	Financial and insurance activities	Real estate activities	Profes-sional, scientific and technical activities	Adminis-trative and support service activities	Public adminis-tration and defence, compulsory social security	Education	Human health services and social work activities	Arts, entertain-ment and recreation	Other services	Activities of house-holds as em-ployers	Activities of extra-territorial organisa-tions and bodies	Total
1	Central governments or central banks				1 662	268		2					1 501			19 177	9 373	8 697		266 024		1	306 706
2	Institutions	182										10 816				2 780				7 573			21 351
3	Corporates	19 121	8 288	69 221	31 124	4 299	75 138	46 237	24 809	10 670	8 289	64 340	684 506	113 040	12 833	28 647	8 170	20 052	3 324	90 723	828	1 401	1 325 060
4	Retail	31 482	79	4 778	360	107	11 505	10 905	3 144	2 464	5 097	859	8 928	20 360	3 549	451	3 370	4 941	7 738	911 416		148	1 031 681
5	Equity						4	7			33	226	12	319						912			1 512
6	**Total IRB Approach**	**50 785**	**8 367**	**74 000**	**33 145**	**4 674**	**86 648**	**57 151**	**27 953**	**13 134**	**13 418**	**76 241**	**694 947**	**133 719**	**16 382**	**51 055**	**20 914**	**33 690**	**11 062**	**1 276 649**	**828**	**1 551**	**2 686 311**
7	Central governments or central banks															96				49			145
8	Regional governments or local authorities																						
9	Public sector entities																						
10	Multilateral development banks																			444			444
11	International organisations																						
12	Institutions	94										474				167				1 884		26	2 644
13	Corporates	18	0	1 616	0	3	4	502	175	1	6	1 256	974	942	33		1	2	0	14 662		4	20 199
14	Retail	232	4	148	7	12	221	265	54	92	75	109	344	672	91	253	22	91	64	28 848		7	31 609
15	Secured by mortgages on immovable property	33	5	1			4	11		6	3	11	299	62	11		2	7	3	107 411		5	107 875
16	Exposures in default			1			9		0	3		0		0	0		0			641			654
17	Items associated with particularly high risk																						
18	Covered bonds																						
19	Claims on institutions and corporates with a short-term credit assessment																						
20	Collective investments undertakings																			86			86
21	Equity exposures										45	6 211								558			6 813
22	Other exposures			1								0								8 228			8 229
23	**Total standardised approach**	**377**	**9**	**1 768**	**7**	**15**	**238**	**779**	**229**	**102**	**128**	**8 060**	**1 617**	**1 676**	**134**	**516**	**25**	**100**	**67**	**162 810**		**42**	**178 699**
24	**Total**	**51 163**	**8 376**	**75 767**	**33 152**	**4 689**	**86 886**	**57 929**	**28 182**	**13 235**	**13 546**	**84 301**	**696 564**	**135 395**	**16 516**	**51 571**	**20 939**	**33 790**	**11 128**	**1 439 459**	**828**	**1 593**	**2 865 010**

Table TB10 EU CRB-E – Maturity of exposures

The table shows the total exposure broken down by exposure class and residual maturity at year-end. It comprises figures obtained using both the standardised and the IRB Approach. The total exposure has increased compared to the previous period.

EU CRB-E – Maturity of exposures 2018

		a	b	c	d	e	f
		Net exposure value					
SEK m		On demand	< = 1 year	> 1 year < = 5 years	> 5 years	No stated maturity	Total
1	Central governments or central banks		372 373	8 995	5 805	622	387 795
2	Institutions		11 003	4 915	6 191	0	22 109
3	Corporates		668 826	613 363	144 150	93	1 426 432
4	Retail		537 245	267 152	185 360	93 771	1 083 528
5	Equity		0	0	0	2 121	2 121
6	*Total IRB Approach*		*1 589 447*	*894 425*	*341 506*	*96 607*	*2 921 985*
7	Central governments or central banks		0	0	0	51	51
8	Regional governments or local authorities		25	0	0	0	25
9	Public sector entities						
10	Multilateral development banks						
11	International organisations						
12	Institutions		3 846	37	0	504	4 387
13	Corporates		12 335	2 306	791	4 498	19 930
14	Retail		2 317	1 477	1 538	16 061	21 393
15	Secured by mortgages on immovable property		9 631	32 918	49 093	35 484	127 126
16	Exposures in default		114	3	49	553	719
17	Items associated with particularly high risk						
18	Covered bonds						
19	Claims on institutions and corporates with a short-term credit assessment						
20	Collective investments undertakings						
21	Equity exposures		0	0	0	6 254	6 254
22	Other exposures		151	1	0	8 224	8 376
23	*Total standardised approach*		*28 419*	*36 742*	*51 471*	*71 629*	*188 261*
24	*Total*		*1 617 866*	*931 167*	*392 977*	*168 236*	*3 110 246*

EU CRB-E – Maturity of exposures 2017

		a	b	c	d	e	f
		Net exposure value					
SEK m		On demand	< = 1 year	> 1 year < = 5 years	> 5 years	No stated maturity	Total
1	Central governments or central banks		289 854	9 393	7 229	231	306 706
2	Institutions		10 301	4 443	6 607	0	21 351
3	Corporates		635 157	550 476	138 725	702	1 325 060
4	Retail		532 732	228 749	172 380	97 820	1 031 681
5	Equity		0	0	0	1 512	1 512
6	*Total IRB Approach*		*1 468 044*	*793 061*	*324 940*	*100 266*	*2 686 311*
7	Central governments or central banks		0	0	6	140	145
8	Regional governments or local authorities						
9	Public sector entities						
10	Multilateral development banks		444	0	0	0	444
11	International organisations						
12	Institutions		2 597	27	20	0	2 644
13	Corporates		13 443	2 723	1 310	2 724	20 199
14	Retail		5 362	2 414	3 671	20 160	31 609
15	Secured by mortgages on immovable property		9 934	28 131	41 382	28 428	107 875
16	Exposures in default		28	0	79	547	654
17	Items associated with particularly high risk						
18	Covered bonds						
19	Claims on institutions and corporates with a short-term credit assessment						
20	Collective investments undertakings		0	0	0	86	86
21	Equity exposures		0	0	0	6 813	6 813
22	Other exposures		34	29	0	8 167	8 229
23	*Total standardised approach*		*31 841*	*33 324*	*46 468*	*67 066*	*178 699*
24	*Total*		*1 499 885*	*826 385*	*371 408*	*167 331*	*2 865 010*

Table TB11 EU CR7 – IRB Approach – Effect on the RWAs of credit derivatives used as CRM techniques

The table shows gross risk exposure amount and net risk exposure amount after taking into account the impact of netting agreements and collateral posting. The information is broken down by exposure classes. Risk exposure amount is calculated using the Foundation IRB Approach and the Advanced IRB Approach, specified separately. Handelsbanken's risk exposure amount is not affected by credit derivatives. FI's board of directors decided to change the method used to apply current risk weight floor for Swedish mortgages on 25% though pillar 2 by replacing it with a corresponding requirement under article 458 CRR. The change entered into force on 31 December 2018

EU CR7 – IRB Approach – Effect on the RWAs of credit derivatives used as CRM techniques 2018

		a	b
SEK m		Pre-credit derivatives RWAs	Actual RWAs
1	Exposures under FIRB	51 738	51 738
2	Central governments and central banks	7 599	7 599
3	Institutions	5 640	5 640
4	Corporates – SMEs	7 166	7 166
5	Corporates – Specialised lending		
6	Corporates – Other	31 333	31 333
7	Exposures under AIRB	467 474	467 474
8	Central governments and central banks		
9	Institutions		
10	Corporates – SMEs	116 965	116 965
11	Corporates – Specialised lending		
12	Corporates – Other	102 201	102 201
13	Retail – Secured by real estate SMEs	2 237	2 237
14	Retail – Secured by real estate non-SMEs	224 755	224 755
15	Retail – Qualifying revolving		
16	Retail - Other SMEs	6 029	6 029
17	Retail – Other non-SMEs	15 287	15 287
18	Equity IRB	7 410	7 410
19	Other non-credit obligation assets	2 240	2 240
20	Total	528 862	528 862

EU CR7 – IRB Approach – Effect on the RWAs of credit derivatives used as CRM techniques 2017

		a	b
SEK m		Pre-credit derivatives RWAs	Actual RWAs
1	Exposures under FIRB	46 259	46 259
2	Central governments and central banks	7 291	7 291
3	Institutions	5 232	5 232
4	Corporates – SMEs	6 736	6 736
5	Corporates – Specialised lending		
6	Corporates – Other	27 000	27 000
7	Exposures under AIRB	282 520	282 520
8	Central governments and central banks		
9	Institutions		
10	Corporates – SMEs	121 597	121 597
11	Corporates – Specialised lending		
12	Corporates – Other	88 348	88 348
13	Retail – Secured by real estate SMEs	1 707	1 707
14	Retail – Secured by real estate non-SMEs	51 092	51 092
15	Retail – Qualifying revolving		
16	Retail - Other SMEs	5 126	5 126
17	Retail – Other non-SMEs	14 650	14 650
18	Equity IRB	5 068	5 068
19	Other non-credit obligation assets	2 238	2 238
20	Total	336 085	336 085

Table TB22 EU CR4 – Standardised approach – Credit risk exposure and CRM effects

The table shows exposures before and after credit conversion factors and credit risk mitigation, and risk exposure amounts and risk weights according to the standardised approach. The amounts and risk weights are specified by exposure class. The total exposure is in line with the previous period.

EU CR4 – Standardised approach – Credit risk exposure and CRM effects 2018

		a	b	c	d	e	f
		Exposures before CCF and CRM		Exposures post CCF and CRM		RWAs and RWA density	
	Exposure classes SEK m	On-balance-sheet amount	Off-balance-sheet amount	On-balance-sheet amount	Off-balance-sheet amount	RWAs	RWA density, %
1	Central governments or central banks	51	0	383	21	0	0.00
2	Regional governments or local authorities	25	0	25	0	5	20.00
3	Public sector entities						
4	Multilateral development banks						
5	International organisations						
6	Institutions	2 153	2 233	2 304	490	762	27.26
7	Corporates	8 889	11 040	7 850	2 356	10 117	99.12
8	Retail	11 136	10 258	6 772	2 306	6 779	74.67
9	Secured by mortgages on immovable property	117 980	9 147	117 980	7 126	46 680	37.31
10	Exposures in default	692	27	692	13	878	124.58
11	Exposures associated with particularly high risk						
12	Covered bonds						
13	Institutions and corporates with a short-term credit assessment						
14	Collective investments undertakings						
15	Equity	6 254	0	6 254	0	15 636	250.00
16	Other items	8 245	131	6 578	26	6 295	95.31
17	Total	155 425	32 836	148 838	12 338	87 152	54.07

EU CR4 – Standardised approach – Credit risk exposure and CRM effects 2017

		a	b	c	d	e	f
		Exposures before CCF and CRM		Exposures post CCF and CRM		RWAs and RWA density	
	Exposure classes SEK m	On-balance-sheet amount	Off-balance-sheet amount	On-balance-sheet amount	Off-balance-sheet amount	RWAs	RWA density, %
1	Central governments or central banks	140	6	215	21	0	0.00
2	Regional governments or local authorities						
3	Public sector entities						
4	Multilateral development banks	444	0	444	1	0	0.00
5	International organisations						
6	Institutions	707	1 938	1 084	498	391	24.73
7	Corporates	8 085	12 114	7 047	2 204	9 158	98.98
8	Retail	18 836	12 772	13 523	3 186	12 496	74.78
9	Secured by mortgages on immovable property	99 890	7 985	99 890	6 426	38 158	35.89
10	Exposures in default	647	7	647	7	748	114.43
11	Exposures associated with particularly high risk						
12	Covered bonds						
13	Institutions and corporates with a short-term credit assessment						
14	Collective investments undertakings	86	0	86	0	86	100.00
15	Equity	6 813	0	6 813	0	16 143	236.93
16	Other items	8 229	0	6 779	0	6 301	92.95
17	Total	143 878	34 821	136 530	12 344	83 481	56.07

Table TB23 EU CR10 – IRB (specialised lending and equities)

The following table shows carrying values, exposure amounts, risk-weighted assets and capital requirements for specialised lending and equity exposures. Risk-weighted assets are calculated using the simple risk-weighted approach. Risk-weighted assets has increased compared to the previous period.

EU CR10 – IRB (specialised lending and equities) 2018

Specialised lending
SEK m

Regulatory categories	Remaining maturity	On-balance-sheet amount	Off-balance-sheet amount	Risk weight, %	Exposure amount	RWAs	Expected losses
Category 1	Less than 2.5 years			50			
	Equal or more than 2.5 years			70			
Category 2	Less than 2.5 years			70			
	Equal or more than 2.5 years			90			
Category 3	Less than 2.5 years			115			
	Equal or more than 2.5 years			115			
Category 4	Less than 2.5 years			250			
	Equal or more than 2.5 years			250			
Category 5	Less than 2.5 years			-			
	Equal or more than 2.5 years			-			
Total	Less than 2.5 years						
	Equal or more than 2.5 years						

Equities under the simple risk-weighted approach
SEK m

Categories	On-balance-sheet amount	Off-balance-sheet amount	Risk weight, %	Exposure amount	RWAs	Capital requirements
Private equity exposures			190			
Exchange-traded equity exposures	545		290	545	1 581	126
Other equity exposures	1 576		370	1 576	5 829	467
Total	2 121			2 121	7 410	593

EU CR10 – IRB (specialised lending and equities) 2017

Specialised lending
SEK m

Regulatory categories	Remaining maturity	On-balance-sheet amount	Off-balance-sheet amount	Risk weight, %	Exposure amount	RWAs	Expected losses
Category 1	Less than 2.5 years			50			
	Equal or more than 2.5 years			70			
Category 2	Less than 2.5 years			70			
	Equal or more than 2.5 years			90			
Category 3	Less than 2.5 years			115			
	Equal or more than 2.5 years			115			
Category 4	Less than 2.5 years			250			
	Equal or more than 2.5 years			250			
Category 5	Less than 2.5 years			-			
	Equal or more than 2.5 years			-			
Total	Less than 2.5 years						
	Equal or more than 2.5 years						

Equities under the simple risk-weighted approach
SEK m

Categories	On-balance-sheet amount	Off-balance-sheet amount	Risk weight, %	Exposure amount	RWAs	Capital requirements
Private equity exposures			190			
Exchange-traded equity exposures	661		290	661	1 916	153
Other equity exposures	852		370	852	3 152	252
Total	1 512		335.1	1 512	5 068	405

TableTB24 EU CCR1 – Analysis of CCR exposure by approach

The table shows the approach used to calculate credit counterparty risk (CCR) exposure and REA and the main parameters used within each approach. The risk exposure amount is in line with the previous period.

EU CCR1 – Analysis of CCR exposure by approach 2018		a	b	c	d	e	f	g
SEK m		Notional	Replacement cost/current market value	Potential future credit exposure	EEPE[1]	Multiplier	EAD post CRM	RWAs
1	Mark to market	1 839 044	63 252	33 231			96 483	12 462
2	Original exposure							
3	Standardised approach							
4	IMM (for derivatives and SFTs)							
5	Of which securities financing transactions							
6	Of which derivatives and long settlement transactions							
7	Of which form contractual cross-product netting							
8	Financial collateral simple method (for SFTs)							
9	Financial collateral comprehensive method (for SFTs)							
10	VaR for SFTs							
11	Total	1 839 044	63 252	33 231			96 483	12 462

[1] Effective expected positive exposure (EEPE): The weighted average of effective expected exposure over the first year of a netting set or, if all the contracts within the netting set mature within less than 1 year, over the time period of the longest maturity contract in the netting set, where the weights are the proportion of the entire time period that an individual expected exposure represents.

EU CCR1 – Analysis of CCR exposure by approach 2017		a	b	c	d	e	f	g
SEK m		Notional	Replacement cost/current market value	Potential future credit exposure	EEPE[1]	Multiplier	EAD post CRM	RWAs
1	Mark to market	2 108 079	40 404	22 916			81 721	12 518
2	Original exposure							
3	Standardised approach							
4	IMM (for derivatives and SFTs)							
5	Of which securities financing transactions							
6	Of which derivatives and long settlement transactions							
7	Of which form contractual cross-product netting							
8	Financial collateral simple method (for SFTs)							
9	Financial collateral comprehensive method (for SFTs)							
10	VaR for SFTs							
11	Total	2 108 079	40 404	22 916			81 721	12 518

[1] Effective expected positive exposure (EEPE): The weighted average of effective expected exposure over the first year of a netting set or, if all the contracts within the netting set mature within less than 1 year, over the time period of the longest maturity contract in the netting set, where the weights are the proportion of the entire time period that an individual expected exposure represents.

Table TB25 EU CCR2 – CVA capital charge

The table shows exposure value and risk-weighted assets for credit value adjustment (CVA) broken down by approach. Risk-weighted assets are in line with the previous period.

EU CCR2 – CVA capital charge 2018		a	b
SEK m		Exposure value	RWAs
1	Total portfolios subject to the advanced method		
2	(i) VaR component (including the 3x multiplier)		
3	(ii) SVaR component (including the 3x multiplier)		
4	All portfolios subject to the standardised method	18 822	5 218
EU4	Based on the original exposure method		
5	Total subject to the CVA capital charge	18 822	5 218

EU CCR2 – CVA capital charge 2017		a	b
SEK m		Exposure value	RWAs
1	Total portfolios subject to the advanced method		
2	(i) VaR component (including the 3x multiplier)		
3	(ii) SVaR component (including the 3x multiplier)		
4	All portfolios subject to the standardised method	17 962	4 891
EU4	Based on the original exposure method	0	0
5	Total subject to the CVA capital charge	17 962	4 891

Table TB26 EU CCR3 – Standardised approach – CCR exposures by regulatory portfolio and risk

The table shows EAD for credit counterparty risk (CCR) according to the standardised approach. Amounts are broken down by exposure class and risk weight. The regulatory capital requirement is in line with the previous period.

EU CCR3 – Standardised approach – CCR exposures by regulatory portfolio and risk 2018

		Risk weight													
SEK m	Exposure classes	0%	2%	4%	10%	20%	35%	50%	70%	75%	100%	150%	Others	Total	Of which unrated
1	Central governments or central banks														
2	Regional governments or local authorities														
3	Public sector entities														
4	Multilateral development banks	183												183	
5	International organisations														
6	Institutions		6 776											6 776	
7	Corporates										75			75	41
8	Retail									120				120	120
9	Institutions and corporates with a short-term credit assessment														
10	Other items														
11	Total	183	6 776							120	75			7 154	161

EU CCR3 – Standardised approach – CCR exposures by regulatory portfolio and risk 2017

		Risk weight													
SEK m	Exposure classes	0%	2%	4%	10%	20%	35%	50%	70%	75%	100%	150%	Others	Total	Of which unrated
1	Central governments or central banks														
2	Regional governments or local authorities														
3	Public sector entities														
4	Multilateral development banks	123												123	
5	International organisations	35												35	
6	Institutions		5 708											5 708	
7	Corporates										156			156	61
8	Retail									114				114	114
9	Institutions and corporates with a short-term credit assessment														
10	Other items														
11	Total	157	5 708							114	156			6 135	175

Table TB27 EU CCR4 – IRB Approach – CCR exposures by portfolio and PD scale

The table shows credit counterparty risk (CCR) exposures and risk-weighted assets subject to the IRB Approach. Amounts are broken down by exposure class and obligor grade. The table further specifies average PD, average LGD and resulting risk weights. The total exposure has increased compared to the previous period.

EU CCR4 – IRB Approach – CCR exposures by portfolio and PD scale 2018

		a	b	c	d	e	f	g
SEK m	PD scale	EAD post CRM, SEK m	Average PD	Number of obligors	Average LGD	Average maturity, year	RWA, SEK m	RWA density
Sovereign exposures	0.00 to <0.15	8 228	0.00%	44	20.89%	1.34	96	1.16%
Sovereign exposures	0.15 to <0.25							
Sovereign exposures	0.25 to <0.50							
Sovereign exposures	0.50 to <0.75							
Sovereign exposures	0.75 to <2.50							
Sovereign exposures	2.50 to <10.00							
Sovereign exposures	10.00 to <100.00							
Sovereign exposures	100.00 (Default)							
Sovereign exposures	Sub-total	8 228	0.00%	44	20.89%	1.34	96	1.16%
Institution exposures	0.00 to <0.15	45 041	0.07%	69	14.46%	2.02	4 639	10.30%
Institution exposures	0.15 to <0.25	17 462	0.19%	13	14.42%	2.36	3 369	19.29%
Institution exposures	0.25 to <0.50	6 329	0.49%	9	9.11%	1.01	1 200	18.96%
Institution exposures	0.50 to <0.75							
Institution exposures	0.75 to <2.50	32	0.99%	3	15.31%	0.10	10	32.33%
Institution exposures	2.50 to <10.00							
Institution exposures	10.00 to <100.00							
Institution exposures	100.00 (Default)							
Institution exposures	Sub-total	68 864	0.14%	94	13.96%	2.01	9 218	13.39%
Corporate exposures	0.00 to <0.15	17 318	0.09%	843	20.26%	1.78	1 785	10.31%
Corporate exposures	0.15 to <0.25	108	0.17%	157	43.40%	0.85	32	29.48%
Corporate exposures	0.25 to <0.50	987	0.38%	162	44.90%	5.89	600	60.76%
Corporate exposures	0.50 to <0.75	54	0.64%	82	40.46%	1.03	31	58.20%
Corporate exposures	0.75 to <2.50	501	1.77%	134	37.98%	1.80	445	88.72%
Corporate exposures	2.50 to <10.00	11	7.68%	16	45.00%	3.19	17	153.28%
Corporate exposures	10.00 to <100.00	34	16.82%	13	45.00%	0.44	76	223.48%
Corporate exposures	100.00 (Default)	0	100.00%	1	45.00%	0.10	0	0.00%
Corporate exposures	Sub-total	19 013	0.18%	1 408	22.25%	1.99	2 986	15.71%
Total (all portfolios)		96 105	0.14%	1 546	16.19%	1.95	12 300	12.80%

EU CCR4 – IRB Approach – CCR exposures by portfolio and PD scale 2017

		a	b	c	d	e	f	g
SEK m	PD scale	EAD post CRM, SEK m	Average PD	Number of obligors	Average LGD	Average maturity, year	RWA, SEK m	RWA density
Sovereign exposures	0.00 to <0.15	8 126	0	46	0	2	88	0
Sovereign exposures	0.15 to <0.25							
Sovereign exposures	0.25 to <0.50							
Sovereign exposures	0.50 to <0.75							
Sovereign exposures	0.75 to <2.50	97	1.00%	1	45.00%	0.11	95	97.86%
Sovereign exposures	2.50 to <10.00							
Sovereign exposures	10.00 to <100.00							
Sovereign exposures	100.00 (Default)							
Sovereign exposures	Sub-total	8 223	0.01%	47	18.57%	1.6	183	2.22%
Institution exposures	0.00 to <0.15	50 968	0.09%	68	15.57%	2.18	6 898	13.53%
Institution exposures	0.15 to <0.25	805	0.21%	13	27.95%	0.91	315	39.06%
Institution exposures	0.25 to <0.50							
Institution exposures	0.50 to <0.75	4 091	0.51%	8	16.78%	2.14	1 484	36.28%
Institution exposures	0.75 to <2.50	27	1.24%	2	0.00%	0.07	0	0.00%
Institution exposures	2.50 to <10.00	0		3			0	
Institution exposures	10.00 to <100.00							
Institution exposures	100.00 (Default)							
Institution exposures	Sub-total	55 891	0.13%	94	15.83%	2.16	8 697	15.56%
Corporate exposures	0.00 to <0.15	15 229	0.08%	897	25.22%	2.36	2 008	13.18%
Corporate exposures	0.15 to <0.25	433	0.18%	157	44.62%	17.04	179	41.32%
Corporate exposures	0.25 to <0.50	587	0.32%	84	44.94%	5.11	334	56.91%
Corporate exposures	0.50 to <0.75	448	0.51%	160	42.92%	3.81	289	64.45%
Corporate exposures	0.75 to <2.50	333	1.45%	120	43.64%	3.71	308	92.66%
Corporate exposures	2.50 to <10.00	75	3.80%	22	45.00%	0.62	103	138.10%
Corporate exposures	10.00 to <100.00	69	31.94%	15	44.54%	0.29	179	261.19%
Corporate exposures	100.00 (Default)	7	100.00%	4	45.00%	0.65	0	0.00%
Corporate exposures	Sub-total	17 180	0.31%	1 459	27.37%	2.87	3 400	19.79%
Total (all portfolios)		81 294	0.15%	1 600	18.54%	2.25	12 280	15.11%

Table TB28 EU CCR5-A – Impact of netting and collateral held on exposure values

The table shows the impact of netting and collateral held on credit counterparty risk for derivatives and securities finance transactions. The total net exposure has decreased compared to the previous period.

EU CCR5-A – Impact of netting and collateral held on exposure values 2018

		a	b	c	d	e
SEK m		Gross fair value	Netting benefits	Netted current credit exposure	Collateral held	Net credit exposure
1	Derivatives	79 091	-33 654	45 437	-38 698	6 739
2	SFTs	25 619	0	25 619	-21 579	4 040
3	Cross-product netting	-	-	-	-	-
4	Total	104 710	-33 654	71 056	-60 277	10 779

EU CCR5-A – Impact of netting and collateral held on exposure values 2017

		a	b	c	d	e
SEK m		Gross fair value	Netting benefits	Netted current credit exposure	Collateral held	Net credit exposure
1	Derivatives	76 892	-37 660	39 232	-30 023	9 209
2	SFTs	18 401	0	18 401	-16 133	2 268
3	Cross-product netting	-	-	-	-	-
4	Total	95 293	-37 660	57 633	-46 156	11 477

Table TB29 EU CCR5-B – Composition of collateral for exposures to CCR

The table shows collateral posted or received to support or reduce counterparty credit risk (CCR) exposures related to derivative transactions and securities finance transactions, including transactions cleared through a CCP.

EU CCR5-B – Composition of collateral for exposures to CCR 2018

	a	b	c	d	e	f
	Collateral used in derivative transactions				Collateral used in SFTs	
	Fair value of collateral received		Fair value of posted collateral			
SEK m	Segregated	Unsegregated	Segregated	Unsegregated	Fair value of collateral received	Fair value of posted collateral
Total		49 615	3 451	6 133	5 051	7 841

EU CCR5-B – Composition of collateral for exposures to CCR 2017

	a	b	c	d	e	f
	Collateral used in derivative transactions				Collateral used in SFTs	
	Fair value of collateral received		Fair value of posted collateral			
SEK m	Segregated	Unsegregated	Segregated	Unsegregated	Fair value of collateral received	Fair value of posted collateral
Total		38 397	2 967	8 118	4 594	5 803

Table TB30 EU CCR6 – Credit derivative exposures

The table shows exposures to credit derivative transactions broken down to derivatives bought or sold as well as notional amounts and fair value. Total fair value are in line with the previous period.

EU CCR6 – Credit derivative exposures 2018	a	b	c
	Credit derivative hedges		Other credit derivatives
SEK m	Protection bought	Protection sold	
Notionals			
Single-name credit default swaps	58	2 434	
Index credit default swaps	21	3 000	
Total return swaps			
Credit options			
Other credit derivatives	10	575	
Total notionals	89	6 009	
Fair values			
Positive fair value (asset)	*23*	*111*	
Negative fair value (liability)	*12*	*235*	

EU CCR6 – Credit derivative exposures 2017	a	b	c
	Credit derivative hedges		Other credit derivatives
SEK m	Protection bought	Protection sold	
Notionals			
Single-name credit default swaps	71	2 556	
Index credit default swaps	229	4 019	
Total return swaps			
Credit options			
Other credit derivatives	56	1 251	
Total notionals	356	7 827	
Fair values			
Positive fair value (asset)	*6*	*280*	
Negative fair value (liability)	*11*	*61*	

Table TB31 EU CCR8 – Exposures to CCPs

The table shows exposures to QCCPs. The total exposure has increased compared to the previous period.

EU CCR8 – Exposures to CCPs 2018		a	b
SEK m		EAD post CRM	RWAs
1	Exposures to QCCPs (total)	6 938	141
2	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	6 776	136
3	(i) OTC derivatives	6 585	132
4	(ii) Exchange-traded derivatives	191	4
5	(iii) SFTs	-	-
6	(iv) Netting sets where cross-product netting has been approved	-	-
7	Segregated initial margin	-	-
8	Non-segregated initial margin	-	-
9	Prefunded default fund contributions	162	5
10	Alternative calculation of own funds requirements for exposures		
11	Exposures to non-QCCPs (total)		
12	Exposures for trades at non-QCCPs (excluding initial margin and default fund contributions); of which	-	-
13	(i) OTC derivatives		
14	(ii) Exchange-traded derivatives		
15	(iii) SFTs		
16	(iv) Netting sets where cross-product netting has been approved		
17	Segregated initial margin		
18	Non-segregated initial margin		
19	Prefunded default fund contributions		
20	Unfunded default fund contributions		

EU CCR8 – Exposures to CCPs 2017		a	b
SEK m		EAD post CRM	RWAs
1	Exposures to QCCPs (total)	5 967	122
2	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	5 708	114
3	(i) OTC derivatives	5 442	109
4	(ii) Exchange-traded derivatives	266	5
5	(iii) SFTs	-	-
6	(iv) Netting sets where cross-product netting has been approved	-	-
7	Segregated initial margin	1	
8	Non-segregated initial margin	32	1
9	Prefunded default fund contributions	226	7
10	Alternative calculation of own funds requirements for exposures		
11	Exposures to non-QCCPs (total)	-	-
12	Exposures for trades at non-QCCPs (excluding initial margin and default fund contributions); of which		
13	(i) OTC derivatives		
14	(ii) Exchange-traded derivatives		
15	(iii) SFTs		
16	(iv) Netting sets where cross-product netting has been approved		
17	Segregated initial margin		
18	Non-segregated initial margin		
19	Prefunded default fund contributions		
20	Unfunded default fund contributions		

OWN FUNDS

Table TB37 Capital instruments main features, CET1

Presentation in accordance with the requirements of Commission Implementing Regulation (EU) No 1423/2013.

Capital instruments main features, CET1		
Issuer	Svenska Handelsbanken AB	Svenska Handelsbanken AB
Unique identifier (eg CUSIP, ISIN or Bloomberg identifier for private placement)	SE0000193120	SE0000152084
Governing law(s) of the instrument	Swedish law	Swedish law
Regulatory treatment		
Transitional CRR rules	Common equity tier 1 capital	Common equity tier 1 capital
Post-transitional CRR rules	Common equity tier 1 capital	Common equity tier 1 capital
Eligible at solo/(sub)consolidated/solo & (sub)consolidated	Solo & (sub)consolidated	Solo & (sub)consolidated
Instrument type (types to be specified by each jurisdiction)	Share capital, class A	Share capital, class B
Amount recognised in regulatory capital (currency in million, as of most recent reporting date)	SEK 8,029m	SEK 148m
Nominal amount of instrument	SEK 2,959m	SEK 55m
Issue price	SEK 8,029m	SEK 148m
Redemption price	N/A	N/A
Accounting classification	Equity	Equity
Original date of issuance	1871	1990
Perpetual or dated	Perpetual	Perpetual
Original maturity date	N/A	N/A
Issuer call subject to the previous supervisory approval	N/A	N/A
Optional call date, contingent call dates and redemption amount	N/A	N/A
Subsequent call dates, if applicable	N/A	N/A
Coupons/dividends		
Fixed or floating dividend/coupon	N/A	N/A
Coupon rate and any related index	N/A	N/A
Existence of a dividend stopper	N/A	N/A
Fully discretionary, partially discretionary or mandatory (in terms of timing)	N/A	N/A
Fully discretionary, partially discretionary or mandatory (in terms of amount)	N/A	N/A
Existence of step-up or other incentive to redeem	No	No
Non-cumulative or cumulative	Non-cumulative	Non-cumulative
Convertible or non-convertible	Non-convertible	Non-convertible
If convertible, conversion trigger(s)	N/A	N/A
If convertible, fully or partially	N/A	N/A
If convertible, conversion rate	N/A	N/A
If convertible, mandatory or optional conversion	N/A	N/A
If convertible, specify instrument type convertible into	N/A	N/A
If convertible, specify issuer of instrument it converts into	N/A	N/A
Write-down features	No	No
If write-down, write-down trigger(s)	N/A	N/A
If write-down, full or partial	N/A	N/A
If write-down, permanent or temporary	N/A	N/A
If temporary write-down, description of write-up mechanism	N/A	N/A
Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Lowest, next senior is additional tier 1 capital	Lowest, next senior is additional tier 1 capital
Non-compliant transitioned features	No	No
If yes, specify non-compliant features	N/A	N/A
Non-compliant transitioned features	No	No
If yes, specify non-compliant features	N/A	N/A

Table TB38 Capital instruments main features, AT1

Presentation in accordance with the requirements of Commission Implementing Regulation (EU) No 1423/2013.

Capital instruments main features, AT1			
Issuer	Svenska Handelsbanken AB	Svenska Handelsbanken AB	Svenska Handelsbanken AB
Unique identifier (eg CUSIP, ISIN or Bloomberg identifier for private placement)	SE0002450601	XS0406264092	XS1194054166
Governing law(s) of the instrument	Swedish law	Mainly English law, Swedish insolvency law	Mainly English law, Swedish insolvency law
Regulatory treatment			
Transitional CRR rules	Additional tier 1 capital	Additional tier 1 capital	Additional tier 1 capital
Post-transitional CRR rules	Non-eligible	Tier 2 capital	Tier 1 capital
Eligible at solo/(sub)consolidated/solo & (sub)consolidated	Solo & (sub)consolidated	Solo & (sub)consolidated	Solo & (sub)consolidated
Instrument type (types to be specified by each jurisdiction)	Additional tier 1 capital	Additional tier 1 capital	Additional tier 1 capital
Amount recognised in regulatory capital (currency in million, at most recent reporting date)	SEK 2m	SEK 2,350m	SEK 10,701m
Nominal amount of instrument	SEK 2m	SEK 2,350m	USD 1,200m
Issue price	100%	100%	100%
Redemption price	100%	100%	100%
Accounting classification	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
Original date of issuance	12 Jun 2008	19 Dec 2008	25 Feb 2015
Perpetual or dated	Perpetual	Perpetual	Perpetual
Original maturity date	No maturity date	No maturity date	No maturity date
Issuer call subject to the previous supervisory approval	Yes	Yes	Yes
Optional call date, contingent call dates and redemption amount	21 May 2013, Tax call, 100% of nominal amount	19 Mar 2019, Tax/Regulatory call, 100% of nominal amount	1 Mar 2021, Tax/Regulatory call, 100% of nominal amount
Subsequent call dates, if applicable	Callable at any time with 40-day qualification period	Callable each subsequent interest payment date after first redemption date	Callable each subsequent interest reset date after first redemption date
Coupons/dividends			
Fixed or floating dividend/coupon	Floating	Fixed	Fixed
Coupon rate and any related index	0.16%	11.00%	5.25%
Existence of a dividend stopper	Yes	Yes	Yes
Fully discretionary, partially discretionary or mandatory (in terms of timing)	Partially discretionary	Partially discretionary	Fully discretionary
Fully discretionary, partially discretionary or mandatory (in terms of amount)	Partially discretionary	Partially discretionary	Fully discretionary
Existence of step-up or other incentive to redeem	Yes	Yes	No
Non-cumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative
Convertible or non-convertible	Convertible	Non-convertible	Non-convertible
If convertible, conversion trigger(s)	Fully discretionary	N/A	N/A
If convertible, fully or partially	Fully or partially	N/A	N/A
If convertible, conversion rate	SEK 62.52 per share	N/A	N/A
If convertible, mandatory or optional conversion	Optional	N/A	N/A
If convertible, specify instrument type convertible into	Share capital, class A	N/A	N/A
If convertible, specify issuer of instrument it converts into	Svenska Handelsbanken AB	N/A	N/A
Write-down features	Yes	Yes	Yes
If write-down, write-down trigger(s)	Expected breach of capital requirement	Expected breach of capital requirement	Common equity tier 1 ratio 8% consolidated,5.125% parent company
If write-down, full or partial	Full or partial	Full or partial	Full or partial
If write-down, permanent or temporary	Temporary	Temporary	Temporary
If temporary write-down, description of write-up mechanism	Fully discretionary	Fully discretionary	Fully discretionary
Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Subordinate to all instruments except shares, next in priority are subordinated loans	Subordinate to all instruments except shares, next in priority are subordinated loans	Subordinate to all instruments except shares, next in priority are subordinated loans
Non-compliant transitioned features	Yes	Yes	N/A
If yes, specify non-compliant features	Step-up and dividend stopper	Step-up and dividend stopper	N/A

Table TB39 Capital instruments main features, T2

Presentation in accordance with the requirements of Commission Implementing Regulation (EU) No 1423/2013.

Capital instruments main features, T2				
Issuer	Svenska Handelsbanken AB	Svenska Handelsbanken AB	Svenska Handelsbanken AB	Svenska Handelsbanken AB
Unique identifier (eg CUSIP, ISIN or Bloomberg identifier for private placement)	XS1717456914	XS1717459694	XS1782803503	XS1875333178
Governing law(s) of the instrument	Mainly English law, Swedish insolvency law	Mainly English law, Swedish insolvency law	Mainly English law, Swedish insolvency law	Mainly English law. Swedish insolvency law
Regulatory treatment				
Transitional CRR rules	Tier 2 capital	Tier 2 capital	Tier 2 capital	Tier 2 capital
Post-transitional CRR rules	Tier 2 capital	Tier 2 capital	Tier 2 capital	Tier 2 capital
Eligible at solo/(sub)consolidated/solo & (sub)consolidated	Solo & (sub)consolidated	Solo & (sub)consolidated	Solo & (sub)consolidated	Solo & (sub)consolidated
Instrument type (types to be specified by each jurisdiction)	Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan
Amount recognised in regulatory capital (currency in million, at most recent reporting date)	SEK 1,298m	SEK 1,697m	SEK 7,665m	SEK 7,665m
Nominal amount of instrument	SEK 1,300m	SEK 1,700m	EUR 750m	EUR 750m
Issue price	100%	100%	99.923%	99.96%
Redemption price	100%	100%	100%	100%
Accounting classification	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
Original date of issuance	15 Nov 2017	15 Nov 2017	2 Mar 2018	5 Sep 2018
Perpetual or dated	Dated	Dated	Dated	Dated
Original maturity date	15 Nov 2027	15 Nov 2027	2 Mar 2028	5 Mar 2029
Issuer call subject to the previous supervisory approval	Yes	Yes	Yes	Yes
Optional call date, contingent call dates and redemption amount	15 Nov 2022, Tax/Regulatory call, 100% of nominal amount	15 Nov 2022, Tax/Regulatory call, 100% of nominal amount	2 Mar 2023, Tax/Regulatory call, 100% of nominal amount	5 Mar 2024. Tax/Regulatory call. 100% of nominal amount
Subsequent call dates, if applicable	Callable each subsequent interest payment date after first redemption date	Callable each subsequent interest payment date after first redemption date	Callable each subsequent interest payment date after first redemption date	Callable each subsequent interest payment date after first redemption date
Coupons/dividends				
Fixed or floating dividend/coupon	Fixed	Floating	Fixed	Fixed
Coupon rate and any related index	1.41%	0.58%	1.25%	1.63%
Existence of a dividend stopper	No	No	No	No
Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory	Mandatory	Mandatory	Mandatory
Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory	Mandatory	Mandatory	Mandatory
Existence of step-up or other incentive to redeem	No	No	No	No
Non-cumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative
Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible
If convertible, conversion trigger(s)	N/A	N/A	N/A	N/A
If convertible, full or partial	N/A	N/A	N/A	N/A
If convertible, conversion rate	N/A	N/A	N/A	N/A
If convertible, mandatory or optional conversion	N/A	N/A	N/A	N/A
If convertible, specify instrument type convertible into	N/A	N/A	N/A	N/A
If convertible, specify issuer of instrument it converts into	N/A	N/A	N/A	N/A
Write-down features	No	No	No	No
If write-down, write-down trigger(s)	N/A	N/A	N/A	N/A
If write-down, full or partial	N/A	N/A	N/A	N/A
If write-down, permanent or temporary	N/A	N/A	N/A	N/A
If temporary write-down, description of write-up mechanism	N/A	N/A	N/A	N/A
Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Subordinate to all senior lending	Subordinate to all senior lending	Subordinate to all senior lending	Subordinate to all senior lending
Non-compliant transitioned features	No	No	No	No
If yes, specify non-compliant features	N/A	N/A	N/A	N/A

Definitions and explanations

ADDITIONAL TIER 1 CAPITAL

Additional tier 1 capital comprises perpetual subordinated loans which meet the requirements stated in Regulation (EU) No 575/2013 and can therefore be included in the tier 1 capital.

AFR

Available financial resources (AFR) is the Bank's equity with the addition of other financial values on and off the balance sheet, available to cover losses with a one-year time horizon.

BUFFER REQUIREMENT FOR SYSTEMICALLY IMPORTANT INSTITUTIONS

The buffer requirement for banks considered especially important to the financial system. For institutions that are systemically important on a global scale, the requirement can be up to 3.5 per cent. For other systemically important institutions, it can be up to 2 per cent.

CAPITAL CONSERVATION BUFFER

The purpose of this buffer requirement of 2.5 per cent is to ensure that all banks maintain buffer capital exceeding the minimum capital requirements.

CAPITAL REQUIREMENT

The statutory capital requirement means that an institution which is subject to CRR must have a common equity tier 1 ratio of at least 4.5 per cent, a tier 1 ratio of at least 6 per cent and a total capital ratio of at least 8 per cent. This means that own funds must be at least the percentage of the risk exposure amount specified for each ratio. For definitions of each of the own funds amounts, see Common equity tier 1 capital, Tier 1 capital, and Total capital. In addition to the general requirements, the supervisory authority may add institution-specific requirements in accordance with the second pillar of the regulations.

COMBINED BUFFER REQUIREMENT

The sum of the capital conservation buffer, the countercyclical buffer, and the buffer requirement which is the higher of the requirement for systemically important institutions or the systemic risk buffer.

COMMON EQUITY TIER 1 CAPITAL

Common equity tier 1 capital is one of the components of own funds and mainly comprises equity. Deductions are made for dividends generated, goodwill, and other intangible assets as well as the difference between an expected loss and provisions made for probable loan losses.

COMMON EQUITY TIER 1 RATIO

Common equity tier 1 capital in relation to total risk exposure amount.

COUNTERCYCLICAL BUFFER

A buffer requirement that varies over the business cycle to counteract excessively high credit growth. The level is set by the Swedish Financial Supervisory Authority and can be between 0 and 2.5 per cent.

CRD IV

The EU Credit Institutions Directive: Directive 2013/36/EU on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms.

CREDIT CONVERSION FACTOR (CCF)

The factor used when calculating the exposure amount for unutilised overdraft facilities, committed loan offers, guarantees, and other off-balance-sheet commitments.

CREDIT RISK PROTECTION

Risk-mitigation factors and measures, such as property mortgages.

CREDITS IN DEFAULT

Impaired exposures that are also classified as 'defaulted' under Article 178 of CRR.

CRR

The EU Capital Requirements Regulation for credit institutions and investment firms: Regulation (EU) No 575/2013 on prudential requirements for credit institutions and investment firms.

CVA

The credit valuation adjustment (CVA) risk measures the risk that the market value of a derivative will decrease, owing to deterioration of the creditworthiness of the counterparty. The CVA is a component in the regulations for valuation of derivatives. The adjustment in the value is based on the counterparty's creditworthiness. An exposure to a counterparty with weaker creditworthiness must have a lower carrying amount than the equivalent exposure to a counterparty with better creditworthiness. In this context, credit risk means that if a given counterparty's creditworthiness weakens, the balance sheet values of all derivative transactions with this counterparty with a positive market value decrease – and thus the Bank's equity decreases. To factor in this risk in the capital adequacy, the credit valuation adjustment risk has been introduced as part of the capital adequacy regulations.

DEFAULT

An exposure to a specific counterparty is deemed to be in default if any of the following criteria are fulfilled:

- The institution deems it probable that the counterparty will not be able to fulfil its commitments towards the institution without the institution having to realise any collateral or take similar measures.
- The counterparty is more than 90 days late with a payment, unless it is an insignificant amount.

EC

Economic capital (EC) identifies in one metric the Group's overall risks and indicates the capital that, with very high probability, will cover unexpected losses or decreases in value.

EL

Expected loss (EL) is calculated by multiplying PD by LGD and the exposure amount.

ELIGIBLE LIABILITY

An unsecured debt which in other respects fulfils the criteria of the Swedish Resolution Act (2015:1016).

EXPOSURE AMOUNT

Exposure amount (exposure at default) is the amount which is subject to capital adequacy requirements. It is calculated including interest and fees. For off-balance-sheet items, the amounts are recalculated using the credit conversion factor (CCF). For derivatives, the exposure amount is calculated as positive MTM (mark-to-market) plus value change risk, that is, the nominal amount multiplied by the upward adjustment factor.

EXPOSURE VALUE

Exposure value is the same as exposure amount. The exposure value concept is used in the standardised approach for credit risk.

IRB

Internal Ratings Based Approach.

IRB APPROACH

There are two versions of the Internal Ratings Based (IRB) Approach: the simplified version, the IRB Approach without own estimates of LGD and CCF (in previous regulations called the foundation approach), and the more advanced method, the IRB Approach with own estimates of LGD and CCF (in previous regulations called the advanced approach).

LEVERAGE RATIO

Tier 1 capital in relation to total assets, including certain off-balance-sheet items recalculated with conversion factors defined in the standardised approach and regulatory adjustments from own funds.

LGD

The loss given default (LGD) is the proportion of an exposure on average that the Bank will lose in the event of a default.

LOAN LOSS RATIO

Loan losses and changes in value of repossessed property in relation to loans to the public and credit institutions (excluding banks), and also repossessed property and credit guarantees at the beginning of the year.

MREL

The minimum requirement for own funds and eligible liabilities (MREL), expressed as a percentage, specifies the minimum level that the Bank's eligible qualified liabilities and own funds must be in relation to the Bank's total liabilities and own funds. This requirement is set by the Swedish National Debt Office in accordance with the Swedish Resolution Act (2015:1016).

OWN FUNDS/TOTAL CAPITAL

Own funds are the sum of tier 1 and tier 2 capital.

PD

The probability of default (PD) is the probability of a borrower defaulting within one year. For example, a PD of 0.2 per cent means that two borrowers of 1,000 are expected to default within one year.

PERFORMING CREDITS

Credits that are neither impaired nor defaulted.

RISK EXPOSURE AMOUNT

The capital requirement in accordance with CRR, multiplied by 12.5. The risk exposure amount is used in conjunction with market risk and operational risk.

RISK WEIGHT

A measure to describe the level of risk an exposure is expected to have under the capital adequacy regulations.

RISK-WEIGHTED EXPOSURE AMOUNT

Exposure amount multiplied by risk weight. The risk-weighted exposure amount is used in conjunction with credit risk including counterparty risks.

SECURITISATION

A programme whereby the credit risk associated with an exposure or pool of exposures is tranched, and the payments within the framework of the programme depend on the performance of the exposure or pool of exposures. The subordination of tranches determines the distribution of losses during the life of the programme.

STANDARDISED APPROACH

The method for calculating and reporting credit risk according to CRR. This relies on standardised risk weights based on external ratings. The standardised approach is also applied for market risk and operational risk.

SPECIFIC CREDIT RISK ADJUSTMENT

Specific credit risk adjustments consist of collective and individual credit risk adjustments. These apply to exposures covered by either the standardised approach or the IRB Approach.

SYSTEMIC RISK BUFFER

A buffer requirement of 3 per cent for the largest banks in Sweden. The aim of the systemic risk buffer is to protect the banking system as a whole in times of financial instability.

TIER 1 CAPITAL

Common equity tier 1 capital including additional tier 1 capital.

TIER 1 RATIO

Tier 1 capital in relation to total risk exposure amount.

TIER 2 CAPITAL

Tier 2 capital is one of the components of own funds and mainly consists of subordinated loans which fulfil the requirements stated in Regulation (EU) No 575/2013 to be included as tier 2 capital.

TOTAL CAPITAL RATIO

Total capital in relation to total risk exposure amount.

TOTAL RISK EXPOSURE AMOUNT

The sum of risk exposure amount and risk-weighted exposure amount.

Information items not disclosed under EBA/GL/2014/14

Reference	Description	Description Reason for non-disclosure[1]	Reference to information which replaces non-disclosed information
Table EU OVA, CRR 435 1 b	The approved levels for risk to which the institution is exposed.	Limit levels of the Bank's risk tolerance are strictly confidential. The information refers to business relationships that are of competitive importance.	Key figures and risk measures on which the limit levels are based are stated in the report.
Table EU CRC, CRR 453 d	The description of the main types of guarantors and counterparties for credit derivatives and their creditworthiness.	The Bank's guarantors and credit derivative counterparties are strictly confidential information. The information refers to business relationships that are of competitive importance.	Key figures and risk measures that are affected by the Bank's guarantors and credit derivative counterparties are stated in the report.
Table EU MRA, CRR 455 c	A description of the procedures and systems implemented to guarantee the opportunity to trade for the positions included in the trading book in order to fulfil the requirements of article 104. A description of the method used to guarantee that the guidelines and processes implemented for the general management of the trading book are appropriate.	The Bank's guidelines for risk-taking in the trading book and investment regulations for the liquidity portfolio are strictly confidential. The information refers to business relationships that are of competitive importance.	Footnote in Handelsbanken´s Annual Report, table AR19.

[1] Non-disclosed information is available to the supervisory authority.

Specific information

Svenska Handelsbanken AB (publ) provides this information in compliance with Part Eight of Regulation (EU) No 575/2013 (CRR) and the Swedish Financial Supervisory Authority's regulations regarding prudential requirements and capital buffers (FFFS 2014:12).

The disclosure requirements in this Pillar 3 report include a description of the Bank's capital requirements for credit and market risk and operational risk (Pillar 1), as well as information about the Bank's internal processes to assess the Bank's total capital requirement (Pillar 2). The latter includes risk types additional to those in Pillar 1.

Svenska Handelsbanken AB (publ) is the parent company in the Handelsbanken Group. In the context of capital adequacy, in addition to the individual institution, it is also the consolidated situation and not the Group that is subject to capital requirements. This report therefore principally provides information about the consolidated situation. Handelsbanken is also covered by the rules applying to financial conglomerates. For Handelsbanken, the conglomerate rules mean that the capital requirements for the consolidated situation and the capital requirement for the insurance operations are combined. The conglomerate is not covered by the Pillar 3 rules.

As in the consolidated accounts, associated companies are consolidated using the equity method in the regulatory consolidated situation. Further, subsidiaries are consolidated according to the acquisition method. The Group's Annual Report provides information about which subsidiaries exist. Companies that are part of the consolidated situation and are thus covered by the capital adequacy requirements according to the capital adequacy regulations are listed in Table TB40, Companies included in consolidated situation. All subsidiaries which are subject to the regulations are included in the consolidated situation. Handelsbanken has no subsidiaries where the actual own funds are less than the prescribed own funds. Related party disclosures can be found in the Annual Report, note G47.

This report contains information specified in the European Banking Authority's (EBA's) Guidelines on disclosure requirements under Part Eight of Regulation (EU) No 575/2013 (EBA/GL/2016/11). This information has been produced in accordance with the EBA's Guidelines on materiality, proprietary and confidentiality and on disclosures frequency under Articles 432(1), 432(2) and 433 of Regulation (EU) No 575/2013 (EBA/GL/2014/14). For periodic information where Handelsbanken has found there is a need to submit information more often than once a year, please refer to the Bank's interim reports.

The information is presented as at 31 December 2018, and the comparative figures as at 31 December 2017 unless otherwise specified. The amounts in brackets are the figures for the preceding year.

For the Stadshypotek subsidiary, information in compliance with articles 437, 438, 440, 442, 450, 451, and 453 in CRR is provided at a sub-consolidated level in compliance with article 13 in CRR in the subsidiary's annual accounts.

Corresponding information for Handelsbanken plc can be found in the Annual Report of Handelsbanken plc.

Signatures of the CEO, CFO and CRO

The Information Policy for the Handelsbanken Group, adopted by Handelsbanken's Board, and the CEO's Guidelines for communication in the Handelsbanken Group are Handelsbanken's steering documents for compliance with the disclosure requirements in Regulation (EU) No 575/2013.

The control environment described in the Annual Report's Corporate Governance Report and in this report is fundamental to Handelsbanken's internal control of disclosures under Part Eight of Regulation (EU) No 575/2013: organisational structure, division of responsibilities, guidelines and steering documents. Another part of the internal control process is the identification and management of the risks that may affect preparation of disclosures under Part Eight of Regulation (EU) No 575/2013 and the control activities incorporated in the process for preparing disclosures. The Bank has information and communication paths intended to promote the completeness, accuracy, meaningfulness, and consistency over time of disclosures under Part Eight of Regulation (EU) No 575/2013.

The responsibility for internal control of disclosures under Part Eight of Regulation (EU) No 575/2013 has been delegated from the CEO to managers who report directly to the CEO and who are in charge of internal control within their respective units.

We hereby declare that the disclosures under Part Eight of Regulation (EU) No 575/2013 have been prepared in accordance with Handelsbanken's internal control framework. The information which is provided under Part Eight of Regulation (EU) No 575/2013 is satisfactory, including in terms of control and frequency, in relation to the disclosure requirements in the Regulation and provides market participants with a comprehensive picture of Handelsbanken's risk profile.

STOCKHOLM 6 FEBRUARY 2019

Anders Bouvin

President and Group Chief Executive

Rolf Marquardt

CFO

Maria Hedin

CRO

List of tables and figures

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